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

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ANNUAL REPORT
TO THE AGENCY FOR THE COOPERATION OF 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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28 July 2016

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1 FOREWORD

This document, from the Regulatory Authority for Electricity, Gas and Water provides the Agency for the Cooperation of Energy Regulators (ACER) and the European Commission with a report on its activities and the fulfilment of its duties according to Articles 37.1.e) and 41.1.e) respectively of Directives Nos. 2009/72/CE and 2009/73/CE.

In line with that established by the Council of European Energy Regulators (CEER), the structure of this report was shared with the ACER and the Directorate General for Energy of the European Commission.

This report analyses the main aspects of the structural development of the two markets – electricity and gas – in terms of both regulatory activities and the status of competition. This report also includes a description of recent legislative and regulatory developments on the energy market, the actions implemented in terms of consumer protection and security of supply; the latter concerning aspects pertaining to the national regulator.

There are three aims that should be guaranteed in all Member States: the security of supply, the accelerated decarbonisation of the entire economy and the minimisation of prices for the competitiveness of the economy and welfare of citizens. Italy, one of the leading markets in the European Union, is advanced in pursuing a good combination of these three objectives based, among other things, on two fundamental instruments put in place by the Authority: the 'capacity market' that supports and completes 'energy only' markets and the dispatching reform which will promote the full integration of renewable sources into short-term markets.

On an international level, the Authority is engaged in a relationship of systematic cooperation with other European regulators to implement Regulation 2015/1222 on cross-border capacity allocation, a key component for the completion of the internal energy market. In particular, the Authority's contribution is directed towards the search for shared solutions that protect European consumers.

Convinced of the value that is generated by the cooperation between institutions that deal with energy regulation and policies, I hope that the intensive work with ACER and in CEER and with other European regulators can continue, just as it does today, towards the achievement of the integration of markets and infrastructures.

Milan, 28 July 2016

THE PRESIDENT

Guido Bortoni

2 SUMMARY/MAJOR DEVELOPMENTS IN THE ELECTRICITY AND NATURAL GAS MARKETS IN 2015

Main developments in the energy legislation

Art. 26 of Law no. 115 of 29 July 2015, *Provisions for the fulfilment of obligations deriving from Italy's belonging to the European Union (EU Law 2014)*, amended Legislative Decree no. 93 of 1 June 2011, implementing the Third energy package, strengthening the powers of the Regulatory Authority and its independence from the Ministry of Economic Development regarding the following:

- **ten-year network development plan.** Arts. 15 and 16 of Legislative Decree no. 93/11 were modified and, as a result of such measures, decree no. 65 of 27 February 2013 of the Minister of Economic Development was repealed, regarding the *Rules as per Art. 16, paragraph 1 of Legislative Decree no. 93 of 1 June 2011, for the preparation of the ten-year development plan of the gas transmission networks*. The TSO is required to submit the Plan annually to the Ministry of Economic Development and the Regulatory Authority, which submits it to consultation by the actual and potential network users, by making public the results of the consultation itself. For the review and monitoring of the implementation of the Plan, the Regulatory Authority evaluates also whether it covers all the needs in terms of investment, identified during the consultation process, and whether it is consistent with the non-binding ten-year European network development plan;
- **discipline of balancing economic merit.** Related conditions are now established independently by the Regulatory Authority and not anymore on the basis of the indications by the Ministry of economic development, following the amendment of Art. 32 of Legislative Decree no. 93/11;
- **access to cross-border infrastructure**. The terms and conditions of imports and exports of electricity are set independently by the Regulatory Authority, which formerly played an advisory role for the Ministry of Economic Development;
- **consumer protection.** Following the change of electricity and natural gas supplier, the final adjustment invoice must be sent to the customer no later than six weeks from the change itself;
- **administrative fines.** Notwithstanding the current regulations, which sets a threshold as an absolute value, the Regulatory Authority may impose penalties of up to 10% of the turnover made by the vertically integrated business or TSO;
- **replacement of the natural gas transmission system operator** in case of a persistent breach of their obligations.

We should also mention Art. 8, which amended the transitional provisions applicable to **direct awards of local public services of economic relevance**, provided for in Art. 34, paragraph 22, of Law no. 221 of 17 December 2012, as well as Art. 14, which, in connection to the management and monitoring of state aid to businesses, provides for the establishment of a database at the Ministry of Economic Development, to be named "National State Aid Register", to ensure the respect of the accumulation prohibition and of the transparency and publicity requirements of the European and national state aid legislation.

In view of the consumer protection activity attributed to the Regulatory Authority since the enactment of its founding law, legislative decree no. 130 of 6 August 2015 is also significant, regarding the *Implementation of Directive 2013/11/EU on the* ***alternative resolution for consumer disputes****, amending Regulation (EC) 2006/2004 and Directive 2009/22/EC* (Consumer directive ADR). The measure[1] governs the voluntary procedures for the settlement out of court of domestic and cross-border disputes, including through internet, involving consumers and professionals residing in the European Union, as part of which the ADR entity proposes a solution or brings the parties together in order to facilitate an amicable resolution.

In general terms, the decree establishes the methodology regarding access to procedures, consumer information, transparency, effectiveness, fairness and freedom, which must be respected by the ADR entities; it establishes the requirements of professionalism, impartiality, independence and transparency for natural persons in charge of dispute resolution by such bodies; it provides that the receipt of the request for conciliation by the ADR entity will entail suspension of the limitation and deadline that, in case the procedure fails, will start being valid again from the date of communication to the parties, in ways that have legal knowledge value, of the failed definition of the dispute. The same legislative decree also stipulates that the procedures carried out in the fields covered by the Regulatory Authority, including those that provide for compulsory professional involvement, are still considered ADR procedures if they comply with the principles, procedures and requirements established by the Legislative Decree.

With regard to information to consumers, the new framework provides that professionals who committed to using one or more ADR entities for the resolution of disputes arising with consumers should inform those same consumers about it, revealing the ADR entities involved on their website - if it exists -, in the general contract conditions and in case a dispute following a complaint cannot be resolved.

Among other provisions, with reference to the fields covered by the Regulatory Authority, this decree stipulates the compulsory attempt at conciliation of the dispute, which must also be carried out as a condition of admissibility for any subsequent legal action, providing for the awarding to the Regulatory Authority of the power to regulate its procedures with its own measures.

On 30 December 2015, *Official Gazette* no. 302 published Law no. 208 of 28 December 2015, (2016 Stability Law) regarding *Provisions for the making of the annual and multiannual budget of the State*. Among the measures of interest, it should be noted that such a law:

- introduces the presumption of owning a television set at the residence of the taxpayer in the event that there is a contract for the supply of electricity, in which invoice the subscription fee for private TV and radio listening will be charged;
- transforms the Electric Sector Compensation fund (CCSE) into a public economic entity, becoming "Energy and Environmental Services Fund " (CSEA);
- submits to the single treasury legislation[2] some independent administrative Authorities, including the Regulatory Authority, such as public entities and bodies that levy fees or

[1] Intervening on Part V of legislative decree no. 206 of 6 September 2005, regarding the *Code of consumption.*
[2] See Law no. 720 of 29 October 1984.

compulsory contributions having the value of state taxes, despite the absence of transfers from the State Budget;

- **intervenes on the rules** contained in Art. 32 of Law no. 99 of 23 July 2009, aimed at promoting, through the involvement of energy-intensive end users, the development of interconnection infrastructure with abroad (interconnectors). In particular, it provides for the establishment in Terna of a Guarantee Fund which gathers together all the amounts, determined at 1 €/MWh per year, which the dealers of the assigned power, who committed with Terna to funding the interconnection infrastructure with abroad in the form of interconnectors, are required to pay until the entry into service of each interconnector. In order to complete the construction of this infrastructure, the law extends by six years, i.e. until 31 December 2021, the period of application for the benefits of private lenders[3], apart from the original allocation border, for interconnection capacity[4], and limited to the capacity share not yet in operation. The same law requires the contractors or assignees to sign the Terna mandate contract for the construction and operation of the interconnectors, within 90 days of issuing the exemption from access to third parties on the transport capacity that these interconnectors make available; this exemption has a maximum duration of 20 years.

Last December the approval process was completed for the bill regarding *Provisions for the environment to promote green economy measures and containment of the excessive use of natural resources* (so-called "*Collegato ambientale*"), which began on 12 February 2014 and is now Law no. 221 of 28 December 2015. Art. 12 makes some changes to the **regulation of efficient user Systems** (SEU), pursuant to Legislative Decree no. 115 of 30 May 2008. The ceiling related to the rated output not exceeding 20 MW and installation all on the same site is expunged from the present definition of SEU, as well as that relating to the subjects involved. Letter c), para. 1, of Art. 12 introduces a 2-bis paragraph in Art. 10 of Legislative Decree no. 115/08, which provides that **electricity self-production systems with ORC (*Organic Rankine Cycle*)** - powered by the recovery of heat produced by industrial cycles and combustion processes - are entitled to the energy efficiency Titles (TEE), according to the conditions, manner and extent defined in a specific scheme adopted by the Minister of economic development within 90 days from the date of entry into force of the provision.

Among the measures approved in early 2016, please note Law no. 11 of 28 January 2016, regarding *Mandates to the Government for the implementation of Directives 2014/23/EU, 2014/24/EU and 2014/25/EU of the European Parliament and of the Council, of 26 February 2014, on the award of concession contracts, public procurement and procurement by entities operating in the water, energy, transport and postal services, as well as on the revision of the current rules on public contracts for works, services and supplies*. The guiding principles and criteria that inspire the mandate given to the government require the adoption of non-derogable procedures, the achievement of a significant reduction and certainty of deadlines related to the tender procedures and the realization of public works, as well as the harmonization of the rules on transparency, publicity, durability and traceability of the tender procedures and the phases prior to them. In

[3] See para. 6 of Art. 32.
[4] See the aforementioned Art. 32, para. 1, as incremented pursuant to Art. 2 of decree law n. 3 of 25 January 2010, converted with amendments by law no. 41 of 22 March 2010.

particular, Art. 1 requires, at letter h), the indication of the provisions applicable to the award of contracts in the utilities sectors, which include water, energy, transport and postal services and, at letter hhh), the adoption of a comprehensive regulation of concession contracts through the harmonization and simplification of existing legislation, as well as the definition of criteria for the concessions, listed in Section II of Chapter I of Title I of said Directive 2014/23/EU.

We should also note Law no. 21 of 25 February 2016, converting with amendments Decree Law no. 210 of 30 December 2015, regarding the *Extension of deadlines set by laws*. Paragraph 2 of art. 3 **extends**, from 31 December 2015 **to 31 December 2017**, **interruptible service in favour of the energy-intensive consumers on the major islands (Sicily and Sardinia);** in addition, letter a) of the same paragraph, instructs the Regulatory Authority to update the conditions of service for the new two-year period, for a maximum quantity of 400 MW in Sardinia and 200 MW in Sicily and with the direct allocation of an annual enhancement of the service amounting to 170,000 €/MW. **The Regulatory Authority will also proceed 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. Finally and from the same date, **the Regulatory Authority will proceed to apply the recalculation of the electrical system charges** as per Art. 39, paragraph 3, of Decree Law no. 83 of 22 June 2012, **to the general expenses for the support of renewable energies**.

Paragraph 2-bis of Art. 3 is also significant as it pertains to the **regulation of bids for the assignment of the natural gas distribution service**, extending the different deadlines for the publication of notices for the various areas of each grouping, up to a maximum of 14 months.

Finally, with regard to the bills in the process of being approved, the draft law regarding the *Annual Law on market and competition*, currently under consideration in the second reading of the Committee on Industry, Trade, Tourism of the Senate (AS 2085, so called "*DDL concorrenza*") contains provisions on energy Chapter V. Arts. 26 and 27, as explained in the Annual Report 2015, respectively, provide for the **removal, from 1 January 2018, of the price protection services in the gas and electricity sectors**. Among the changes introduced during the examination of the measure by the Chamber of Deputies, we note the last sentence of Art. 27, which, with respect to the electricity sector, states that the **Regulatory Authority should regulate measures to ensure the provision of universal service** (so-called "supply of last resort"). Art. 28 also requires the establishment within the Regulatory **Authority of a Technical committee with the task to ensure full comparability of the offers on the electricity and gas retail marke**t, entered in a special computer portal, for completion within 30 June 2016, while the following articles introduce additional disclosure requirements in favour of consumers, as well as some measures to avoid any potentially distorting effects from the competition.

Art. 30 also provides, in order to allow verification by the Ministry of Economic Development of the achievement of a series of goals in order to decree the possible termination of the standard offer regime, that the **Regulatory Authority should transmit to that ministry by 30 April 2017, a report on the monitoring of retail electricity and gas markets**, with specific reference to a number of indicators. Failure to achieve the objectives related to at least one of the aforementioned indicators leads to a six-month extension of the deadlines laid down in previously mentioned Arts. 26 and 27.

In order to ensure the transparency of the electricity and gas markets, Art. 34 **establishes at the Ministry of Economic Development a list of companies authorized to sell electricity to end customers**. The requirements and procedures for the inclusion in this list shall be established by ministerial decree, after consulting the Regulatory Authority.

Also currently before the Senate is the legislative decree scheme regarding *Amendments to Legislative Decree no. 22 of 2 February 2007, for the implementation of Directive 2014/32/EU on the harmonization of the Member States relating to* ***making measuring instruments available on the market****, as amended by Directive 2015/13/EU* (Act no. 273). This scheme consists of three articles and contains numerous detailed changes and additions to be made to legislative decree no. 22/07, for the proper transposition of Directive 2014/32/EU, including, in particular, the update and correction of the legislative decree terminology now in force, to adapt it and adjust it to that of the directive being transposed. In particular, it regulates the procedures for assessing the compliance of measuring instruments and identifies the Ministry of Economic Development as the National Notification Authority, establishing new administrative sanctions, including those for non-formal compliance.

Finally, we should also highlight the bill regarding *Provisions for the fulfilment of obligations deriving from Italy's belonging to the European Union - European Law 2015* (AS 2228).

In the version under consideration in the first reading, the bill spells out, at Art. 19, specific provisions in order to **permanently heal infringement procedure no. 2014/2286**, at the default stage ex art. 258 of the Treaty on the Functioning of the European Union, **concerning the incorrect transposition into Italian law of certain provisions of Directives 2009/72/EC and 2009/73/EC**. This is because the European Commission is still complaining about the incorrect implementation of certain provisions of Italian law currently in force. In particular, this rule goes back on the delimitation of competences conferred on the Regulatory Authority and the Ministry of Economic Development regarding the definition of access conditions to cross-border infrastructure, the award of the management of new lines interconnected with the electricity systems of other Member States, the sanctions for breach of obligations attributable to the Regulatory Authority's provisions and the superposition of two different institutions: one related to customer vulnerability and another referring to protected customers in the gas sector.

Developments in the electricity market

Main changes in the regulation

During 2015, the Regulatory Authority issued new provisions on the functional unbundling requirements for the electricity and gas sectors, approving its *Integrated Text of* ***functional unbundling*** (TIUF), which provides some important new features, including the following:

- amendment of the definition of vertically integrated business referring to a broad interpretation;
- reconciliation of provisions (already adopted by the Regulatory Authority) on the certification of the TSO and of the operators of the natural gas transmission systems;
- integration of functional unbundling obligations on natural gas distributors with more than 100,000 connected customers and for electricity distributors regardless of their size;
- provision of functional unbundling obligations on natural gas distributors with less than 100,000 connected customers;

- introduction of new unbundling requirements in relation to communication and brand policies for the majority of distributors of electricity and natural gas, regardless of their size or their corporate form.

The functional unbundling requirements apply as of 1 January 2016, while those relating to the separation of brand and communications policies shall apply from 30 June 2016. Longer time frames are provided for smaller companies only.

With regard to **dispatching services**, the Regulatory Authority approved the TSO's proposal for a regulation of the selection procedures for the allocation of hedging instruments against the volatility risk of the transport capacity allocation fee, referring to the year 2016, submitted by Terna, which annually organizes such procedures; it updated the rules for the forward procurement of super-interruptibility service[5], dedicated to the Sicily and Sardinia macro areas, for the period February 2016 - December 2017 and made proposals to correct the distortions that characterize the current mechanism for calculating imbalance prices.

With regard to the **regulation of network security and reliability**, the Regulatory Authority intervened on the (ordinary and cost recovery) regimes for plants essential to power system security. Those regimes apply for those plants whose operation is, for significant periods, technically and structurally vital to solve network congestion or maintain adequate levels of system security. In particular, the Regulatory Authority defined the regulatory framework for the year 2016 concerning the setting of payments for essential plants. In addition, the Regulatory Authority set for the year 2016 a reduction in the rate of return on capital over the 2015 value, in order to jointly consider the reduction of the risk-free rate and the extension of the period between the end of the year to which the cost recovery payment refers and the expected date of payment to the relevant dispatching user.

On the **regulation of the technical quality of the services**, the Regulatory Authority approved the new *Integrated texts of the regulation of the quality of electricity transmission, distribution and metering electricity (TIQE), selective promotion of investments in innovative electric power distribution systems and selectivity of investments for the development of the electricity transmission network, for the 2016-2023 regulatory period*. Such measures are coordinated with the tariff regulation of these services for the same period.

In relation to the quality of the electricity transmission service, the main novelties of the 2016-2023 regulation include: the introduction of Terna's requirements regarding the publication of the minimum and maximum values of effective voltage, expected and actual, for each user connected to the high voltage network connected to the National Transmission Grid (NTG); the introduction of automatic standards and compensations related to the maximum annual number of long and short outages and the maximum duration of interruptions, for NTG end customers; and the establishment of a monitoring of transient failures and voltage dips experienced by NTG end customers, with a view to introducing automatic standards and compensations for such eventualities as well.

[5] One of the interruptibility services is the service of instantaneous reduction of electricity withdrawal (so-called "super-interruptibility"), devoted to the Sicily and Sardinia macro areas.

In relation to the distribution service, the new provisions include: the application of the awards/ penalties incentive mechanism to the duration of interruptions in reference to long-term target levels; the confirmation of the current awards/penalties mechanism linked to the number of interruptions and the related special incentive for areas with a greater number of interruptions; an innovative experimental regulation, aimed at reducing the length of outages predicted in advance, to be adopted with a specific measure to be set up later; the introduction of new regulatory elements of voltage dips and transient failures for medium voltage networks; the introduction of regulatory elements of slow supply voltage variations for low voltage networks; the introduction of basic regulatory elements for innovative features of distribution networks in areas with high penetration by distributed generation from renewable sources; the introduction of primary regulatory elements in relation to the evolution of distribution networks in urban areas (risers and smart city). Finally, 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. For such interruptions, the Regulatory Authority established that Terna and distribution companies with more than 50,000 users prepare a Work Plan for the adoption of regulatory measures that increase the resilience of the electric system. This plan should include, in addition to a technical analysis, cost and beneficial elements in light of the effects of the severe and persistent weather events occurred over the last 15 years.

The new TIQE also regulates the **commercial quality of the distribution and metering services** in relation to the performance required by users. The provisions provide for general and specific quality standards, with automatic compensations, mandatory for distribution companies, designed to protect users and to promote the overall average improvement of the services provided nationwide. Compared with the previous regulatory period the main news involve a reduction of deadlines relative to performances required by end customers regarding the estimates and the execution of works and the extension of performances that qualify for quick estimation (by phone, by the seller).

About the **renewable energy regulatory framework**, the main measures taken in 2015 were: the verification and approval of the necessary technical rules for applying the rules on Simple Production and Consumption Systems; simplification for the connection and operation of photovoltaic systems with nominal power not exceeding 20 kW, built on the roofs of buildings for end users connected to the low voltage network and for whom access to the net metering regime is requested; a new update of the *Consolidated Law on production*, gathering in a single document the reference standards for electricity production, with a focus on renewable energy sources and high efficiency cogeneration. On the topic of renewable energies, in addition, the Regulatory Authority published its regular Annual Report, which analyzes the state of use and integration of production plants powered by renewable sources and high efficiency cogeneration plants, later focusing on distributed generation. Also as part of that Report, the Regulatory Authority reported that in the course of 2015, despite a reduction in charges for the financing of CIP6 plants and renewable sources over the previous year, progressive increases in the A_3 tariff component were necessary (to cover the incentives for renewable and similar sources), in order to reduce the economic requirements of the Account supplied by the same component, and to cope with GSE's significant financial needs, especially in relation to the procedures for collecting green certificates. In addition, just in the year 2016 there will be a significant increase in costs related to incentives for energy production from renewable sources, because, as of that year, the green certificates will be replaced by administered incentive instruments.

On the issue of **tariffs for connection and access to networks** it is worth noting that the Regulatory Authority adopted in late 2015, after a detailed consultation process, the criteria for

determining and updating the rate of return on capital invested for electricity and gas infrastructure services (TIWACC 2016-2021), which are applied in the period 1 January 2016 to 31 December 2021. The Regulatory Authority decided to carry out a review of the WACC determination process, because the changing situation of the financial markets - which starting from 2008 have shown strong variability and trends often not easily predictable - made clear the limits of the previously adopted methodology, developed in a context of greater financial stability and consistent with a market structure characterized by a weak or poor correlation between the market risk premium (Equity Risk Premium, ERP) and the interest rates level of risk-free activities. More specifically, the levels of the base WACC parameters were defined, which are valid for all the infrastructure services of the two sectors, unlike the specific parameters of the individual service, identified in parameter β (relative to sector risk) and in the relationship between debt capital and equity capital. The Regulatory Authority finally provided a mid-term update mechanism, to allow for rate adjustments based on economic trends. The WACC level is expressed, in real terms and pre-tax, as a weighted average of a real rate of return on equity and of a cost of debt in real terms, to which a correction factor is added which allows the coverage of taxes on nominal profits. The determination of the rate of return on equity continues to be based on the Capital Asset Pricing Model. For the electricity sector, the WACC values for 2016 were set at 5.3% for the transmission service and 5.6% for the distribution and metering service.

As a result of an intensive consultation process, the Regulatory Authority also approved the provisions relating to the tariff regulation of electricity transmission, distribution and metering services for the 2016-2023 regulatory period, as well as the provisions on economic conditions for the provision of the connection service, which came into force on 1 January 2016. Among the most significant innovations introduced by the aforementioned resolution: the extension to eight years of the regulatory period, divided into two sub-periods, each of four years (NPR1: 2016-2019 and NPR2: 2020-2023); with reference to the first regulatory sub-period 2016-2019, NPR1, the definition of incentive regulation schemes for the recognition of operating costs and the rate-of-return type of regulation schemes for capital costs, in substantial methodological continuity with the criteria adopted in the previous regulatory period; with reference to the second regulatory sub-period 2020-2023, NPR2, the adoption, under study, of an approach to overall expenditure control (the so-called *totex* approach). For NPR1, the annual reduction rate of recognized unit costs (X-factor) was set at 1% for the transmission service, 1.9% for the distribution service (including service marketing costs) and 1% for the metering service.

With regard to **incentives for investment in transmission and distribution networks**, the Regulatory Authority established that the tariff regulation should evolve by paying ever increasing attention to the systemic benefits from the development of infrastructure projects (for example, benefits in terms of socio-economic well-being, service quality and safety and the integration of renewable sources), developing in accordance with selective criteria and based on an output-based logic. The Regulatory Authority pointed out, in fact, how the input-based incentive mechanisms adopted in 2004, even if refined from 2011 onwards, revealed a rather inaccurate proxy of the usefulness for the system and, on the basis of the presented evidence, it emphasized the need to innovate and evolve the regulation by means of new mechanisms, which will gradually replace the input-based type schemes, presenting specific transitional and gradual incentive solutions.

According to national law, the Regulatory Authority should adjust the components of the electricity tariff paid by end consumers, in order to get over the progressive structure with respect to consumption (with the identification of tariff components based on service costs), encourage virtuous behaviour and promote the achievement of efficiency targets, and in addition, it should

formulate proposals for the establishment of any new criteria for the determination of cost compensations to be granted to economically disadvantaged population groups (social bonus). At the end of 2015, based on the comments collected in the context of a structured consultation process and further investigations, the Regulatory Authority approved the closing of the procedure for the **tariff structure reform for domestic electricity customers**, with a programmatic measure outlining the way by which the Authority intends to reach the completion of the reform, surpassing the current progressive rate structure by 2018 while following a gradual approach.

The reasons behind the decision to adopt, as of 2018, a completely non-progressive domestic tariff, can be summarized in the fact that: it maintains a significant incentive for good behaviour on the part of citizens in terms of energy savings, since the c€/kWh component remains still very high in proportion to the final expenditure, representing an amount between 70% and 80% of the entire bill; it helps to promote the achievement of energy efficiency targets, for it stimulates the replacement of existing equipment with "required" electrical purposes (refrigeration, lighting etc.) with new higher energy class and better performing models and the fair evaluation of electricity convenience, in replacing the use of other energy sources, thereby also promoting electrical applications from on-site renewable sources, which are currently heavily penalized by the progressivity of the current domestic tariff; it has no impact on non-progressive structure categories of users; the components of the tariff structure covering the network services (transmission, distribution and metering) are based on the costs of the services, so as to ensure that to all low voltage users (domestic and non-domestic) the same fee proportional to the energy drawn is applied, relative only to the costs of the National Transmission Grid (in fact, distribution costs are recovered through a fee commensurate with the contractually committed power, while the metering costs are recovered through a fixed fee).

International coordination

In 2015 the Regulatory Authority's activities aimed at integrating the Italian electricity market with the European market, in addition to those undertaken in collaboration with the other European regulatory authorities, mainly related to the implementation of Regulation (EC) 1222/2015 regarding *Guidelines for capacity allocation and congestion management* (CACM), which entered into force in August 2015. A good part of the Regulation contains the European design of the internal electricity market.

The CACM has made market coupling the only possible procedure for allocating cross-border capacity on a daily and intraday basis and introduced the obligation, at the national level, to appoint one or more Nominated Electricity Market Operators (NEMO), organized market operators entrusted with the task of executing the daily and intraday market coupling. Therefore the Regulatory Authority intervened in NEMO's appointment procedure, formulating an opinion on 6 August 2015 for the Minister of Economic Development, after checking the compliance by the energy market Operator (EMO) of all the requirements of Art. 6 of the CACM Guidelines.

In February 2015, the Regulatory Authority initiated market coupling on the Italian border in relation to the Italy-France, Italy-Austria and Italy-Slovenia interconnections. As for the other countries of the Central-South region, the Regulatory Authority provided that the market coupling on the Italian-Swiss border will be implemented following the establishment of energy agreements between the Swiss Confederation and the European Union, while for the Italy-Greece border one, at the moment the only other neighbouring electricity market, it will be implemented following

the revision of the peculiar technical characteristics of the Greek market, which currently limit the possibilities for integration. Currently in the Italian market the purchase offers on the electricity market (MGP and MI) are limited by an administrative cap, estimated by the Regulatory Authority at € 3,000/MWh and a floor equal to 0 €/MWh. Moreover, only simple products are currently marketable, with a single price for a set hourly volume of energy. However, as the German (via the Austrian border) and the French markets adopt the more common limits of +3.000 €/MWh and € -500/MWh and do market "complex" products, and considering that implementing market coupling without harmonizing price limits could generate possible inefficiencies in the management of cross-border capacity under particular conditions, the Regulatory Authority initiated a procedure aimed at reconsidering the price limits of MGP and MI and the introduction of negative prices in the Italian electricity market.

On the basis of the Roadmap for Implementation of the European electricity market, the European Network of Transmission System Operators for Electricity (ENTSO-E) released a consultation document on the long-term transmission capacity rights allocation rules (by means of half-yearly and monthly auctions), providing, among other things, the application of a harmonized import rights compensation system, allocated on an annual and monthly basis, which cannot be used due to curtailment measures by the TSO, the so-called "regime of firmness". After its own consultation, the Regulatory Authority approved for 2016 the proposed *Allocation rules for forward capacity allocation* of ENTSO-E, including the new harmonized rules of firmness to be applied on Italian borders.

During 2015, the Regulatory Authority for Electricity, Gas and Water continued to work with other European regulators both multilaterally, through the Agency for the Cooperation of National Energy Regulators (ACER), the Council of European Energy Regulators (CEER) and regional initiatives, and through bilateral meetings organized specifically to expand the discussion on issues of common interest. These operations involve the establishment of transparent and effective rules for the promotion of a competitive and efficient integrated European energy market, as requested by the Third Energy Package. During 2015, the Regulatory Authority also increased its international commitment in order to strengthen bilateral and multilateral cooperation activities, export its expertise on regulation and promote more consistent and harmonized regulatory frameworks, even in areas outside the European Union. To this end, 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 2015, the national GDP increased by 0.8%, interrupting years of negative data. **Electricity demand** followed this trend, according to provisional data from Terna, rising almost 1.5% from 291 TWh in 2014 to 295 TWh in 2015. Domestic production covered a share of the total national requirement of 86% (against 87% in the final balance for 2014). As in the previous year, 2015 saw an increase in net imports; gross imports increased significantly from 46,748 to 50,846 GWh, even in the presence of a very significant increase in exports (+47.3%), in particular to Malta, although these are as of yet modest absolute values, which in 2015 reached 4,465 GWh. As regards the uses, electricity consumption increased, albeit slightly, in all sectors. While agriculture has substantially stable volumes, the biggest increase came from the service sector (+2.3%), with housekeeping and industry up, respectively, by +1.2% and +0.6%.

After years of continued reductions, for the first time in 2015 **the gross domestic production** returned to growth, albeit very slightly (+0.8%), amounting to - still according to Terna' provisional

data -282 TWh, compared to the nearly 280 TWh of the previous year. Thermoelectric production contributed to this increase, going up by about 9% and regaining a share on the total production back to 2013 values (61%). In particular, production from natural gas grew (+ 15%), while the levels of use of the other thermal sources remained substantially unchanged from 2014. Renewable production decreased by 9% in 2015 compared to 2014 values. While photovoltaics continued to grow, with a 13% rate, a marked improvement compared to the previous year's +3%, for the first time in years we saw a reduction of wind power production (-3.3%), but most of all a drastic decline in the contribution of hydroelectric generation (-25%), due to low water availability during the year and the comparison with the maximum production levels achieved in 2014. Among the renewable sources continues the increase of geothermal and biomass. The latter, after the boom of 2013, maintain a strong growth rate (+5%), even though this is the lowest level in recent years. In terms of contribution to total production, renewables reached a share of 39%, versus 43% in 2014.

After the peak in 2014 (27%, as in the final balance) the Enel Group's domestic production share returned to values close to those of recent years (25.7%). Among the big operators, Eni, Edison, Engie, Iren and Edipower saw increases in their production quotas, essentially stable instead for A2A and Saras. Erg and Sorgenia were down. The HHI on gross generation, equal to 832, decreased compared to 2014, when it was 908 and more in line with those of previous years. The gross thermal power installed by the first three operators covered 47% of the installed capacity, still a slight decrease compared to 2014 (50%). Among the main corporate transactions that were executed in 2015 in the field of electrical generation, the most significant was the one that involved the sale of E.On's production assets. Starting from 1 July, in fact, all the thermoelectric businesses that were part of the E.On Group were attributed to the Czech Gas Holding N.V. Group. From 1 December, Erg Hydro, a subsidiary of Erg Power Generation, acquired E.On Produzione's entire hydroelectric business. Moreover, in late October E.On Climate & Renewables incorporated several companies and in late December was incorporated into F2i Solare 2.

In 2015 the amount of electricity purchased on the MGP in the Italy System amounted to 287.1 TWh, an increase of 1.8% compared to 2014 (282 TWh), reversing the downward trend in place from 2010 to 2014. **Italian Power Exchanges** also increased, climbing up to 195 TWh compared to the 186 TWh achieved in 2014 (+ 4.7%). The growth of stock market volumes hauled market liquidity, increased from 65.9% in 2014 to 67.8% in 2015. The increase in stock market purchases reflected a substantial rise of Single Buyer purchases (32 TWh, + 24.3%) as well as a recovery in demand in foreign areas (4.3 TWh, + 24.2%). Conversely, the demand underlying the balance of the PCE programmes (The Energy Accounts Platform, that is the system for registering forward electricity purchase/sale contracts based on “conti energia”) dropped to 51 TWh (-23.2%). The Italian Power Exchange recorded in 2015 an average electricity purchase price of € 52.31/MWh, a very slight increase compared to 2014 (+ 0.4%). The monthly changes recorded by the PUN were observed in all groups of hours without distinction between peak hours and off peak hours, whose annual average (respectively, € 59.28/MWh and € 48.58/MWh) marked a change trend near zero. The competitiveness and competition indicators expressed a general improvement. The Marginal Operator Index (IOM) of Enel, the main price-maker, after the rebound of 2014 (when it went up to 21% from 14% in 2013), went back below the 20% threshold. A general improvement also for the HHI index, which remained under the first threshold of competitiveness in the North and returned next to it in the South. The positive signals from the HHI index, however, are not reflected in the concentration indicators CR3 (47.1 %) and CR5 (58.9%), which mark a slight recovery from the historic lows of 2014.

The number of **end market sellers** grew in 2015 by 37 units. The expansion trend that has endured almost continuously since 2008 in the selling sector was therefore maintained. Less than half of the 359 active companies, 45.7% to be accurate, sold energy in a number of regions between 1 and 5; 55 companies, or 15.3%, have been selling electricity across the country; the remaining 140 companies have been operating in a number of regions between 6 and 19. The presence of foreigners is poor: only 6 companies (out of the 345 that provided this information) have a non-Italian majority shareholder. Direct foreign participants are mostly Swiss and German companies.

Overall energy consumption rose by 2.2% compared to 2014, while consumers decreased by 0.5%. The domestic sector and productive use consumption recovered a little (respectively +2.7% and +2%), after three years of continuous decline, although the levels are still very distant from those before the economic crisis. As in the past, the **market at standard conditions (or with standard offer regime)** decreased both in terms of power supplied and of number of customers served, for the benefit of the rest of the market (free market) and, this year for the first time in some years, also for the benefit of safeguard. In a final market which overall has expanded (5.3 TWh more sold than in 2014), sales volume at standard conditions were reduced by more than 1 TWh (-1.8% compared to 2014), while 5.8 TWh more (+3.1%) were sold in the rest the market, and in the safeguard regime sales also grew by 0.6 TWh. **Therefore, the movement of domestic consumers from standard conditions contracts to the free market continued**.

Domestic supply points increased overall in 2015 by about 55,000 units, but the **market at standard conditions** lost 897,000 compared to 2014, while the free market recorded 952,000 more. In addition, the average consumption per unit of households in the service at standard conditions is much lower than that of households who purchase energy on the free market: 1,869 kWh/year against 2,246 kWh/year. In 2015, it moved up slightly in both markets: by 47 kWh in the service at standard conditions and by 10 kWh on the free market. In 2015, the **safeguard service** expanded again, after years during which it was getting smaller: electricity sales grew by 17.4% (+0.6 TWh), recovering half of the fall recorded on the previous year; the number of customers served increased by about 9,500 units (last year it had lost 17,500). The increases are almost entirely attributable to public lighting. The electricity supplied on the **open market** in 2015 showed a good recovery: with 192.4 TWh sold, in fact, the sales level moved up by 5.8% coming close to that recorded in 2011 (which was 196.3 TWh). Compared to 2011, the total number of customers served, however, almost doubled: from 7.7 million then to 12.7 now. The average consumption per unit was therefore greatly reduced: from 25,500 kWh/year in 2011, it dropped to 15,100 kWh/year in 2015. The steady reduction is partly due to domestic consumers entering this market, typically characterized by low use values, but it is mainly explained by the withdrawal of non-domestic consumption. In 2015, sales in this market to the non-domestic sector recorded, in effect, an increase of 3.6% going up to 171.4 TWh, but they are still below the levels of 2013 (172.8 TWh).

Altogether, then, in 2015 the market at standard conditions acquired 22.5% of all energy sold to the end market (compared to 23.4% in 2014), the safeguard service absorbed 1.5% of it (against 1.3% in 2014) and the free market purchased 76% of it (against 75.3% in 2014). In terms of supply points the ratio tended to tip over: 64.4% of customers were still served at standard conditions, while 34.4% went over to the free market.

With a market share slightly lower each year than the previous year, but always distanced from the chasing group, the dominant player of the of the entire final sale market remained the Enel Group, this year at 33.7%, followed by Edison 6.8% and Eni with 4.3%. Of the three, only Eni showed an increase compared to 2014. The Enel Group keeps its importance in the total market due to its substantial dominance in the mass market, made up by the household sector and the

non-household customers connected at low voltage: more than half of this market - 55.5%, to be precise - is in fact served by Enel, while Eni, which is in second place, owns a 4.2% share. On the contrary, in the segments of non-domestic customers in medium and high/extra high voltage, Enel is no longer the first operator since 2013 even though it retains market shares close to those of its competitors. In 2015 the concentration level of the total market declined slightly: the first three operators (corporate groups) covered 44.8% of the total sales (this figure was 46.1% in 2014); the HHI index fell from 1,330 to 1,297. 16 groups were need (like last year) to exceed 75%.

2015 also was marked by intense **switching**. Altogether, more than 3.5 million customers (15,000 less than in 2014), i.e. 9.6%, switched over to a new supplier at least once in the course of 2015. In terms of volumes, they correspond to almost more than a quarter (27.6%) of the total energy distributed. For lower consumption customers (household and non-household low voltage) the switching was stable compared to 2014 in terms of both volumes and supply points. More specifically, in 2015, the following switched to a new supplier: 8% of households (or about 2 million and 400,000 supply points), corresponding to an energy share of 10%; and 15.8% (i.e. just over 1.1 million) of non-household customers connected at low voltage, corresponding to a share of energy equal to 15.5%.

The **average price for domestic consumers** amounted to 20.71 c€/kWh (of which 9.642 cents is the cost of the supply). The prices charged to domestic customers according to consumer class show values ranging from a minimum of 17.86 c€/ kWh for the 1800-2500 kWh/year class, to a maximum of 33.17 c€/kWh for the smallest class. The price exclusive of taxes had a "U" trend, in the sense that it falls with increasing customer size up to the third class, and then it returns to rise for its bigger customers. The decreasing stretch of the curve reflects the reduction in fixed costs per unit, while the increasing one is due to the progressive structure of domestic tariffs. The cost of procurement, however, as is to expected, decreased continuously with increasing amplitude of consumption, but its decline does not compensate for the effect of progressive tariffs. 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 definitely low.

The complaints, reports and information requests relating to the electricity sector were 23,316 (about 66% of the total), with a decrease compared to 2014. Very mild changes concerned the proportions between complaints and information requests, which, in absolute terms, declined slightly. The most frequent topics of the communications received were contracts and billing.

Developments in the gas market

Main changes in the regulation

On the subject of **economic merit balancing of natural gas**, the Regulatory Authority - after an intensive consultation process - accepted Snam Rete Gas' request to delay the start of the new balancing regime, which will incorporate Regulation (EU) 312/2014 of 26 March 2014 (establishing a Network Code on gas balancing in transport networks), and decided to set the definition of the term in a subsequent measure, taking into account the preference expressed by operators for starting in the summer and, in any case, no later than the 1 October 2016 deadline provided by the regulations. In addition, the Regulatory Authority approved the changes to Snam Rete Gas' Network Code, which provide a transposition of the Regulation principles on the balancing actions available to the person in charge of balancing.

About the **quality of the natural gas transport service**, in 2015 the Regulatory Authority approved the proposals to update Snam Rete Gas and Società Gasdotti Italia's Network Code and transpose the new gas odorization provisions (adopted in execution of a judgment of the administrative court) as well as those for the connections of biomethane plants to natural gas networks and, finally, the provisions for the determination of the amount of biomethane eligible for incentives. Similarly, updates to Edison Stoccaggio's and Stogit's storage codes were approved, in accordance with the provisions of the new **storage service quality** regulation, approved by the Regulatory Authority at the end of 2014. About the **quality of the gas distribution and metering services**, it should be noted how again in 2015 the growing annual trend in the amount of network inspected is confirmed, which has now been observed for several years. The time taken to arrive at the telephone call's location in 2015 amounted to a national average of less than 47 minutes, worse by about eight minutes compared to the national average time recorded in 2014; the Regulatory Authority's attention to the issue of emergencies remains high, also in terms of checking on companies, because this service is essential for the safety of citizens. The regulation of quality includes a mechanism of rewards and penalties for the safety of the natural gas distribution service: in implementation of this regulation, the rewards and penalties were determined relating to the safety recoveries made by the natural gas distribution service in 2013. In total, 28 billion euro were granted in rewards and 4.5 billion euro were doled out in penalties.

After appropriate consultation, the Regulatory Authority reformed the method of metering natural gas withdrawals by end users, also with reference to the switching process, in order to ensure an increase in the number of actual and validated data available from the seller and, consequently, the end customer, and also to foster the use of self-reading by the latter. On the **deployment of the new electronic meters**, the plan for installing and commissioning smart meters in the gas was updated. As of 31 December 2018, the installation and commissioning of the G4 and G6 class smart meters will have to cover 50% of the customers for companies with more than 200,000 end customers, 33% of the customers of the companies with a number of end customers between 100,000 and 200,000 and 8% of those companies with a number of end customers between 50,000 and 100,000 (this last requirement had never been set before). In line with the reform of the framework for the metering of final customer withdrawals, the Regulatory Authority **revised the switching procedure**, also in order to reduce the length of the process to three-weeks.

In the thermal year 2015-2016, the allocation of storage capacity occurred on the basis of auction mechanisms. In a market characterized by very low seasonal differences, it was necessary, also in 2015, to define the operating procedures of the sterilization mechanism (with credit balances or debt) of the financial impacts on storage companies deriving from auction procedures for the allocation of storage capacity. In view of the storage capacities that became available following the expiry (31 March 2016) of the five-year storage contracts entered into under Legislative Decree no. 130 of 13 August 2010, (equivalent to more than 2.5 billion cubic meters), the Ministry of Economic Development introduced the offer of an **integrated regasification and storage service** aimed at encouraging the import of new LNG in summer, ensuring for anyone who requests it the storage space needed to store the corresponding gas volume until the following winter; and **the use** of **market benchmarks**, instead of tariff ones, for the assignment at the auction of storage capacity on a two-year basis. Finally, the Regulatory Authority established the calculation criteria of the reserve prices of auctions for allocating storage capacity (which are not disclosed to the system and, therefore, are not published, as determined by the Ministry of Economic Development). Similarly, the Regulatory Authority established the calculation criteria of the reserve prices of auctions for the integrated regasification and storage service.

In the course of 2015, the first directives were approved on market processes relating to the **placing of biomethane in natural gas transport and distribution networks**, and the procedures of initial implementation in cases of dedicated withdrawal of biomethane quantities by the energy services Manager (GSE).

As explained in relation to the electricity sector, the Regulatory Authority established the new criteria for the **determination and update of the rate of return of capital invested** in electricity and gas infrastructure services for the 2016-2021 period. The WACC was set at 5.4% for transporting and 6.6% for the regasification service for the years 2016 to 2017, equal to 6.5% for the storage service, 6.1% for distribution and 6.6% for the metering service for years 2016-2018.

International coordination

During 2015 the Regulatory Authority continued to cooperate multilaterally with other European regulators, both through ACER and CEER. In particular, it participated actively in the ACER Working Groups, who are responsible for the analysis of European network codes prepared by ENTSO-G; in particular, to changes in the CAM network code, as well as the revision process of the Gas target model started at the beginning of the year, contributing to the drafting of several documents and opinions, including the recommendation to the European Commission on the amendment of the rules on the development of new capacities added to the network code for the allocation of capacity (CAM NC), the opinion on the 2015 Ten-Year Plan of network investments by ENTSO-G, those for the summer 2015 scenarios and those for winter 2016. Among the activities to which the Regulatory Authority provided support through the independent association of the national energy regulation authorities are the works done for the security of supply, storage and LNG in the natural gas sector.

In addition, again in 2015 the Regulatory Authority contributed to the work of implementing the Treaty establishing the Energy Community of Southeast Europe and has maintained constant its international commitment in the Mediterranean, in particular through MEDREG, of which it is the founder and promoter.

Wholesale and retail markets

According to preliminary data released by the Ministry of Economic Development, last year the **gross domestic consumption of natural gas** increased by 5.6 G(m_3), going up to 67.5 G(m^3) from 61.9 G(m^3) in 2014. In percentage terms, gross internal natural gas consumption grew by 9.1% compared to 2014. In line with the economic and climate trends, in 2015 there were, in particular, a marked increase (11.8%) in the consumption of residential and tertiary customers, an even higher growth in consumption of thermal generation (16.8%), also favoured by low gas prices, and a significant increase (7.7%) for other uses, especially those for the transport sector, on the increase for years. Only industry had another retreat, at -3.4%. Despite the high recovery, the overall final demand was still far from the peak reached in 2005: in fact, in 2015 it was 75% of the level achieved in that year.

The substantial rise in final demand was consistently accompanied by an increase in net imports (9.8%). The gas volumes imported from abroad, in fact, increased by 5.4 G(m^3) compared to 2014, going back to 61.2 G(m^3); exports fell by 16 M(m^3). The downward trend in **domestic production** continued (-5.3%). As in the past, about 84% of all national production was extracted from the Eni group, which remains the dominant player in this segment with an absolutely majority share and widely distant from the second group of companies, Royal Dutch Shell with 9.4%. The latter, however, has been increasing its share year after year. Since the increase in imports was higher

than the increase in consumption, again in 2015 the level of **dependence on abroad** (measured as the ratio of gross imports to gross domestic consumption) rose to 90.6% from 90.1% in 2014.

The increase in imports in 2015 concerned all the countries from which Italy traditionally buys natural gas, with the exception of Northern Europe. In fact, last year a billion and a half of gas less than in 2014 (-22%) was collected from Holland, while quantities coming from Norway remained largely unchanged compared to 2014. The overall 10% growth of volumes from abroad, in fact, represents the weighted average of the growth rates recorded for flows from Qatar (34%), Russia (15%) and Libya (9%). A significant recovery was also recorded on the Algerian quantities (7%), as well as by the mixed group of Others (17%). As in previous years, the groups that had a share exceeding 5% of the total gas supplied (i.e. produced or imported) were Eni, Edison and Enel. Together, the top three importers imported 51.4 out of 59.6 G(m^3), i.e. 86.2% of the gas that entered the Italian market. Including the quantities produced within national boundaries, the three groups accounted for 86.5% of all the gas supplied. As in the past, this share was on the rise (it was 84% in 2014), due to the increase of Edison's and Enel's shares not offset by the descent of Eni. The three groups are also the only ones that have each more than 5% of the available gas, with a share (87.5%) slightly higher than that of gas supplied.

In 2015, the **total demand of the gas sector**, understood as the sum of the volumes of gas sold on the wholesale (including resales) and retail market plus self-consumption, increased by 16%, having reached 244.6 G(m^3). The wholesale market handled 177.6 G(m^3) in a significant increase compared to 2014 (+21%); the retail market handled 53.8 G(m^3), recording a very slight increase compared to 2014 (+0.3%), while self-consumption amounted to 10.5 G (m^3), also in significant increase (+25.7%). Operators that in 2015 had a higher than 5% share of this market were reduced to 4, while in 2014 they were 5.

As has been the case for many years, in 2015 the number of companies that operated in the **wholesale market** grew as well as the gas market which they overall intermediated: in fact, 196 sellers, twelve more than last year, sold a total of 30.8 G(m^3) more than in 2014. in 2015, the concentration level of this market went back down, after the increase recorded last year that followed the decreases observed until 2012. The share of the top three companies (Eni, GDF Suez Trading Italia, Eni Trading & Shipping) in fact returned to 31.4% from the 35.8% calculated in 2014. Likewise, the combined share of the top five companies decreased also, from 48% to 46.1%: the three we just mentioned plus Edison and Enel Trade in fifth place (which belonged to Shell Energy Europe Limited in 2014). Obviously, the HHI index calculated only on the wholesale market also declined compared to 2014, from 643 to 560. In 2015 the average price charged in the wholesale market was 25.22 c€/m^3, higher than the 23.45 c€/m3 of the PSV (Platts source data), but still down sharply (-9.8%) compared to the value observed in 2014, amounting to 27.97 c€/m^3.

The main trading platform in the wholesale market in Italy is the Virtual Trading Point (PSV), handled by the top transmission network operator, Snam Rete Gas. Since September last year, you can record with PSV also contracts managed by third party stock exchanges. The new rules approved by the Regulatory Authority, in fact, made operational the access to the Italian national market through the GME, by third party energy exchanges from other European countries, thereby enlarging the offer of completed products with physical delivery of gas to PSV. The gas trading platforms that offer products with physical delivery to the PSV are ICE Endex and PEGAS of the EEX group run by Powernext, which in March 2015 had already launched futures products to the PSV without physical delivery. This enables increased liquidity in Italy, now very low due to **limited futures exchanges and the spot market of gas** managed by GME, significantly lower than those recorded on the PB-GAS and even more than for OTC exchanges with delivery to the PSV.

In the course of 2015, in fact, like during the year 2014, no exchange was recorded on MGP-GAS. Even with regard to the MT-GAS operations, from the start date of 2 September 2013 until today there were no transactions. In 2015, there were 33 useful sessions on the MI-GAS, an increase compared to the 4 of the previous year. The recorded average price amounted to € 24.38/MWh, down 4% compared to 2014, against transited volumes that amounted to 1,009,437 MWh, compared with 102,130 MWh in 2014. The only market among those managed by the GME actually used by operators and on which there is a significant liquidity in constant growth is the PB-GAS sector, dedicated to daily balancing and accounting for 98% of the overall trading liquidity in the markets managed by GME. With 99 members and 70 active operators, overall volumes (including G-1 and G+1) amounting to 48.2 TWh (up 16% compared to 2014) were traded on the PB-GAS in 2015.

The provisional results of the Survey on the electricity and gas sectors, conducted annually by the Regulatory Authority, show that in 2015 53.8 G(m^3) were sold to end users, to which must be added 312 M(m^3) provided through services of last resort and default, which last year were not separate. Overall, therefore, the final sales value amounted to 54.1 G(m^3), an increase of 448 million compared to 2014. This result, which quantifies the ascent of the total market in a 0.8% with respect to the previous year, appears modest in comparison with the much more significant increase of 9.5%, shown in the data, although they too are provisional, of the Ministry of economic development commented on the previous pages. The difference with the Ministerial data drops considerably when one considers the self-consumption volumes, over 13 (m^3), bringing the total consumption values resulting from the annual survey to 67.3 G(m^3), that is, a value about 5% higher than in 2014. Self-consumption increased significantly compared to 2014: 26% in terms of volume and almost 14% in terms of supply points. This item has very strong influence on electricity generation (88% of self-consumption belongs, in fact, to this area). The rise in final consumption, in the data emerging both from the annual survey and the ministries, appears therefore closely linked to climate trends that in 2015 drove energy consumption for heating in the winter months (see below the increase in civilian consumption) and for cooling (brokered by electricity generation) in the summer months.

Despite the modest growth in sales on the final market, the number of active vendors in this segment of the chain increased significantly in 2015 also: from 342 operators in 2014, it went up to 379. The rising trend therefore remains, as observed also in the electricity market and the number of sellers, although it is now since 2006 that the market does not expand or spreads to a very small extent. 8.7% (i.e. 33 individuals) of 379 active vendors who responded to the Annual Survey serve customers throughout the country, i.e. in all 19 Italian regions where gas is distributed; 61.2% of companies (232) sold electricity in a number of regions that goes from 6 to 18; the remaining 119 companies (30.1%) worked in a number of regions from 1 to 5. The company structure of the share capital of gas sellers displayed little foreign presence: only 13 companies (of about 339 that provided these data) have a non-Italian majority shareholder. The direct foreign participants are mostly Swiss and German companies, but there are also Luxembourg, Austrian and Spanish companies. In 2015, the concentration level in the final sales market, steadily declining for years, fell further compared to 2014. The first three groups controlled 44.8%, while the previous year the figure was 45.9%. Considering the first five groups, the portion of the market served rose to 52.9% (against 54% in 2014). The HHI index calculated on the sales market amounted to 878 (was 929 in 2014), a level that begins to increase the distance from the 1000 threshold, the value below which the concentration is usually considered too weak. However, Eni's weight of rose by one percentage point from 2014 and remained more than double that of Enel, back to being the second operator (in 2014 it was in third place, behind Edison).

The sectoral volumes showed a marked rise in civilian consumption, the domestic sector growing by 8.8%, consumption of central heating rising by 9.5%, the sector of trade and services showing a growth of 8.7% and public service activities up by 12.7%. High growth was also apparent in the thermal power generation consumption (11.3%), also favoured by low gas prices. Only the industry had another setback, equal to -7.5%. These overall positive rates of change improved further in the case of civilian consumption, if one considers only sales excluding those on the market at standard conditions (free market), where the volumes of gas sold to households are 20.7% higher than in 2014, those for apartment buildings recorded a 43.9% growth, those to the service sector showed a variation of 13.1%, just as sales to public service activities rose by 9%. At the base of the growth of these volumes we see also a significant overall increase in free market customers by almost one million redelivery points (+ 13.7%), on the back of the already excellent benefits recorded in the two previous years (respectively +1.4 million in 2013 and +1.3 million in 2014).

The picture changes completely if, instead, we look at the market data at standard conditions where there are very pronounced losses in terms of both volumes and customers. In this case, the only moderately positive sign regards the volumes acquired by the domestic sector rising by 1.2% compared to 2014, despite a 7.5% loss of customers. This is because the adjustments to the gradual exclusion of protection - by operation of law - of all categories of non domestic customers are still going on in the market. The portion of the volumes purchased on the open market on average is 64.8%, that of the market at standard conditions is 15.5%, while 19.7% is self-consumed. If we consider sales in a strict sense and therefore we exclude self-consumption, 80.7% of the gas was purchased on the free market and the remaining 19.3% on the market at standard conditions. In terms of customers, 63.2% went to the market at standard conditions, while 36.8% bought from the rest of the market.

The percentage of ***switching***, i.e. the number of customers who switched over to another provider during the calendar year 2015, was a total of 6.5%, or 48.7% when measured according to the consumption of customers who made the switch.

The preliminary analysis of data collected in the survey conducted by the Regulatory Authority on 2015 shows that last year the **average price of gas** (weighted by the quantities sold), net of taxes, charged by the sales companies operating on the retail market, totalled 38.9 c€/m^3. This price in 2014 was equal to 42.3 c€/m^3. Overall, therefore, the average price of gas in Italy showed a decrease of 8.1%. Customers where the greatest decreases are observed (about 17%) were those that consumed more than 2 million m^3. This contributed to widening the price gap between the smaller and larger customers, which during the five-year period under consideration increased from 19.5 to 29.2 c€/m^3.

The complaints, reports and requests for information relating to the gas sector were 13,756 (about 34%). Compared to 2014, the number of communications suffered an appreciable reduction. Again compared to the previous period, no significant differences were noticed in the ratio between the number of requests for information and that of complaints. The most frequent topics of the communications were billing and the *bonus*.

Consumer protection

On the issue of Italian regulation compliance with Annex 1 of Directive 2009/72 / EC, which governs the principal consumer protection rules, the main changes in 2015 concerned two issues: the customers ability to **have their consumption data at their disposal** and their right to **receive a final balance**, after switching to another of supplier, no later than six weeks from the switch.

On the first subject, in April 2015, the Regulatory Authority published a consultation document to explain its guidance on the many ways to make available historical data of electricity consumption and power withdrawal from final customers in low voltage. The document takes into account the fact that - at least in the electricity sector - the dissemination of smart meters is now very wide, and the fact that the legislation of the Integrated Information System (SII) already provides procedures for centralized management of consumption data communication.

On the second subject, the Regulatory Authority determined that the closing invoice should be issued not later than eight days before the expiry of six weeks from the date of suspension of the supply or within two days before the expiry of the six weeks in the case of immediate delivery (e.g. electronic bill).

Other important consumer protection changes introduced in 2015 were:

- the updating of the Code of Commercial Conduct on **pre-contractual requirements** for sellers and on how the domestic end customers can exercise their right to reconsider, as well as the regulation update for **unsolicited contracts**;
- the application of the **right to reconsider** to all cases of domestic customers signing a new contract, where the signing took place by means of communication at a distance or away from business premises. This resulted in the introduction of new information requirements to the seller for the benefit of the end user, as well as provisions regarding reasonable and proportionate costs to be paid to the seller in case the right **to reconsider** is exercised, if the customer has already required the execution of the contract;
- for the electricity sector alone, centralized management in the SII of all operations to switch to a new supplier, allowing the operation to be faster and easier;
- the launch of a Roadmap aimed at reviewing **existing price protection mechanisms**. More specifically, said roadmap is directed to define a gradual absorption of such mechanisms, in order to allow the maturation of a mass retail market. On this Roadmap, the Regulatory Authority had consultations on its guidelines identifying pathways differentiated by end customer type and sector. Specifically, it proposed a new stage featuring an evolved service of standard offer where customers would be shown voluntary approaches for joining in. The adjustment of the standard offer service regulation would pursue the aim to make the service more consistent with the role of "last resort" (universal service), which it is intended to take. In this perspective, we expect that customers who are not able to find a supplier in the free market will remain provided for in the last resort service, in addition to those who find themselves without a seller for reasons beyond their control, for example, because of the failure of the latter. Next to the voluntary approaches for joining in, it would be provided for the introduction of the new regime of the so-called ***Tutela simile***, where end users voluntarily choose to have access to a free market supply with pricing structure (but not levels) and contract conditions supervised by the Regulatory Authority.
- As mentioned at the beginning of this summary, with respect to the factors described above, the so-called "DDL concorrenza" (competition decree-law) whose approval process started in

2015 and is currently under consideration in the second reading by the Industry, trade and tourism Commission of the Senate, contains provisions that establish that the standard offer service should cease, from 1 January 2018, also for domestic customers. This creates the need to accelerate the gradual process, with the consequent need to consider possible solutions from the outset also for domestic customers, analogous to what is set in the context of *Tutela simile* for non-domestic customers;

- the formulation of proposals to the Government and Parliament on ***social bonus***, as indeed is also required by the Legislative Decree no. 102 of 4 July 2014, which transposed the European directive on energy efficiency;
- the definition and finalization of all the steps required to ensure the smooth operation of Bill 2.0.

The **energy customers conciliation Service**, dealing with the handling of disputes in Italy, has been in business since 2012, managed (in pooling) by Single Buyer, in the experimental phase from 1 April 2013. It became fully operational from 1 January 2016. The experimental phase of conciliation Service ended December 31, 2015. During the experimental phase, the conciliation service received a total of 4,583 activation requests. The main access channel was the associations of end domestic customers (50%). 32% of requests were due to the channel of the other delegates, other than associations; end customers directly activated the conciliation service in 18% of cases. 72% of the conciliation service activation requests had to do with disputes concerning the matter of billing. Until 30 June 2015, the operator's (seller or distributor) membership in the procedure activated by his client took place on a voluntary basis, while after that date participation became mandatory for electricity sellers who operate in the standard offer service and for electricity or gas distributors. To date, 29 are the market sellers (which are not required to participate) that joined the Service. Having said that, in 60% of the requests issued, the operator applied the procedure: in this context, disputes with positive results were 84% of those completed.

In November 2015, the Regulatory Authority gave a mandate to the Single Buyer for the drafting of an annual "bridge" project for the continuation of the conciliation Service and for the identification of activities relating to the development of a subsequent three-year project, operative starting January 1 2017, in view of the change of scenario related to conciliation attempt becoming compulsory. This project was approved by the Regulatory Authority in December 2015.

As mentioned, legislative decree no. 130/15 transposed in Italy Directive 2013/11 / EU. In implementation of that decree, the Regulatory Authority initiated proceedings for the adoption of a **framework for ADR procedures** between end users and operators in the regulated sectors; this framework should regulate the **mandatory conciliation attempt**, referring to the sectors pertaining to the Regulatory Authority, as a required step before going ahead with legal proceedings. It was proposed that the framework become operational from January 2017.

Legislative Decree no. 130/15 designated the Regulatory Authority as the entity that must establish, maintain and publish a list of the ADR bodies delegated to the management of national and cross-border disputes between consumers and companies residing in the European Union, in the sectors relevant to them.

In implementing these provisions, the Regulatory Authority therefore established that list, approving at the same time the first implementation regulation for registration, holding, management and supervision of the list itself, subject to the enactment of any implementing

guidelines. The Regulatory Authority also added their conciliation service to the list, as it meets the requirements of Legislative Decree no. 130/15.

As of 31 March 2016, the list of the Regulatory Authority, in addition to the conciliation service, had 2 persons and 4 joint conciliation bodies registered. The list and its updates are published on the Regulatory Authority's website and sent to the Ministry of economic development, as the single point of contact for the purpose of communicating the results to the European Commission, which draws up the consolidated list of ADR entities operating in the European Union.

Finally, in relation to other existing alternative dispute conciliation procedures, the Regulatory Authority continues to the support and monitor conciliation on an equal basis in two ways: the first is through the training of personnel of consumer associations and the recognition of a contribution to the associations in the event the procedure completes successfully; the second, by means of evaluation of specific annual reports transmitted by the major operators that have signed memoranda of understanding with the associations of end customers.

Security of supply

Legislative Decree n. 93/11, in implementing the Third Energy Package, allocates tasks and responsibilities with regard to security of supplies to the Ministry of Economic Development.

3 THE ELECTRICITY MARKET

3.1 Network regulation

3.1.1 Unbundling

Over the course of 2015, the Italian Regulatory Authority for Electricity, Gas and Water continued its activities regarding the revision and simplification of the regulations governing unbundling, functional unbundling and the certification of transmission and transport systems operators, envisaging common procedures and standards for the electricity and gas sectors.

In particular, the Italian Regulatory Authority for Electricity, Gas and Water has issued[6] new provisions on functional unbundling requirements for the electricity and gas sectors, approving the related annex *Integrated Text on Functional Unbundling* (TIUF) in compliance with provisions of Italian Legislative Decree No. 93 of 1 June 2011and Directives 2009/72/CE and 2009/73/CE. The new TIUF[7], foresees some important new features, including:

- amendment of the definition of a vertically integrated business operating in the electricity and gas sector, in light of the contents of the EC directives and their implementing Italian Legislative Decree, as well as the need to improve definition of the scope of the vertically integrated business, referring to a broad interpretation based on the notion of a corporate group that also covers the case of control exercised both by individuals and by economic and non-economic public bodies;
- the reconciliation of the provisions adopted by the Regulatory Authority, with regard to certification of the electricity transmission system operators and natural gas transport system operators, with the regulations on functional unbundling envisaged for the other companies operating in infrastructure services, establishing that, for the abovementioned operators, the obligations imposed by the certification decisions adopted by the Regulatory Authority must permanently replace the other functional unbundling obligations;
- the provision, for regional gas transport companies exempt from the certification procedures by Italian Legislative Decree No. 93/11, of maintaining specific unbundling obligations, at least for functional unbundling, in consideration of the nature of the operations carried out by these companies, similar to those envisaged for natural gas distribution operators with more than 100,000 connected customers;
- functional unbundling for distribution system operators with more than 100,000 customers. The Regulatory Authority establishes the reinforcement of the functional unbundling obligations for companies with more than 100,000 customers, envisaging the obligation to appoint a Compliance Officer, as well as the obligation to appoint the independent operator, and the preparation and submission of the compliance programme and relative annual review to the Regulatory Authority The reinforcement of functional unbundling requirements is also envisaged for all electricity distribution companies, regardless of their size;

[6] Resolution of 22 June 2015, 296/2015/R/com.
[7] Which replaces the previous legislation contained in the Resolution of 18 January 2007, No. 11.

- the introduction of new unbundling requirements, according to the regulations outlined by Italian Legislative Decree No. 93/11, in relation to communication and brand policies for the majority of electricity and natural gas distributors, regardless of their size or corporate form, imposing complete separation, with no risk of confusion, between the sale and distribution of electricity and natural gas and between electricity sales on the free market and the standard offer regime;
- the provision that all distributors, regardless of their size, use the tools made available by the Authority regulation, where possible, to fulfil the obligation of confidential processing of commercially sensitive information, including first and foremost the Integrated Information System (SII). The scope of commercially sensitive information is also established and the obligations of physical unbundling of databases are abolished, replaced by the appointment of the Guarantor of commercially sensitive information and the holding of a relative access log, with a view to simplifying corporate compliance obligations.

The functional unbundling obligations apply as of 1 January 2016, while those relating to the separation of brand and communications policies shall apply from 30 June 2016. Longer time frames are provided for smaller companies only.

3.1.2 Technical functioning

Dispatching services

Amendments and additions to the regulation of transport capacity fees

In October 2015, the Regulatory Authority approved[8] the proposal for regulation of the selection procedures for allocation of the instruments for hedging against the volatility risk of the transport capacity fee (TCFH and CCP), referring to 2016, submitted by Terna, who organises these procedures annually.

The TCFH is a hedging instrument against the volatility risk of the allocation fee of the capacity of transport between a zone and the national hub, or the national single price. 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 2016, compared to those in place for 2015, present the following innovations:

- Amendment of the mechanism for calculating the production capacity of the solar, wind and hydroelectric production units, in order to take into consideration the typical seasonal nature of these units;
- The increase in the transit limit between the Central-Southern and Central-Northern zones, to take into account the results of the new algorithm used to resolve the Day-Ahead Market (MGP) (the so-called “Euphemia algorithm”) in the calculation of the optimal solution for allocating TCFHs and CCPs. In fact, this algorithm enables greater movement between the

[8] Resolution of 29 October 2015, 510/2015/R/eel.

Central-Southern and Central-Northern zones compared to the past, through the management of a network model with a closed-mesh configuration, consisting of the connection between the Central-Southern and Central-Northern zones to Sardinia.

Instant electricity withdrawal reduction service (so-called "super-interruptibility" in the major islands)

Interruptibility services are an integral part of the national network's defence system and are one of the tools used by Terna for the secure management of the electricity system and to mitigate, in particular, the risk of widespread load shedding. The category of interruptibility services includes the instant electricity withdrawal reduction service (so-called "super-interruptibility), dedicated to the macro-zones of Sicily and Sardinia.

Art. 3, Par. 2, Part a), of Italian Decree Law, No. 210 of 2015, converted with amendments by Italian Law No. 21 of 25 February 2016, envisaged, among other things, that:

- Due to security requirements on the major islands, the super-interruptibility service shall been extended until the 31 December 2017;
- The Regulatory Authority shall update the service conditions for the new two-year period for maximum quantities of 400 MW in Sardinia and 200 MW in Sicily, with the allocation of an annual service valuation of 170,000€/MW/year.

The Regulatory Authority has therefore updated[9] the regulations for forward supply of the super-interruptibility service, for the period February 2016 – December 2017. The main innovations introduced regard:

- The provision of a pro rate allocation system in the case of tenders totalling more than the maximum quantities;
- The reduction of the maximum quantities that can be supplied from 500MW to 200MW for Sicily and from 500MW to 400MW for Sardinia;
- The establishment of an annual service valuation of 170,000€/MW/year, in lieu of the premium defined as a result of selection procedures, the maximum value of which amounted to 300,000€/MW/year.

Furthermore, for the supply of the super-interruptibility service in the month of January 2016, contracts for the provision of this service in force as of 31 December 2015 were amended, subject to approval by the operator concerned, providing for the extension of the deadline to 31 January 2016 and the service valuation at a premium of one twelfth of the annual premium indicated by Italian Decree Law No. 210/15.

[9] Resolution of 4 January 2016, 1/2016/R/eel.

Revision of the rules for effective imbalances

Pending the comprehensive reform of imbalance regulations, stipulated[10] in 2013, the Authority has formulated certain proposals[11] to correct the distortions that characterize the current mechanism for calculating imbalance prices. The measures proposed concern:

- The exclusion of offers accepted in the market of balancing for the secondary reserve from the calculation of imbalance prices;
- The exclusion, from the calculation of sign and price, of all movements for services other than secondary reserve that do not depend on hourly aggregate imbalance of the macro-zone.

During 2015, the detailed aspects of the comprehensive reform of balancing regulations outlined in the 2013 consultation process were postponed until the full definition of the provisions of the future European Balancing Network Code. This code, which is expected to enter into force by the end of 2016, will in fact introduce binding provisions intended to ensure the integration of balancing markets of individual Member States, which will require a total review of the current dispatching regulations.

Regulation of network security and reliability

Plants essential to the security of the electricity system – Ordinary regime and cost reintegration regime

The plants essential to the security of the electricity system are the plants that are technically and structurally essential to solving network congestion or to the maintenance of adequate levels of security for the national electricity system for long periods of time. These plants are mostly paid for via the ordinary regime (i.e. through the tariff system), or through the reintegration of variable costs (in this case, the company that owns the plant can also request an advance).

In October of 2015, the Authority outlined the regulatory framework[12] for 2016 on the determination of costs for essential plants subject to the ordinary regime (as per Art. 64 of Resolution No. 111/06) and to the cost reintegration regime (as per Art. 65 of the same resolution). For dispatching users who own an essential facility under the ordinary regime, Terna pays, for each hour, a sum equal to the difference, if positive, between the variable cost permitted by the Regulatory Authority and the zonal price expressed by the Day-Ahead Market. The fee for an essential facility under the reintegration regime is determined by the Regulatory Authority and is equal to the difference between the production costs permitted for the plant in question and the revenue obtained from the moment of its entry into the list of essential facilities to the validity end date of this list.

As well as extending the validity of certain provisions in place for 2015, the Authority has:

- defined the standard values for the parameters representative of the technology-fuel categories of thermal power production units for 2016;

[10] In the consultation document 7 August 2013, 368/2013/R/eel.
[11] Consultation document 9 April 2015, 163/2015/R/eel.
[12] Resolution of 14 October 2015, 486/2015/R/eel.

- provided for, for 2016, a reduction in the rate of return on capital compared to that of 2015, with reference to the cost reintegration regime, in order to consider both the reduction in the rate of return on risk-free assets and the extension of the period between the end of the year to which the reintegration fee refers, and the expected date of payment of the fee to the dispatching user concerned;
- determined that the users concerned can report particular features of their units that make it necessary to make changes to the method of calculating the historical average rate of unavailability and/or the unavailability rate subject to comparison with that historical rate, explaining the reasons for the request and providing sufficient, objective and verifiable elements.

At the end of the year the Authority also determined[13] the standard values for calculating certain components of the recognised variable cost of each essential facility subject to the ordinary or reintegration regime, in light of the proposals put forward by Terna and taking into account the demands made by the dispatching users concerned.

Network connection times

The *Integrated Code on the Output-based Regulation of the Distribution and Metering Services (TIQE)* [14] 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 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

[13] With Resolutions of 26 November 2015, 573/2015/R/eel and 574/2015/R/eel.
[14] Approved with resolution 22 December 2015, 646/2015/R/eel.

exclusively to activities carried out by distribution companies with more than 100,000 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 2015, Terna received 78 connection requests for electricity production plants, corresponding to a total power of around 1.9 GW, for which it provided 48 estimates, corresponding to a total power of around 1.1 GW, with mean estimate provision times, excluding permitted interruptions, of 28 working days. In 2015, 36 estimates were accepted out of the total of those issued, corresponding to a total power of around 0.7 GW.

With reference to the connection of electricity production plants to distribution networks, in 2015, distributors[15] received just over 50,200 requests for connection with low and medium voltage networks for electricity production plants, corresponding to a total power of just under 1.4 GW. In relation to these requests, distributors provided just over 45,400 estimates, corresponding to a total power of around 1.1 GW, with mean estimate provision times, excluding permitted interruptions, of:

- 16 working days, for requested power output up to 100 kW;
- 34 working days, for requested power output greater than 100 kW and up to 1,000 kW;
- 48 working days, for requested power output greater than 1,000 kW.

Around 39,700 estimates of the total issued were accepted in 2015, corresponding to a total power of just over 0.7 GW.

In 2015, in relation to the requests received in the same year, just under 27,400 connections were made, corresponding to around 235 MW, with average implementation times, excluding permitted interruptions, of:

- 8 working days for simple works[16];
- 45 working days for complex works[17].

In 2015, the only distributor who received requests for connection with the high voltage network for electricity production plants was Enel Distribuzione, with 16 connection requests, corresponding to a total power of just under 240 MW, with average estimate provision times, excluding permitted interruptions, of 35 working days.

Over the course of the year, 6 estimates were accepted out of the total of those issued, corresponding to a total power of just over 170 MW; just one of these estimates included the request for provision of the Detailed Minimum Technical Solution (STMD) for 47 MW of power, which, however, was not accepted. Therefore, in 2015, no connections were made between high

[15] As mentioned at the start of the paragraph, we are referring to distributors with more than 100,000 customers.
[16] 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.
[17] 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.

voltage networks and electricity production plants who submitted a connection request in that year.

As regards passive user connections, in 2015, the data collected shows that around 306,000 connections were made with the distribution networks, which were nearly all low voltage. The average customer connection time was 9.9 working days. In particular, the average time for making low voltage connections was 7.7 working days. The average time for making medium voltage connections was a little longer: 18.5 working days. Compared to 2014, the data shows a smaller number of requests (there were 322,630 the previous year), but a reduction in connection time. With an average of 11.4 working days required for passive connection to the low or medium voltage network, this year there was a decrease of 1.6 working days, the equivalent of 14% less time. It should be noted that the days indicated do not include the time spent obtaining necessary authorisations and the time spent by the end customer if fulfilling any obligations.

In 2015 Terna only carried out just one high and very high voltage connection for one passive customer; the average connection time (still excluding the time spent obtaining any authorisations and the time spent by the end customer in fulfilling any obligations) was 132 working days.

Table 3.1 Number of connections of passive users with distribution networks and average connection time in 2014(A)

VOLTAGE LEVEL	NUMBER OF CONNECTIONS	MEAN TIME (WORKING DAYS)(A)
Low voltage	304,435	7.7
Medium voltage	1,469	18.5
TOTAL	305,904	9.9

(A) Value calculated without taking into account customers without connections, excluding the time spent obtaining any authorisations and/or for the fulfilment of any end customer obligations.

Source: Annual Survey on Regulated Sectors.

Regulation of the technical quality of the services

With a series of consultation documents (15 January 2015[18], 12 February 2015[19], 29 May 2015[20], 6 August 2015[21] and 1 October 2015[22]) the Regulatory Authority presented its guidelines on the regulation of the quality of electricity transmission, distribution and metering services, on the selective promotion of investments in innovative electricity distribution systems and on the selectivity of investments for the development of the electricity transmission network for the regulatory period 2016-2023. As a result of the consultations, the following final measures were adopted:

[18] Document 5/2015/R/eel,
[19] Document 48/2015/R/eel.
[20] Document 255/2015/R/eel.
[21] Document 415/2015/R/eel.
[22] Document 464/2015/R/eel.

- *Integrated Code for the Output-based Regulation of Electricity Distribution and Metering Services for the regulatory period 2016-2023 (TIQE)*[23];
- *Integrated Code for the Output-based Regulation of Electricity Transmission Services for the regulatory period 2016-2023*[24].

These provisions are coordinated with the tariff regulation of the abovementioned services for the same period[25].

In relation to the quality of the electricity transmission service, the main new features of the 2016-2023 regulation include:

- abolishing the distinction between historical NTN (National Transmission Network and former Telat NTN, as part of the regulation incentivising the reduction of unneeded energy;
- the introduction of obligations by Terna regarding the publication of the minimum and maximum values of effective, expected and actual voltage for each user connected to the high voltage network (primary stations, end customers, producers) connected to the NTN;
- the introduction of standards and automatic compensation related to the maximum annual number of long and short interruptions and the maximum duration of interruptions, for NTN end customers;
- the implementation of monitoring of transient interruptions and voltage dips experienced by NTN end customers, with a view to introducing standards and automatic compensation for such eventualities as well.

In relation to the distribution service, the new provisions shall include:

- the application of the rewards/penalties incentive mechanism to the duration of interruptions in reference to long-term target levels, set in 2003, to be reached by 2015;
- the confirmation of the current rewards/penalties mechanism linked to the number of interruptions and the related special incentives for zones with a greater number of interruptions;
- an innovative experimental regulation, aimed at reducing the length of planned interruptions , to be adopted with a specific measure by 30 June 2016;
- the gradual alignment of standards relating to the maximum electricity supply recovery time: to eight hours for low voltage users and four hours for medium voltage users, thereby abolishing, for the protection of the consumer, the previous difference between rural and urban areas;
- the introduction of new elements in the regulation of voltage dips and transient interruptions for medium voltage networks. This paves the way for the future introduction of standards and

[23] Resolution of 22 December 2015, 646/2015/R/eel.
[24] Resolution of 23 December 2015, 653/2015/R/eel.
[25] Approved with Resolution of 23 December 2015, 654/2015/R/eel

automatic compensation for the maximum annual number of transient interruptions and voltage dips for users connected to the medium voltage network;

- the introduction of elements in the regulation of slow variations of supply voltage for low voltage networks. In particular, distributors must prepare a multi-year plan for monitoring these variations, using electronic meters, and rules for recovering the correct supply voltage value in the event of non-compliance;
- the updating of certain aspects of commercial quality regulation, with particular reference to both the reduction of certain maximum times for services with regard to issuing estimates and completing works on the network and at delivery points, and the introduction of separate registrations for network connections and the facilitation of the implementation of mass connection and activation programmes;
- the introduction of basic elements for the regulation of innovative features of distribution networks in zones with high penetration of distributed generation from renewable sources (observation of power flows and the state of resources transmitted on medium voltage networks and regulation of the voltage of medium voltage distribution networks);
- the introduction of primary elements of regulation in relation to the evolution of distribution networks in urban areas (risers and smart city).

Finally, specific focus was placed on the resilience of the electric system, as a result of severe and widespread meteorological events that caused interruptions attributable in large part to force majeure. In this sense, the Regulatory Authority ended[26] its Fact-finding Survey[27] in relation to the electricity service interruptions that occurred from 6 February 2015 onwards in vast areas of the regions Emilia Romagna and Lombardy.

Therefore, the Regulatory Authority laid the foundations for assessing the regulatory sustainability of mechanisms aimed at reducing the impact of the so-called “out of service” of large portions of the high and medium voltage networks, including the preparation of a Work Plan for the adoption of regulatory measures that increase the resilience of the electricity system for Terna and distribution companies with more than 50,000 users. This plan must include, in addition to a technical analysis, the costs and benefits in light of the effects of the severe and persistent meteorological events that have occurred over the last 15 years.

Finally, in the implementation of the new measures, a working group on service quality was established, intended to perform in-depth analysis of the following topics:

- resilience of the electricity system;
- the introduction of the rewards/penalties regulatory mechanism for long, unplanned interruptions, including those caused by force majeure;
- traceability of individual standards for users connected to the medium voltage network in industrialised areas;
- special form of contract for users connected to the aforementioned medium voltage networks.

[26] Resolution of 22 December 2015, 644/2015/E/eel.
[27] Implemented with Resolution of 10 March 2015, 96/2015/E/eel.

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 provisions envisage general and specific quality standards, with automatic compensation, mandatory for distribution companies, 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.

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[28] by the *Integrated Texts on Simple Production and Consumption Systems* (TISSPC).

In 2015, the technical rules required for the application of the TISSPC[29] were verified and approved. At the start of 2016, the TISSPC was amended, for the purposes of both the transposition of the provisions of Italian Decree Law No. 154 of 1 October 2015, converted with amendments by Italian Law No. 189 of 29 November 2015, and of Italian Law of 28 December 2015, and the introduction of certain further simplifications in the field.

Specifically, among other things, the Regulatory Authority[30]:

[28] Resolution of 12 December 2013, 578/2013/R/eel,
[29] Resolution of 21 May 2015, 242/2015/R/eel.
[30] With Resolution of 25 February 2016, 72/2016/R/eel.

- removed from the TISSPC the condition of a maximum power of 20 MW for the creation of an SEU;
- established that, by the 31 October 2016, even in absence of an explicit request, the ESO 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[31] - based on data already available, requesting any additional data as necessary, and must issue, if warranted, the aforementioned qualifications to take effect from the 1 January 2014;
- finally, established that the ESO 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.

Simplification of electricity production plant connections

In 2015, in order to simplify the process of small-scale electricity production plant connections, the Authority added two distinct provisions to the *Integrated Text on Active Connections* (TICA) [32].

Resolution of 30 July 2015, 400/2015/R/eel, amended the TICA in order to implement the provisions of the Italian Decree of the Ministry of Economic Development of 19 May 2015, with which the *Single Model* was approved for the creation, connection and operation of photovoltaic plants with a nominal power of up to 20 kW, installed on the roofs of buildings for end users connected to the low voltage network who have also requested access to the on-the spot exchange regime. This *Single Model*, divided into two parts (one relating to the initial request and the other relating to the end of creation of the photovoltaic plant), replaces all other producer obligations in relation to both the authorisation procedure and the connection, ensuring that customers are able to refer to a single interface (the network operator) and allowing significant procedure simplification.

Specifically, with regard to photovoltaic systems with characteristics identified by the Decree and whose connection only requires simple works limited to the installation of the metering unit, it is established that:

- the connection procedure can be implemented automatically, without a connection estimate from the distributor;
- the customer shall only pay the company the fixed share of 100 € of the connection costs, thus avoiding the costs of receiving an estimate;
- the distributor shall activate the connection within ten working days from the date of receiving Part II of the Single Model.

[31] Established by Inter-ministerial Decrees of 5 May 2011 (so-called "IV Energy Account") and 5 July 2012 (so-called "V Energy Account").
[32] Annex A to Resolution of 23 July 2008, ARG/elt 99/08.

The measure also establishes that the distributors, in their "Terms and conditions (MCC)", must define a section dedicated to photovoltaic plants with all of the characteristics envisaged by the Italian Ministerial Decree of 19 May 2015 and that, in particular, the aforementioned section must be separate from the other parts of the MCC, so that it can be read simply and quickly by applicants, describes all the necessary procedures, clearly states the various different fees to be paid and clearly identifies the bodies that the applicant should consult for any eventualities that may occur during the life of the photovoltaic plant, including a contact telephone number and email address.

The TICA was then further amended[33] in order to:

- include further provisions of the Italian Inter-ministerial Decree of 6 July 2012, on the methods and conditions on works for connecting offshore wind plants located in national waters to the network;
- resolve certain issues reported by network operators, as well as taking into account the issues raised as part of the procedure for resolving disputes that have occurred in the meantime[34], or rather those identified as part of investigations launched by the Authority. In particular, the most important amendments relate to the inclusion of user plants for connection between network plants, the acquisition by network operators of network plants built by producers, the clarification of the conditions for the amendment of accepted estimates (including for the purpose of minimising any speculative phenomena intended to maintain the technical connection solution valid indefinitely), the definition of a new connection activation procedure and a new standard for the relative report;
- regulate the transfer of connection practices (for the moment limited to the connection procedure up to activation of the connection), to avoid unfair treatment and to coordinate all individuals involved via the GAUDÌ system[35];
- ensure greater transparency, establishing that network operators must outline in their terms and conditions of contract the method for determining the charges for testing in cases in which the network plant for the connection has been built by the customer and sold to the network operator.

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

In June 2015, the Authority published the report[36], referring to 2013, on the new mix of electricity production, analysing the use and integration of production plants powered by renewable sources and high efficiency cogeneration plants, then concentrating on distributed generation.

The report describes the development of the production mix for electricity in Italy, which in 2013 was characterised by:

[33] From the Resolution of 20 November 2015, 558/2015/R/eel, as a result of the consultation document of 30 July 2015, 401/2015/R/eel.
[34] In accordance with the Resolution of 18 May 2012, 188/2012/E/com.
[35] GAUDÌ is the system for Management of Single Registries of Production Plants and their Production Units, developed by Terna in order to bring together into a single system the management of the pre-existing: Single Registry of Production Plants (CENSIMP), Registry of Major Production Units (RUP) and Registry of Lesser Production Units (UPN6).
[36] Report 25 June 2015, 308/2015/I/efr.

- a high diffusion of renewable electricity production sources, in terms of both installed power (39% of total power installed) and production (38.6% of total production), and a consequent reduction in the incidence of fossil fuels, especially fuel oil, which is now almost completely unused (1.9% of total production);
- the correlated increase in weight of uncertain sources (more than 21% of the total power installed and more than 12.6% of the total production), in particular solar energy and wind power;
- the increased weight of small sized generation plants, mainly connected to distribution networks (plants with power lower than 10MVA represented 19% of total power installed and 16.3% of total production).

In 2013, electricity consumption decreased (290 TWh) and withdrawal of electricity from the networks decreased even more, since a large part of distributed generation is carried out at consumption centres.

The report also:

- describes the effects that the new production mix has had on the whole system, in particular on the electricity networks, markets and dispatching service, focusing on the activities already undertaken by the Authority, and those still underway, aimed at enabling a greater diffusion of new plant types and thus ensuring the security of the operation of the electricity system. It is highlighted how the entire electricity system is moving towards a new smart system characterised by greater flexibility and interoperability compared to the past;
- analyses the economic impact of the support instruments for renewable sources, with some brief considerations on the evolution of the costs of incentive instruments. In particular, it focuses on the peak impact on the A_3 component expected for 2016 and deriving from termination of the current green certificate mechanism. In fact, as well as the costs deriving from the incentive tariffs that will fall into place, costs associated with recall of the last un-sold green certificates will be supported by the ESO (around half of those issued in the previous year and unsold, as well as other green certificates that have remained in producer ownership accounts);
- examines the main aspects relevant to the growing on-site consumption of electricity. This creates the urgent need to reconsider and revise the structure of electricity bills, with particular reference to the part on general system charges, which are now significant and not related to the use of electricity networks;
- analyses the development of high efficiency cogeneration, which plays a very significant role both in the electricity sector and, more generally, within the context of energy efficiency.

Consolidated Law on Production

During the course of 2015, the Authority once more updated the *Consolidated Law (Act?) on Production*, gathering the reference regulations for electricity production into a single document, with particular focus on renewable energy sources and high efficiency cogeneration, also including the main provisions adopted by the Regulatory Authority on these topics. In particular, the main provisions relating to the connection of production plants, metering of the electricity produced, stockpiling systems, on-the-spot trading, the dispatching service for non-programmable renewable

sources and simple production and consumption systems. With the preparation of this document, the Authority intended to provide a complete instrument for those operating in the sector, providing an up-to-date guide on the current regulatory framework.

3.1.3 Network tariffs for connection and access

Renewable and assimilated source incentives

During the course of 2015, despite a reduction in charges for the financing of CIP6 plants and renewable sources compared to the previous year, progressive increases of the tariff component A_3 were necessary (to cover incentives for renewable and assimilated sources), in order to reduce the economic need of the Account powered by this component, as well as to cope with the significant financial needs of the ESO, above all in relation to green certificate recall methods.

Furthermore, for 2016, an anomalous and significant increase in the costs of incentivising energy production from renewable sources is expected because green certificates must be replaced by administered incentive instruments as of this year. In fact it is expected that, in 2016, the total cost of terminating the green certificate mechanism, as currently in force, and the new replacement incentive tariffs, will be around 5 billion euros. This cost should then drop to around 3 billion euros in 2017 and then gradually reduce over the following years. This anomaly has been repeatedly reported by the Authority (see the reports for 2014 and 2015 on the *Use and integration of electricity production plants powered by renewable sources*[37]).

The adjustments made during 2015 should be adequate to meet the abovementioned extraordinary financial requirements in 2016, above all if the positive trend in electricity consumption recorded in the final months of 2015 is maintained.

The Authority has therefore confirmed[38] the value of the tariff component A_3 after a year of upward adjustments. Table 3.2 summarises the charges put in place for the A_3 account in 2015 (preliminary figures) compared with those in 2014.

[37] Report of 12 June 2014, 277/2014/I/efr and Report of 25 June 2015, 308/2015/I/efr
[38] With Resolution of 28 December 2015, 657/2015/R/com.

Table 3.2 Evolution of charges for new plants from renewable and assimilated sources

CHARGE	2014		2015(A)	
	VALUE	SHARE%	VALUE	SHARE%
Trade in CIP6 renewable electricity	349	2.6	289	2.2
Purchase of green certificate	3,218	23.9	3,851	29.6
Photovoltaics	6,513	48.4	6,233	47.9
All-inclusive tariff	1,918	14.3	1,859	14.3
RE administered Incentives	74	0.6	159	1.2
Dedicated withdrawal	63	0.5	36	0.3
On-the-spot trading	134	1.0	170	1.3
ESO operation and other	6	0.04	1	0.01
TOTAL RENEWABLE	12,276	91.3	12,599	96.9
Trade in assimilated CIP6 electricity	432	3.2	312	2.4
Assimilated CO_2 charges	38	0.3	37	0.3
Cover of assimilated green certificates	57	0.4	38	0.3
Charges from CIP6 resolution	648	4.8	18	0.1
TOTAL ASSIMILATED	1,174	8.7	405	3.1
TOTAL CHARGES A_3	13,450	100,0	13,004	100,0

(A) Preliminary data.

Source: AEEGSI elaboration of ESO data.

Methods and criteria for the determination and updating of the rate of return on invested capital in the electricity and gas sectors

In December 2014, the Authority launched[39] a comprehensive review of the methods for the determination and updating of the Weighted Average Cost of Capital (WACC) for regulated services in the electricity and gas sectors, aimed at ensuring homogeneity in the criteria for determining the rate of return on invested capital and preventing differences in rates of return on the individual regulated services from depending on the specific conditions of the financial market, in the period used as a reference for determining the rate of return on risk-free assets. A year later, as a result of a structured consultation process[40] criteria for the determination and updating of the rate of return on invested capital for infrastructural services in the electricity and gas sectors were thus approved (TIWACC 2016-2021), which are to be applied in the period 1 January 2016 – 31 December 2021.

The Authority considered it appropriate to undertake a review of the methods for the determination of the WACC, due to the fact that changes in the financial markets – that, since 2008, have displayed strong variability and trends often difficult to predict – have made evident the limits of the previously adopted methods, which were developed within a context of greater

[39] By Resolution of 4 December 2014, 597/2014/R/com.
[40] Consultation documents of 9 June 2015, 275/2015/R/com, and 29 October 2015, 509/2015/R/com.

financial stability and consistent with a market structure characterised by a weak or poor correlation between the Equity Risk Premium (ERP) and the interest rate level of risk-free assets.

The measure under analysis, which set the duration of the regulatory period for the rate of return on invested capital for infrastructural regulations of the electricity and gas sectors (PWACC) at six years (2016-2021), has defined the levels of the basic parameters of the WACC, which are valid for all infrastructural services of the two sectors, unlike the specific parameters relating to the single service, identified as parameter β (relative to sector risk) and the ratio between debt capital and equity (D/E ratio). Finally, the Authority has provided an update mechanism at mid-term to allow rate adjustments according to economic trends.

In real and pre-tax terms, the WACC level is expressed as the weighted average of a real rate of return on equity and the cost of debt in real terms, an average to which an adjustment factor is added which allows the coverage of taxes on nominal profits. The determination of the rate of return on equity continues to be based on the Capital Asset Pricing Model.

The rate of return on risk-free assets (RF) was defined in real terms, by estimating the parameter in nominal terms and deducting the inflation rate incorporated therein. The RF parameter was estimated in nominal terms according to a generally forward-looking approach, based on spot returns; in particular, the parameter was defined based on the average rate of return on Government Securities in the Eurozone with ten-year maturity and with at least an AA rating (France, Belgium, Netherlands and Germany), recognised in the period 1 October 2014 – 30 September 2015, as well as by applying an adjustment that enables the determination of a minimum rate above zero. On this basis, the actual RF rate for the years 2016-2018 was set at 0.5%.

The value of the Equity Risk Premium (ERP) for the first three years of the PWACC was calculated as the difference between a rate that expresses the actual Total Market Return (TMR), defined based on long-term historical data, and the actual RF rate, assumed for regulatory purposes. When updating the parameter, halfway through the WACC regulatory period, it is envisaged that this should be recalculated as the difference between the TMR (which remains constant for the entirety of the PWACC) and the RF parameter updated for the second three-year period of the PWACC, so as to maintain a fixed actual total rate of market return within the regulatory period. This forecast was adopted in discontinuity with the methods followed in previous regulatory periods, which envisaged the definition of an ERP value at the start of the period, which was then kept constant during the regulatory period, only updating the RF rate every two years.

The actual TMR was calculated based on a weighted geometric average and the arithmetic average of the rates of return in countries with high ratings, in the period 1900-2014, with a weight of 20% to the geometric average and 80% to the arithmetic average. On this basis, the ERP for the years 2016-2018 was set at 5.5%, as the difference between the actual TMR, of 6.0%, and the RF rate assumed for regulatory purposes for the first three years of the PWACC.

The Authority established that the β coefficient should be estimated separately for each infrastructural service, for the individual tariff adjustments for the period, based on the analysis of data on companies in the Eurozone operating in countries with high ratings – including companies that do not undertake exclusively the regulated activities subject to analysis – over a reference period of at least two years, in order to have a statistically significant number of observations.

Consistent with the proposal described in the consultation phase, an addendum was introduced to the formula for calculating the rate of return on equity – which reflects the premium that investors require for investments in countries with medium-low ratings – which can be identified

as CRP, simultaneously deducting this element from the RF component, which is redirected to references more suitable to the definition of the rate of return on risk-free assets. For the definition of the rate of return on equity, CRP was set at 1.0% for the three-year period 2016-2018, based on estimations deriving from two approaches: the first involves the assessment of the parameter as the difference between the returns on bonds issued by Italian utilities and returns on bonds issued by utilities operating in countries with high ratings, while the second assumes that the additional premium is linked to the differences in the degree of volatility of domestic stock markets.

In relation to the cost of debt, the Authority has planned to determine the level of this cost in real terms, as the sum of the RF rate of a CRP and a Debt Risk Premium (DRP).

The CRP for defining the cost of debt was set as the same value assumed for determining the rate of return on equity, while the DRP was set at 0.5% for all of the PWACC, so as to align recognition of the cost of debt to the average levels revealed by analysis of actual data, based on specific data collection carried out in the month August-September 2015 at a representative sample of companies operating in the various infrastructural services.

The Authority has planned to maintain the current gearing levels (the ratio between the debt capital and the sum of equity and debt capital) in the first three years of the first PWACC, and to proceed with an initial, gradual adjust (taking into account the impact of this change on the levered β) towards levels that are closer to those adopted by other European regulators – in any case no higher than 0.5% - on the occasion of infra period updating for all infrastructural services of the electricity and gas sector. This is due to the additional need to consider the inter-sectoral impacts and, in particular, to prevent distortions in the allocation of capital among the different sectors.

In relation to fiscal issues and parameters, the Authority has envisaged the addition of an adjustment factor to the WACC, based on actual values, that captures the effects of taxation on nominal profits, determined according to the expected inflation rate for the first three years of the first PWACC (2016-2018). The expected inflation value for the three year period 2016-2018 was set at 1.5%, referring to the latest ECB estimates at the time of tariff determination.

The parameter T, which is the theoretical tax rate for the fiscal year result, was set at 34.4% for the years 2016-2018, based on the evaluation of the weight of the applicable nominal IRES and IRAP rates, in relation to the same tax base, due to the fiscal changes that occurred following 2011. The parameter tc, for calculating the tax shield of interest expenses, was confirmed at 27.5%, there being no changes to the nominal IRES rate in the period between 2011 and 2015.

As anticipated, the Authority planned an infra-period update of the rate of return on equity, after the first three years of the PWACC, which includes reviews of the following:

- The level of the RF rate and, consequently, of the ERP, given that it is the approach that maintains the total market return at a fixed level;
- The CRP level;
- The inflation rate used for determining the nominal levels of return for calculating taxes on nominal profits;
- The level of taxation, also in relation to future reductions that may be defined within the context of annually approved stability laws.

In order to update the RF rate, a method similar to that envisaged for setting the initial levels of the same parameter was adopted, with application of the same adjustment value in case of negative actual rates; whilst for CRP updating, a trigger mechanism was defined that involves a parameter change on a three-yearly basis based on the trend of the spread between the ten-year Italian BTP benchmark and the ten-year German Bund.

For the purposes of updating the cost of debt, the Authority has planned to apply the same methods adopted for updating the rate of return on equity.

Table 3.3 summarises the WACC values for the infrastructural services of the electricity sector.

Table 3.3 WACC values for electrical infrastructural services for the years shown

SERVICE	2016	2017	2018
Transmission	5.3%	5.3%	5.3%
Distribution and metering	5.6%	5.6%	5.6%

The fifth tariff regulation period for transmission, distribution and metering services

As a result of a structured consultation process[41], the Authority approved[42] both the provisions pertinent to tariff regulation for electricity transmission, distribution and metering services for the regulatory period 2016-2023, and the provisions on the economic conditions for the provision of the connection service, which came into effect on 1 January 2016.

The most significant innovations introduced by the abovementioned resolution include:

- The extension of the regulatory period to eight years, structured into two sub-periods of four years (NPR1: 2016-2019 and NPR2: 2020-2023);
- With reference to the regulatory period 2016-2019, so-called NPR1, the definition of incentive regulation schemes for recognising operating costs and rate-of-return regulation schemes for capital costs, essentially in methodological continuity with the criteria adopted in the previous regulatory period;
- With reference to the second regulatory sub-period 2020-2023, so-called NPR2, the evolutionary adoption of an approach to overall expenditure control (the so-called *totex* approach), as defined below.

With reference to NPR1, for the purpose of determining the recognised costs to cover operating costs, the Authority has excluded the cost entries for which coverage is already implicitly guaranteed by the regulation mechanisms (for example, through risk reward) or in relation to which recognition is incompatible with an activity carried out under a monopoly (for example, advertising and marketing costs that do not reflect specific regulatory requirements). For the purpose of establishing initial levels (for 2016) for transmission, distribution and metering services,

[41] Consultation documents of 15 January 2015, 5/2015/R/eel, 9 July 2015, 335/2015/R/eel, 24 September 2015, 446/2015/R/eel, 17 November2015, 544/2015/R/eel and themed meetings.
[42] By Resolution 654/2015/R/eel-

the operating cost recognised for 2016 was determined based on the actual cost incurred in 2014, taking into account the residual value, not yet reabsorbed via the productivity gain factor (so-called X-factor), of the greatest efficiencies achieved in the regulatory period 2008-2011, as well as of the greatest efficiencies achieved in the regulatory period 2012-2015, split equally between the operators and network users.

As regards the annual update of costs recognised to cover the operating costs of NPR1, the Authority has confirmed the possibility of determining the X-factor, with the objective of gradually reabsorbing the part of the productivity gains achieved in the third and fourth regulatory periods, by the end of NPR1 (i.e. end of 2019), also confirming the terms of repayment of the productivity gains achieved in the third regulatory period, in the interests of the certainty and stability of the regulatory framework.

For the NPR1 the rate of annual reduction of the recognised unit costs has been set at:

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

With reference to the general criteria for determining the cost of capital recognised for the transmission, distribution and metering services, for NPR1 the Resolution 654/2015/R/eel established overall methodological continuity with the criteria adopted in the previous regulatory period, based on rate-of-return recognition formulae, so as to ensure a certain and predetermined rate of return on capital, limiting amendments:

- to the measures aimed at offsetting the financial effects of the regulatory lag in recognising new investments, eliminating the previous mechanism (based on the increase of the rate of return on net capital invested) and including in the tariff recognition the value of investments of the year prior to that of application of the tariff;
- to the revision of the regulatory useful life of the income categories related to electricity lines (very high and high voltage, medium voltage and low voltage), as well as user outlets;
- to the aggregation of costs relating to activities connected with the management of network infrastructures and marketing of the service, which were previous valued separately;
- To the definition of the parametric methods for recognition of the costs incurred for provision of electricity distribution and metering services, reserved for companies with fewer than 100,000 end users connected to their networks.

As concerns the determination of net working capital, the conventional determination criterion for this value according to net assets has been confirmed, envisaging the application of a percentage of 0.1% less than the value applied in previous regulatory periods.

With reference to the distribution service, for the purpose of determining adjustments to capital, the parametric determination criterion for this value was also confirmed, according to the national aggregate value related to the adjustments (as reported in the mandatory accounting sources of distributors) applied to the overall value, on 31 December, of net tangible and intangible assets (excluding land) and existing assets under construction on the same date.

With regard to the electricity transmission service, the new regulatory period also included the exclusion of assets under construction (LIC) from the value of the recognised invested capital, introducing, at the same time, a safeguard clause for the recognition, in NPR1, of remuneration exclusively with reference to the LICs recorded in the balance sheet as of 31 December 2015, until the relative income comes into operation.

Furthermore, again with reference to the transmission service, provisions were made for the final abolishment of input-based incentives for transmission investments from the start of NPR2 (from 2020), establishing, at the same time, during NPR1, the progressive introduction of a transitory residual incentive mechanism for investments of type I=3 (i.e. strategic investments for the development of the NTN[43]), relating to NPR1, and for investments of type I=2[44], related to NPR1, for which an increase on the rate of return on invested capital is recognised, within the limits of the estimated costs for the work, of 1% for 12 years, and therefore lower than that recognised for the regulatory period 2012-2015.

The Authority has also paired this incentive mechanism with a corrective mechanism for the promotion of the efficiency of these investments.

With regard to the connection service, the resolution under consideration established that:

- the overall streamlining of the regulations on connection for active and passive points is to be undertaken;
- there must be adequate regulations on the localisation of metering points, particularly in relation to centralised installation, in the case of buildings with several housing units, to take into account the evolution related to developments in remote management and remote metering;
- with effect from 1 January 2017, the Integrated Text on Connections must amended in order to promote the optimal level of available power;
- additions must be made to the regulations on connections, in order to facilitate the modernisation of obsolete upright column plants owned by the distributor, the distributor's capacity to adjust these plants to be in line with regulations or technological progress, without prejudice to the prior warning that must be sent to the end customer and the vendor.

Incentives for investment in the transmission and distribution networks

Faced with the recent developments of the national electricity system, the Authority established that the tariff regulations should be developed according to criteria of selectivity and an output-based logic, focusing increasing attention on the systemic benefits related to the development of infrastructure projects (e.g. advantages in terms of socio-economic well-being, service quality and security and the integration of renewable sources).

[43] As defined in the table attached to the Resolution of 31 January 2013, 40/2013/R/eel.
[44] As identified by Paragraph 22.5, Part b), of the Integrated Text on the provisions for the supply of electricity transmission and distribution services (TIT).

As part of the procedure for regulating the fifth electricity period, the Authority has developed, over four consultation documents[45], a series of proposals aimed at the implementation of selective regulation of infrastructural investments[46] in the electricity transmission and distribution sectors. To this end, the outcomes of pre-existing regulations promoting investments on transmission networks, the results of experiments on smart grids carried out since 2011, the observations made by operators and the presence of other regulations that affect distribution activities.

On the topic of investments in transmission networks, consistent with the objectives defined in its own *Strategic Framework for the four-year period 2015-2018,* the Regulatory Authority launched a consultation[47] in October 2015 on the possibility of introducing output-based logics for the selective development of investments on transmission networks, in order to maximise the usefulness of these investments.

As well as analysing the effects of the previous regulatory decisions on transmission investments (with inter-zonal transport and interconnection capacities that do not yet fully meet market demands), the Authority identified authorisation issues and, increasingly, post-authorisation issues.

In fact, the Authority pointed out how the input-based incentive mechanisms adopted in 2004, although improved from 2011 onwards, revealed a rather inaccurate proxy of the usefulness for the system and, on the basis of the facts presented, it emphasized the need to innovate and develop the regulations by means of new mechanisms, which will gradually replace the input-based type schemes, presenting specific transitional and gradual incentive solutions.

In proceeding with regulatory changes the Authority has complied with:

- the principle of safeguarding incentive effects, already taken into consideration in previous regulatory periods in which investments were completed;
- the principle of improving regulations in every regulatory period, in order to pursue, in this specific case, the strategic objective outlined by the *Strategic Framework for the four-year period 2015-2018* of ensuring that planned investments are compatible with the system efficiency and that investments are made according to economic criteria.

The Authority also confirmed[48] the definitive elimination of input-based incentives for transmission investments as of the sub-period 2020-2023, at the same time envisaging, and only for the sub-period 2016-2019, the progressive introduction of a residual transitory incentive mechanism for so-called “I-NPR1” investments (relating to I=3 strategic interventions, already implemented by Terna) and so-called “O-NPR1” investments (relating to development operations to be defined in more detail in 2017, downstream of updated cost-benefit analyses). Residual incentive is an extra return on invested capital, of 1% for 12 years.

The transitional incentive mechanism was supported by a corrective mechanism for the promotion of the efficiency of these investments (valid for the same sub-period 2016-2019). In the event that

[45] Documents 5/2015/R/eel, 255/2015/R/eel, 464/2015/R/eel and 544/2015/R/eel.
[46] *The Authority’s Strategic Framework for the four-year period 2015-2018*, objective OS6.
[47] With consultation document 1 October 2015, 464/2015/R/eel.
[48] By resolution 23 December 2015, 654/2015/R/eel.

the total cost recorded after the start of the year is lower than the estimated cost indicated by the Regulatory Authority, pursuant to Art. 20 of the Italian Consolidated Law on Transport, the transmission system operator is entitled to a premium of 20% of the difference between the estimated cost and the actual recorded cost, calculated at the level of each development intervention (I-NPR1) or at the level of each development operation (O-NPR1).

Furthermore, the Authority indicated an advanced cost-benefit analysis methodology (cost-benefit analysis 2.0 or CBA 2.0) as the main instrument for ensuring consistency between the development approaches used in Europe and in Italy. This methodology would enable the definition of selective mechanisms for the promotion of investments, distinguishing investments of superior benefit to the system and identifying the development priorities based on the cost-benefit ratio and the usefulness of the investment choices, given the inevitable uncertainties about the future.

The Authority has also considered the introduction of incentive mechanisms relating to the experimental development of inter-zonal transport capacity, which should be preceded by a phase for defining the target capacities between the zones of the relevant network. These mechanisms would award a premium correlated to the increase in capacity (up to the target capacity) and to the economic impact of the pre-existing congestion.

In the consultation stage, the interested parties expressed a positive evaluation of the evolution of the mechanisms according to an output-based logic, while emphasising, in some cases, the difficulty in identifying simple metrics and the associated valuation parameters, as well as, in the case of authorisation aspects, the need to take into account the relatively limited scope of responsibility of the transmission system operator. For these reasons, the Authority confirmed[49] the proposal, already presented in the consultation of October 2015[50], to carry out further consultations during the course of 2016 and plans to introduce subsequent output-based incentive mechanisms.

With regard to the development of the distribution networks, above all in relation to the diffusion of distributed generation, regulations introduced by the Regulatory Authority until 2015 aimed, on the one hand, to support projects demonstrating innovative management methods for medium voltage networks and, on the other hand, to guarantee security, by regulating certain specific aspects related to the accelerated development of distributed generation.

In particular, results of the smart grids pilot project selected by the Authority[51] were analysed in the consultation document 255/2015/R/eel, in order to identify the innovative features most suited to large-scale diffusion.

As a result of this consultation, the mechanisms for the selective promotion of investments in distribution networks were defined, aimed at developing smart distribution systems in zones of high penetration of distributed generation from renewable sources, for which two innovative features were identified that encourage the development of distribution networks according to the smart distribution systems on a large scale, without precluding future market initiatives and the development of flexibility services:

[49] By Resolution of 23 December 2015, 653/2015/R/eel.
[50] Consultation document of 1 October 2015, 464/2015/R/eel.
[51] Resolutions of 25 March 2010, ARG/elt 39/10, 13 July 2011, ARG/elt 96/11, and finally the resolution 23 April 2015, 183/2015/R/eel, as well as the final reports of the projects, published on the Authority's website.

- The possibility of monitoring power flows and the state of resources diffused in medium voltage networks;
- The regulation of the voltage in medium voltage networks.

The implementation of these features was accompanied by an incentive mechanism in order to accelerate development in the most critical areas, characterised by the reversal of the flow of electricity at the point of interconnection with the transmission network.

The Authority also focused on the specific features of distribution networks in urban areas. In fact, within the scope of the review of domestic tariffs, a possible change in consumption habits and power usage was highlighted (e.g. for the use of heat pumps or induction hobs or for home recharging electric vehicles). In consideration of this, the Authority proposed the introduction of incentive policies (premiums/penalties) to be developed upon proposal from distributors during the course of 2016 and to take effect for the period 2017-2019, as part of the Improvement Plans, in order to encourage the modernisation of obsolete upright columns in apartment blocks.

In addition, the Authority confirmed the usefulness of trialling technological solutions that are commercially available but not adopted on a large scale, stating its intention to identify suitable incentives to this regard.

Tariff regulation to incentivise investments in the NTN

In May 2015 the Authority confirmed[52] the achievement of milestones in strategic investments for the development of the NTN (I=3) for the year 2014, as well as achievement of requirements for access to incentives; furthermore it ordered payment, to the transmission network operator, of incentives for the acceleration of investments in fixed assets in progress as of 31 December 2014, relating to investments included under type I=3, to be enforced on the 2016 transmission tariffs.

Subsequently, the Regulatory Authority updated[53] both the I=3 investments perimeter and the relative milestones, and the target dates approved in 2013 [54], based on the proposal formulated by Terna, among other things, not to accept the proposal to revoke the temporary suspension of the "Italy-Balkans HVDC Interconnection" project from the category of I=3 interventions, in order to consider persisting elements of uncertainty of production and costs.

To this regard, the Authority established that readmission to the incentive scheme would be subject to positive assessment of the project in terms of updated technical, economic and timeline configurations; this, however, would in turn be subject to the concrete definition of the possibility of reducing the project's impact on tariffs, through funding the work inasmuch as an interconnector, according to Law No. 99/09.

[52] Resolution of 29 May 2015, 251/2015/R/eel.
[53] By Resolution of 30 July 2015, 397/2015/R/eel.
[54] By Resolution of 31 January 2013, 40/2013/R/eel.

Transmission service tariffs

In relation to the structure of the transmission tariff, the regulation criteria introduced[55] for the new regulatory period include:

- the application of a two-part structure, with a component in energy (10%) and a component in power (90%) with reference to the transmission tariff applied to the distributors at interconnection points (including withdrawal points available to end customers directly connected to the national transmission network, assimilated into interconnection points). The power share of the transmission tariff must be determined by using, as a driver, the average of the maximum power withdrawn monthly at the interconnection points in the last 12 available months (for 2016: November 2014 – October 2015), considering the most objective and stable flows of energy withdrawal from the NTN over time;
- that the tariff component for power must then be applied to the same power considered as a tariff driver, thus eliminating the associated volume risk;
- that the tariff driver related to the energy portion must be adjusted annually, in order to reduce the operator's exposure to volume risk, based on the reference energy volumes of the last recorded 12 months. The Authority also included the assessment, during NPR1, of the possibility of using of forecasting data, consistent with the data used as part of Development plans, in the place of recorded data;
- confirming the structure and details of the transmission tariff for end customers, based on both a criterion for dividing revenue into components, power and energy consistent with the criterion adopted for the CTR charge (i.e. the tariff component for covering the costs of the transport system on the national transmission network for distributors), and the equalisation mechanisms for distributors, re-proposing in particular, considering the uncertainty of cash flows arising from the billing of the transmission service by distributors, bi-monthly account equalisation mechanisms throughout the year.

The Authority also determined the tariffs for provision of the electricity transmission services for 2016, in particular envisaging:

- the inclusion in the Regulatory Asset Base (RAB) of the infrastructures purchased by Terna over the course of 2014, and consequently included as part of the NTN[56];
- the inclusion of the initial operating cost level paid to the transmission system operator for the management of the electrical infrastructures previously owned by Fondo Strategico Italiano[57] in the transmission tariff for 2016;
- the inclusion in tariff levels for 2016[58] of incentives for the acceleration of investments in assets under construction, which refer to investments included under type I=3 (strategic investments for the development of the national transmission network) existing as of 31

[55] By Resolution 654/2015/R/eel.
[56] We refer to the 380 kV line Larino – Termoli Centrale and 380 kV section of the SE Termoli Centrale.
[57] Pursuant to Resolution of 29 October 2015, 517/2015/R/eel.
[58] In accordance with the provisions of Resolution of 29 May 2015, 251/2015/R/eel.

December 2014, adjusted to take into account projects that were temporarily suspended from the incentive scheme.

Distribution and metering service tariffs

With reference to the electricity distribution and metering services, in order to encourage aggregation between small distributors, the Authority introduced differentiated methods intended to identify the costs of capital among companies that have more than 100,000 withdrawal points connected to their networks (method based on an individual cost identification scheme) and companies that fall below this threshold (method based on a parametric scheme).

For companies with more than 100,000 withdrawal points, the Authority has planned tight methodological continuity with the criteria adopted in the regulatory period 2012-2015, both in terms of the determination of operating costs and in terms of capital costs (remuneration and amortisations).

For companies beneath this threshold, the resolution established that the methods for implementing this regulation must be defined by the end of July 2016.

By the same date, the Authority will also define the parametric criteria for the correction of the value of assets to be activated in the case of aggregation of distributors.

With reference to the provisions for the supply of the electricity metering services, the aforementioned resolution:

- amended the Integrated Text on Electricity Metering (TIME) in order to provide for the collection, by the body in charge of metering, of the actual maximum monthly power withdrawal broken down into bands, where permitted by the meter;
- established the intention to conduct further analysis of the possibility of developing metering service regulations, with the aim of defining an overall reform by the end of July 2016;
- merged the elements MIS(RAC) and MIS(VER) for covering the costs of the collection and validation of measurement data, respectively.

As regards the distribution and metering service, the regulations in force in the period 2012-2015 established the decoupling of the single tariff applied to end customers (so-called “compulsory tariff”) and the tariffs restricting the revenues permitted for each distributor (so-called “reference tariffs”).

Procedure for the revision of domestic tariffs

Article 11, Par. 3 of the Italian Legislative Decree No. 102 of 4 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).

The procedure for the reform of the tariff structure for domestic electricity costumers offered all parties concerned multiple opportunities to intervene and thereby provide elements useful to the formation of the Authority's decisions, in the implementation of the provisions of Italian Legislative Decree No. 102 of 4 July 2014. The Regulatory Authority published a first consultation document in February 2015[59], included in the Annual Report 2015. On 18 June 2015 the Authority published the second consultation document [60], which included a presentation of the final guidelines on the structure of the tariff components covering network services and sales services, as well as the regulations on power usage, focusing on the structure of the tariff components covering the general system charges and on the gradual implementation of the reform.

In the same month of June 2015, the Authority sent the Government and the Parliament two reports on the general system charges and some proposals for amending the social bonus mechanism, an essential "shock absorber" of the effects of the reform for families experiencing financial hardship.

As regards the definition of the non-progressive structure of the tariff components covering general system charges, the Authority's final guideline focused on the option of a structure differentiated between resident and non-resident customers, with 75% of the revenue collected in relation to withdrawn energy (c€/kWh) and the remaining 25% collected in relation to the number of supply points (c€/point). For resident customers, the structure of these components covering general charges (components A, that cover the charges incurred in the general interest of the electricity system, and UC, which cover the further cost elements of the electricity service, such as equalisation) is in fact monomial (per kWh of energy withdrawn), while for non-residents it is binomial (per point and per kWh of energy withdrawn).

With regard to the amendments of regulations on power usage, the Authority ruled in favour of measures to increase the opportunities of choice available to end customers, through:

- the introduction of contractually agreed connected load at a more consistent rate than that currently exhibited;
- the elimination of charges to end customers (fixed rate contribution) by distributors to cover administrative charges in the case of variations in contractually connected load upon request by the customer;
- the provision of information, via bill or internet portal, on the maximum monthly power withdrawal on a four-hourly basis.

As regards the gradual implementation of the reform, the Authority presented two alternatives, both characterised by a path that, beginning on 1 January 2016, extends over two years (2016 and 2017) and enables the tariff structure to be fully introduced from 1 January 2018.

On 2 December 2015, based on observations made as part of the consultation process and further analysis, the Authority approved the closure of the procedure[61], with a programme measure that

[59] Consultation document 5 February 2015, 34/2015/R/eel.
[60] 293/2015/R/eel.
[61] Resolution of 2 December 2015, 582/2015/R/eel.

outlines the path that the Authority intends to take to complete the tariff reform, thereby phasing out the current progressive tariff structure by 2018, following the gradual approach outlined in table 3.4.

Table 3.4 Gradual approach scheme for the reform of domestic tariffs

Option G2	From 1 January 2016	From 1January 2017	From 1 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
Connected load	Data availability	Data availability Redefinition of prices Reduction of fixed charges	Data availability Redefinition of prices Reduction of fixed charges

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

The reasons behind the decision to adopt a completely non-progressive domestic tariff (so-called "TD") from 2018, can be summarised as follows:

- it maintains a significant incentive for honest behaviour by citizens in terms of energy savings, since the c€/kWh component still remains very high in proportion to the final charges, making up between 70% and 80% of the entire bill;
- it helps to promote the achievement of energy efficiency targets as, on the one hand, it encourages the replacement of existing "essential" electrical devices (refrigeration, lighting etc.) with new, higher performance models with better energy efficiency ratings, and, on the other hand, it encourages the fair evaluation of the benefits of electricity, in place of other energy sources, thereby also promoting the on-site application of electricity from renewable sources, which are currently heavily penalised by the progressive nature of the current domestic tariff;
- it has no impact on user categories with non-progressive structures (as expressly required by Italian Legislative Decree No. 102/14, as the gradual reduction of cross subsidies does not involve non-domestic customers in any way);
- the components of the TD tariff structure covering the network services (transmission, distribution and metering) are based on the costs of the services, so as to ensure that the same fee proportional to the energy withdrawn is applied to all low voltage users (domestic and non-domestic), relative only to the costs of the National Transmission Network. In fact, distribution costs are recovered through a fee proportionate to the contractually agreed connected load, while the metering costs are recovered through a fixed fee.

Pending the review of the social bonus, envisaged by Italian Legislative Decree No. 102/14, the Regulatory Authority introduced[62] further regulations in order to protect domestic customers experiencing financial hardship. Therefore, the calculation of expense reimbursement for supply of electricity only, valid in 2016 for customers experiencing financial hardship, must be calculated to so as to avoid payment of reimbursement amounts lower than those currently guaranteed, or worsening the customers' economic conditions due to electricity expenses.

This decision was adopted after verifying that the abovementioned temporary adjustment of update rules:

- on the one hand, led to a very limited increase in charges, so as to not be temporarily reflected in a corresponding increase to the AS tariff component, established in order to fund the system of bonuses intended for domestic electricity customers that are experiencing physical or financial hardship;
- on the other hand, was otherwise consistent according to the expenditure reduction outlined in Italian Ministerial Decree 28 December 2007, set at "*approximately 20%*" – including with regard to end customers for whom the tariff reform would lead to a decrease in annual expenditure instead of an increase.

With reference to the trial tariffs for the heat pumps used as a sole heating system and considering the envisaged gradual path of reform, the Authority considered it appropriate to:

- extend the final deadline[63] for the subscription of new customers by one year (until the 31 December 2016);
- launch a further consultation phase to assess the possibility of including further domestic customers in the trials in progress, in parallel to the unfolding of the overall domestic tariff reform.

Finally, some further resolutions were adopted which launch the implementation of the projects outlined by the new regulations for the protection of domestic customers experiencing financial hardship, also taking into account the new regulatory period which began on 1 January 2016 and the regulations for Bill 2.0.

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. During the course of 2015, the Authority neither initiated nor concluded proceedings to ascertain the violation of regulations on accounting unbundling in the electricity sector.

[62] By Resolution of 2 December 2015, 582/2015/R/eel.
[63] Established by Resolution of 8 May 2014, 205/2014/R/eel.

3.1.4 Cross-border issues

In 2015, the Regulatory Authority's activities towards integrating the Italian electricity market into the European market, in addition to activities undertaken in collaboration with the other European Regulatory Authorities, mainly concerned the implementation of Regulation (EC) 1222/2015 regarding *Guidelines for Capacity Allocation and Congestion Management* (CACM), which entered into force in August 2015.

Integration of wholesale markets

The European design of the internal electricity market is largely contained in the Regulation (EC) 1222/3015 on Capacity Allocation and Congestion Management – CACM, which took effect on 14 August 2015. These regulations aim to make more efficient the use of transmission infrastructures, through the development of shared rules, which enable optimal exploitation of the existing interconnection capacity between the Member States. The CACM Guidelines contain the methods for capacity allocation with reference to the day-ahead and intra-day markets and clarify the methods for calculating the transport capacity between the various market zones (so-called bidding zones). The implementation of the CACM Guidelines, which also makes market coupling the only possible way of allocating cross-border capacities, has absorbed the Authority's activities towards the integration of the wholesale electricity market over the past year.

From a legal standpoint, the CACM are guidelines of the European Commission; therefore, in contrast to the regulations adopted to date for the gas sector that, by taking the form of Network Codes, provide a complete set of rules ready to be implemented at national level, the CACM refers to successive regulation acts that must be developed in agreement by all TSO/NEMO (see below) and approved by all the Regulatory Authorities of the Member States. The CACM implementation process will therefore require significant commitment from national Regulatory Authorities which, over two years, will be involved (on a European and national level) in the processes of approving some 23 "terms and conditions or methods". In order to facilitate cooperation and collaboration between Regulatory Authorities, in order to reach a shared view, in March 2016, European regulators agreed to set up a dedicated platform named the *European Regulators Forum* (ERF), in which the appointed representatives of each Regulatory Authority undertake to adopt certain positions on the terms and conditions proposed by the TSO/NEMO, on the basis of information received from a special working group to which ACER can be invited as an observer.

The first approval procedure as part of CACM, on which the Authority will be asked to co-decide by May 2016, within the framework of the ERF, concerns the approval of the proposal of regions for calculating the capacity on a proposal processed by transmission system operators (TSO). If the Authorities are not able to reach an agreement within the indicated period, it will be ACER to decide. In fact the regulation envisages that the operators should adopt coordinated methods for calculating the interconnection capacity for bidding zones, according to a flow based approach, as a general rule, or an approach based on the coordinated calculation of the net transfer capacity, as an exception. One single calculation method must be used for all the borders that belong to the same electricity region and, by 2020, the goal of the CACM is to achieve a harmonised methodology for calculating the capacities among all of the abovementioned electricity regions.

Whereas Regulation (EC) 714/09 divided the European Union's electrical borders into seven regions (Italy belonged to the Central-Southern Europe Region), the CACM regulation requires that the TSO re-define the regions for capacity calculation and submit them to all national regulators

for their joint approval. On 9 November 2015, Terna sent the Italian Authority a joint proposal by the TSO, developed as part of ENTSO-E, following a public consultation and an informal opinion issued by the Regulatory Authorities through a special ACER group commissioned to implement the CACM (CACM WS). The proposal envisages the definition of 11 regions for calculating capacities and the National Transmission Network (NTN) belongs to Region 4, coinciding with the Northern zone and its cross-border area with France, Switzerland, Austria and Slovenia (Italian North Borders), and Region 5, coinciding with the remaining zones of the Italian market and with the interconnection with Greece (Italian Borders 2).

Designation of the NEMO

The *Capacity Allocation and Congestion Management* (CACM) regulations (i.e. the implicit allocation of the transport capacity), which took effect on 14 August 2015, has made market coupling the only possible method of allocating cross-border capacity on a daily and intra-day basis and introduced the national requirement of appointing one or more Nominated Electricity Market Operators (NEMO), that is to say organised market operators entrusted with the task of executing daily and intra-day market coupling. Therefore, the Regulatory Authority intervened in the NEMO appointment procedure, submitting an opinion to the Ministry of Economic Development on 6 August 2015, after checking compliance by the Energy Market Operator (GME) with all the requirements of Art. 6 of the CACM Guidelines. The ordinary NEMO appointment procedure for each bidding zone could be waived if, at the time the regulation took effect, a legal monopoly was in place for the day-ahead and intra-day trade services. In this case, the Member State would should have notified the European Commission within two months of the regulation coming into force. With the communication of 26 May 2015, the Ministry for Economic Development informed the Authority of its intention to activate the special procedure for the designation of the GME as NEMO for Italy, subject to approval by the Authority, notifying the European Commission of the GME's legal monopoly in managing trade services.

Having evaluated the information received from the GME, the Authority stated its positive opinion in accordance with the requirements established by the CACM regulations.

Market coupling with France, Austria and Slovenia

In accordance with the provisions of the CACM regulations, as described in the previous paragraph, the Italian Authority, as far back as July 2014, had signed up to the initiative, which was launched at a European level, for the voluntary early implementation of the market coupling project, as part of the Central-Southern Europe regional initiative, putting forward its first guidelines for consultation[64]. In February 2015, the Regulatory Authority initiated[65] market coupling on the Italian borders in relation to the Italy-France, Italy-Austria and Italy-Slovenia interconnections. As for the other countries of the Central-Southern region, the provisions specify that market coupling on the Italian-Swiss border will be implemented following the establishment of energy agreements between the Swiss Confederation and the European Union, while, for the Italy-Greece border interconnection, currently the only other neighbouring electricity market, it

[64] Consultation document of 24 July 2014, 356/2014/R/eel.
[65] By Resolution of 12 February 2015, 45/2015/R/eel.

will be implemented following the revision of the unusual technical characteristics of the Greek market, which currently limit the possibilities for integration.

Specifically, on 25 February 2015, the daily allocation of transport capacity rights on the Italy-France and Italy-Austria was effectively launched, through implicit auction, while on the Italy-Slovenia border, this mechanism was already in use since 1 January 2011. The three northern Italian borders thus came to take part in the Multi Regional Coupling (MRC) project, which also includes borders belonging to the electrical regions of north-western Europe (France, Germany, Holland, Belgium, Luxembourg, the United Kingdom, Scandinavia), of the Baltic states, of south-western Europe (Spain and Portugal), as well as the border between Poland and Sweden. Overall, the MRC project includes 19 European countries, whose annual aggregated electricity consumption amounts to around 2,800 TWh, while the volume traded on a daily basis is around 4 TWh, for a value of around 150 million Euros.

In this regard, the daily allocation of transport rights within the context of MRC conforms to a decentralised policy and is organised based on two distinct functions:

- the function of market coupling operator (indicated as MCO in the European CACM regulations), which mainly consists of finding a market balance by determining prices for each bidding zone;
- the function of national electricity market operator (NEMO) which consists of collecting bids from market participants, sending them to the MCO, receiving in return the results of market balance calculation, forwarding them to participants and finally liquidating and regulating economic items.

The role of the MCO is carried out thanks to the use of a market resolution algorithm, Euphemia (EU Pan-European Hybrid Electricity Market Integration Algorithm), developed as part of the Price Coupling of Regions (PCR) project, in which the GME also took part.

The Power Exchanges that took part in this project as full members exercise the role of MCO in rotation, so that in each period there is only one person responsible for the market results; other full member Power Exchanges, however, have the task of checking the results and providing a back-up in case of problems. The role of NEMO is carried out in parallel, in a decentralised but coordinated manner, by the individual Power Exchanges, in the pre and post coupling stages; in particular, this function involves the liquidation and regulation of economic items both between the Power Exchanges and market participants, and between the Power Exchanges themselves. The procedures to be followed in pre and post coupling stages were codified within specific agreements between Power Exchanges and TSOs (Transmission System Operators) belonging to the Italian Border Working Table (IBWT). Furthermore, adhesion to the MRC required the signing of a Day Ahead Operational Agreement between all Power Exchanges and the TSOs participating in the project. All agreements signed by Terna and the GME were approved by the Regulatory Authority.

Negative prices

The CACM regulations stipulate that, within 18 months of taking effect, all NEMOs (the GME in the case of Italy), in collaboration with all TSOs (Terna in Italy), must develop a proposal for the harmonisation of maximum and minimum equilibrium prices (caps and floors), on a supranational level, for the Day-Ahead Market (MGP) and the Intra-Day Market (MI) which must be approved by all Regulatory Authorities. The CACM also stipulates that, again within 18 months of it taking effect, the NEMOs must prepare a shared proposal on the products tradeable on the MGP and MI.

Currently, in the Italian market, the purchase offers on the electricity market (MGP and MI) are administratively limited by an upper limit (cap), quantified by the Authority as 3,000 €/MWh, and a lower limit (floor) of 0 €/MWh. Furthermore, only simple products can be traded, which specify a single price for a certain volume of energy on an hourly basis.

However, from February 2015, the Italian market has been “coupled” with the German market (via the Austrian border) and the French market, which adopt instead the more common limits of +3,000 €/MWh and € -500/MWh and allow the trade of "complex" products. Therefore, considering also that implementing market coupling without harmonising price limits could lead to possible inefficiencies in the management of cross-border capacity under certain, particular conditions, the Regulatory Authority launched[66] a procedure intended to reconsider the price limits on the MGP and MI. The Authority then presented[67] its first guidelines on the introduction of negative prices to the Italian electricity market, in line with the provisions of Regulation (EC) 2015/1222. Considering that the possibility of bidding with negative prices allows operators to deal with situations of excess supply of electricity at zero price according to economic criteria, the document presents certain elements that characterise the introduction of negative prices in the various markets (MGP; MI; Dispatching Service Market - MSD; Balancing Market – MB; bilateral contracts). In particular, the Authority considered the introduction, to MGPs and MIs only, of a floor of –500 €/MWh, consistent with that already existing in the electricity markets of Central and Northern Europe participating in the project: the hypothesis of admitting negative prices to these two markets would imply the possibility that balancing prices could also assume negative values, regardless of whether negative bidding prices are admitted on the MSD.

Therefore, the possibility of also introducing a negative floor to the MSD was also considered for bids to be reduced (cases in which eligible bodies present purchase offers of energy previously sold on the energy markets), thus allowing operators to put forward price offers that better reflect their costs, including shut-down costs (cost S), so as to make the most flexible production plants more competitive. The aforementioned document goes on to consider the effects of introducing negative prices on the bilateral contracts registered on the Energy Accounts Platform (PCE), on the regulation of essential plants that benefit from dispatching priority and on incentivised generation. Finally, the Authority considered the exercise of market power that the introduction of negative prices could encourage, and for which greater transparency in bid selection may be required, as well as in the monitoring of price formation and the possible definition of mitigation measures.

[66] By resolution 45/2015/R/eel.

[67] In the consultation document 14 December 2015, 605/2015/R/eel, which forms part of the creation of measures for the comprehensive reform of the regulation of the dispatching service.

Italy-Slovenia intra-day pilot project

In August 2015, Italy and Slovenia's Power Exchanges and TSOs sent their respective Regulatory Authorities a proposal for the launch of a bilateral pilot project for implicit capacity allocation, similar to that already in place in the MGP since 2011, within the context of the cross-borders electricity market. In view of the entry into force of Regulation (EC) 1222/15, the project is not only in line with this same regulation but also allows the experimentation of certain solutions intended to phase out explicit allocation mechanisms in the MIs with bordering countries[68]. In fact, the project has the objective of testing a solution (implicit intra-day allocation) that, although provided for in the CACM regulations in regional auctions, has not to date received attention in Europe; among other things, this solution would enable the resolution of the problem of valuating allocated capacity in the MI, to which simple continuous trading – a continuous trading model envisaged by the same regulations – does not currently offer any market-based solutions. On 25 September 2015, via a joint letter with the Slovenian regulator, the Authority confirmed the interest for the initiative to the two countries' Power Exchanges and TSOs, calling for the immediate launch of the design and experimentation stage.

Transport rights allocated monthly and annually – New firmness regime

On the basis of the Roadmap for Implementation of the European electricity market, prepared as part of regional initiatives and ratified by the Electricity Florence Forum, the European Commission and the Agency for the Cooperation of Energy Regulators (ACER) invited the European Network of Transmission System Operators for Electricity (ENTSO-E) to draft, for 2016, the rules of allocation of long-term transport capacity rights (by means of annual and monthly auctions), establishing allocation mechanisms that are as harmonised as possible on a European level. ENTSO-E published the consultation document *Draft allocation rules for forward capacity allocation* on 2 March 2015, with 19 annexes that indicate the scope of application on a regional level. These allocation rules, as proposed by ENTSO-E, envisage, among other things, the application of a harmonised system of compensation of import rights, allocated annually and monthly, which cannot be used due to curtailment interventions by the TSO, the so-called "firmness regime", stipulating that:

- for the borders where market coupling is active, a compensation rule in case of curtailment (or impossibility of use) will already be adopted voluntarily in 2016, based on the MGP price differential, thus phasing out the current rule that stipulates the reinstatement of the auction price originally paid by operators;
- in case of curtailment on a border, compensation is bound to a monthly cap equivalent to the congestion fees collected on that border.

The Authority submitted for consultation its own guidelines on the possible revision of the methods of financial compensation awarded to assignees of the rights of use of cross-border transport capacity, in the event of reductions in the capacity available (compensation at auction price), outlining how, in order to reduce the potential cost to the system due to compensation of

[68] As envisaged by the Resolution of 5 February 2015, 33/2015/R/eel.

the rights subject to limitation, the simultaneous evaluation of the application of a reduction in volume of rights allocated on a monthly and annual basis would be necessary. Following the analysis of the observations presented in the aforementioned document the Authority, as leading regulator in the regional initiative for Central-Southern Europe, with the letter of 17 July 2015, provided ACER and ENTSO-E with certain indications, agreed among the regulators of the aforesaid region (including Switzerland), to the TSOs operating on Italian borders for the finalisation of auction rules, with particular reference to the firmness regime on Italian borders. Specifically:

- on an trial basis, the regulators of Italy, France and Slovenia agreed to adopt, on their own borders and only for 2016, the new market spread compensation regime combined with the monthly cap equivalent to the congestion fees relative to the same borders, simultaneously reducing slightly the volume of rights that can be allocated on an annual and monthly basis, always with the view to maximising the overall volumes of interconnection capacities made available to the market, in accordance with European Regulation (EC) 714/2009;
- on the Italy-Austria border, the competent regulators consider it appropriate to maintain the current rule in force for compensation at the auction price for 2016 as well. This rule will also apply on borders where market coupling is not active (Italy-Greece and Italy-Switzerland).

For 2016, the Regulatory Authority approved[69] the proposed ENTSO-E *Allocation rules for forward capacity allocation*, including the new harmonised firmness rules to be applied to Italian borders.

Investments in new infrastructure

Within the context of the regional groups established by the infrastructure regulations, during 2015, the European Commission coordinated the selection of projects of shared interest, which it conducted in November 2015 upon adoption of the so-called “Second PCI list 2015”. The infrastructure regulation identifies three aspects on which regulatory Authorities are required to comment:

- evaluation of the costs/benefits of the candidate project;
- evaluation of the cross-border relevance;
- evaluation of the application of the criteria defined by the same regulation on eligibility (necessity of the project, cross-border impact of the project, benefits superior to costs, presence in the previous European *Ten Year Network Development Plan* – TYNDP) and merit (contribution of the project to market integration, competitiveness, sustainability, security).

National authorities came together under ACER to carry out an evaluation that is consistent at the European level and coordinated between all regulators interested by each project; furthermore, they also collaborated on the drafting of the ACER’s final review of the lists proposed by the Commission.

[69] By Resolution of 14 October, 483/2015/R/eel.

Consistency of investments in new infrastructure with EC development plans

Art. 26 of Italian Law No, 115 of 29 July 2015, *Provisions for the fulfilment of obligations deriving from Italy's membership of 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, in particular, amendments were made to Articles 15 and 16 of Italian Legislative Decree No. 93/11, and as a result of these measures, there was a revocation of the Decree of the Ministry of Economic Development No. 65 of 27 February 2013, including *The regulations of Art. 16, Paragraph 1 of Italian Legislative Decree No. 93 of 1 June 2011 for the preparation of the Ten-year Development Plan for gas transport networks.* 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 for 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.

On 30th November 2015, for consultation purposes, the Authority released the document "2015 Development Plan", as well as a summary table of the interventions included in the outline of the Plan issued by the company Terna in October 2015. At the same time, the Authority submitted for consultation[70] the methods for the costs/benefits analysis of the plan. At the end of the consultation period, the Authority published the observations received and forwarded them to Terna for analysis and evaluation. Terna must, in fact, prepare a document of rebuttals to the observations made by the parties concerned, which will be published on the Regulatory Authority's website.

International coordination with other regulators and ACER

During the course of 2015, the Authority continued to work with other European regulators both multilaterally, through the Agency for the Cooperation of Energy Regulators (ACER), the Council of European Energy Regulators (CEER) and Regional Initiatives, and through bilateral meetings organized specifically to expand the discussion on issues of common interest. These operations are aimed at the establishment of transparent and effective rules for the promotion of an integrated, competitive and efficient European energy market, as required by the Third Energy Package.

European Agency for the Cooperation of Energy Regulators

With reference to the electricity sector, over the past year, the Authority's has undertaken activities for the definition of European Network Codes, which merge in the following documents:

[70] With the consultation document 1 October 2015, 464/2015/R/eel.

- the recommendation by ACER to the European Commission of 23 June 2015 for the adoption of the Network Code for managing emergencies and restoration. This is the last of the four Codes set out in the Guidelines for the operational management of electricity systems;
- the recommendation from ACER to the European Commission of 20 July 2015 for the adoption of the Network Code for balancing proposed by ENTSO-E, which defines the methods based on which the resources for balancing the electricity network, available at the European level, can be pooled according to market rules, having verified the technical feasibility in order to ensure the physical balance between energy supply and demand and, therefore, the secure management of the network;
- the document *Scoping towards potential harmonisation of electricity transmission tariff structures: Conclusions and next steps* of 1 December 2015, which contains the preliminary analysis to assess the need to implement Guidelines for a Network Code on electricity tariff harmonisation;
- the opinions on the ENTSO-E documents envisaged by the Third energy package, such as those on the forecast scenarios on the adequacy of generation in the winter and summer period, the Roadmap of research and development activities, as well as the Annual Report and the work programme for 2016.

Among the other significant activities for the internal electricity market carried out by ACER during 2015, we highlight the opinion on the approval, by the Authorities involved, of the rules on the allocation of cross-border capacities in the Central-Eastern Europe region and, in particular, on the border between Austria and Germany, requested by the regulator of Poland, URE.

During the course of 2015, the Authority has actively contributed to the work of the new group of coordination between regulators and ACER, intended to facilitate the implementation of the REMIT regulations, which began implementation in 2015. As well as the adoption, in March 2015, of the opinion on the implementation of the Directive 2004/39/EC on derivative contracts exchanged on wholesale energy markets (Directive MIFID – *Markets in Financial Instruments Directive*), which are already monitored by the REMIT regulation, ACER finalised the integration of the *Memorandum of Understanding* (signed by ACER and Regulatory Authorities in 2013) for the management of IT platforms for the purposes of information exchange and the management of surveys; it also updated the Market Monitoring Manual and the Manual for Confidential Information Management Procedures and for IT Security for Data Exchange.

The Italian Authority also actively participated in the preparation of the joint response from ACER and CEER to the consultation document of the European Commission regarding the design of the electricity market, published on 15 July 2015.

Finally, the Authority took part in ACER's monitoring operations, with the transmission and validation of data and information.

Council of European Energy Regulators

The CEER, the independent association of national energy regulatory authorities, includes among its members not only representatives from countries of the European Union, but also from Norway, Iceland, and as observers, from Switzerland, Montenegro and FYROM – Republic of Macedonia. Following the incorporation of ACER, CEER reorganised its field of work, making it complementary to that of ACER, focusing on areas related to the promotion of competition in the

retail market and consumer protection, the role of distributers, smart meters and smart grids, and international relations with non-European bodies and countries.

The CEER also pays particular attention to the evolution of the European debate and new regulatory proposals, monitoring the activities of European institutions and coordinating the promotion of the role of European energy regulators within such contexts.

As regards market development in line with the objectives of the internal energy market, the Authority contributed substantially to the fourth ACER-CEER Annual Report on monitoring electricity and gas markets, submitted to the European parliament on 30 November 2015.

The activities to which the Authority contributed through the CEER include work related to the adequacy of generation and the flexibility in the electricity sector and work related to the security of the supply, stockpiling and the LNG in the gas sector.

CEER also contributed, clearly stating its position, to the European Commission consultations on the revision of directives for energy efficiency and on the promotion of electricity production from renewable sources, in January 2016.

Finally, in the past year, the Italian Authority directly contributed to the redefinition of CEER's international strategy with regulators and associations of non-EU countries.

Relations and initiatives with countries outside of the European Union

During the course of 2015, the Authority increased its commitment on an international level, with the aim of strengthening bilateral and multilateral cooperation, exporting its experience in regulation and promoting increasingly uniform and harmonized regulatory frameworks, including outside of the European Union. In accordance with this approach, the Authority worked and held discussions with European and international institutions in order to contribute to removing the hurdles that block or slow down the sharing of common energy regulations.

South-Eastern European energy market

In 2015 too, the Authority contributed to the implementation of the Energy Community Treaty (EnTC) of South-Eastern Europe (cf. *Annual Report 2015*).

In 2015, the activity of the ECRB focused mainly on the analysis and evaluation of the EnC reform proposal, promoted by the group of experts (*High Level Reflection Group*) appointed by the EnC Council of Ministers in 2014. In particular, the subjects of interest for the Balkan regulators concerned the strengthening of cooperation between ECRB and ACER and the division of their respective competences, with regard to the regulation of cross-border infrastructures connecting countries of the European Union with bordering EnC countries. The objective, shared by the European Commission, consists of bridging the existing gap in current legislation and identifying a body responsible for cross-border issues about the borders between the two areas. Entrusting this role to ACER would require the modification of Regulation (EC) 713/2009.

As far as the electricity sector is concerned, within the *Electricity Working Group* (EWG), which has been presided over jointly by Italian and Serbian regulators since December 2014, it was also decided to entrust the Authority with the coordination of the task force on the opening of wholesale electricity markets in the Balkan region.

Specifically, the Authority, in line with indications by the European Commission, has worked to promote the future transposition and implementation by the contracting parties of Regulation (EC) 122/2015 on Capacity Allocation and Congestion Management (CACM), representing the regulation in all the discussions established by the EnC. To this same end, the Authority took part in preparations of the policy guidelines formulated by the EnC Secretariat in September 2015.

Another theme taken on board by the ECRB in 2015 was that of the transparency of the electricity market, in line with that outlined by Regulation (EC) 543/2013 of 14 June 2013 on the presentation and publication of data regarding the electricity markets.

Mediterranean energy market

During the course of 2015, the Authority maintained constant its international commitment with regard to the Mediterranean basin, in particular through MEDREG, of which it is both founder and promoter. From work undertaken in 2015, it has emerged how progress in countries on the Southern side is in line with the recommendations outlined by MEDREG in previous years, as well as certain significant aspects relative to the creation of the Moroccan electricity regulator and to the Egyptian gas regulator, the strengthening of Euro-Mediterranean institutional cooperation and the improved knowledge on good principles and on regulatory practices.

The General Assembly then approved the creation of the Mediterranean financial sounding panel for energy regulation (Med-Fpe), whose objective is to promote cooperation with international financial institutions active in the Mediterranean energy sector. The creation of the panel follows work already started by the association in the field of investments with the publication of a special report.

In 2015, the Authority was reconfirmed as permanent Vice President, in virtue of its support of the association, whose headquarters are located in the Authority offices in Milan. It was also entrusted with providing support in the administrative, financial and legal management of the Secretariat. The role of MEDREG is recognized by the European Commission, with which it holds a service contract (from October 2013 to September 2016) of a value of around 3 million Euro.

Following the cessation of the International Confederation of Energy Regulators TF (ICER TF), with the coordination of the Turkish regulator EMRA and the Secretariat, MEDREG has taken a leading role in the preparation and management of the VI World Forum on Energy Regulation, which was held in Istanbul on 24 May 2015. On the occasion of the General Assembly, a new task force was established for the implementation of the Euro-Mediterranean platform (see below).

Following the Rome Conference on 19 November 2014, promoted by the Italian government on the occasion of the of its 6-month Presidency of the European Union, *Building a Euro-Mediterranean energy bridge: the strategic importance of Euromed gas and electricity networks in the the context of energy security*, three platforms were launched on natural gas, electricity and renewable sources/energy efficiency, under the aegis of the European Commission within the field of the EU process for the Mediterranean. The objective pursued by these platforms is that of promoting dialogue between the main stakeholders (governments, businesses, financial institutions, regulators, network managers) to support the development of investments and achieve the progressive energy integration of systems and Euro-Mediterranean markets.

During 2015, the European Commission began the implementation of the three platforms. The Italian Authority has an active role in the implementation of platform operations through personal representation on all levels from both a technical and institutional point of view.

MEDREG identified investments in energy infrastructures as a crucial theme of discussion between stakeholders in the Mediterranean area and, in this regard, has launched a consultation process that has led to the creation of the abovementioned infrastructure report, *Interconnection Infrastructures in the Mediterranean: a Challenging Environment for Investments*. The document presents a detailed mapping of existing and planned cross-border energy infrastructures subject to regulation and significant to the successful operation and development of the energy market in the Mediterranean. The aim of the consultation was to verify the outlined framework, priorities and main obstacles to identified investments, contributing to the preparation of a series of proposals aimed at improving conditions to promote investments in energy infrastructures in the Mediterranean. At the end of the consultation process, on 29 April 2015 in Sharm El Sheik, the preliminary results were presented and shared during a workshop involving 37 participants from 15 different countries. Poor coordination between the regulatory authorities and the TSOs, as well as the presence of national and regional barriers, such as the absence of a harmonised regulatory framework and institutional weakness, led to the consideration that, before facilitating new investments, the MEDREG regulators of the Southern side of the Mediterranean should evaluate the improved use of existing investments. Furthermore, the report presents a series of final recommendations, such as: promoting the creation of a competitive market, encouraging increased harmonisation between national regulatory frameworks, increasing the use of infrastructures on the Southern side of the Mediterranean, evaluating the benefits of new infrastructural projects, promoting cooperation between regulators and TSOs, defining a ten-year development programme for the Mediterranean and identifying projects of common interest (PCIs).

In June 2015, MEDREG signed a collaboration protocol with the Parliamentary Assembly of the Mediterranean (PAM) with the aim of developing common operations, strengthening institutional relations and facilitating the work of national parliaments in defining laws for the energy sector.

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

National GDP saw an increase of 0.8% in 2015, interrupting years of negative results. Electricity demand has followed this dynamic, recording, according to provisional data issued by Terna (Italian Electricity Transmission Grid Operator), a rise of almost 1.5% and going from 291 TWh in 2014 to 295 TWh in 2015.
National production has covered 86% of the overall national demand (as compared to a final 87% for 2014). As it is more fully described below, 2015, as with the year before, also saw an increase in net imports; indeed, gross imports grew significantly from 46,748 to 50,846 GWh, even in the presence of a very notable increase in exports (+47.3%), in particular to Malta, even though this was from low absolute values, dropping to 4,465 GWh in 2015.
As far as use is concerned, electricity consumption increased, although only slightly, in all sectors. Whilst the volumes of electricity used in agriculture were essentially constant, the greatest increase regarded the tertiary sector (+2.3%), with the domestic and industrial sectors at +1.2% and +0.6% respectively.

Table 3.5 Aggregated balance of electricity in Italy in 2014 and 2015

GWh

	2014	2015(A)	VAR. %
Gross production	279,829	282,038	0.8%
Ancillary services	10,681	11,335	6.1%
Net production	269,148	270,703	0.6%
Received from foreign suppliers	46,748	50,846	8.8%
Sold to foreign customers	3,031	4,465	47.3%
Destined for pumping	2,329	1,850	-20.6%
Availability for consumption	310,535	315,234	1.5%
Grid losses	19,452	20,434	5.0%
Consumption minus losses	291,084	294,800	1.3%

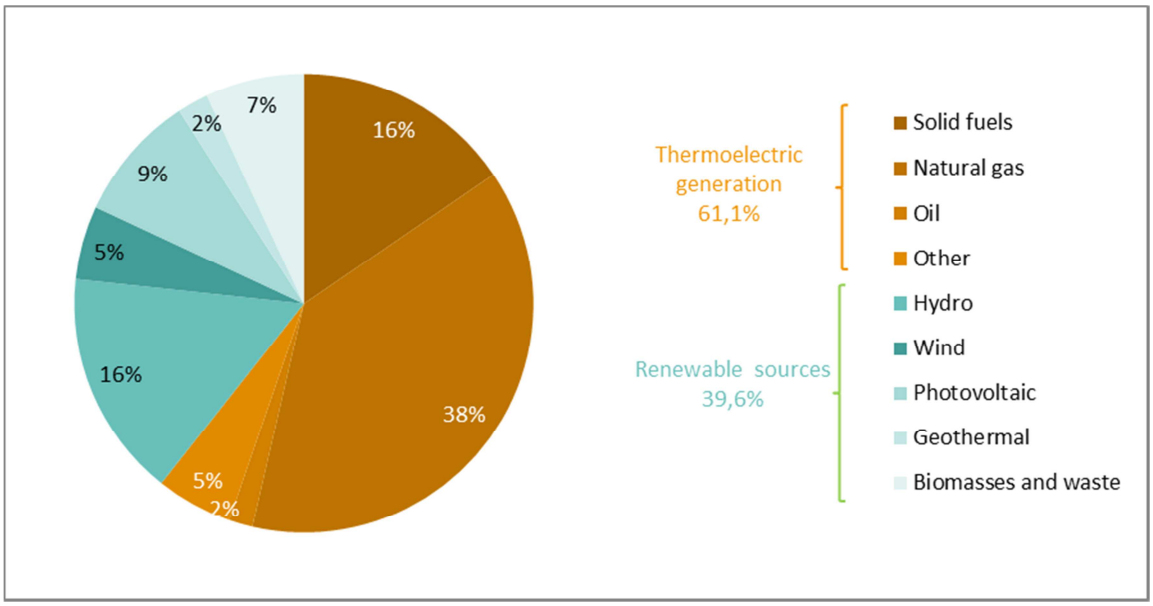
(B) Provisional data.

Source: AEEGSI elaboration on Terna data.

After years of continuous contractions, for the first time, in 2015, gross national production returned to growth in Italy, although still at a very moderate level (+0.8%), with a result – again according to Terna provisional data – of 282 TWh, as compared to 280 TWh in the previous year.

Thermoelectrical production contributed to this increase, rising by around 9%, and regaining its 2013 share of total electricity production of 61%, although this is still far from its 2010/11 share of 72%. In particular, natural gas production grew by 15%, whilst other thermal energy sources maintained their levels of use essentially unchanged as compared to 2014, with coal confirming high absolute levels of production and petroleum products seeing a halt in the steep drop recorded for the same time period.

Figure 3.1 Gross electricity generation by source in 2015



Source: Terna, provisional data.

In 2015, the production of electricity from gas remains at a level of around 70% of that of the start of the decade, whilst the share of gas in thermoelectrical production dropped to 63%.

Thermoelectrical production, as well as satisfying the increase in demand, also faced the contraction in production from renewables: in fact this contraction decreased in 2015 by 9% as compared to the values of 2014. In terms of contribution to total production, renewables have seen their share drop to 39%, against 43% in 2014. in particular, whilst photovoltaics have continued to grow, at a rate of +13%, a clear upswing as compared to the +3% of the previous year, for the first time in years, production from wind power witnessed a contraction (-3.3%) and, above all, there was a drastic drop in hydroelectric production (-25%) caused by the reduced availability of water resources recorded for that year and faced with the maximum production levels reached in 2014. Amongst the renewables, however, geothermal and biomass energy production continue to grow. After the boom on 2013, they maintain a lively growth rate of +5%, although this is the lowest rate seen in recent years.

In terms of share of production by renewables, between 2014 and 2015, hydroelectric have seen a drop from 49% to 40% in favour of photovoltaics (from 18% to 23%), whilst the other sources remain constant; however, the share of biomass is on the up (from 16% to 18%). Data from 2015 also confirms the constancy of the share assured by more renewable gases, still at around 76-77% of total production, reconfirming the role of gas in balancing the variations in production by electrical renewables.

After the peak in 2014 (27%, final data), the share of the Enel group in national production returned to values close to those of recent years (25.7%). Amongst the leading operators, Eni, Edison, Engie, Iren and Edipower saw increases in shares of production, which, however, remained essentially unchanged for A2A and Saras and decreased for Erg and Sorgenia. The share of smaller producers rose from 37% to 38.7%, thus returning to growth after the significant slowdown in 2014, which came after a continuous expansion lasting since 200. The HHI of 832 on gross generation shows a decrease as compared to 2014, when it stood at 908, more in line with the values of previous years. The gross thermoelectrical power installed by the top three operators amounts to 47% of installed capacity, again a slight decrease on 2014 (50%).

Table 3.6 Development of the wholesale market

YEAR	DEMAND[A] (TWh)	PEAK DEMAND (GW)	NET CAPACITY INSTALLED (GW)	CORPORATE GROUPS WITH SHARE > 5% IN NET GENERATION	% SHARE OF TOP 3 GROUPS IN NET GENERATION
2001	304.8	52.0	76.2	4	70.7
2002	310.7	52.6	76.6	3	66.7
2003	320.7	53.4	78.2	4	65.9
2004	325.4	53.6	81.5	5	64.4
2005	330.4	55.0	85.5	5	59.4
2006	337.5	55.6	89.8	5	57.1
2007	339.9	56.8	93.6	5	54.7
2008	339.5	55.3	98.6	5	52.0
2009	320.3	51.9	101.4	5	50.6
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[B]	313.4	59.4	118.3	3	40.4

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

Source: AEEGSI elaboration on Terna data and Annual Survey on regulated sectors.

The foreign sector also contributed to recorded growth in the demand for electricity with an increased energy input. Based on provisional annual Terna data, in 2015, net imports of electricity in Italy grew by around 2.7 TWh, reaching 46.4 TWh, whilst they reached only 43.7 TWh in 2014. As in 2014, both the foreign balance entries showed an increase, with imports reaching 50.8 TWh (up from 46.7 TWh in 2014) and exports increasing from 3 TWh to 4.5 TWh. In 2015, the internal demand covered by foreign supply reached 14.7%, a slight increase on the 14.1% of 2014.

In 2015, net of exports, most energy was imported from Switzerland (+1.7 TWh, i.e. 7.4% more than in 2014), Slovenia (+1.1 TWh, i.e. 21.2% more than in 2014) and France (+0.7 TWh, i.e. 5% more than in 2014), mainly thanks to the launch of market coupling across Northern borders (excluding Switzerland). Electricity from Austria remained essentially unchanged. As far as exports are concerned, records show a decrease in exports to Greece (-0.1 TWh) but also – for the first time – exports of 1,048 GWh to Malta. This is thanks to the new undersea and overland 200 kV link between Ragusa and Maghtab, which began operating at the end of March 2015, designed to solve Malta's electrical isolation problem and thus satisfy the requirements of EU regulations which imposed on Malta to reduce the production of energy from internal fuel oil thermoelectric power plants, which are both obsolete and harmful to the environment. Exporting electricity from Italy to Malta has also been very beneficial to Italy, where thermoelectrical power plants – almost all gas combined cycle plants – had been forced to work to a minimum due to low domestic demand.

The maximum net generation capacity installed as of 31 December 2015 amounts to 118.3 GW (Table 3.6), whilst the net capacity available (for at least 50% of the hours) amounts to 92.3 GW.

In terms of net installed capacity, there are two operators with a market share of more than 5%: Enel (26%) and Edison (5.5%). The percentage capacity held by the three largest operators is 36.4 %, a decrease in almost 4 percentage points as compared to 2014. The HHI on net installed capacity demonstrates a decrease in market concentration, from a value of 1,034 to 805 in 2015.

As far as net available capacity is concerned (for at least 50% of the hours), there were three operators with a market share of over 5% in 2015, as with 2014: Enel (29.7%), Edison (6.2%) and Eni (5.9%). Based on this data, the percentage capacity held by the three largest operators amounts to 41.8%. The HHI on net available capacity for 2015 is 1,050, down from 1,162 in 2014.

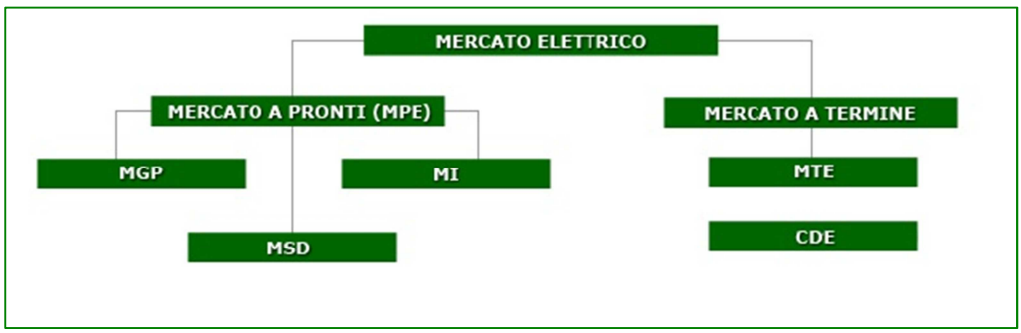
As regards the corporate composition of the electricity generation companies in 2015, the share capital is held mainly by natural persons (51.6%), then by different companies (34.1%) and public bodies (5.3%), whilst foreign energy companies hold 1.4%. 93.4% of capital shares are held by Italian shareholders; 2% by German shareholders and 1.6% by shareholders from Luxemburg. Aside from shares held by natural persons and different companies (56.5% and 30% respectively in 2014), there are no significant changes in composition.

The structure of the electricity market

The Energy Markets Operator (GME) is responsible for the administration of the energy markets, divided into the Spot Energy Market (MPE) – in turn, divided into the Day-Ahead Market (MGP), Intra-Day Market (MGP) and 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), and Italian Power Exchange market derivatives segment for the negotiation of energy futures financial contracts.

The MGP involves energy trading with reference to the 24 hours of the day of delivery; this is managed by means of hourly auctions at the clearing price (system marginal price) and bids can be placed starting from the ninth day before the date of delivery. The MGP is a zonal market: the territory is subdivided into zones representing portions of the transmission grid with limited trade capacity between them. If flows exceed the maximum allowed by interzonal transfer, the price is recalculated in each zone as if each one were a separate market (Market Splitting). Whilst sales offers are valued each hour at the relevant zonal price, the purchase offers are valued each hour at a National Single Price (PUN) of purchase, defined as the average weighted zonal price for the total zonal purchases, minus pumping and foreign purchases. In this market, the GME acts as a central counterparty for the operators.

Figure 3.2 Subdivisions of the Italian electricity market



Source: GME.

In February 2015, Multi-Regional Coupling (MRC) was put into operation on the Northern Italian border with France, Austria and Slovenia. MRC is a market coupling process that introduces implicit auctioning models to replace the daily explicit auctions, coordinating the allocation of capacity and sale of energy, thus facilitating the integration of various markets thanks to the optimal use of the Net Transfer Capacity – NTC) and the elimination of uneconomic flows. Without market coupling, the transfer capacity was assigned by means of daily explicit auctioning and only operators with allocated capacity could bid on the MGP Italian Power Exchange. Market coupling combined these two steps, eliminating possible uneconomical flows created by the non-coordination between the allocation of capacity and the sale of Day-Ahead energy. At the moment, explicit auctions remain from the monthly and annual allocation of part of the capacity.

The MI operates between the closure of the MGP and the opening of the MSD and allows operators to update sale and purchase offers, as well as their net trade positions regarding trading on the MGP. As with the MGP, the MI is also a zonal market. Since January 2011, this market has been divided into discreet sessions with progressive closing times. Over the course of 2015, the MI session times were reviewed following the movement of the MGP gate closure from 9:15 to 12:00 and another session was added; currently, the MI is made up of five sessions (MI1, MI2, MI3, MI4 and MI5) and is structured by auction at clearing price where, in contrast to the MGP, both the sale and purchase offers are valued at the zonal price; in this market, too, the GME acts as a central counterparty for the operators.

The MSD involves the provision, by Terna, of the resources necessary to manage the system safety by means of solving intrazonal congestion issues, building energy reserves and real-time balancing; in contrast with other markets, it is Terna, in this case, that acts as a central counterparty for qualified operators. The MSD is divided into a planning stage (*ex ante* MSD) and a Balancing Market (*ex post* MSD or MB). The *ex ante* MSD and the MB are held over more than one session, according to that outlined in the dispatching regulations. The *ex ante* MSD, in particular, is divided into four planning sub-stages (MSD1, MSD2, MSD3 and MSD4) which are undertaken in conjunction with the MI sessions and downstream from the publication of the MGP results (12:55 of D-1), whilst the MB is organised into five sessions in which Terna selects offers referring to groups of hours of the same day on which the relative session takes place. The operators present their offers on the MSD1, which Terna can accept in all the *ex ante* MSD and in the first session of the MB, and can change them as of the second session of the MB. The MSD contracting method is by discriminatory auction, i.e. the offers accepted are valued each at its own offering price (pay-as-bid).

The MTE managed by the GME was instituted in November 2008 with the aim of allowing operators more flexible management of their energy portfolios. It consists of the negotiation of futures contracts with the obligation of energy delivery and withdrawal. Negotiations are undertaken continuously in relation to two types of contract – baseload and peakload – that are negotiable with monthly (three products), quarterly (four products) and annual (one product) delivery periods. Once the negotiation stage has been concluded, contracts with a monthly delivery period are recorded in corresponding transactions on the Energy Accounts Platform (PCE), subject to adequacy tests as outlined in the platform regulations. For contracts with quarterly and annual delivery periods, the cascade mechanism is used.

In November 2008, the Italian Power Exchange launched the Italian Derivatives Energy Exchange (IDEX), devoted to the trading of financial derivatives, with the PUN as underlying asset. In compliance with the Decree of the Ministry of Economic Development of 29 April 2009 of electricity market reform, the GME drafted a cooperation agreement with the Italian Power

Exchange for the purpose of allowing operators participating in both markets to regulate, via physical delivery, the financial contracts concluded on the IDEX.

Operators can buy and sell energy not only through the GME organised market, but also by drafting trade contracts concluded outside of the bidding system. From May 2007, the PCE came into force, introducing broad flexibility for operators in optimising their contract portfolios in the medium-long term. The PCE records the quantities underlying bilateral futures contracts (mostly traded on brokering platforms) and the quantities traded on the CDE platform, that is to say the platform on which financial derivative contracts on electricity concluded in the IDEX are made, in relation to which the operator has requested to opt for physical delivery on the electricity market on which the contract is based.

Trading on the Italian Power Exchange and bilateral trading

In 2015, the quantity of electricity purchased on the MGP in the Italian system was 287.1 TWh, an increase of 1.8% as compared to 2014 (282 TWh), inverting the downward trend experienced from 2010 to 2014. On a zonal level, this increase is particularly substantial in the South (+12.57%), Central-South (+10.68%) and Central-North (+8.68%), contrasted by decreases in Sardinia (-22.32%), Sicily (-13.47%) and the general stability of the North (-0.43%).

Table 3.7 Electricity market

TWh

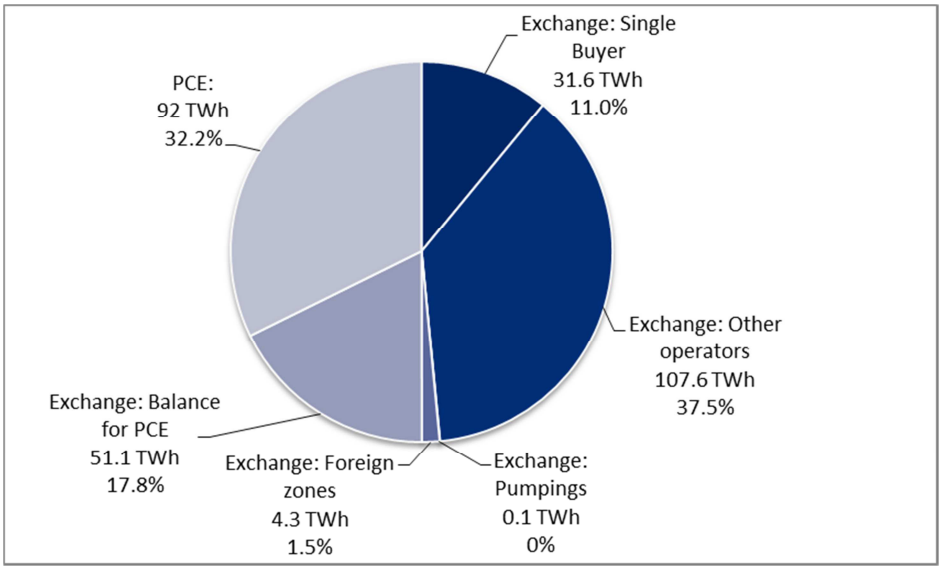
YEAR	TRADING ON THE MGP		
	Total	*Power Exchange*	*Bilateral Trading*
2004	231.6	*67.3*	*164.3*
2005	323.2	*203.0*	*120.2*
2006	329.8	*196.5*	*133.3*
2007	330.0	*221.3*	*108.7*
2008	337.0	*232.6*	*104.3*
2009	313.4	*213.0*	*100.4*
2010	318.6	*199.5*	*119.1*
2011	311.5	*180.4*	*131.1*
2012	298.7	*178.7*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

Source: AEEGSI elaboration on GME data.

The growth in demand on the MGP is correlated to the increase in demand for Terna electricity (+1.5%), with demand reaching its historical peak of 59.35 GWh on 21 July 2015. Demand also reached its monthly maximum in July 2015, at 28 TWh (+8.38% as compared to the same month in 2014, when temperatures were below the seasonal average). Trade on the Italian Power Exchange also increased, up to as far as 195 TWh, as compared to the 186 TWh reached in 2014 (+4.7%). The growth in Italian Power Exchange volumes carried with it market liquidity, rising from 65.9% in 2014 to 67.8% in 2015. The increase in Exchange purchases reflects both a substantial recovery in Single Buyer purchasing (32 TWh, +24.3%) and a recovery in foreign zone demand (4.3 TWh,

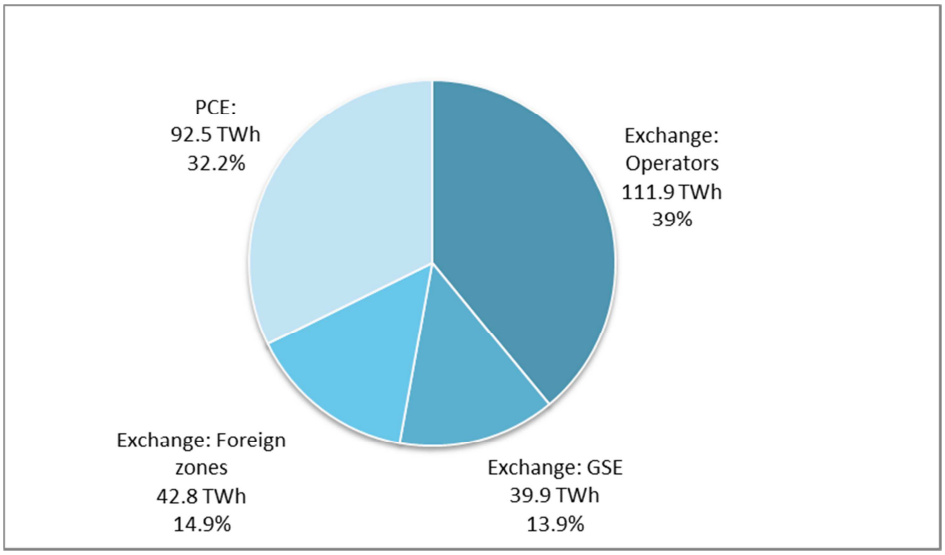
+24.2%). In contrast, the demand underlying the final balance of PCE programmes fell to 51 TWh (-23.2%) (Figure 3.3).

Figure 3.3 Breakdown of electricity demand in 2015



Source: AEEGSI elaboration on GME data.

Figure 3.4 Breakdown of electricity supply in 2015



Source: AEEGSI elaboration on GME data.

In terms of offer (Figure 3.4), the increase in volume sold on the Italian Power Exchange in 2015 can be attributed mainly to growth in imports, which reached 42.8 TWh, an increase of 19% on the previous year. The growth in imports is due to the increase in NTC levels, of which it was possible to take full advantage, thanks to the introduction of market coupling in February 2015. Sales by non-institutional operators also grew (112 TWh, +9.3%), whilst GSE sales on the Italian Power Exchange fell to 40 TWh (-16%). This fall in sales is attributable to the fall in renewable production in 2015 as compared to the previous year, which saw unusually heavy rainfall and subsequent high hydroelectrical production.

Table 3.8 Bilateral contracts on the MGP

TWh

CONTRACTS	2011	2012	2013	2014	2015
Bilateral contracts	131.1	120.0	82.3	96.1	92.5
National	148.8	146.9	156.8	162.5	143,5
Single Buyer	*36.8*	*38.8*	*43.9*	*37.9*	*29.1*
other operators	*112.0*	*108.1*	*112.9*	*124.6*	*114.4*
Foreign	0.4	0.5	0.1	28.5	0.1
PCE programme final balance (A)	-18.1	-27.4	-74.6	-66.5	-51.0

(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 elaboration on GME data.

Operations of concentration in electricity generation in 2015

Among the main corporate operations undertaken in 2015 in the field of electricity generation, the most significant is certainly the transfer of Italian E.On assets.

In fact, from 1 July, E.On Produzione transferred all of its thermelectrical plants to the newco, EP Produzione (EPH group), apart from that of Fiumesanto, which it transferred to Fiumesanto S.p.A. All the thermoelectrical companies that were part of the E.On group (EP Produzione, EP Produzione Centrale Livorno Ferraris, Centro Energia Ferrara e Fiumesanto) were allocated to the Czech Gas Holding N.V. group, inasmuch as owner of the Italian shareholdings, whereas EPH is the parent company. From 1 December, Erg Hydro (former Hydro Terni), the subsidiary of Erg Power Generation, acquired the whole thermoelectrical business of E.On Produzione, made up of a portfolio of plants located in Umbria, Marcha and Lazio, with an total power of 527 MW. Furthermore, E.On Climate & Renewables took over several companies at the end of October (SV Civitella, Luminar, Monte Elva Solar, Biunisi Solar, SV II). This company was itself taken over by F2i Solare 2 at the end of December.

Some other operators have been of interest to smaller sized electricity generation companies; also to be noted is the disposal of certain thermoelectrical production sites by Enel for a total of 6.4 MW of gross power.

3.2.1.1 Monitoring wholesale market prices

Day-ahead market

In 2015, the Italian Power Exchange recorded an average energy purchase price of 2.31 €/MWh, a slight increase compared to 2014 (0.4%).

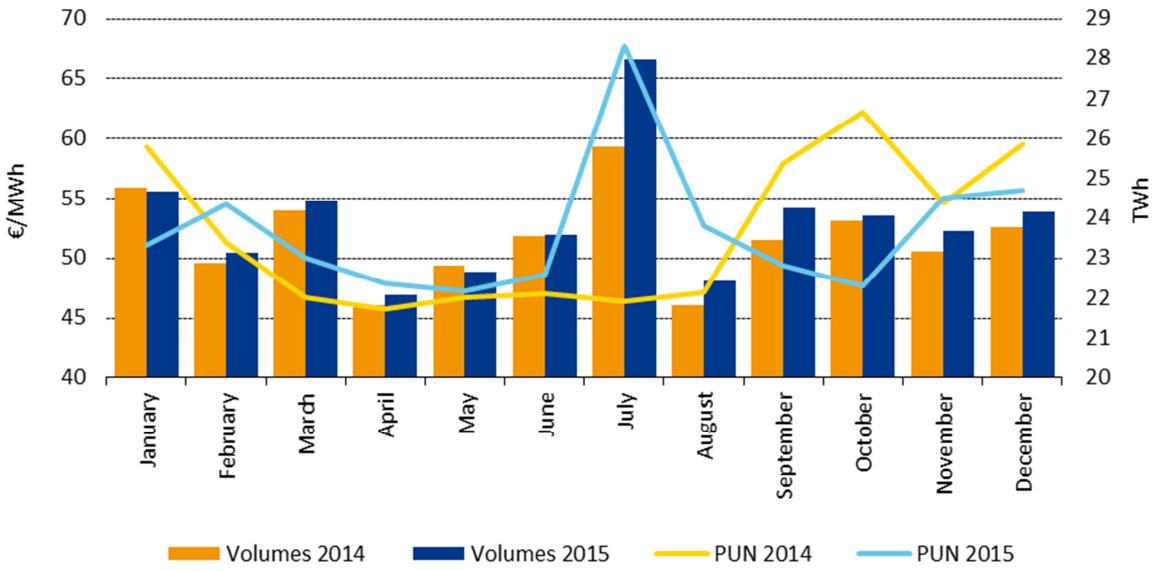
On a monthly level, this result is due to, on the one hand, sharp trend decreases recorded by the PUN monthly average during January, September and October (-14%, -15% and -23%, respectively) and, on the other, particularly marked increases in July and August (+46% and +12%). The PUN decreases can be attributed to the drop in gas prices in the corresponding months, strengthened

by the increased input of renewable sources in October, when the PUN fell the furthest. By contrast, the increases are attributable to the extraordinary temperatures recorded in the summer and the drastic reduction in hydroelectric due to the low rainfall in 2015. The highest average monthly price was recorded in July (67.77 €/MWh), a sharp increase in both trend (+46%) and relative to the economic situation (-39%) (Figure 3.5).

The monthly recorded PUN variations are observed in all the time bands with no particular distinction between peak and off-peak times, whose annual average (respectively 59.28 €/MWh and 48.58 €/MWh) shows a trend variation close to zero.

Figure 3.5 Trend in National Single Price (PUN) and volumes traded in 2014 and 2015

€/MWh; TWh



Source: AEEGSI elaboration on GME data.

In terms of zones, a slight increase in sale prices was witnessed in continental zones (+4%), whilst island prices recorded a decrease. In particular, Sardinia recorded a drop of 1.3 €/MWh, reaching an all-time low of 51.06 €/MWh and taking it in line with the average prices recorded by peninsular zones. The Sicilian sale price (57.53 €/MWh) recorded a fall of almost 30 percentage points on 2014. This decrease can be attributed to the administered regime, in force in Sicily from January 2015 until the entry into service of the Sorgente-Rizziconi cable, operative as of the end of May 2016. According to that established by Decree Law no. 91 of 24 June 2014, the sale offers of significant Sicilian power plants must be formulated at the variable cost recognised by the Authority. This standard allowed the reduction in differential between Sicily and the Italian continent. The Sicily-South spread went from 33.54 €/MWh in 2014 to 8.11 €/MWh in 2015.

In 2015, competitivity and competition indicators display overall improvement. In detail, the share of guaranteed sales without competition, confirming the trend highlighted by the market start-up, drops to an all-time low of 7.1%. The indicator confirms very low levels in the North and an increase in the South (7.7%), whilst it decreases in the remaining zones, in particular on the islands, where it drops to an all-time low (Sardinia 6.0% and Sicily 5.5%). Slight increases are also observed in marginal competition, as recorded by the Enel Marginal Market Participant Index (IOM), the main price-maker, which, after recovery in 2014 (up to 21% from 14% in 2013), drops

back to below 20% (19.8%, to be precise). Similar index values and trends were identified in all the zones, with the unique exception of Sicily, where the IOM value dropped to 63% from the 65% of 2014. The HHI also sees general improvement, confirming values below the first competitiveness threshold in the North and just below it in the South. The positive HHI signals are not reflected, however, in the concentration indicators CR3 (47.1%) and CR5 (58.9%), which show a slight recovery from the all-time lows of 2014 (respectively, 44.7% and 57.7%).

Futures energy market

In 2015, 5.1 TWh of energy were traded ont eh MTE, against the 32.3 TWh of 2014, showing an annual drop of close to 27 TWh. This is a decrease of three times the size of that recorded in 2014 (-9 TWh). The drop in MTE trade is supported by the total annulment of over-the-counter (OTC) transactions for all products and by the halving of market negotiations as compared to 2014 (Table 3.9).

The decrease in MTE volumes mainly concerned the baseload products (5 TWh, -27.2 TWh as compared to the previous year), with particular reference to annual figures, whilst the peakload products, which had dropped to just below zero in 2014, remained essentially unchanged (0.8 TWh, +0.14 TWh as compared to the previous year). The poor MTE liquidity, in terms of concluded contracts and temporal distance between the different combinations, complicates analysis of price signals provided in 2015 for 2016. However, focusing the attention on the annual baseload product – which alone represents almost 89% of combinations – the trend observed in 2015 on the MTE reveals stability of product price.

Table 3.9 Volumes traded on the Futures Market in 2015

MWh

DURATION	BASELOAD PRODUCTS	PEAKLOAD PRODUCTS
Monthly	175	13
Quarterly	318	35
Annual	4,515	31
TOTAL	5,008	79

Source: AEEGSI elaboration on GME data.

Derivatives markets

As well as IDEX, the other Italian Power Exchanges also offer a clearing service for Italian products. EEX in particular is proving to be the main market for futures products as far as Italy is concerned. The trade volume on EEX in relation to the main products on the PUN (quarterly and calendar for the following year) was over 35 times the volume traded on IDEX in 2015 (Table 3.10).

If a comparison is made between the prices recorded by the main products without physical delivery traded on EEX and the prices of corresponding products with physical delivery traded on the MTE, it emerges that the former are slightly higher. The Calendar-16 on PUN traded on EEX closed 2015 with an annual average price of 48.79 €/MWh, against 46.33 €/MWh recorded on the

MTE. The same trend was noted for the peakload PUN Calendar-16, which recorded an annual average price of 54.49 €/MWh on EEX, against 52.49 €/MWh on MTE.

Table 3.10 Volume of PUN future products traded in 2015

GWh

EXCHANGE	Q1 2016	Q2 2016	Q3 2016	Q4 2016	CAL 2016
EEX	38,175.8	12,355.2	10,480.3	8,992.1	35,823.6
IDEX	76.4	131.0	33.1	66.3	2,731.8

Source: REF-E elaboration on IDEX and EEX data.

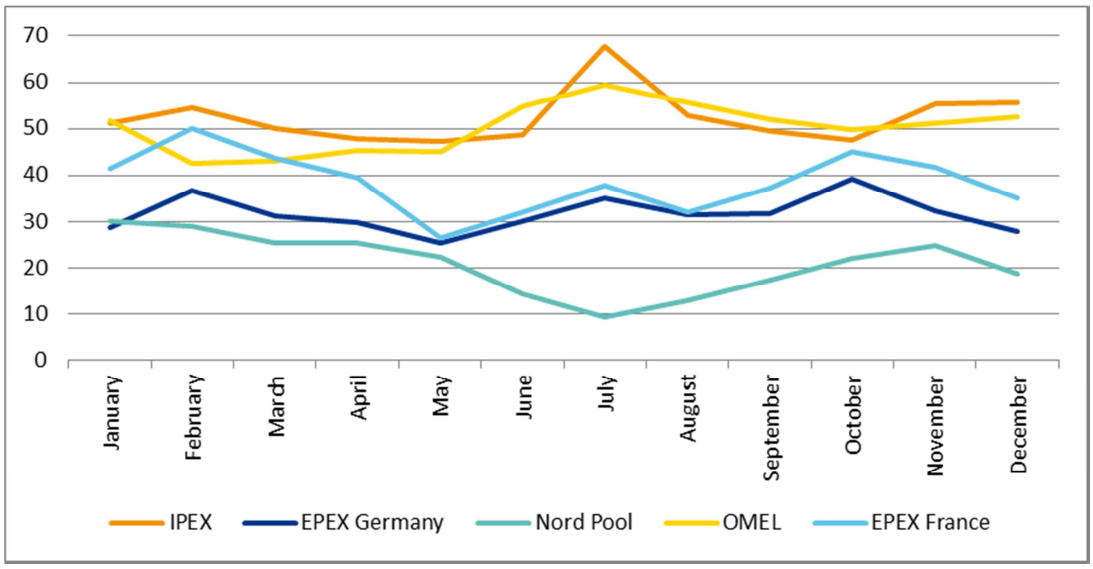
Degree of integration of the Italian market in Europe

On a European level, there were very mixed dynamics on the main Power Exchanges in 2015. NordPool recorded the lowest annual price (20.97 €/MWh) among the Exchanges analysed, a fall of 29.1% on the 2014 price. Going against the trend, the Spanish and French prices displayed a significant increase, the former of 19.1% (reaching 50.32 €/MWh) and the latter 10.9% (reaching 38.48 €/MWh). Germany suffered a drop of 3.5%, recording the second lowest price (31.63 €/MWh), whilst Italy, as illustrated above, remained stable (52.31 €/MWh).

Italy maintains the highest price among the main European electricity markets, with an average PUN-foreign spread of 17 €/MWh. The Power Exchange with the price closest to the PUN is the Spanish Omel, which, thanks to strong appreciation of its electricity price in 2015, reached a spread with the PUN of 2.01 €/MWh. A reverse trend is shown by the PUN-NordPool spread, which went from 22.48 €/MWh to 31.36 €/MWh, thus increasing the differential by 40%. Other spread combinations also widened the gap; in particular, the Spain-NordPool differential increased from 12.65 €/MWh to 29.35 €/MWh. The increase in French price, together with the stability of the Italian price, produced a reduced PUN-France differential, falling by 3.52 €/MWh as compared to 2014.

Figure 3.6 Trend in average monthly price on the main European Power Exchanges in 2015

Average baseload values; €/MWh



Source: AEEGSI elaboration on European Power Exchange data.

Market coupling

During the course of 2015, the Italian level of NTC (net transfer capacity) with Austria, France and Slovenia grew by an average of 4.3% on the previous year. Full advantage was taken of this increase, thanks to the introduction of market coupling, which enabled the optimisation of the use of NTC. From the introduction of market coupling, the average level of net transfer capacity with the abovementioned countries has been 2,575 MWh, of which an average of 2,487 have actually been traded, reaching an NTC saturation percentage of 96.6%. The subdivision of this capacity among the three countries is clearly weighted in favour of France (75%), followed by Slovenia (19%), whilst the remainder is held by Austria (7%). As regards to the connectons with Slovenia is concerned, market coupling was already active in 2011 but only in bilateral form.

Table 3.11 shows the clear drop in hours and volumes of uneconomic flows in relation to the borders in which market coupling is in operation, in contrast with that recorded on the Swiss border, where the allocation of capacity is made exclusively through explicit auctions. The persistence of a limited number of hours of uneconomic flow on the borders of coupled markets can be attributed to monthly and annual contracts of explicit capacity allocation that continue to exist even after the implementation of market coupling.

Table 3.11 Comparison of monthly statistics on Northern borders with the introduction of market coupling

Average

STATISTICS	PERIOD[A]	AUSTRIA	FRANCE	SWITZERLAND	SLOVENIA
Hours of uneconomic imports (h)	Pre *market coupling*	18	58	46	0
	Post *market coupling*	1	3	108	2
Hours with same price (h)	Pre *market coupling*	0	1	1	140
	Post *market coupling*	17	115	1	271
Average imports when uneconomic (MWh)	Pre *market coupling*	220	1,852	2.034	0
	Post *market coupling*	10	95	1,985	53
Average imports when price the same (MWh)	Pre *market coupling*	18	363	815	352
	Post *market coupling*	230	1,830	1,473	355
Use of allocated NTC (%)	Pre *market coupling*	90%	88%	83%	94%
	Post *market coupling*	99%	99%	92%	99%

(A) Pre market coupling: from January 2013 to February 2015; post market coupling: from March 2015 to May 2015.

Source: REF-E elaboration on GME, Terna and foreign Power Exchange data.

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

In the *Annual Report of the Italian Regulatory Authority for Electricity Gas and Water on Monitoring Spot and Futures Electricity Markets and Dispatching Services: final 2014* of 17 December 2015, the Authority provided detailed analysis of the trend of spot and futures electricity markets and dispatching services, based on monitoring data from 2014.

Specifically, this analysis highlighted how, over the course of 2014, the cyclical downturn of investments in thermoelectrical generation capacity continued, in response to the persisting negative situation in terms of consumption and competitive pressure from non-programmable renewable sources.

Furthermore, in relation to single markets, it emerged that:

- on the spot market, the average single purchase price of electricity recorded its lowest annual value since the foundation of the Italian Power Exchange, reducing the distance from the more competitive prices of other European markets;
- on the MSD, the costs sustained by Terna in order to guarantee the security of the electrical system, in the presence of an accentuated production volatility and a further fall in demand, increased slightly as compared to the sharp reduction of 2013 due to the combined effect of the following principal variations:
  - dispatching service supply costs have decreased, in part because of increased competitiveness among thermoelectrical plants;
  - the economic balance between overall system imbalance and the energy required to cover it has increased, reflecting both the limited cost-reflectiveness of the imbalance costs and the behaviours adopted by certain operators in order to profit from the misalignment between imbalance prices and the actual costs incurred by Terna for the supply of resources;

- after the fall recorded in 2013, the volumes traded on futures markets increased once again in 2014: in particular, growth was experienced in transactions on Power Exchanges and on brokering platforms, whilst strictly bilateral transactions (without intermediaries) decreased.

Remit

On the theme of wholesale market monitoring, mention must be made of the implementation of Regulation (EU) 1227/2011 of the European Parliament and of the Council of 25 October 2011 on wholesale energy market integrity and transparency (REMIT). REMIT set out European rules aimed at preventing abusive practices on wholesale markets of electricity and natural gas, forbidding market manipulation and insider trading; they institute a wholesale energy market monitoring system by the Agency for the Cooperation of Energy Regulators (ACER), in close collaboration with the National Regulatory Authorities; such rules require that each Member State grants its national regulatory authority the investigative and implementing powers necessary to carry out this function, in order to control the implementation of the prohibition of market abuse.

To implement the REMIT, the Authority instituted the Register of Market Participants (and keeps it constantly updated in alignment with certain modifications introduced by ACER). The Register has been in operation since 17 March 2015 and allows market operators established in Italy to comply with the registration obligation as per Article 9 of the abovementioned regulations. The Register communicates with the ACER IT system and constitutes part of the largest European Register for the monitoring of wholesale energy markets. The Authority chose to integrate the Register via a suitable extension of its already existing market participant register. This choice has the dual advantage of avoiding further participant administrative costs of accreditation and data registration and allowing increased flexibility for any system modifications or updates.

During the course of 2015, the Authority actively participated in the ACER work groups in promotion of a coordinated approach to implementing the REMIT regulations, involving:

- the revision of the *Memorandum* of collaboration between ACER and the national regulators, as well as the definition of shared protocols for the secure management of information exchanged for the monitoring of wholesale energy markets;
- the update of the Market Monitoring Handbook, an internal manual for ACER and regulators designed to promote cooperation and coordination in the management of REMIT cases;
- the preparation of Guidelines and clarifications in relation to Persons Professionally Arranging Transactions (PPATs), in accordance with Art. 15 of the REMIT regulations (ACER Guidance Note 1/2015), as well as the preliminary analysis of the governance models of organised markets, suitable to allowing the effective implementation of the PPAT obligations;
- the elaboration of clarifications (Q&A) and Guidelines in promotion of the correct and uniform application of the REMIT definitions and regulations, including in consideration of the principal national requests and issues (such as, for example, the methods of processing the REMIT Register for methane motor fuelling stations, for cases of incorporation of companies and regional gas transport enterprises). Within the field of international groups, the Authority has also collaborated very closely in the definition of positions with regard to CEER, in terms of the evolution of financial standards, which has seen, following the reform process promoted by the European Commission, a significant broadening of its field of application to commodity markets, including energy markets. The purpose of this is to avoid developments underway –

for example, relative to the definition of financial instruments or to the qualification of an enterprise as an investment company, as the result of the application of quantitative tests relative to speculative trading undertaken by said enterprise – may translate into an increase in transaction costs for the companies that operate, for trade and hedging purposes, on wholesale electricity and natural gas markets, with inevitable repercussions on energy purchase costs for the end consumer.

Again in 2015, the Authority continued to provide assistance to market operators via informative seminars, meetings and replies to email queries sent to the specifically created email address: remit@autorita.energia.it. Finally, in terms of REMIT, the Authority carried out two inspections in September 2015, intended to check for any possible manipulation of the wholesale electricity market, in violation of the prohibition set out in Article 5 of the REMIT. The outcome of these inspections and further analysis was that no REMIT violations were detected.

3.2.2 Retail market

In 2015, based on provisional data published by Terna, total consumption (minus losses) was around 295 TWh, roughly 4 TWh more than consumption in 2014 (+1.3%). Table 3.12 shows the distribution of this consumption according to end consumer sector.

Table 3.12 Distribution of national electricity consumption per end consumer sector

TWh

PRODUCTION SECTOR	2014	2015(A)	VAR. %
Domestic	64,255	65,000	1.2
Agriculture	64,255	65,000	0.5
Industry	122,505	123,200	0.6
Tertiary	98,951	101,200	2.3
TOTAL	291,084	294,800	1.3%

(A) Provisional data.

Source: AEEG elaboration on provisional Terna data.

In the Authority's operator register, 135 entities declared having sold electricity on the standard offer market, 2 on the safeguarded category market and 487 on the free market (even for a limited period of the year). In 2014, there were 136 vendors on the standard offer market, 2 in safeguarded category services and 450 on the free market; therefore, the number of electricity vendors increased in 2015 by 37 units, for the entry of new players both from adjacent sectors (notably that of the sale of gas) and from other areas. Thus, the trend of expansion in the sales segment, that persists almost without interruption since 2008, is maintained.

With regard to the Authority's Annual Survey, 134 of 135 entities that operate the standard offer regime and 404 of 487 that sell on the free market responded. Of these, 45 declared to have been inactive for the whole of the year, meaning that 359 companies active on the free market responded to the annual survey.

Table 3.13 shows the distribution of end sales of electricity (minus self-consumption and losses), together with the total number of customers (estimated from the number of withdrawal points) per type of market, determined based on the Annual Survey data provided by electricity

operators: producers, standard offer and safeguarded category service providers, wholesalers and vendors on the free market. The sales information gathered by the Authority (considered together with self-consumption) is representative of a population reflecting 92% of end consumers estimated by Terna, the electricity grid operator.

Table 3.13 End market in the sale of electricity

Excluding self-consumption and losses

	VOLUME (GWh)			WITHDRAWAL POINT (thousands)(A)		
	2014	2015	% VAR. 2015/2014	2014	2015	% VAR. 2015/2014
Standard offer market	57,971	56,911	-1.8%	25,409	24,208	-4.7%
Domestic	38,626	37,946	-1.8%	21,203	20,306	-4.2%
Non-domestic	19,345	18,965	-2.0%	4,207	3,902	-7.2%
Safeguarded category service	3,253	3,817	17.4%	75	85	12.7%
Free market	186,587	192,420	3.1%	11,700	12,714	8.7%
Domestic	18,833	21,056	11.8%	8,425	9,377	11.3%
Non-domestic	167,754	171,364	2.2%	3,275	3,337	1.9%
END MARKET	247,811	253,149	2.2%	37,184	37,007	-0.5%

(A) The withdrawal points are calculated according to the 'per day' criterion.

Source: Annual Survey on Regulated Sectors.

The results of the Annual Survey (provisional for 2015) show that, last year, a little over 253 TWh of electricity were sold to around 37 million customers on the end market. Overall, energy consumption grew by 2.2% as compared to 2014, whilst the number of consumers fell by 0.5%. Despite the recovery in electricity consumption, as has occurred for the past few years, the standard offer market has further reduced in size: overall growth, in fact, is to be attributed to the free market and safeguarded category service; consumption in the domestic sector and for use in production recovered slightly, after three years of continued downturn, although levels are still far from those experienced before the financial crisis.

More precisely, the domestic sector has purchased a total of 59 TWh, against the 57.5 TWh of 2014, thus recording an increase of 2.7%; whilst energy bought by the non-domestic sector – this year, a little over 194 TWh, instead of the previous 190 TWh – demonstrated growth of 2% as compared to 2014.

As with in the past, the standard offer market decreased both in terms of energy supplied and number of customers supplied, to the advantage of the free market and, for the first time in several years, also to the advantage of safeguarded categories. In an end market that expanded overall (5.3 TWh more sold than in 2014), standard offer sales fell by over 1 TWh (-1.8% compared to 2014), whilst on the free market, 5.8 TWh more were sold (+3.1%), in the same way that sales increased in safeguarded categories by 0.6 TWh.

The movement of domestic consumers towards the free market continues. Domestic withdrawal points increased overall in 2015 by around 55,000 units, but the standard offer market has lost 897,000 compared to 2014 and instead the free market records an increase of 952,000. Furthermore, the average unit consumption of families supplied by the standard offer market is decidedly lower than that of families that buy energy on the free market: 1,869 kWh/year against

2,246 kWh/year. In 2015, the figure rose slightly in both markets: up 47 kWh for the standard offer regime and 10 kWh on the free market.

In 2015, the safeguarded category service increased again, after years of contraction: energy sold grew by 17.4% (+0.6 TWh), recovering half of the drop registered the year before. The number of customers supplied increased by around 9,500 units (last year it fell by 17,500). As shown in more detail below, the increase is almost entirely attributable to public lighting.

The electricity supplied on the free market in 2015 demonstrated a good recovery: with 192.4 TWh sold, the amount rose by 5.8%, returning to close to that recorded in 2011 (196.3 TWh). As compared to 2011, the total number of customers supplied, however, almost doubled: from 7.7 million to 12.7 million. Average unit consumption, therefore, fell considerably: from 25,500 kWh/year in 2011 to 15,100 kWh/year in 2015. This continued decrease is partly due to the entry of domestic consumers to this market, who are typically characterised by low withdrawal values, but it is above all explained by the fall in non-domestic consumption. In 2015, free market sales to the non-domestic sector recorded, in fact, an increase of 3.6%, climbing to 171.4 TWh, but they are still below the 2013 levels of 172.8 TWh.

Therefore, overall in 2015, the standard offer market acquired 22.5% of all the energy sold on the end market (against the 23.4% of 2014), the safeguarded category service absorbed 1.5% (compared to 1.3% in 2014) and the free market purchased 76% (against the 75.3% of 2014). In terms of withdrawal points, the relationship tends to be reversed: 64.4% of customers are still supplied by the standard offer market and 34.4% has moved to the free market.

With the exception of the top three positions, the (provisional) rankings of the top twenty groups for overall sales to the end market in 2015 (Table 3.14) display some changes in vendor positions as compared to last year.

With a slightly lower share every year, compared to the previous year, but always ahead of the following group, the dominant operator of the whole market remains the Enel group, with 33.7% this year, followed by Edicion with 6.8% and Eni with 4.3%. Of the three, only Eni shows a share increase compared to 2014: indeed, last year's figures are 34% for Enel, 8.1% for Edison and 4% for Eni.

The Enel group maintains its leading position in the overall market thanks to its significant dominance of the mass market, made up of the domestic sector and non-domestic customers with low voltage connections: more than half of this market – 55.5% to be precise – is supplied by Enel, whilst Eni, in second position, holds a share of 42%.

In contrast, in the segments of non-domestic customer with medium and high/very high voltage, Enel is no longer the primary operator, even though it's market shares are not far behind those of its competitors.

Table 3.14 Top 20 Groups for sales to end market in 2015

GWh

GROUP	DOMESTIC CUSTOMERS	NON-DOMESTIC CUSTOMERS			TOTAL	POSITION IN 2013
		BT	MT	AT/AAT		
Enel	43,519	29,589	8,889	3,424	85,421	1°
Edison	1,330	2,658	8,896	4,232	17,116	2°
Eni	3,194	2,375	4,381	915	10,865	3°
Gala	65	3,152	6,072	175	9,463	6°
Hera	1,030	2,933	4,652	262	8,877	5°
Acea	2,289	2,146	2,772	1,323	8,530	4°
Axpo Group	16	1,297	2,619	3,703	7,636	10°
Sorgenia	308	1,616	3,729	381	6,033	7°
A2A	1,500	2,024	2,180	181	5,884	9°
E.On	185	1,496	3,600	522	5,802	8°
Metaenergia	22	481	4,424	172	5,099	18°
C.V.A.	122	1,913	2,729	1	4,765	12°
Energetic Source	79	1,731	1,966	229	4,005	14°
Green Network	200	287	1,741	1,665	3,892	11°
Dolomiti Energia	553	1,220	1,710	217	3,699	15°
Iren	1,096	1,040	1,406	60	3,603	13°
Repower	0	1,778	1,636	5	3,419	16°
Duferco	30	413	505	2,286	3,235	19°
Engie	316	79	977	1,833	3,204	20°
Egea	34	405	2,149	248	2,836	17°
Other operators	3,114	14,194	27,335	5,121	49,764	-
TOTAL	59,002	72,827	94,366	26,954	253,149	-

Source: Annual Survey on Regulated Sectors.

In 2015, their level of concentration of the overall market decreased slightly: the top three operators (corporate groups) cover 44.8% of overall sales (this share was 46.1% in 2014); the HHI dropped from 1,330 to 1,297. As with last year, 16 groups are needed to exceed 75%.

In 2015, 73.8% of energy consumed by families was sold by the Enel group (74.4% in 2014); the second group is Eni, with a share of 5.4%, followed by Acea, which maintains third place with 3.9%. Overall, the top five operators (Edison and A2A and the three already mentioned) hold 87.8% of the domestic sector (88.8% in 2014).

With reference to sales to non-domestic customers with low voltage supply, the Enel group share of 40.6% is well ahead of the 4.3% of the second group, which, for the first time, is Gala. This is followed by Hera, with 4.0%, Edison with 3.6% and Eni with 3.3%.

In 2015, sales by the Edison and Enel groups to non-domestic customers with medium voltage supply were almost identical: 8.896 GWh for the former and 8.889 GWh for the latter. Therefore, both groups hold an equal share of 9.4%. The share of the third group, Gala, however, has increased from 5.5% in 2014 to 6.4%. This is followed by Hera (4.9%) and Metaenergia (4.7%), whilst Sorgenia, which was fifth in 2014, dropped to to seventh place.

The top position of Edison in sales to customers with high or very high voltage connections, to whom it has supplied 15.7% of total purchased energy, appears more stable. in this case, Edison is followed by the Axpo Group (13.7%), enel (12.7%), Duferco (8.5%) and Engie (6.8%).

Standard offer market

Domestic consumers and small businesses with low voltage connection that have not drafted a trade agreement on the free 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 networkd, based on financial conditions and trade quality indicated by the Authority.

The primary results of the Annual Survey show that, in 2015, on the standard offer market, just under 57 TWh were sold to around 24 million withdrawal points (calculated using the 'per day' criterion). Compared to 2014, consumption fell by around 1 TWh (-1.8%), whilst the withdrawal points supplied fell by 4.7%.

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 4.2% of families, 6.4% of points relating to public lighting and 7.2% of other use customers. Within the domestic customers, the sharpest drop was recorded for residents (-4.5%), whilst non-resident domestic users fell by 3.4%; for the latter, there is probably less motivation to seek more advantageous financial conditions on the free market.

Table 3.15 Domestic customers of the standard offer regime per type and per consumption category in 2015

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

TYPE OF CUSTOMER AND ANNUAL CONSUMPTION CATEGORY	VOLUME	SHARE	WITHDRAWAL POINTS (A)	SHARE	AVERAGE CONSUMPTION
0-1.000 kWh	2,558	6.7%	6,173	30.4%	414
1.000-1.800 kWh	6,625	17.5%	4,691	23.1%	1,412
1.800-2.500 kWh	8,253	21.7%	3,850	19.0%	2,144
2.500-3.500 kWh	9,959	26.2%	3,383	16.7%	2,944
3.500-5.000 kWh	6,750	17.8%	1,656	8.2%	4,076
5.000-15.000 kWh	3,486	9.2%	540	2.7%	6,454
> 15.000 kWh	316	0.8%	13	0.1%	25,050
TOTAL DOMESTICS CUSTOMERS	37,946	100.0%	20,306	100.0%	1,869
OF WHOM					
Residents up to 3 kW	29,173	76.9%	14,586	71.8%	2,000
Residents over 3 kW	4,368	11.5%	1,116	5.5%	3,915
Non-residents	4,405	11.6%	4,604	22.7%	957

(A) Withdrawal points are calculated using the 'per day' criterium.

Source: Annual Survey on Regulated Sectors.

Whereas, in general, in 2015, there was a recovery in energy consumption, the reductions in sales volumes were not so great (-1.8% for domestic use and -2.2% other); in the case of public lighting, on the contrary, a clear increase in consumption was recorded (15.2%). As a result, the shares of the various uses as a percentage of overall consumption remained practically unchanged as compared to 2014. Domestic customers bought 67% of total volume (37.9TWh), which, in terms of numbers (20.3 million withdrawal points), represents 84% of all customers supplied under standard offer (with an overall drop to just over 24 million withdrawal points).

Resident families make up 77.3% of domestic customers supplied on the standard market, buying 88.4% of the electricity sold to domestic customers. Of these resident families, 92.9% 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 96.3% of withdrawal points. Almost all domestic customers (96.2%) pay the compulsory two-tier tariff, i.e. the financial situation that varies according to hourly band in the day and that, starting from 1 July 2010, is applied automatically to customers with a reprogrammed electronic meter; only 1.5% 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 2.2% of domestic withdrawal points. The percentage of customers with the compulsory two-tier tariff grew by 1% as compared to the previous year and that of customers with the voluntary two-tier tariff fell by 0.6%, in the same way that that of customers with the non time-of-use tariff dropped by 0.4%. This third tariff is decreasing rapidly year-on-year, as smart meters gradually replace traditional ones: in 2015, it was used by 2.2% of all customers, but in 2010 it was still as high as 65.9%.

In contrast to recent years, in 2015 the average unit consumption by domestic customers rose, though only slightly, to 1,869 kWh/year (Table 3.15), up from 1,822 kWh recorded in 2014 (in 2012, it as at 2,014 kWh).

Considering that 71.8% of withdrawal points under standard offer have a system with a power limit of 3 kW, the average consumption of Italian families can be valued at 2,000 kWh/year, a value of around 50 kWh more than that recorded in 2014. The average consumption of residents with a power limit of more than 3 kW is higher, at 3,915 kWh, also an increase compared to previous years, with last year's recorded figure of 3,788 kWh; the average consumption of non-residents also rose slightly as compared to 2014, increasing from 928 kWh to 957 kWh in 2015.

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 3.16 Non-domestic customers on the standard market per type and per consumer category in 2015

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

TYPE OF CUSTOMER AND CONSUMER CATEGORY	VOLUME	SHARE	WITHDRAWAL POINTS (A)	% SHARE	AVERAGE CONSUMPTION
0-5 MWh	3,683	19.4%	3,133	80.3%	1,176
5 – 10 MWh	2,471	13.0%	353	9.0%	7,007
10 - 15 MWh	1,662	8.8%	136	3.5%	12,228
15 - 20 MWh	1,336	7.0%	77	2.0%	17,331
20 - 50 MWh	4,530	23.9%	149	3.8%	30,501
50 - 100 MWh	2,699	14.2%	40	1.0%	67,961
100 - 500 MWh	2,388	12.6%	15	0.4%	161,446
500 – 2,000 MWh	127	0.7%	0	0.0%	708,339
2,000 – 20,000 MWh	17	0.1%	0	0.0%	2, 942,074
20,000 – 50,000 MWh	52.1	0.3%	0	0.0%	20,963,040
TOTAL NON-DOMESTIC CUSTOMERS	18,965	100.0%	3,902	100.0%	4,860
OF WHOM					
Non-domestic up to 16.5 kW	9,888	52.1%	3,622	92.8%	2,730
Non-domestic over 16.5 kW	8,715	46.0%	264	6.8%	32,950
Public lighting	362	1.9%	16	0.4%	23,241

(B) Withdrawal points are calculated using the 'per day' criterium.

Source: Annual Survey on Regulated Sectors.

Table 3.16 shows the distribution of volume (19 TWh) and the withdrawal points (3.9 million) for non-domestic use under standard offer per consumer category. The first consumption band accounts for 80% of customers, for a corresponding volume of just below a fifth of total consumption. The second band, of customers with an annual consumption of between 5 and 10 MWh, accounts for a further 9 % of non-domestic withdrawal points and absorbs 13.2% or electricity sold for non-domestic use. Essentially, 90% of non-domestic customers demonstrate annual consumption not exceeding 10 MWh.

Withdrawal points with a power of over 16.5 kW represent just 6.8% of non-domestic consumers supplied under standard offer, but they absorb 46% of overall sales. These customers are obviously characterized by higher annual consumption values: half of the withdrawal points with power of over 16.5 kW fall under the categories with consumption of between 20 and 500 MWh and consume 85% of the total energy sold to these customers (8.7 TWh).

Safeguarded categories

All non-domestic customers who are not eligible for the standard offer regime and who find themselves, even temporarily, without an electricity purchase agreement on the free market are admitted to the safeguarded category service. The safeguarded category service, however, is also the regime in which this type of user ends up in the case of persistent default.

From 2008, the service is issued by sales companies selected via auction, which obtain the right to practise the service for two consecutive years. In November 2013, the competition procedure for practising the safeguarded category service was held, set (exceptionally for three years) from 2014 to 2016. Two companies were awarded the right to practise the service:

- Enel Energia for eight regions: Veneto, Emilia Romagna, Friuli Venezia Giulia, Sardinia, Campania, Abruzzo, Calabria and Sicilia;
- Hera Comm for the remaining 12 regions, that is to say: Liguria, Piedmont, Valle d'Aosta, Trentino Alto Adige, Lombardy, Tuscany, Marche, Umbria, Lazio, Puglia, Molise and Basilicata.

According to data from Enel Energia and Hera Comm, in 2015, in contrast to what happened in the two previous years, the safeguarded category regime broadened with the inclusion of 10,000 withdrawal points more than in 2014. More precisely, last year, 84,785 withdrawal points were supplied under the safeguarded category regime (calculated using the 'per day' criterium and thus for the fraction of the year for which they were supplied), for a total of 3.8 TWh. In practice, the safeguarded category market has grown by 12.7% in terms of withdrawal points and by 17.4% in terms of energy consumed, as compared to 2014.

According to that which emerges from data sent by the operators, the broadening of the safeguarded category service can be attributed almost entirely to the transfer to this market of numerous users public lighting, who have decreased in number, however, in standard offers and the free market. Due to the increase in withdrawal points and volumes, the percentage of public lighting as a share of the whole market has risen from 15% to 21% in terms of customers and from 9% to 12% in terms of volumes purchased. Industrial and commercial uses have thus decreased in importance in this market, though they remain prevalent: in 2015, they counted for 88% of all energy sold (in 2014, the share was 91%). Of this energy purchased, 69% travels on the grid at medium voltage, but a not-insignificant share (27%) is supplied at low voltage.

As in 2014, the share of Hera Comm was higher than that of Enel Energia but the difference between the two was smaller, due to the increased growth in recorded sales by Enel Energia, as compared to Hera Comm. Thus, in 2015, the safeguarded category service was more equally shared between the two companies: the energy sold by Enel Energia rose to 45.5% (from 42.5% in 2014), whilst that sold by Hera Comm dropped from 57.5% in 2014 to 54.5% last year.

Free Market

As seen above, according to provisional data gathered in the annual survey on regulated sectors, in 2015, 192.4 TWh of energy were sold, 3.1% more than in 2014, to 12.7 million customers, an increase of 8.7% as compared to 2014. The free market is under continuous expansion in terms of number of customers, but not for energy sold: indeed, this was the first clearly positive variation since 2011.

Regardless of the quantity sold, constant growth in number of active companies has been recorded for years and 2015 was no exception: the number of active vendors rose by 39 units (+12%) (from 320 to 329). Therefore, the average unit sales volume of companies operating in this market continues, invariably, to decrease. In 2015, it dropped to 536 GWh, the lowest ever recorded value, equal to half of that recorded in 2009, and as little as 40% of that recorded in 2007, the year of complete market opening.

As always, the largest numerical increase among sales companies occurred in the smaller operator category (which includes companies with sales of less than 0.1 TWh), where the number of vendors rose by 40 units, from 222 in 2014, to 262. The increase in sales recorded in 2015 was almost entirely to the advantage of larger operators. The top 35 companies (for quantity of energy sold), corresponding to just under 10% of active vendors, accounted for 86.5% of overall sales in 2015; the same figures, calculated in 2014, were, respectively, of 10% and 86%. In practice, as has been occurring now for some time, a fraction of active companies that decreases slightly year-on-year manages to satisfy an ever slightly increasing share of consumers, notwithstanding the number of new entries.

Less than half of the 359 active companies, precisely 45.7%, sell energy in between 1 and 5 regions; 55 companies, 15.3 %, sold energy to the whole of Italy; the remaining 140 companies operated in between 6 and 19 regions.

The corporate composition of the social capital of the electricity vendors as of 31 December 2014, limited to primary direct shareholdings, demonstrates a poor foreign presence: only 6 companies (of the 345 that provided data) have a non-Italian majority shareholder. The direct foreign shareholders are mainly Swiss or German companies.

Customer details according to type and voltage (Table 3.17) demonstrate that the increase in withdrawal points supplied was recorded entirely for low voltage (+8.7%), in particular thanks to the very significant increase in the domestic sector (+11.3%). On average, however, customers on medium and high voltage have decreased in number; medium voltage only slightly (-0.5%) and high voltage proportionally more (5.7%).

The same cannot be said of sales volumes, where variations as compared to 2014 are all positive, with the sole exception of public lighting supplied at low voltage. The highest increase concerns, once again, consumption by families, which increased by 2.2 TWh as compared to the previous year (+11.3%); electricity supplied to other low voltage users also increased significantly by 4.5%. Lower growth rates, albeit still positive, were recorded for use in production at medium and high voltage.

From a relative point of view, it can be observed that 38.2% of volume was purchased by consumers connected at low voltage (37.2% in 2014), 47.8% at medium voltage (48.6% in 2014) and 13.9% at high and very high voltage (14.1% in 2014). Consequently, therefore, the share of “other uses” (different from domestic uses and public lighting), which was of 87.1% in 2014 on the free market, dropped to 86.5% in terms of energy and 24.5% in terms of withdrawal points (26.1% in 2014).

Table 3.17 Free market per type of customer

TYPE OF CUSTOMER	VOLUME (GWh)			WITHDRAWAL POINTS (thousands)(A)		
	2014	2015	VARIATION 2015/2014	2014	2015	VARIATION 2015/2014
LV	69,589	73,578	5.7%	11,599	12.614	8.7%
Domestic	18,833	21,056	11.8%	8,425	9,377	11.3%
Public lighting	4,879	4,592	-5.9%	224	217	-3.2%
Other uses	45,877	47,930	4.5%	2,950	3,020	2.4%
MV	90,650	92,029	1.5%	99	99	-0.5%
Public lighting	373	384	3.0%	1	0.99	-1.3%
Other uses	90,277	91,645	1.5%	98	98	-0.5%
HV and VHV	26,348	26,813	1.8%	0.97	0.92	-5.7%
Other uses	26,348	26,813	1.8%	0.97	0.92	-5.7%
TOTAL	186,587	192,420	3.1%	11,700	12,714	8.7%

(A) Withdrawal points are calculated using the 'per day' criterium..

Source: Annual Survey on Regulated Sectors.

Among **domestic** customers, the most significant category in terms of withdrawal points is that of consumption of between 1,000 and 1,800 kWh, which amounts for 23.2% of customers. That said, the following two categories also carry a similar weight. If we consider purchase volumes, however, the most important category is that of consumption of between 2,500 and 3,500 kWh/year, to which 28% of all energy purchased by the domestic sector of the free market is sold. In fact, 85% of withdrawal points consume no more than 3,500 kWh/year. In each category, the average consumption that emerges from free market data is very similar to that of domestic customers supplied under standard offer conditions.

In 2015, 16.2% of domestic customers, around 1.5 million, are recorded as having signed a 'dual fuel' contract. The number of domestic customers with this type of contract grew, insofar as it stood at 1.3 million the year before, but their share of consumption remained essentially unchanged as compared to that recorded in 2014. The overall consumption of these customers is 3.3 TWh, almost 16% of all energy sold to domestic customers on the free market. Again, average consumption is similar to general consumption in this case, too.

In contrast with the standard offer market, where the two-tier tariff is largely prevalent, insofar as it is compulsory from a certain date onwards, the distribution of customers according to tariff applied on the free market demonstrates a substantial preference for non time-of-use contracts, chosen by more than half of all customers (59.1% of withdrawal points) and has increased as compared to 2014 (55.4%). The two-tier tariff was chosen by 34.2% of customers and the time-of-use tariff by 6.7%. Customers probably prefer the time-of-use tariff due to the fact that the bills are easier to calculate and understand.

As far as **non domestic** customers are concerned, sales, in terms of volume, are concentrated in the consumer categories between 100 to 20,000 MWh/year, which altogether make up 60.5% of total energy purchased by the non-domestic sector. However, 55.4% of customers belong to the first category, i.e consume less than 5 MWh a year.

Among non-domestic customers, dual fuel contracts are not widespread: around 61,700 withdrawal points favoured this type of supply out of more than 3.3 million overall and nearly all connected at low voltage, purchasing around 5.6 TWh of a total 171 TWh of energy.

Concentration in the electricity retail market

Analysing the market shares in sales to end consumers, it emerges that the concentration in the **standard offer market** has increased slightly compared to 2014. The share held by the leading vendor, Enel Servizio Elettrico, rose, in fact, by three decimal percentage points, from 85.4% in 2014, to 85.7%; it is followed by Acea Energia (unchanged at 5%), A2A Energia (3.4%, down from 3.6% in 2014) and Iren Mercato (unchanged at 1.2%). As with last year, the other operators have shares of less than 1%.

The Enel group, which, as we have seen, dominates the safeguarded category sector of the end electricity market, is decidedly less important in the **free market**, although here, too, it holds the leading position. In 2015, its share of sales was 18.1%, nine points above the Edison group. This difference increased compared to 2014, considering that Enel's share grew, whilst Edison's fell (this year to 8.9% from 10.7% the year before). In contrast, Eni maintains third position with a slight share increase compared to 2014 (5.6%, up from 5.3%). The national degree of concentration in the free market, however, remains low: the share held by the top three groups has been stable at around 33% for several years; the share of the top ten dropped from 57.5% to 56.7%. The HHI also dropped from 597 to 575 and is significantly below the threshold of 1,500, above which the market is judged to be moderately concentrated.

In the **entire retail market**, the dominant operator is still the Enel group, although its share is gradually decreasing over time: in 2015, it dropped to 33.7% from 34.1% in 2014. Its importance, however, varies widely in the different segments of the end market. In the domestic and non-domestic sectors with low voltage supply, the group holds an extremely large share and, above all, is far ahead of its rivals; in contrast, in sales to non-domestic customers with medium and high/very high voltage supply, Enel has no longer been the leading operator since 2013 and, obviously, holds market shares close to those of its competitors.

Two corporate groups achieved a market share of over 5% in 2015: Enel, with 33.6% (down from 34.6% in 2014), and Edison, with 6.8% (down from 8.2% in 2014). These are followed by the Eni group, with a market share of 4.3% and Gala, with 3.7%. The top ten operators (corporate groups) amount for 65.4% of total sales (against the 67.6% of the previous year). Table 3.16 shows in detail the market shares per level of voltage.

Table 3.18 Retail market: market shares of the top three operators per voltage level

VOLTAGE LEVEL	2014		2015	
	No. OPERATORS WITH SHARE>5%	SHARE OF TOP 3 OPERATORS	No. OPERATORS WITH SHARE >5%	SHARE OF TOP 3 OPERATORS
Low voltage (domestic)	2	83.7%	2	83.1%
Low voltage (non-domestic)	2	52.1%	1	49.0%
Medium voltage	4	26.6%	3	25.3%
High and very high voltage	7	38.5%	6	42.1%
MARKET TOTAL	2	46.9%	2	44.8%

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

With regard to the sale prices on the retail market, the Authority has information gathered from two surveys:

- the survey carried out pursuant to the resolution of 20 November 2008, ART/elt 167/08, in which is gathered, every quarter, monthly data on prices invoiced by vendors to domestic and non-domestic customers, divided into consumer categories and per type of market;
- the survey carried out within the scope of the *Annual Survery on Regulated Sectors*, in which is gathered competence data for the previous year, divided according to various retail categories (type of market, consumer sector and category, type of contract applied).

At the end of 2011, the Authority approved the *Testo integrato del monitoraggio dei mercati della vendita al dettaglio dell'energia elettrica e del gas natural* (Integrated Code for Monitoring the Electricity and Natural Gas Markets; TIMR), as part of the retail monitoring system, 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, gother 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 set out by Directive 2008/92/CE of 22 October 2008 concerning the European procedure on price transparency for the industrial gas and electricity end customer.

Data from the second survey is instead used for the statistical analysis carried out by the Authority, especially that which forms the basis for the Annual Report.

As far as monitoring the application of two-tier tariffs is concerned, Art. 6 (iii) of the *Testo Integrato vendita* (Integrated Sale Code; TIV) establishes that each safeguarded category operator must submit quarterly to the Single Buyer (with reference to each month of the quarter in question) the PED charges applied to each customer supplied, distinguishing between withdrawal points for which a differentiated charge per hourly band is applied and points for which a non time-of-use charge is applied. The operator must also declare how many of its customers it made aware of the differentiated consumption per hourly band or per month or per group of months before the application of the differentiated PED charges per band. This information was used for control purposes by the Authority in the intial implementation of two-tier tariffs to domestic customers.

As part of the Annual Survey on Regulated Sectors, sales operators were asked, as standard, to submit data relative to end prices imposed on 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 data 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 3.19, which displays the prices imposed on domestic customers divided according to consumption category, the values vary from 178.6 €/MWh, for the category 1,800-2,500 kWh/year, to a maximum of 331.7 €/MWh for the smallest category. The price before taxes follows a "U-shaped" trend, insofar as it decreases with the increase in customer consumption as far as the third category, then increases again for the largest consumption category. The decreasing curve reflects the reduction in fixed unit costs, whilst the increase is due to the progressive structure of domestic tariffs. Supply costs, instead, as can be reasonably expected, decrease continuously with the increase in consumption, but the fall does not compensate for the progressive effect of the tariffs. Further proof of the extreme variability of the prices imposed by vendors is found in the data shown in Table 3.20, which, for each domestic customer consumption category, divided into price bands (expressed in €/MWh), the prices found on the free market and the share of corresponding electricity sold. The variability proves to be wider in the lowest consumption category, whilst in further categories the number of different prices found is greater, especially for the central bands. The table also indicates the minimum price and maximum price, which differ enormously (in some cases, well over triple).

Table 3.19 Average end prices before taxes for domestic customers in 2015

€/MWh; provisional data

CONSUMPTION CATEGORY (kWh/year)	AMOUNT OF ENERGY (GWh)	WITHDRAWAL POINTS (thousands)	PRICE BEFORE TAXES	OF WHICH SUPPLY COSTS
< 1,000 kWh	3 374	7 904	331,55	133,73
1,000-1,800 kWh	9 705	6 867	184,46	98,84
1,800-2,500 kWh	12 591	5 875	178,56	95,09
2,500-3,500 kWh	15 863	5 390	192,40	93,63
3,500-5,000 kWh	11 087	2 722	216,16	92,60
5,000-15,000 kWh	5 841	904	250,33	89,56
> 15,000 kWh	542	21	276,62	85,14
DOMESTIC CUSTOMER TOTAL	59 002	29 683	207,07	96,42

Source: Annual Survey on Regulated Sectors.

Table 3.20 Percentage of prices applied to domestic customers in 2015 per price band

minimum and maximum prices in €/MWh

CONSUMER CATEGORY (kWh/year)	PRICE BAND					MINIMUM PRICE	MAXIMUM PRICE
	30-75	75-100	100-125	125-150	>150		
< 1,000 kWh	6	15	33	23	23	34,7	286,0
1,000-1,800 kWh	5	41	39	11	4	56,3	179,6
1,800-2,500 kWh	5	49	34	8	4	50,0	185,6
2,500-3,500 kWh	6	52	34	6	2	48,6	164,5
3,500-5,000 kWh	10	52	29	7	2	48,0	166,4
5,000-15,000 kWh	17	53	22	6	2	33,9	189,8
> 15,000 kWh	30	46	17	5	2	36,3	189,8
DOMESTIC CUSTOMER TOTAL	12	54	24	7	3	33,9	189,8

Source: Annual Survey on Regulated Sectors.

Table 3.21 Average end prices before taxes for non-domestic customers in 2015

€/MWh; provisional data

VOLTAGE LEVEL	AMOUNT OF ENERGY (GWh)	WITHDRAWAL POINTS (thousands)	PRICE BEFORE TAXES	OF WHICH SUPPLY COSTS
Low voltage	71,487	7,139	192.67	87.79
Medium voltage	92,029	99	147.19	69.22
High and very high voltage	26,813	0.92	106.06	60.65
NON-DOMESTIC CUSTOMERS TOTAL	190,330	7,239	158.48	74.99

Source: Annual Survey on Regulated Sectors.

With the progressive development of the market, the range of offers available for end customers has broadend considerably, and they can choose from among very different types of offer. Some of these include packages with ancillary services (assistance, maintentance, insurance, etc.), for which the price offered takes into consideration, in reality, additional elements, in relation to the price of the energy itself. Other offers 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.). Some vendors also offer price structures, such as price blocks, 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). Yet more offers are tied to compliance with certain consumption thresholds, above which additional charges are applied. Considering the extreme variety in available offers described, and in line with that noticed and

published on an international level, it is more suitable to develop a single summary data item for the end market, including all the contract formulae.

Table 3.22 displays the prices before taxes, dividing the electricity customers according to type of hourly tariff, 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 3.22 Average end prices before taxes in 2015 per type of hourly tariff

€/MWh; provisional data

HOURLY TARIFF	AMOUNT OF ENERGY (GWh)	WITHDRAWAL POINTS (thousands)	PRICE BEFORE TAXES	OF WHICH SUPPLY COSTS
Non time-of-use	30,354	6,104	179.67	90.48
Two-tier	98,286	23,078	179.69	83.99
Time-of-use	120,691	4,404	168.87	74.24
CUSTOMER TOTAL	249,332	33,585	174.45	80.06

Fonte: Indagine annuale sui settori regolati.

Table 3.23 Average final prices before taxes for the purchase of electricity, in 2015, imposed on domestic customers with dual fuel contracts

€/MWh; provisional data

CONSUMER CATEGORY (kWh/year)	AMOUNT OF ENERGY (GWh)	WITHDRAWAL POINTS (thousands)	PRICE BEFORE TAXES	OF WHICH SUPPLY COSTS
< 1,000 kWh	106	279	442.07	151.65
1,000-1,800 kWh	532	376	189.78	110.98
1,800-2,500 kWh	729	341	185.23	106.77
2,500-3,500 kWh	931	317	199.42	105.49
3,500-5,000 kWh	634	156	224.89	105.05
5,000-15,000 kWh	337	52	261.43	104.82
> 15,000 kWh	44	1	246.90	92.08
DOMESTIC CUSTOMER TOTAL	3,313	1,522	214.34	107.81

Source: Annual Survey on Regulated Sectors.

Table 3.24 Average final prices before taxes for the purchase of electricity, in 2015, imposed on non-domestic customers with dual fuel contracts

€/MWh; provisional data

VOLTAGE LEVEL	AMOUNT OF ENERGY (GWh)	WITHDRAWAL POINTS (thousands)	PRICE BEFORE TAXES	OF WHICH SUPPLY COSTS
Low voltage	1,486	59.65	198.09	91.36
Medium voltage	2,412	1.99	137.35	69.08
High and very high voltage	1,712	0.03	111.80	67.52
NON-DOMESTIC CUSTOMER TOTAL	5,610	61.67	145.65	74.51

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) who are obliged to send the basic information necessary for the Authority to calculate the indicators, 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.

From January 2012, data gathered by the Authority on both the evolution of safeguarding regimes for end customers, defined according to the provisions of Italian Law no. 125 of 3 August 2007, and as confirmed by Legislative Decree no. 93/11 (standard offer regime and safeguarded category services) and default information has been included as part of the retail monitoring system. 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. For 2015, the Authority identified the parties obliged to send data subject to monitoring, by publishing a list of their names on its website. Specifically, a total of 121 parties are under this obligation. With reference to the electricity sector only, 9 distributors and 58 vendors of electricity are included on this list. Of these, only three supply only electricity, whilst the remainder sell both electricity and natural gas. The data collection, referring to relevant information as of 1 January, began at the start of April 2015.

On 12 February 2015, the Authority published the *Retail Monitoring Report*. The *Annual Report 2012 and 2013*, which includes, precisely, a summary of the outcomes of monitoring the electricity and natural gas retail market for 2012 and 2013. For the electricity sector, the analysis highlighted, relative to supply, competitiveness that is uniform throughout the country, but irregular in terms of type of customer. Whereas, in fact, the sale to large customers (at medium voltage) displays effective competition, with positive indices of concentration and switching, for domestic customers and small businesses, indications of the opposite emerge. The standard offer market constitutes the prevalent supply method, still supplying 75% of domestic customers in 2013. Furthermore, it is observed that almost 60% of customers who have moved from standard offer to supply on the free market have chosen the same supplier that previously provided their electricity under standard offer (or one of the vendors of the same corporate group as the previous provider). As far as concentration indices are concerned, during the two years in question, the leading operator held around 50% of the volumes supplied to domestic customers on the free market, whilst the top three operators together hold over 70%. In the face of critical situations, the free market also presents a certain dynamism for domestic customers: the proportion of customers in Italy who left the standard offer market is one of the highest in Europe, with a switching rate of 7.6% in 2013. A similar situation was encountered among small businesses ('low voltage, other uses' customers), though with less marked critical situations. Indeed, despite the fact that the standard offer market represents the predominant supply method, 40% of these customers chose the free market in 2013 (68% of sales volume).

More generally, with regard to the indicators relative to switching (in terms of regulatory compliance and process efficiency), quality of sales service and telephone services, and commercial quality of the distribution service, as well as to non-requested contracts and to default indicators, in the two years in question, elements emerged that highlight, on the one hand, significant improvements in several areas of the country and, on the other, the persistence of critical aspects on which the Authority focused in-depth analysis and intervention.

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.

From the date of the initial publication of the system, there have been an average of around 1,100 visitors/day to the search homepage, with a number of daily peaks over over 5,000 visitors. In particular, in 2015, there were a total of over 330,000 visitors to the homepage, whilst 500,000 calculations were carried out. The searches made in March 2016, using the profile of average consumption and domestic customer, in the largest Italian cities, show around 45 electricity supplier offers, predominantly fixed price, with the cheapest offer that offers potential savings, calculated based on annual spending after taxes for houses in Rome, of around 40 €/year (-8.5%) compared to the existing standard offer supply for the first quarter of 2016, and of 130 €/year (-22%) compared to the least advantageous offer. Comparing the data from March 2016 with that calculated in March 2015, it can be observed that the cheapest offer today offers increased potential savings as compared to standard offer supply (in 2015 it was -29 €/year), in the same way that potential savings compared to the least advantageous offer are also higher (-110 €/year in 2015).

Searches for dual fuel offers (electricity and gas) display up to six or seven results; the minimum annual spending associated with the cheapest dual fuel offer is slightly higher (by around 12 €/year) than the figure obtained by adding together the costs of the cheapest single fuel supply

offers for the electricity and natural gas available for the same location (this difference was almost zero in March 2015), but still around 135 €/year (-7.8%) less than the total cost at standard offer prices (in March 2015, savings were 163 €/year). For both electricity and gas supply, the cheapest offers, based on the list of search results, are those with fixed prices, contract negotiated via internet, payment via direct debit and e-billing.

On the theme of measures adopted to promote effective competition, mention must also be made of the **Integrated Information System** for the management of the flow of information on electricity and natural gas markets, conceived by the Authority as far back as 2008 and launched in 2012. The aim of this system, instituted with the Single Buyer with Italian Law no. 129/10 of 13 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, 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 was given for experimenting the 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.

Moreover, the Authority set the date as of which switching transactions and operations for the electricity sector must be managed by the Integrated Information System for 1 November 2015. 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.

Again in the autumn of 2015, the new regulations were defined for the switching process within the field of the Integrated Information System, together with the management of contract termination and the implementation of last resort services. The most important aspects of this reform concern:

- the radical change in market structure, which assigns the responsibility for switching, in the case of both change of supplier and activation of last resort services, to the Integrated Information System (and no longer the distributor);
- the reduction of switching time to three weeks;
- the definition of a single process, with no differentiation of time or execution, in cases in which the applicant dispatching user expresses the wish to take advantage or not of the so-called “conditional switching”, which consists of the right to withdraw a switching application once certain end customer information comes to light with regard to defaulting (existing supply cut-off requests) and propensity to change supplier (number of switching applications made).

However, within the sphere of responsibility of the distributor, both the collection and distribution of measurements and, temporarily, operational data upon activation of supply, and the

connection and disconnection of withdrawal points, without prejudice to the obligation to submit to the Integrated Information System certain outcomes of such services, in order that the System may update the Official Central Registry. The definitive implementation of this new System process is set for 1 June 2016.

Finally, in order to complete the switching reform, the Authority has broadened the informative content of the Registry, which will be enhanced by different types of information that fall under the following categories:

- information on the withdrawal point and its localisation;
- information on the end customer associated with the withdrawal point;
- important commercial and statistical information;
- information pertinent to settlement management;
- information pertinent to issuing a social bonus;
- identification of the operator associated with the withdrawal point;
- technical information on the installed meter.

The new Registry data was identified with the aim of semplifying 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.

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 2015[71].

Based on the data collected, 2015 was also characterised by intense switching. A total of over 3.5 million customers (15,000 points less than 2014), i.e. 9.6%, changed supplier at least once over the course of 2015. In terms of volumes, this corresponds to more than a quarter (27.6%) of all distributed energy (Table 3.25). For customers with lower consumption (domestic and non-domestic at low voltage), switching is stable compared to 2014 in terms of both volume and withdrawal points. In more detail, in 2015, change of supplier was made by:

- 8% of families (i.e. 2 million and 400,000 withdrawal points), corresponding to a share of 10 %;
- 15.8% (i.e. just over 1.1 million) of non-domestic customers connected at low voltage, corresponding to a share of 15.5%.

[71] 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 used.

In contrast to previous years, the level of switching of the non-domestic sector at medium or high voltage regained vitality in terms of both energy ant withdrawal points: more than a third of these customers changed supplier in 2015, moving 35% of their overall distributed volume of energy.

Table 3.25 Rates of switching by end customer

TYPE OF CUSTOMER	2014		2015	
	VOLUME	WITHDRAWAL POINTS	VOLUME	WITHDRAWAL POINTS
Domestic	10.3%	8.1%	10.1%	8.0%
Non-domestic	28.0%	15.8%	32.6%	15.8%
of whom:				
- low voltage	28.5%	15.6%	28.6%	15.5%
- medium voltage	32.3%	28.7%	34.8%	34.4%
- high and very high voltage	17.1%	11.9%	34.6%	35.2%
TOTAL	24.2%	9.6%	27.6%	9.6%

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, making use 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 1 January 2015, the new Help-Desk operational regulations came into force (described in Part 5).

In the past year, there has been a recorded decrease of 12% (from 46,323 to 40,775) 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 1 January 2015 and 31 December 2015, there were 23,316 communications – i.e. combined complaints, reports and requests for information – concerning the electricity sector (around 66% of overall communications), a decrease as compared to 2014. There were some very slight changes in proportion between complaints and requests for information, the latter decreasing slightly in absolute value.

Table 3.26 Subject of communications received by the Energy Consumer Help-Desk

SUBJECT	2014		2014	
	NUMBER	SHARE	NUMBER	SHARE
Contracts	7,909	27%	7,770	29%
Billing	7,813	26%	6,906	26%
Market	4,619	15%	4,894	18%
Bonuses	5,425	18%	3,335	12%
Connection/Repairs	1,199	4%	916	3%
Technical quality	591	2%	852	3%
Metering	478	2%	552	2%
Prosumers	573	2%	547	2%
Prices and tariffs	516	2%	433	2%
Commercial quality	321	1%	273	1%
Non-competence	396	1%	361	1%
TOTAL	29,840	100%	26,839	100%

Source: AEEGSI elaboration of Energy Consumer Help-Desk data.

From the analysis of the data in Table 3.26, it emerges that the most frequent subjects of the communications received in 2015 are, in order: contracts, billing, the market and bonuses. Compared to 2014, there is a slight increase in communications regarding the market and, instead, a decrease in communications on billing, bonuses 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 2014, on problems concerning the effective compliance with the commercial Code of Conduct and the lack of knowledge about the vendor, whereas there was a decrease in those on 'double billing' and on the regularity of switching. Market issues also concern complaints (also decreased in number) managed according to the special conciliation procedure.

Communications on electricity bonuses 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, which increased slightly in 2015, whilst those on switching halved in number. Finally, with regard to connection and repairs, communications received mainly concerned take-overs (though halved in number), operation deadlines and the activation and variation of power.

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

Final sales prices

In 2015, on the subject of prices and competition, the Authority attended several hearings before the Parliament Commissions[72], and sent a report to the Government and to the Parliament. In particular:

- on 22 April, it attended a hearing before the 10th Industry, Trade and Tourism Commission of the Senate of the Italian Repubblic on the subject of prices;
- on 18 June, it sent a report to the Government and Parliament on the subject of tariffs and prices;
- on 23 June, it presented its observations on the bill for the Annual Market and Competition Law to the combined Commissions of Finance and of Productive Activities in Trade and Tourism of the Chamber of Deputies;
- with regard to the same draft law, on 24 November, it presented its observations, since subject to examination by the other branch of Parliament, according to the provisions of the formation of Italian law, to the Senate Industry, Trade and Tourism Commission.

With regard to the **hearing of 22 April**, in-depth discussion can be found in the Annual Report of last year.

With the **June 2015 report**, the Authority recalled the attention of the Government and Parliament to the progress of the Authority's activity towards reforming the structure of electricity tariffs applicable to domestic customers (already described in Paragraph 3.1.3).

In the **hearing of 23 June 2015**, the Authority presented its observations on the bill for the Annual Market and Competition Law (AC 3012), with specific reference to:

[72] Filing a memorandum in each case. Specifically:
- Memorandum 174/2015/I/com of 21 April 2015;
- Report 287/2015/I/com of 18 June 2015;
- Memorandum 286/2015/I/com of 18 June 2015;
- Memorandum 545/2015/I/com of 20 November 2015.

- the methods of natural gas supply for domestic customers;
- the methods of electricity supply for small industrial customers and domestic customers;
- implementing the termination of temporary regulations on electricity and gas prices.

In particular, the Authority underlined the fact that the abolition of price protection requires the prior identification of a gradual path of reform of such prices, in which the interventions deemed appropriate and the relative implementation times are clearly identified. In contrast, according to the regulator, the bill's point-blank abolition of current protection mechanisms for all customers (domestic and non) envisaged as of 1 January 2018 would prove not to take into due consideration the current problems in the retail market and the effective degree of maturity achieved by small-sized customers in order to access the market.

Should such a hypothesis be deemed unfeasible, the Authority highlighted the opportunity of spreading the abolition of safeguarding regimes over successive phases, starting with non-domestic customers, even before 2018.

In the **hearing of 24 November 2015**, the Authority presented certain observations on the regulations of the bill on competition, focusing particularly on Chapter V devoted to energy, as resulting following first-reading approval in the Chamber of Deputies.

In the course of the hearing, the Authority recalled that the revision of current market price protection mechanisms for domestic customers and small businesses, with a view to their gradual absorption, had already been defined by the Authority itself by means of a Roadmap intended to enable the maturation of a mass retail market and, therefore, the voluntary and informed departure of end customers from current protection services, including the envisaged introduction of the new, so-called ***tutela simile***, which involves customers being able to voluntarily access an electricity supply provided by suppliers on the free market with structured prices (but not levels) and contractual conditions monitored by the Authority (discussed in Paragraph 3.3.3 and in more detail in Chapter 5).

Art. 28, Par. 1, in preparation of a procedure intended to guarantee the comparability of electricity and gas supply offers, assigns the Authority the task of creating a web portal for the collection and publication of offers on the retail market, specifying that the independence of the content of the portal must be ensured by a Technical Committee constituted especially within the Authority with representatives from various institutions and associations. On this point, the Authority highlighted the fact that, given that it is itself a guarantor of neutrality and impartiality of content of said portal, as well as of its good working order, the Technical Committee should limit itself to bringing to the fore motions by the various interested parties, including institutions.

Furthermore, the Authority reported the need to change the date (1 March 2016) by which vendors must comply with the obligation of proposing least one variable price offer for the supply of electricity or gas for domestic and non-domestic users and at least one fixed-price proposal for domestic and non-domestic users supplied at low voltage, directed towards the definition of the methods of fulfilling the aforementioned obligation, in order to allow the operators to adapt themselves to te offer structures and to the relative conditions of contract necessary for the comparability of offers outlined by the regulator.

The Authority also welcomed Art. 34, which envisages, for the sale of electricity only, the institution of a list of companies eligible to sell to end customers at the Ministry of Economic Development, as of 1 January 2016; the requirements and methods of registration on this list are

established by ministerial decree, upon Authority recommendations. With regard to such and for coherence and uniformity of regulations, the Authority requested an addition to Legislative Decree no. 93/11, in order that the methods and requirements for inclusion on the list of vendors be identified upon recommendation by the Authority for the gas sector too.

Surveys, inspections and measures obligations for the effective promotion of competition

In 2015, the two fact-finding surveys on electricity sector activity described in last year's Annual Report were concluded. Furthermore, the Authority carried out, as usual, an intense programme of company surveillance and control and requests for information.

At the start of August, in particular[73] ***Istruttoria conoscitiva relativa all'erogazione del servizio di misura dell'energia elettrica*** (**Fact-finding Investigation on the Provision of the Electricity Metering Service**) was concluded, having run since its launch in October 2013[74]. The Investigation focused on the metering activities undertaken by grid operators in terms of meter installation, remote meter reading, as well as the archiving and communication of meter data to vendors and Energy Service Manager (GSE).

The information gathered, acquired thanks to a specific online data collection system, via meetings and information requests made to Terna and to the GSE, as well as by means of eight different distribution company inspections, enabled the identification and in-depth analysis of numerous problems in the provision of the electricity metering service.

The most important issues detected concerned: the system of metering the electricity entering and exiting the National Transmission Network (RTN); remote metering; the system for sending meter data to the GSE.

As a result of this Investigation, the Authority finalised certain updates, modifications or additions to be undertaken with regard to the regulations in force on electricity metering [75] and provisions to be applied with regard to the operators[76], in order to promote the resolution of the problems encountered. Further measures are envisaged during the course of 2016.

Following this, the ***Indagine conoscitiva sulle modalità e le tempistiche di fatturazione*** (**Fact-finding Investigation on Billing Methods and Timeframes**) was concluded [77], first launched at the end of 2013[78] due to the high number of complaints received by the Energy Consumer Help-Desk (Help-Desk) from end customers on billing, both in the electricity and natural gas sectors.

The Investigation was undertaken with reference to the service of sale of electricity and natural gas to small customers (understood to be domestic and non-domestic customers supplied at low voltage or with gas consumption of less than 200,000 m^3/year), supplied under standard offer or

[73] Resolution 413/2015/E/eel of 6 August 2015.
[74] With Resolution 475/2013/E/eel of 31 October 2013.
[75] Cf. Resolution 654/2015/R/eel of 23 December 2015.
[76] Cf. Resolution 639/2015/E/eel of 21 December 2015.
[77] Cf. Resolution 440/2015/E/com of 17 September 2015.
[78] With Resolution 542/2013/E/com of 28 November 2013.

on the free market, and was undertaken by means of data collection and information gathering from among a sample of 140 vendors and via an inspections programme. In order to achieve maximum representativity of the sample of participant companies, reminders were sent to the 27 vendors who had not yet submitted the data requested by the set deadline. Folllowing this, penalty proceedings were brought against two operators who still failed to provide the data requested following reminders.

The results of the questionnaires and inspections brought to light the presence of issues relating to both the lack of organisation and performance by certain companies and regulatory aspects already being updated by the Authority, among which retail market billing, currently under consultation[79].

In particular, with regard to the relationship between distributor and vendor, the Investigation revealed the presence of non-remote meters, the delayed communication of electricity and gas meter data to distributors relative to the regulation deadline, as well as a high incidence of estimated values in the meter readings communicated to vendors.

With regard to the role of the vendor, there was clear priority given by operators, in both the gas and electricity sectors, to complying with their billing cycles, to the detriment of the use of a higher percentage of actual meter readings; in certain cases, it also emerged that billing is undertaken without waiting until the date established by the regulations on meter data communication, thus causing an increase in estimated bills and compensated bills for end customers. There is overall compliance with billing frequency, with a few exceptions in the gas sector.

With regard to the relationship between vendor and end customer, the Investigation showed that the end customers make good use of self-readings, which are an important method of determining consumption in the gas sector, given that there are few remote meters available. In the electricity sector, self-readings are not used by the vendor, who, for billing purposes, uses meter data made available by the distributor and referring to the period in question. However, there is still a significant proportion of estimated consumption used in billing, with regard to which self-readings could be useful.

To support the Investigation, eight different vendor inspections were undertaken. One of these investigations resulted in penalty proceedings being brought against a medium-sized vendor for failure to comply with the obligation of communicating to the distributor, within five working days, any self-readings received from the end customer. Another outcome of this investigation was a report made in November 2015 to the Antitrust Authority notifying the late issuing of bills to end customers by two energy companies.

In the period June – September 2015, three sales company inspections were carried out with regard to sales contracts with end customers for electricity produced from renewable sources, with the aim of verifying the correct application of the regulations in force for the promotion of the transparency of renewable source electricity sales contracts. In fact, the Authority provisions include a tracing system for the electricity produced from renewable sources intended to avoid the possibility that this energy be included in multiple sales contracts. For this reason, the vendors of renewable energy are under certain obligations, which range from providing dedicated

[79] Cf. Consultation document 405/2015/R/com of 30 July 2015.

"guarantees of origin" certifying the eco-friendly nature of the energy, to displaying information of benefit to the end customer in their promotional and commercial material, as well as in their bills.

The inspections highlighted the general compliance with rules but also highlighted the need for certain additions to regulations in order to improve consumer protection, according to the principles of competition and transparency. These additions were actually provided in March 2016[80].

In the period October – December 2015, five electricity sales company inspections were undertaken to monitor the application of subsidies relative to the general system charges of high energy consumption companies, according to the provisions of the Decree of the Ministry of Economy and Finance of 5 April 2013. The inspections aimed to examine certain cases of companies benefiting from these subsidies where the consumption declared by the energy-intensive company was different from that communicated by the electricity distributor responsible for metering, mainly due to inconsistent company information. One case was revealed of an end customer who, in order to obtain the subsidies, made a false declaration on the ownership of a medium voltage electricity delivery point.

[80] Resolution 118/2016/R/efr of 17 March 2016.

3.3 Security of Supply

3.3.1 Monitoring balance of 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 (MSE).

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 MSE:

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

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[81], approved the regulatory framework for the Capacity Market with the Decree of 30 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[82]. The proposal involves a two-stage process: the initial, simplified implementation to be undertaken rapidly, before the end of 2016, and a second more detailed stage, structured in such a way as to allow the active participation of both demand and foreign producers.

[81] Provision 319/2014/I/eel of 30 June 2014.
[82] Resolution 95/2015/I/eel of 10 March 2015.

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. This process, which is still underway, consists predominantly of providing the information and data which have been repeatedly requested 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.

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 described in Paragraph 3.1.1 of the Electricity Market.

Certification of the transmission system operator

Again, please refer to that described in Paragraph 3.1.1 of the Electricity Market.

4.1.2 Technical functioning

Balancing the economic value of natural gas

In 2015, the national balancing regulations, as outlined by the Resolution of 14 April 2011, ARG/gas/45/11 and its subsequent implementations, underwent its first significant modification in order to transpose the Regulation (EU) 312/2014 of 26 March 2014, which institutes a Network Code on balancing gas in the transport networks. In order to apply these regulations efficiently in Italy, the Authority launched an initial consultation[83], through which were identified, on the one hand, the elements of continuity of the national legislation with regard to the regulations and, on the other, the main innovative aspects introduced by these same regulations, proposing the priority lines of evolution necessary for the implementation of the system.

The subsequent consultation document[84] included specifically consideration of the possible methods of application of Art. 11 of the regulations, on incentives intended for balance operators, for the purposes of the efficient management of gas balancing. To this end, the guidelines proposed by the Authority envisaged the introduction of an incentive scheme (including penalties, or negative incentives) based on a series of indicators of the action and performance of the balance operator. To this regard, the document included analysis of the possible solutions for this performance measurement and identification of the reference values compared to which the technical (accuracy of network balance predictions) and financial (minimisation of imbalance costs) performance should be evaluated.

Furthermore, in the additional consulation document [85], the guidelines expressed by Authority on the request by Snam Rete Gas to defer the full implementation of the new balancing regime were

[83] Consultation 187/2015/R/gas of 23 April 2015.
[84] Consultation 378/2015/R/gas of 23 July 2015.
[85] Consultation 422/2015/R/gas of 6 August 2015.

indicated. This request proved to be in line with the considerations contained in the previous consultation documents, which identified the prerequisites essential to the full implementation of the new regime: amongst which, first and foremost, a period of no less than three months to allow the users to receive and interpret the information broadcast by Snam Rete Gas on the state of network balancing before its use for balancing purposes ("learning" period).

The Authority [86] accepted the request by Snam Rete Gas to defer the launch of the new balancing regime, agreeing to set a deadline with a subsequent provision, in any case no earlier than three months from the completion of the activities necessary to implement the regime, taking into consideration the preferences expressed by the operators for implementation in the summer period and, in any case, no later than the final limit of 1 October 2016, as foreseen by the regulations.

Furthermore, the Authority approved the modifications made by Snam Rete Gas to the Network Code, which foresee the transposition of the principles of balancing regulations available to the balancing operator. These modifications form the basis for the future definition of further aspects of implementation – in particular, the completion of the regulatory framework for the new balancing system, for mechanisms to ensure sufficient liquidity to the market and for the necessary transient period between the current and new regimes – which will be detailed in separate documents, according to a timescale of activities necessary to implement the system, ensuring the effective coordination of all the institutional bodies involved.

Settlement regulations

The Authority adopted certain urgent provisions[87] relating to the outcome of the first adjustment session since the implementation of the new settlement regulations, that is to say the regulation of the physical and economic areas of the balancing service[88]. At the end of this adjustment session, held in May 2015, a series of anomalies were detected, reported also by the operators, which led the Authority to suspend payment of bills issued by the balancing operator, as well as the calculation of the bills themselves in order to calculate the potential exposure of the system with regard to the balancing users, and to foresee the application within the scope of the sessions, of an annual correction factor γA (which measures the difference between the input to the transport network redelivery point and the total withdrawal) of zero.

Subsequently, the Authority guidelines [89] on possible amendments and additions to the relative regulations in force were outlined, proposing certain indications concerning the algorithm used in the adjustment session and a series of additional proposals useful to perfecting the regulations.

[86] With the Resolution 470/2015/R/gas of 7 October 2015.
[87] Resolution of 276/2015/R/gas of 9 June 2015.
[88] Provided with Resolution 229/2012/R/gas of 31 May 2012.
[89] With the consultation document 12/2016/R/gas of 14 January 2016.

Quality of service of natural gas transport

The *Regulation of the Quality of Service of Natural Gas Transport for the Regulation Period 2014-2017* (RQTG 2014-2017) currently in force was approved in December 2013[90].

In 2015, the Authority made some amendments to the RQTG, including on the theme of gas odorization. These amendments were introduced in order to enforce a ruling by the administrative court. Subsequently, the Authority approved the proposals for updates to the Network Code put forward by Snam Rete Gas[91] and Gasdotti Italia[92], which recognise the new provisions of the RQTG and of the aforementioned gas odorization provisions [93]. The updates to the Network Code involved mainly:

- service safety: management of service emergencies, method of undertaking the alternative natural gas transport service by means of tank truck and criteria for the odorization of natural gas redelivered to the end customer connected directly to the transport network;
- continuity of service: monitoring of the supply pressure in the gas redelivery points and automatic compensation for exceeding, in redelivery points, the maximum annual number of days of both capacity reduction/interruption and supply interruption.

The approved update to the Network Code proposed by Gasdotti Italia also recognised the provisions of the *Directives for the Connection of Biomethane Plants to Natural Gas Networks and Provisions on the Determination of the Quantities of Biomethane Admissible to the Incentive Programme*[94]. The main Network Code updates concerned:

- service safety: standards of quality and standards relating to the odorizaton of the biomethane to be fed into the natural gas network;
- network access: the network connection application procedure, calculation of the network connection fee and automatic compensation;
- biomethane network input measurement: installation and maintenance of meters, collection, validation and recording of measurements of quantity and quality of the biomethane fed into the network.

Quality of service of natural gas storage

In December 2014, the Authority approved[95] the new *Regulation of the Quality of Service of Natural Gas Storage for the Regulation Period 2015-2018* (RQSG 2015-2018).

In compliance with the provisions of the new RQSG, the Authority[96] therefore approved the proposals for updates to the Storage Code put forward by Edison Stoccaggio and Stogit.

[90] Resolution 602/2013/R/gas of 19 December 2013.
[91] With Resolutions 626/2015/R/gas of 17 December 2015, and 69/2016/R/gas of 25 February 2016.
[92] With Resolution 626/2015/R/gas of 17 December 2015.
[93] Resolution 250/2015/R/gas of 29 May 2015.
[94] Established in Resolution 46/2015/R/gas of 12 February 2015.
[95] With Resolution 596/2014/R/gas of 4 December 2014.

The main updates to the Storage Code proposed by these companies concerned, on the theme of service safety: the effective cathodic protection of 100% of the connecting steel flow lines, the remote surveillance of 100% of the cathodic protection systems protected by impressed current systems and the three-yearly inspection of every part of the connecting steel flow line without cathodic protection using pigs, where technically possible.

In terms of continuity of service, the main updates concerned the introduction of a specific standard with regard to the maximum number of days of capacity reduction/interruption following unprogrammed interventions.

Finally, on the theme of commercial quality of service, the revisions concerned the introduction of a new specific standard for the system recovery time following the malfunction of an IT application and the amendment of the total sum of automatic compensation in the case of failure to comply with specific standards.

Quality of gas distribution and metering services

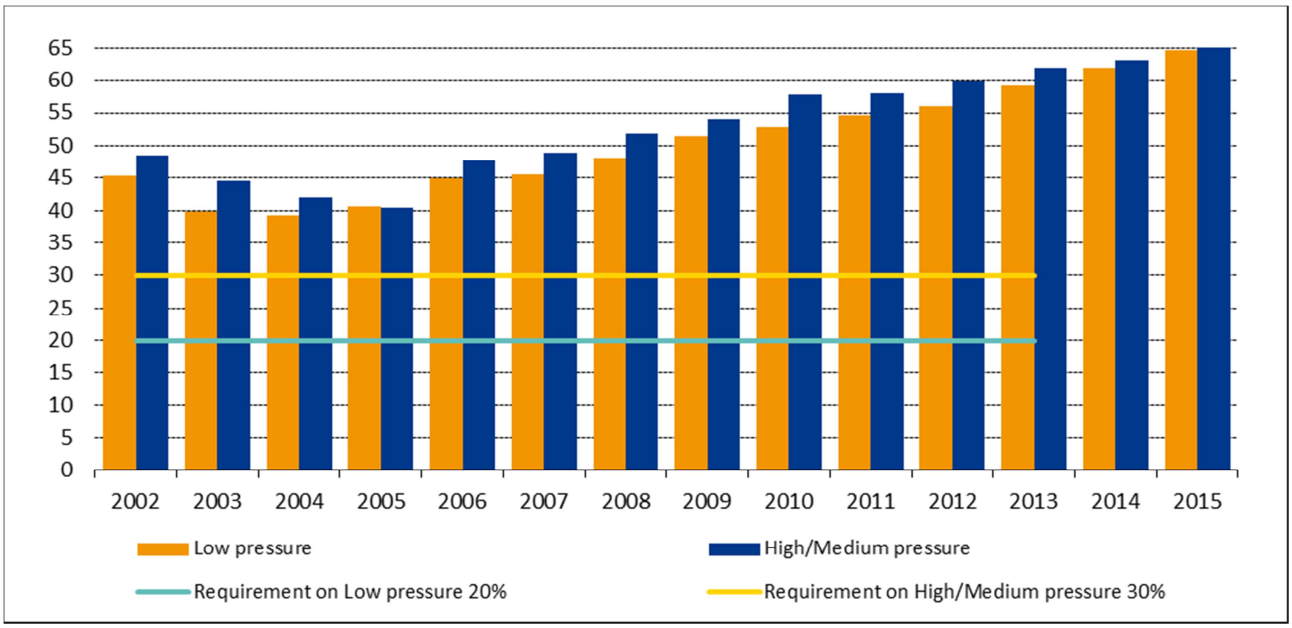
The *Regulation of the quality of gas distribution and metering services for the regulatory period 2014-2019 - Part I of the Consolidated Law for regulating the quality and tariffs of gas distribution and metering services for regulation period 2014-2019* (RQDG) was approved at the end of 2013.[97] The RQDG regulates some activities relevant to the security of the gas distribution service. Among these are emergency services, distribution network inspection, localisation of leaks, activities as a result of inspection or reporting by third parties and gas odorization. The regulation of these matters is intended to minimise the risk of explosions, blowouts and fires caused by the gas distributed and, therefore, has as its ultimate goal the protection of people and property from damage due to accidents caused by the gas distributed.

The graphs and tables below illustrate the security performance of the gas sector; some from 2002 where possible, others referring closely to the activity performed in the year covered by this report.

Figure 4.1 shows the amount of network inspected for the 2002-2015 period. In particular, until 2013, the regulation included a minimum annual obligation; in 2014 it introduced a compulsory inspection of 100% of the network in the moving three-year (high/medium pressure network) or four-year (low pressure network) period. For 2015, the growing annual trend now seen for several years was confirmed. The network inspection, generally, aims to intercept the leakage phenomenon, promoting increased public safety.

[96] With Resolutions 485/2015/R/gas of 14 October 2015 and 508/2015/R/gas of 29 October 2015.
[97] With resolution 574/2013/R/gas of 12 December 2013.

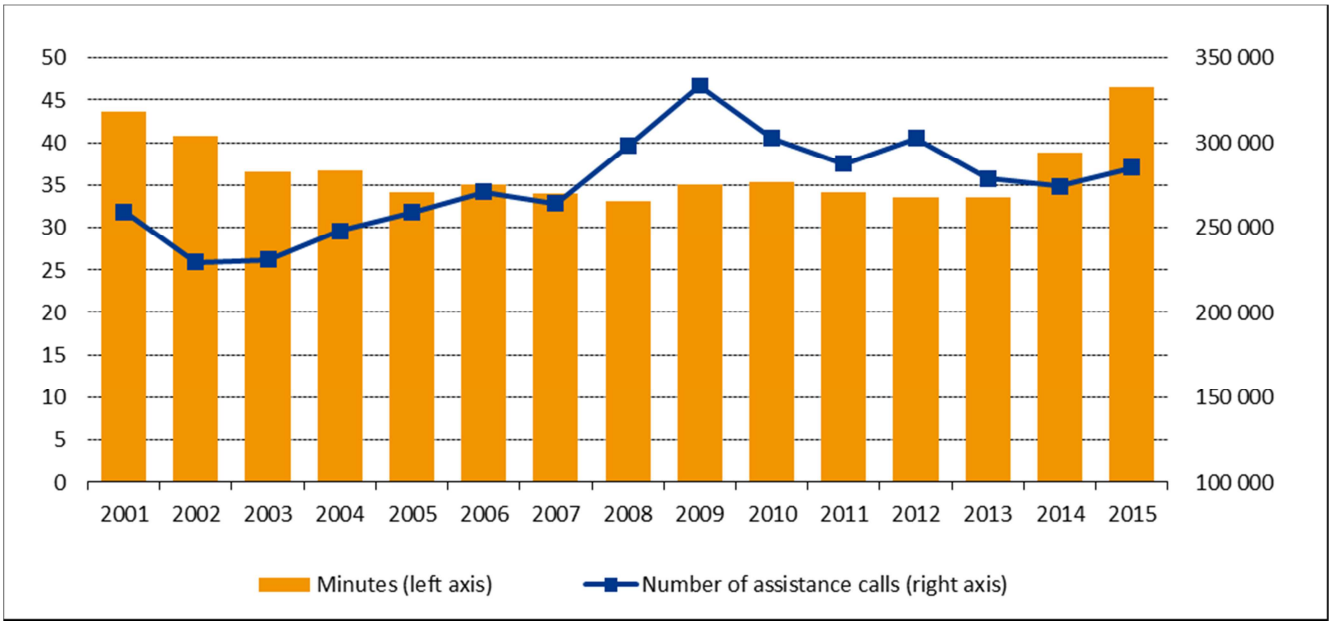
Figure 4.1 Percentage of network inspected since 2002



Source: Statements made by distributors to AEEGSI.

Figure 4.2 Emergency services for distribution system in the years 2001-2015

Number of calls and response time (in minutes)



Source: Statements made by distributors to AEEGSI.

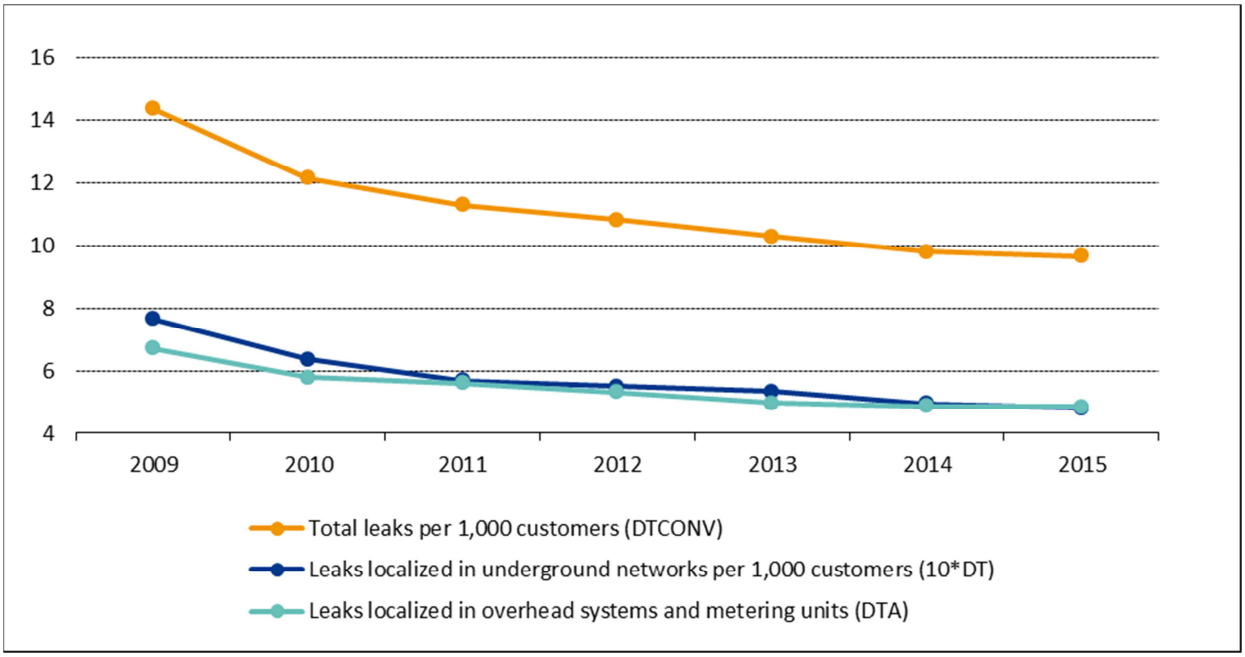
As regards the theme of emergency service requirements, Figure 4.2 shows a national average response time to the (telephone) call location of less than 47 minutes in 2015, about eight minutes above the national average time recorded in 2014. The requirement for the minimum annual percentage of calls with response time to call location for emergency services of a maximum of 60 minutes, is 90%. The requirement to record calls introduced by RQDG on 1 July 2009, accompanied by the usual campaign of controls on companies' gas emergency services and implemented with the help of the *Guardia di Finanza*, encourages companies to register data accurately. It should also be added that the companies required to participate in the reward-

penalty regulation on security recoveries have gradually increased in number and compliance with the rules on emergency services is a prerequisite for granting rewards.

The Regulatory Authority still focuses strongly on the issue of emergency services. In fact, the gas emergency service is an essential public safety service. If operated out promptly and in accordance with the provisions established by the Regulatory Authority in RQDG, it ensures that gas accidents that could have very serious consequences are prevented.

Figure 4.3 Number of leaks located following notification by third parties per 1,000 customers

Provincial areas subject to incentivising regulation - Period 2009-2015



Source: Statements by distributors made to AEEGSI.

Figure 4.3 shows the number of leaks located following reports by third parties per thousand customers for the distribution systems subject to the rewards-penalties regulation; there is a significant and near constant downward trend for leaks located on the underground network (10*DT) and those on the air network (DTA). In 2015, both parameters, 10*DT and DTA, stood at just under five leaks per one thousand end customers, recording, however, a further decrease compared to 2014.

The regulation of quality provides for a mechanism of rewards and penalties for the security of the natural gas distribution service (security recoveries) featuring two independent components: one promotes the reduction of gas leaks located by third party recommendations, in connection with an improvement process set *ex ante* (annual improvement targets), while the other rewards a greater number of gas odorization level controls, compared to the required annual minimum defined by the regulation. The mechanism, with regard to leaks, rewards *ex post* virtuous behaviour by distribution companies that provide a service with security levels greater than the annual improvement targets set by the Regulatory Authority with the appropriate measures.

In implementation of said regulation, rewards and penalties were determined[98] as regards security recoveries of the natural gas distribution service for 2013; awards for 28 billion euro and penalties for 4.5 billion were issued in total.

Metering

After appropriate consultations[99], the Regulatory Authority reformed[100] the regulation for measuring natural gas withdrawals by end users, including with regard to the switching process, so as to ensure an increase in the amount of actual validated data available to the suppliers and, consequently, to the end customers, and to promote self- reading among them. Specifically, numerous changes and additions to the current regulation were approved.

- *Reading frequency, provision of measurements and possible adjustments by distribution companies.*

  As regards this set of issues, the Regulatory Authority approved a series of measures including, primarily, the resetting of the existing consumer classes, on the basis of which the frequencies of the measurement data collection were determined, through the introduction of a further threshold of consumption of 1,500 D(m^3)/year, for which the measurement is scheduled every four months. Time periods in the year were also identified that are considered to be relevant in terms of consumption for each redelivery point category, ruling that the distribution company is required to collect the measurement data covering at least 80% of the days of each time interval considered. Moreover, a deadline was identified by which the measurements taken by the distribution company must be available, set as the sixth working day of the month, and the distribution company was given a maximum time of three working days to complete validation. Finally, with regard to adjustments, the guidelines already expressed during the consultations were confirmed, setting a deadline by which the distribution company must send the adjustments to the estimated data or actual data that is incorrect or data communicated earlier by mistake.

- *Managing self- readings and the unavailability of the actual measurement data.*

  With the aim of encouraging final customers to carry out self- readings, the Regulatory Authority determined that all suppliers are required to make available a self- reading method for their customers, providing notice of acceptance or non-acceptance of the transmitted data and specifying, in addition, that non-acceptance is only possible for an obvious material error, having to ensure in all other cases that the self-reading is submitted to the distribution company for the relevant activities, primarily validation. The measure also included the obligation to gather end customer readings made available to distribution company personnel by means of a paper notice affixed to the door of the customer's house or similar. In addition, it was determined that the supplier can relay only one self-reading per delivery point for each month to the distribution company within a maximum of four working days of receipt, in order not to overburden unnecessarily the distribution company. In any case, distributors are

[98] With Resolution 20/2016/R/gas of 21 January 2016.
[99] Consultation document 251/2014/R/gas of 29 May 2014.
[100] Resolution 117/2015/R/gas of 19 March 2015.

required to validate the self-readings submitted within three working days of receipt. Moreover, the resolution introduced certain incentives for measurement collection for redelivery points with inaccessible or partially accessible meters, with at least two successive failed attempts at data collection and without a validated self-reading; for such cases, the obligation to reattempt data collection no later than the month following the second failed attempt was introduced;

- *Data collection procedures and schedules and provision of switch reading.*

  The Regulatory Authority confirmed bringing forward the deadline for providing the new vendor with the technical and contractual information on the withdrawal point to the sixth to last day of the month preceding the start of the switch (formerly a maximum of 30 days from the beginning of the supply month). In addition, to enable fast billing, the deadline for the notification of reading the switch by the distribution company for the benefit of both suppliers - incoming and outgoing - was brought forward to the sixth working day after the switching date. In the absence of actual data collected by the distributor, the Regulatory Authority also provided for the opportunity to use self-reading as switch reading. The ability to request the switch reading verification, until now only provided only for outgoing suppliers, was introduced also for incoming suppliers.

Upon completion of this reform, the information flows between distribution company and users were standardized[101], useful to distributing measurement data and any adjustments, whether collected by the distribution company or from the end user's self-reading.

Regarding the deployment of new electronic meters, the plan for installing and commissioning smart gas meters was updated[102]. In particular:

- the plan for commissioning G10 class smart meters, for distribution companies of all sizes, was completed;
- the plan for installing and commissioning G4 and G6 class smart meters, for distribution companies with more than 100,000 end customers, was updated to 2018;
- the first G4 and G6 class smart meter commissioning obligations were introduced for companies with between 50,000 to 100,000 end customers.

Revision of switching timeframe

The Regulatory Authority reviewed the switching procedure[103] in the natural gas sector, including for the purpose of reducing the process time to three weeks. In detail, while confirming compulsory implementation on the first day of the month, the last date for submission of a switching request was set to the tenth day of the month prior to the commencement of the supply relationship with the new supplier.

[101] With decision 4/2015 – DMEG of 20 March 2015.
[102] With Resolution 554/2015/R/gas of 20 November 2015.
[103] Resolution 258/2015/R/com of 29 May 2015,

On a more general level, the entire process was streamlined, including time calculations based on business days and establishing the alignment of the institute's "conditional switching"[104] timelines with those of "ordinary switching".

Following the reform of the switching procedures, the information flows between distribution companies and users[105], used for the application of the new provisions of the measure, were also standardized.

Connection time to transmission and distribution networks

Data on connections is classified depending on whether they are connections to transport or distribution pipelines. Within each type of plant, the data on the number of connections made is shown as well as the average time to obtain them, excluding the time spent obtaining any administrative authorisations or for any fulfilments by the end users that requested the connection. The average time is shown in the number of working days used to build the redelivery point and any other works required to make transport capacity available, as laid out in the contract.

In 2015, 66 connections were made to the National Transmission Network (NTN), of which 52 high-pressure and 14 medium pressure (Table 4.1). On average, connection time was 52.2 business days (100 days for high pressure pipelines and 4.4 days for medium pressure). Compared to 2014, there were six more high pressure network connections were undertaken last year and five fewer on medium pressure transport networks. The average time of building the connections, however, changed significantly from the previous year in both cases: it increased in high pressure networks and decreased in medium pressure networks. This finding probably reflects the different composition of the companies replying to the questionnaire.

There was also a drop in the number of connections made for the distribution networks (Table 4.2): a total of 130,703 as compared to 173,714 in 2014. As always, the majority of connections were low pressure (97%) and the remainder medium pressure. Similarly, transport recorded an increase in waiting times for connections, which rose on average from 9.2 to 28.5 business days. Again, longer average times are due to the increase in the average time for high pressure connections.

Table 4.1 Connections to transport networks and average connection time

Number and average time In working days

PRESSURE	2014		2015	
	NUMBER	AVERAGE TIME (A)	NUMBER	AVERAGE TIME (A)
High pressure	46	59.0	52	100
Medium pressure	19	36.0	14	4.4
TOTAL	65	48.1	66	52.2

[104] Conditional switching consists of the right to withdraw a switching application once certain end customer information comes to light with regard to defaulting (existing supply cut-off requests) and propensity to change supplier (number of switching applications made).
[105] With decision 15/2015 – DMEG of 7 August 2015.

(A) Excludes any time spent to obtain authorizations.

Source: Annual Survey of Regulated Sectors.

Table 4.2 Connections to distribution networks and average connection time

Number and average time in working days

PRESSURE	2014		2015	
	NUMBER	AVERAGE TIME (A)	NUMBER	AVERAGE TIME (A)
Low pressure	5	2	2	62.5
High pressure	4,204	18.8	3,903	16.2
Medium pressure	169,505	6.8	126,798	6.8
TOTAL	173.714	9,2	130.703	28,5

(A) Excludes any time spent to obtain authorisations and fulfilling end user obligations.

Source: Annual Survey on Regulated Sectors.

Access to the transport service

In 2014, the Regulatory Authority reformed[106] the requirements for access to the transport service and the allocation criteria for transport capacity at the points interconnected with foreign countries, in order to give early effect to the provisions of the *Network code on capacity allocation mechanisms in gas transmission systems*, referred to in Regulation (EU) 984/2013 (CAM Regulation).

Last year, the Regulatory Authority updated[107] some of the provisions adopted in 2014 in order to facilitate the harmonisation of capacity allocation management processes between the interconnected systems.

The Regulatory Authority introduced[108] its guidelines regarding an initial review of the capacity allocation criteria at the redelivery points of the gas transport network that power electricity generation plants, making the transition to more flexible and efficient allocation mechanisms, modelled after those adopted at interconnection points with other countries. This intervention reform pilot project is part of a greater review process that, initially, involved power plants, which, in addition to being limited in number, showed greater critical issues than the current regulation when it comes to the predictability of the gas usage profile, this also due to the significant development of renewable sources.

Subsequently, the Regulatory Authority[109] explained the final guidelines as regards capacity allocation at the gas transport network redelivery points that power electricity generation plants as well as the management of deviations between assigned and used capacities at interconnection

[106] With resolution 137/2014/R/gas of 27 March 2014.
[107] With resolution 555/2015/R/gas of 20 November 2015.
[108] With consultation document 409/2015/R/gas of 6 August 2015.
[109] With consultation document 613/2015/R/gas of 11 December 2015.

points with foreign pipelines.

Finally, the Regulatory Authority issued[110] its guidelines for the completion of the implementation process of the European regulations on the management of congestion at interconnection points of the national gas pipeline system with other countries (Congestion Management Procedures, CMP Regulations). The CMP Regulations define, in fact, the European rules for the management of the so-called "contractual congestion" situations where the transport capacity is scarce, because fully assigned - often over several years - even in the face of available physical (technical) capacity. The CMP regulations establish that transport system operators must make available to users the capacity resulting from the application of specific congestion management procedures. The provisions proposed in the aforementioned document are part of a broader process undertaken by the Regulatory Authority for the promotion of an Italian market increasingly integrated with the neighbouring countries.

Access to the storage service

In the thermal year 2015-2016, the allocation of storage capacity was based on auction mechanisms. This coincided with a market situation, in Italy and in Europe, once again characterised by very small seasonal differences and such, at least in the first part of the summer semester of 2015, as to make the purchase of storage capacity an opportunity for operators and not a necessity. This is due to winter gas being available at prices slightly higher than summer gas.

Within this context, the need was established, again in 2015, to define the operating procedures of the sterilisation mechanism (with credit or debit balances) of financial impacts on storage companies deriving from auction procedures for the allocation of storage capacity[111]; in particular, the reconfirmation was given for 2015 of the mechanism by which the Fund for Energy and Environmental Services (CSEA) must settle monthly, in favour of the storage companies, the difference between the revenues that would have been earned by said companies by applying the tariffs previously set by the Regulatory Authority and the amount actually billed on the basis of the results of the auctions. This mechanism, referred to the 1 April 2015 - 30 March 2016 period, is essentially the same as the one implemented the previous year[112].

The Regulatory Authority defined[113] the criteria for allotting storage capacities for the 2016-2017 thermal year. In advance of the regulations defined by the decree of the Minister of Economic Development of 25 February 2016, the Regulatory Authority had introduced[114] its guidelines for the allocation of storage capacity through market procedures, confirming both the general structure of storage services, defined already in 2013[115] (peak and uniform service), and the organisation of the procedures introduced[116] for sequential monthly auctions.

[110] With consultation document 60/2016/R/gas of 18 February 2016.
[111] Resolution 171/2015/R/gas of 16 April 2015.
[112] Resolution 295/2014/R/gas of 19 June 2014.
[113] With Resolution 77/2016/R/gas of 29 February 2016.
[114] With consultation document 30/2016/R/gas of 28 January 2016.
[115] With Resolution 75/2013/R/gas of 21 February 2013.
[116] With Resolution 85/2014/R/gas of 27 February 2014.

Also for the 2016-2017 thermal year, the intervention was part of a market context with seasonal gas price differentials reaching levels close to, or even lower than, the costs of the purchase of storage capacity and its use. Also for 2016, each allocation procedure requires participants to submit their bid for storage capacity, for uniform and peak services, divided into two different products:

- one provides for the availability of the injection capacity from the month following that of allocation until the end of the injection phase (seasonal injection product);
- the other considers the availability of injection capacity only in the month following that of allocation (monthly injection product).

In view of the storage capacities that have become available following the expiry (31 March 2016) of the five-year storage contracts agreed pursuant to Legislative Decree no. 130 of 13 August 2010, (equivalent to more than 2.5 billion cubic meters), the aforementioned Decree of 25 February 2016 introduced the following changes in the area of uniform service:

- the offer of an integrated regasification and storage service aimed at the import of new LNG in our country in the summer, ensuring, for those who require it, the storage capacity required to store the same volume of gas until next winter;
- the use of market benchmarks, instead of tariff ones, for the assignment of storage capacity over several years through an auction (two years pursuant to the aforementioned ministerial decree).

Finally, the Regulatory Authority defined[117] the calculation criteria for the reserve prices of the auctions for the allocation of storage capacity. These reserve prices are not disclosed to the system and, therefore, are not published, as determined by the decree of 25 February 2016. Similarly, the Regulatory Authority defined[118] the criteria for calculating the reserve prices of the auctions for the integrated regasification and storage service.

Eligibility for and provision of the regasification service

The Regulatory Authority amended[119] the regulations for the flexible use of the LNG regasification capacity and the solution of congestion when accessing the terminals. Appropriate adjustments were introduced in the light of the current market environment, characterised by an abundance of available regasification capacity not allocated to all Italian terminals, as a result of a decline in gas demand throughout Europe.

[117] With Resolutions 84/2016/R/gas and 85/2016/R/gas of 4 March 2016.
[118] With Resolution 135/2016/R/gas of 24 March 2016.
[119] With Resolution 118/2015/R/gas of 19 March 2015.

The Regulatory Authority extended[120] until 31 December 2017 the trial period[121] for the provision of flexibility services by re-gasification companies. In particular, these services allow users to request changes to the regasification programme with greater flexibility.

With the aim of increasing system flexibility and diversifying supply sources in Italy, the Decree of 25 February 2016 of the Minister of Economic Development introduced, for the first time in Italy, the option of allocating regasification capacity by auction, with reserve price set by the Regulatory Authority.

Supervision of the gas system safeguarding measures

Arts. 4 and 8 of Legislative Decree no. 93/11 set out the safeguard measures and plans that the Ministry of Economic Development should implement in the event of a sudden crisis in the energy market and when the physical safety or security of people are threatened, as required by Art. 46 of Directive 2009/73/ EC. Art. 43.3, Part c) of the same decree assigns the Italian regulator the task of monitoring the operators in the application of these measures, in accordance with Art. 41.1, point t) of Directive 2009/73/EC.

As regards the gas system safeguard, in the thermal year in progress the Regulatory Authority implemented[122] the provisions of the Decree of 18 October 2013 of the Minister of Economic Development, pertaining to the management and supply by regasification terminals of the quantities of LNG to be kept stored and made available as part of the so-called "peak shaving service". This allows possible system emergency situations to be addressed, determining the base bid prices based on the opportunity-cost for a user to supply the gas to be immobilised in the regasification tanks and to be used in case of system crisis.

Biomethane input into transport and distribution networks

The Regulatory Authority approved[123] the first directives on market processes regarding the input of biomethane into transport and natural gas distribution networks, as well as initial implementation procedures in the case of dedicated withdrawal of biomethane quantities by the Energy Services Operator (GSE). The same resolution also identified new disclosure requirements for distribution and other transport companies, useful to natural gas settlement procedures and to the preparation of interim financial statements. This measure, in conjunction with the measure[124] approving the directives for the connection of biomethane plants to natural gas networks and the provisions on the the amount of biomethane eligible for incentives, provides a first comprehensive framework for the issue.

[120] With Resolution 499/2015/R/gas of 22 October 2015.
[121] Started with Resolution 502/2013/R/gas of 7 November 2015.
[122] With Resolution 488/2015/R/gas of 14 October 2015.
[123] With Resolution 210/2015/R/gas of 7 May 2015.
[124] Resolution 46/2015/R/gas of 12 February 2015.

4.1.3 Network and LNG tariffs for connection and access

Methodologies and criteria for determining and updating the return on investment rate, in the electricity and gas sectors

As explained in the third chapter in relation to the electricity sector, with the approval of the TIWACC[125], the Regulatory Authority defined the new criteria for the determination and update of the return on investment rate for investments in infrastructure facilities of the electricity and gas sectors for the period 2016-2021.

In order to make the provisions for the gas sector consistent with the above criteria, the Regulatory Authority also modified the rules governing the determination of tariffs for regasification (*Regulation of tariffs for the regasification service of liquefied natural gas for the regulatory period 2014-2017* – RTRG[126]), transport (*Regulation of tariffs for transporting and dispatching natural gas for the regulatory period 2014-2017* – RTTG[127]), distribution (*Regulation of tariffs for gas metering and distribution services for the regulatory period 2014-2019* – RTDG[128]), storage (*Regulation of tariffs for natural gas storage service for the regulatory period 2011-2014* – RTSG[129]), with specific reference to the methods for determining and updating the WACC.

The precise value of the WACC for infrastructure services in the gas sector was then established, in line with the provisions of the TIWACC, considering the specific parameter values for the various services (β coefficient and gearing) provided by the tariff regulations of the services.

Table 4.3 WACC values for gas infrastructure services for the years shown

SERVICE	2016	2017	2018
Storage	6.5%	6.5%	6.5%
Regasification	6.6%	6.6%	(A)
Transport	5.4%	5.4%	(B)
Distribution	6.1%	6.1%	6.1%
Metering	6.6%	6.6%	6.6%

(A) The values will be defined at the tariff review for the fifth regulatory period for the regasification service.
(B) The values will be defined at the tariff review for the fifth regulatory period for the natural gas transportation service.

In particular, the WACC was set at 5.4% for the transport service and 6.6% for the regasification service for the years 2016 to 2017, at 6.5% for the storage service, at 6.1% for the distribution service and 6.6% for the metering service for the years 2016-2018. Table 4.3 summarizes the WACC values for different gas infrastructure services in the period 2016-2018.

[125] Resolution 583/2015/R/com of 2 December 2015.
[126] Annex A Resolution 438/2013/R/gas of 8 October 2013, as subsequently modified and integrated.
[127] Annex A Resolution 514/2013/R/gas of 14 November 2013.
[128] Annex A Resolution 367/2014/R/gas of 24 July 2014, as subsequently modified and integrated.
[129] Annex A Resolution ARG/gas 119/10 of 3 August 2010.

Transport

In November 2013, the criteria were established[130] for the determination of natural gas transport and dispatching fees for 2014-2017. 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 and 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.

For the part of the tariff in remuneration of the service carried out on the regional network, discounts proportional to the distance for regional pipelines that are less than 15 km from the national grid are envisaged; given the homogeneity of the same tariff on the regional network, specific equalization mechanisms are envisaged. For continuous operation based on less than a year, the tariff is remoduled on a monthly basis of unit capacity payments on the national network, whereas, for the interruptible service, the same payment amount is reduced to take into account the risk of service interruption. The payment reduction calculation methods are decided by the l transport company and approved by the Regulatory Authority.

Following the verification of tariff proposals submitted by transport companies, the Regulatory Authority approved the tariff proposals relative to the reference revenue for the year 2016[131], the natural gas transport and the dispatching costs and the temporary fee for the gas transportation metering service for the year 2016[132].

Regasification

The definition of regulation criteria for the LNG regasification tariffs for the fourth regulatory period (2014-2017) took place in October 2013[133].

Following the verification of tariff proposals submitted by regasification companies[134], the Regulatory Authority determined the tariffs for the LNG regasification service for the year 2016. At the same time, the Regulatory Authority determined that, starting from 2016, fees for marine services would be freely defined by the individual regasification companies.

Storage

In October 2014, the Regulatory Authority established[135] the criteria for the regulation of tariffs for natural gas storage services for the 2015-2018 period. The criteria for the calculation of tariff

[130] Resolution 514/2013/R/gas of 14 November 2013.
[131] With Resolution 587/2015/R/gas of 4 December 2015.
[132] With subsequent Resolution 2015 606/2015/R/gas of 11 December.
[133] Resolution 438/2013/R/gas of 8 October 2013.
[134] With resolution 625/2015/R/gas of 17 December 2015.
[135] Resolution 531/2014/R/gas of 30 October 2014.

fees were completed later in February 2015, including among others, the removal of variable costs and the application of capacity fees only (space, supply and injection)[136].

Starting in the thermal year 2013-2014, the allocation of a portion of the storage capacity is based on tenders. 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 tenders, the storage fee has, therefore, assumed a residual role, since it is only applied to the capacities still allocated through administered means according to priority.

The tenders 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.

[136] Resolution 49/2015/R/gas of 12 February 2015.

Distribution

The tariff Regulation of gas distribution and metering services (RTDG) was defined[137] at the end of 2013 for the 2014-2019 regulatory period. These provisions were integrated with those regarding concession operations[138].

During the course of 2015, more changes were made to the tariff regulation of the gas metering and distribution services. In particular, the regulations in force for 2014 and 2015 regarding the tariff components for the coverage of the centralized costs for remote meter reading/management systems and of the costs of the concentrators were extended to the 2016. The Regulatory Authority considered it appropriate, for the determination of these components, to proceed with further investigations in order to determine a level of cost efficiency in the implementation of investments in the remote reading/management systems and the concentrators.

The mandatory tariffs for natural gas distribution and metering were approved[139] for 2016. The same resolution approved the maximum payment of higher costs resulting from concession fees for the distribution companies who submitted an request and provided appropriate documentation[140].

Proceedings were initiated[141] for the interim period update of the RTDG, with regard to the following:

- definition of the annual reduction rates of unit costs allocated to cover operating costs, with their intended effective application from 1 January 2017;
- revision of the $\Delta CVER_{unit,t}$ component, with intended effective application from 1 January 2017;
- determination of the components to cover centralised costs for the remote reading/management system and the costs of the concentrators, expressed in euro per redelivery point, with intended application starting in the year 2017;
- definition of standard costs inclusive of installation and commissioning costs to be applied to the measure groups, expressed in €/measure group, for 2017 onwards.

[137] With resolution 573/2013/R/gas of 12 December 2013.
[138] With resolution 367/2014/R/gas of 24 July 2014.
[139] With resolution 645/2015/R/gas of 22 December 2015.
[140] The RTDG provides that, where conceding municipalities increased the fee for distribution concessions, the interested distributors can submit an application to the Regulatory Authority for the recognition of the higher costs that come from it. The conditions necessary for the Regulatory Authority to recognize these higher charges are that the municipality did not assign a new concession after the entry into force of Decree-Law no. 159/07 and that the concession has expired; also excluded from recognition are businesses that cannot demonstrate that the additional resources resulting from the higher fees were allocated by the municipalities to the activation of protective mechanisms against vulnerable groups of users, because this is the only destination specified by the provisions of law that reflects favourably on the system and can then configure a recognizable cost into a tariff. The recognition of higher costs is however limited to the period from the effective date of the increase of the fee until the date on which the new tender is awarded.
[141] With resolution 68/2016/R/gas of 25 February 2016.

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 2015, the Regulatory Authority neither initiated nor concluded any proceedings to ascertain the violation of regulations on accounting unbundling in the natural gas sector; however, it did impose a fine of € 3,267,000 on an operator, following the ascertainment of violations of the regulations on functional and accounting unbundling, as well as of the gas storage tariff regulations.

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 1 June 2011 that implemented the Third Energy Package, strengthening the Regulatory Authority's powers and its independence from the Ministry of Economic Development.

Regarding in particular the ten-year grid development plan, Art.s 15 and 16 of Legislative Decree No. 93/11 were modified and, as a result of such measures, the Decree of the Minister of Economic Development No. 65 of 27 February 2013, on the *Regulations as per Art. 16, Par. 1 of Legislative Decree No. 93 of 1 June 2011, for the drafting of the Ten-year Development Plan for the gas transport networks*, was repealed. The Operator is required to submit an annual plan to the Ministry of Economic Development and to the Regulatory Authority, which submits it for consultation by the actual and potential network users, publishing the consultation results themselves. For the review and monitoring of the implementation of the Plan, the Regulatory Authority also assesses if this covers all the needs in terms of investment, identified during the consultation process, and whether it is consistent with the non-binding Ten-year Plan of European level network development. At the end of this process, the Regulatory Authority shall notify the outcome of its assessment to the Ministry.

Following a change in legislation, the Regulatory Authority is preparing activities for the consultation of the Natural Gas Transport Network Development Plan, just as it did for the national electricity transmission network (as described in section 3.1.4).

International coordination with ACER and CEER

During the course of 2015, the Regulatory Authority continued to have multilateral collaborations with other European regulators, through the Agency for the Cooperation of Energy Regulators (**ACER**).

With regard to the natural gas sector, the Regulatory Authority actively participated in the activities of the ACER Working Groups, responsible for the analysis of European network codes set up by ENTSO-G; in particular, in the changes to the CAM Network Code, as well as in the review process of the gas target model launched earlier in the year.

The documents resulting from the aforementioned activities are the following:

- the recommendation of 15 October 2015 to the European Commission on the amendment of the Network Code for the allocation of the capacity approved in 2013 (CAM NC), for rules concerning the development of new capacities;
- the opinion on the Ten-year Network Investment Plan of 2015 by ENTSO-G 2015, approved on 22 October 2015;
- the opinion on the template for interconnection agreements, approved on October 20, 2015;
- the opinions, required under the Third Energy Package, on the ENTSO-G documents, such as the scenarios for summer 2015 and those for winter 2016, the *Annual Report 2015* and the Work Programme 2016.

The regulators also supported ACER in issuing the following:

- an opinion on the implementation of investments in natural gas networks dated January 2015;
- a consolidated report on the progress of electricity and gas projects of European interest dated July 2015;
- certain reports on unit investment costs of electricity and natural gas infrastructure dated 23 July 2015;
- some opinions on the proposals for regional lists of electric and gas projects of European interest dated 13 November 2015;
- a recommendation on good practices for the evaluation of investment proposals from electric and gas projects of European interest and of cross-border cost allocation dated 18 December 2015.

Among the activities to which the Regulatory Authority provided its contribution through the Council of European Energy Regulators (**CEER**) were the works done for the security of supplies, storage and LNG in the natural gas sector. Among these is the response of the CEER to the European Commission consultation on the revision of Regulation (EU) 994/2010, on gas supply security, and the development of a joint vision of European Regulators for the development and regulation of stockpiles and the LNG based on the changed structural context of the natural gas sector.

The energy market of South-Eastern European countries

Regarding the natural gas sector, the Energy Community Regulatory Board (ECRB), in virtue of the powers assigned to it by the Treaty, expressed a favourable opinion on the preliminary certification carried out by the Albanian regulator ERE[142] of Trans Adriatic Pipeline *AG* (TAP AG)[143],

[142] Albanian Energy Regulatory Entity (ERE) decision No. 130 of 31 October 2015.
[143] Trans Adriatic Pipeline AG is the company that develops, manufactures and manages operations on the TAP gas pipeline, for the transport of gas from the Republic of Azerbaijan. The TAP starts from the border between Greece and Turkey, where it connects to the Turkish pipeline Trans Anatolian Pipeline (TANAP), and proceeds through the lands of Greece and Albania until it reconnects to Italy's Adriatic coast.

as an Independent Transmission Operator of natural gas. However, the ECRB recommended that the ERE regulator elaborate on the TAP AG operator's independence requirements, in particular the existence of safeguards against the risks of trade discrimination in its own favour. In addition, the Gas Working Group (GWG), which since December 2014 has been chaired jointly by the Regulatory Authority and by the Croatian regulator, discussed in-depth issues relating to the different tariff systems and gas quality, with the support of ACER experts. ACER's regional gas initiative for South-Eastern Europe was also extended to the EnC Contracting parties. Particular attention was paid to the beginning of two studies, one designed to identify useful indicators for wholesale gas market monitoring, the other on the integration of gas markets across borders, in countries of that area.

The energy market in the Mediterranean countries

During the course of 2015, the Regulatory 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 the gas sector, the Natural Gas Working Group (GAS WG), co-chaired by the Portuguese (ERSE) and Greek (RAE) regulators, drafted the second market transparency report, *2nd Status review on transparency in the Mediterranean region and monitoring of the MEDREG guidelines of good practice (GGP) on transparency*. The document made it possible to monitor progress on the level of transparency in the Mediterranean since 2011, the year to which the first evaluation report dates back.

Following the Rome Conference of 19 November 2014, promoted by the Italian Government on occasion of the European Union semester presidency, *Building a Euro Mediterranean energy bridge: the strategic Importance of Euromed gas and electricity networks in the context of energy security*, a platform on natural gas was launched, under the aegis of the European Commission as part of the Union for the Mediterranean process. Its aim is to promote the comparison between the main stakeholders (governments, companies, financial institutions, regulators, network operators), to support the development of investments and achieve a progressive integration of Euro-Mediterranean energy systems and markets. In particular, the main objectives of the platform are to: promote regional energy security; evaluate the current situation and examine the factors that influence future developments in gas demand and supply; study the existing market structures and assess the level of market opening in the various segments of the supply chain; promote technological cooperation; foster the development of unconventional gas projects, onshore and offshore; and identify the infrastructure needs for the development of the national and Mediterranean energy markets.

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 on the Regulatory Authority by the current laws see the Annual Report 2013 and the new regulations set out in section 2.

4.2 Promoting competition

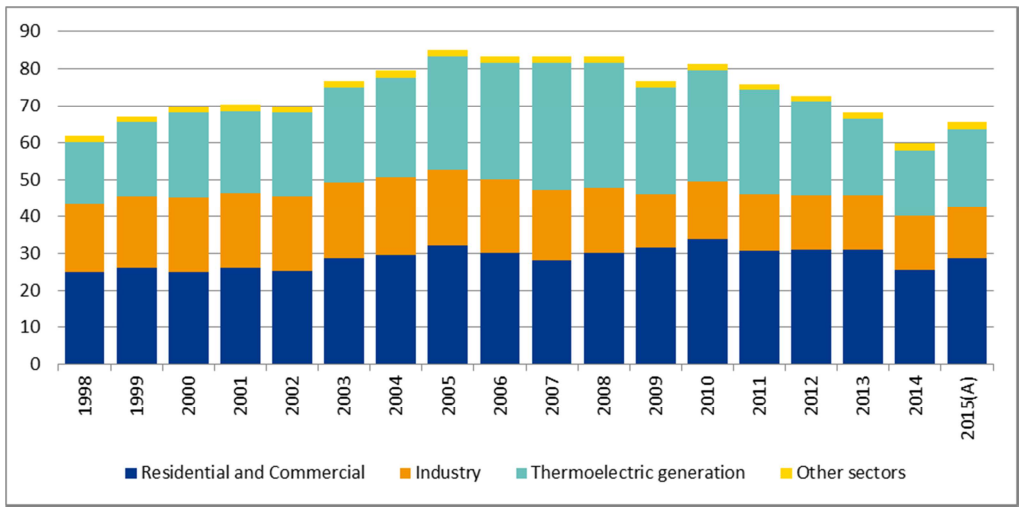
4.2.1 Wholesale markets

Last year the gross domestic consumption of natural gas, according to preliminary data released by the Ministry of Economic Development, increased by 5.6 billion cubic meters, rising to 67.5 G(m^3) from 61.9 G(m^3) in 2014. In percentage terms, gross consumption grew by 9.1% compared to 2014.

Consistent with the economic and climatic trends already described in chapter 3, in 2015 there were, in particular, a marked increase (11.8%) in civil (household and tertiary) consumption, an even higher growth in thermoelectric generation consumption (16.8%), however, also favoured by low gas prices, and a significant increase (7.7%) of other uses, especially transport, which has been going up for years (Figure 4.4.). Only industry recorded another setback, equal to -3.4%. Despite the huge recovery, the overall final demand was still far from the peak reached in 2005: in 2015 it was, in fact, 75% of the level achieved in that year.

Figure 4.4 Natural gas consumption by sector

G(m^3)



(A) Provisional data.

Source: Ministry of Economic Development, National Energy Report, various years.

The substantial rise in final demand was coherently accompanied by an increase in net imports (9.8%). The volumes of gas imported from abroad, in fact, increased by 5.4 G(m^3) compared to 2014, returning to 61.2 G(m^3); exports fell by 16 M(m^3). The downward trend in domestic production continued (-5.3%). During the year, withdrawals from storage were lower than inputs; therefore, in storage volumes at year-end were 228 M(m^3) higher than the amounts at the beginning of the year. Taking into account system consumption and network losses too, the net value of domestic consumption in 2015 amounted to 65.6 G(m^3), a 9.5% higher value than in 2014.

Since the increase in imports was higher than that in consumption, in 2015 too the level of dependence from foreign imports (measured as the ratio between gross imports and gross domestic consumption) rose again to 90.6%, ever further from the 88.4% registered in 2013.

Based on data collected in the usual *Annual Survey on Regulated Sectors* carried out by the Regulatory Authority for Electricity, Gas and Water, in 2015, a total of 7,465 M(m^3) were extracted by 21 companies, grouped in 15 groups. As in the past, about 84% of all national production was extracted by the Eni group, which remains the dominant player in this segment with an absolutely majority share and far ahead of the second corporate group, Royal Dutch Shell, with 9.4%. The latter has been increasing its share slowly, year by year: in 2015 it rose by about one percentage point compared to 2014, distancing itself more from the Edison group (4.8% in 2015 and 4.3% in 2014) with which it has been alternating in the second and third position for several years. Gas Plus remained in fourth position, this year with a 1.6% share.

According to the preliminary data of the Ministry of Economic Development, in 2015 gross gas imports bounced back to 61,201 M(m^3), thus recovering almost completely from last year's decline, i.e. 5.4 of the 6.2 M(m^3) lost in 2014. Exports, on the contrary, decreased slightly from 237 to 221 M(m^3). This is why net imports registered a growth rate essentially the same as that of the gross imports, 9.8%, and returning to 60,980 M(m^3) from 55,520 M(m^3) in 2014.

Figure 4.5 shows the amounts of gas supplied in the last two years per country of origin[144]. The increase in imports in 2015 concerned all the countries from which Italy traditionally buys natural gas, with the exception of Northern Europe. In fact, last year a billion and a half M(m3) less gas was withdrawn from Holland as compared to 2014 (22%), while quantities from Norway remained largely unchanged compared to 2014.

The overall growth of 10% in volumes from abroad, in fact, represents the weighted average of the growth rates recorded for flows from Qatar (34%), Russia (15%) and Libya (9%). A significant recovery was also recorded for quantities from Algeria (7%), as well as by the mixed group of Others (17%). In practice, imports increased to a greater extent from countries where the price of gas is still indexed to oil that in 2015 recorded a substantial fall in price. In contrast, there was a reduction of supplies whose price is linked to the trend of the European hubs, which had already granted price reductions in 2014.

Imports from Algeria, for which a substantial reduction had been recorded over the past two years, recovered in 2015 (+0.5 billion) reaching 7,244 M(m^3), thanks in part to the gradual return to operation of the deposits that in 2013 had been damaged by the terrorist attacks in that region. Increased imports of 600 M(m^3) also came from Libya, but the political situation in this country remains critical.

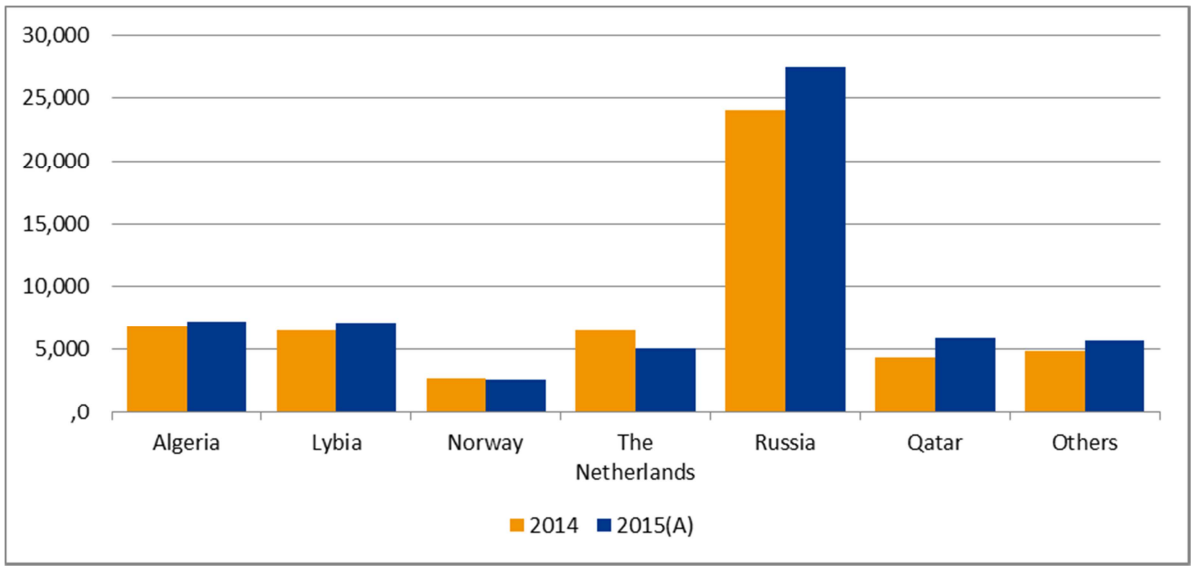
As a result of these changes, in 2015, the weight of Russia among the countries exporting to Italy returned to 45%, almost half of the entire Italian foreign supply. With a 11.8% share of total imported gas, Algeria maintained second position, followed very closely by Libya (11.6%). Qatar's share rose by nearly two percentage points, having increased from 7.9% in 2014 to 9.6%. In 2015, 9.3% of Italian imports came from Other countries, 8.3% from the Netherlands and only 4.3% from Norway.

[144] 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.

According to (provisional) data collected by the Regulatory Authority with the Annual Survey on Regulated Sectors, 59.6 G(m^3) were imported to Italy in 2015, 4.6 more than in 2014. The increase was thus 8.4%, slightly lower than data from the Ministry of Economic Development[145]. Of the total gas supplied from abroad, 7.5%, i.e. around 4.5 G(m^3), was purchased from European power exchanges.

Figure 4.5 Gross imports of gas according to origin

M(m^3); estimates made according to gas entry point



(A) Provisional data.

Source: Ministry of Economic Development.

As always, the first place in the list of importers was held by Eni, which purchased a total of 32.1 G(m^3) of gas from abroad in 2015, 3.3% more than in 2014. The increase in Eni's imports, lower than the total national increase in imports, brought down the market share of the company to 53.8% (52.4% if calculated on the value of ministerial source imports), from 56.5% in 2014. This is the first fall since 2010, when - thanks to the antitrust ceilings established by Legislative Decree No. 164 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 has always been rising.

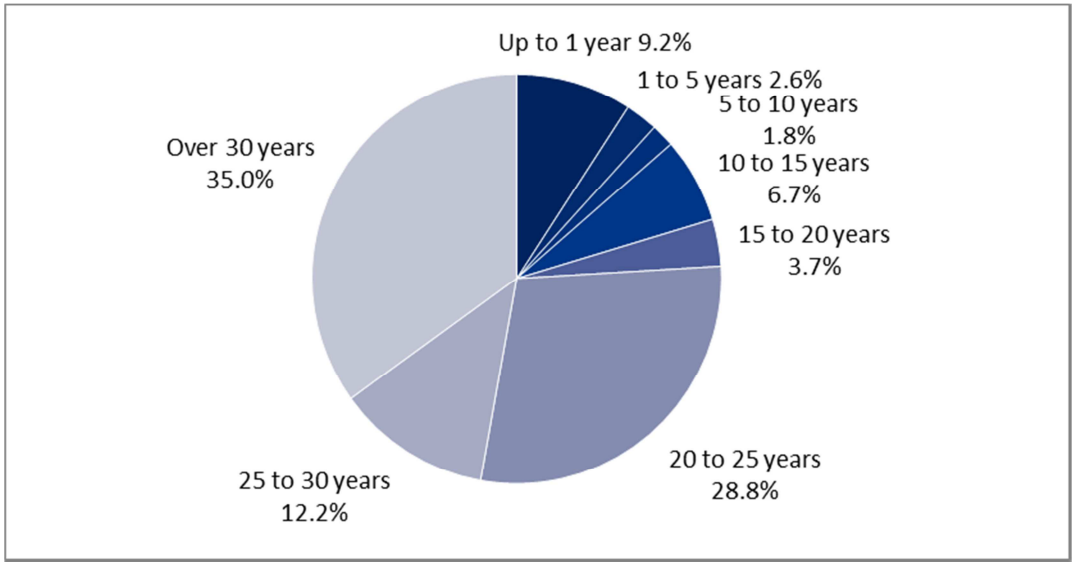
Edison's growth in imports was much stronger, second in the standings, procuring almost 3 G(m^3) more than in 2014. Therefore, its share in the import market rose to 21.2% and it closed the gap with Eni by six percentage points compared to the previous year. Enel Trade's imports increased even more, from 4.9 to 6.7 G(m^3) in 2015. That notwithstanding, Enel Trade remained in third place, albeit with a 11.2% share, as compared with 9% in 2014.

[145] 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.

As in previous years, the groups[146] with a share of over 5% of the total gas procured (i.e. produced or imported) were Eni, Enel and Edison. Together, these top three importers imported 51.4 of the 59.6 G(m^3), i.e. 86.2% of the gas that entered the Italian market. Considering the quantities also produced nationally, the three groups account for 86.5% of all the gas procured. As in the past, this share is on the increase (it was 84% in 2014), due to the increase 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 larger than 5% share of the available gas, with an overall share for the three (87.5%) 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 2015 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 76%, an increaed compared to last year (65.3%). The ratio of short-term imports, i.e. those with a maturity of less than five years, rose slightly (10.6% in 2014, 11.7% in 2015), while that of medium-term contracts (5-20 years) was halved compared to last year (24.1% in 2014, 12.3% in 2015).

Figure 4.6 Structure of (annual and multi-annual) contracts active in 2015, according to the full duration



Source: Annual Survey on Regulated Sectors

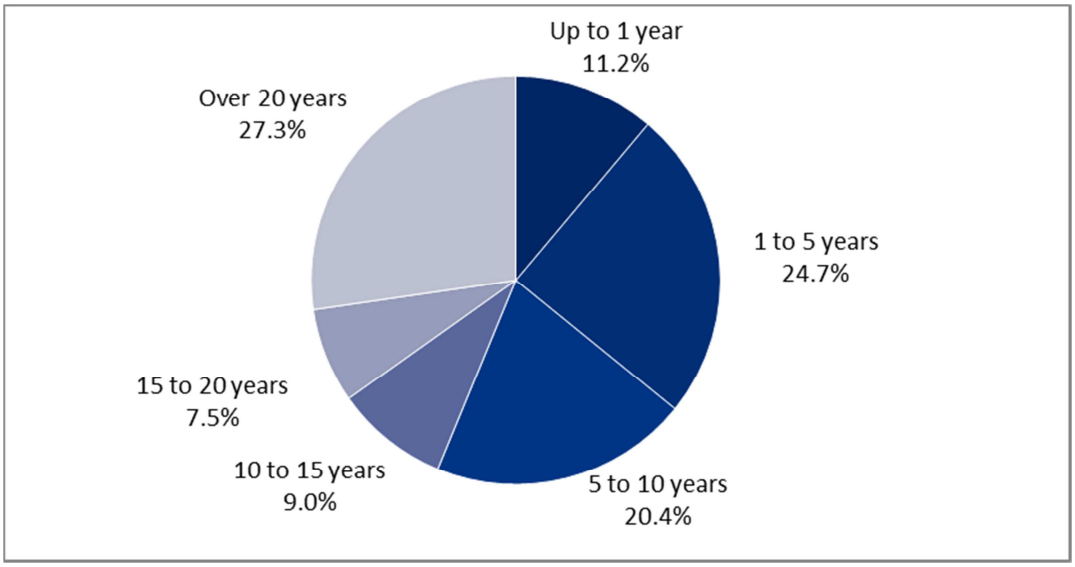
The contraction of this market, which has been ongoing for years, continued, however, in 2015. Over time, the total Annual Contract Quantities underlying the shares expressed in the figure have decreased continously: from about 119 G(m^3) negotiated five years ago, in 2015 the agreed volumes in went down to about 85 G(m^3) overall. The percentage of spot[147] imports, i.e. those with a duration of less than one year, remained basically unchanged, 9.2% in 2015 against 9.3% in 2014.

[146] 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.

[147] 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.

In terms of residual life, the existing contracts as of 2015 (Figure 4.7) turned out to be overall still quite long, but the contract structure is shortening, albeit very slowly: 56.2% of contracts (63.5 % in 2014) will expire within the next ten years and 35.8% of those (29.3% in 2014) will end within the next five years. 34.8% of the contracts in force today have a residual life of over 15 years (31.8% in 2014).

Figure 4.7 Structure of (annual and multi-annual) contracts active in 2015, according to residual life



Source: Annual Survey on Regulated Sectors

In 2015, 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 16%, having reached 244.6 G(m^3). The wholesale market handled 177.6 G (m^3) in a significant increase compared to 2014 (+21%), the retail market handled 53.8 G(m^3), recording a slight increase compared to 2014 (+0,3%), while self-consumption amounted to 10.5 G(m^3), also a significant increase (+25.7%). The operators that in 2015 had a higher than 5% share of this market fell to 4, while in 2014 they were 5.

More specifically, the industrial groups and the respective shares, shown in brackets, are: Eni (23.9%), Engie (former GdF Suez) (17%), Edison (9.8%) and Enel (7.5%). With the exception of Eni, they all recorded a higher share than last year. In fifth place, Royal Dutch Shell with 4.5% (while in 2014 it had 5.8%). The first three groups together account for 50.6% of the total demand, a decrease compared to last year (when it was 51.4%).

In the following section the wholesale market's sales and prices are described in detail.

Table 4.4 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	244,6	340	6,8	120,9	0	87,6	33,3	3	3	50,6%

(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; 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.

Source: AEEG elaboration on Snam Rete Gas data and operator statements.

4.2.1.1 Monitoring the level of prices of the of wholesale gas 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 565 companies accredited with the Registry of Operators, which declared operations in gas sales for the wholesale or retail market in 2015 (even for a limited period of the year). Of these, 493 companies responded, of which 37 declared they were inactive during the year. Of the 456 active companies, 77 sold gas exclusively on the wholesale market, and were classified as pure wholesalers, 260 sold gas only to end customers and were classified as pure retailers, and the remaining 119, who worked on both the wholesale market and the end market, were classified as mixed operators.

Table 4.5 Sales and prices in the wholesale market in 2015M(m^3); c€/m^3

Operators	Number	Sales	Price
Pure wholesalers	77	86,936	24.74
Mixed operators	119	90,642	25.68
Total	196	177,602	25.22

Source: Annual Survey on Regulated Sectors

The wholesale market, which overall handled 177.6 G(m3), was supplied for 49% by pure wholesalers and the remaining 51% by mixed operators. As has been the case for many years, in 2015 the number of companies in the wholesale market grew, as well as the total amount of gas that they traded overall; 196 suppliers, twelve more than year before, sold a total of 30.8 G(m^3) more than in 2014. As a percentage, the increase in number of operators was lower than the volumes of gas involved, this is why the average unit volume grew by almost 14%, from 798 to 906 M(m^3) of the overall market. After several downward years, the average unit value of sales started rising again for the second consecutive year.

Between the beginning of 2015 and the first quarter of 2016, 12 companies launched a natural gas wholesale business, whereas 4 companies closed; in July 2015 Simecom acquired part of the wholesale natural gas buying and selling business from Energia Ambiente e Servizi, whereas, starting on 1 April 2016, Multiutility partially sold the business to Dolomiti Energia. There were five incorporations. In particular: Beetwin, after changing its name to Geko in mid-November 2015, incorporated General Construction, which deals in electricity production, at the end of the year; Green Network Luce & Gas was incorporated by Green Network in late November 2015; Eni incorporated Est Più (already 100% owner) from 1 December 2015; Chiara Gaservizi was incorporated by Simecom starting on 1 January 2016 and, on the same date, SEL AG ceased its business of wholesale natural gas purchasing and selling before being incorporated by O.9, which later became Alperia. Five companies changed corporate group. Additionally, in 2015, two companies changed name: New Gas Trade became Terni Energia Gas & Power, after Terni Energia became 100% owner, and GdF Suez SA changed its name to Engie Sa.

In 2015, the wholesale market concentration started to fall, after the increase recorded last year that came after decreases observed since 2012. The share of the top three companies (ENI, GDF Suez Trading Italia, Eni Trading & Shipping) in fact rose to 31.4% from the 35.8% calculated in 2014. Likewise, the combined share of the top five companies also decreased from 48% to 46.1%: the three already mentioned, plus Edison and Enel Trade (the latter taking the fifth place occupied by Shell Energy Europe Limited in 2014). Obviously, the HHI calculated on the wholesale market only also fell, as compared to 2014, from 643 to 560, remaining however below the 1,500 value considered to be the first indication of concentration.

In 2015, the average price charged on the wholesale market was 25.22 c€/m^3, higher than the 23.45 c€/m^3 of the VTP (Source: Platts), but still a sharp fall (-9.8%) compared to the value recorded in 2014 of 27.97 c€/m^3.

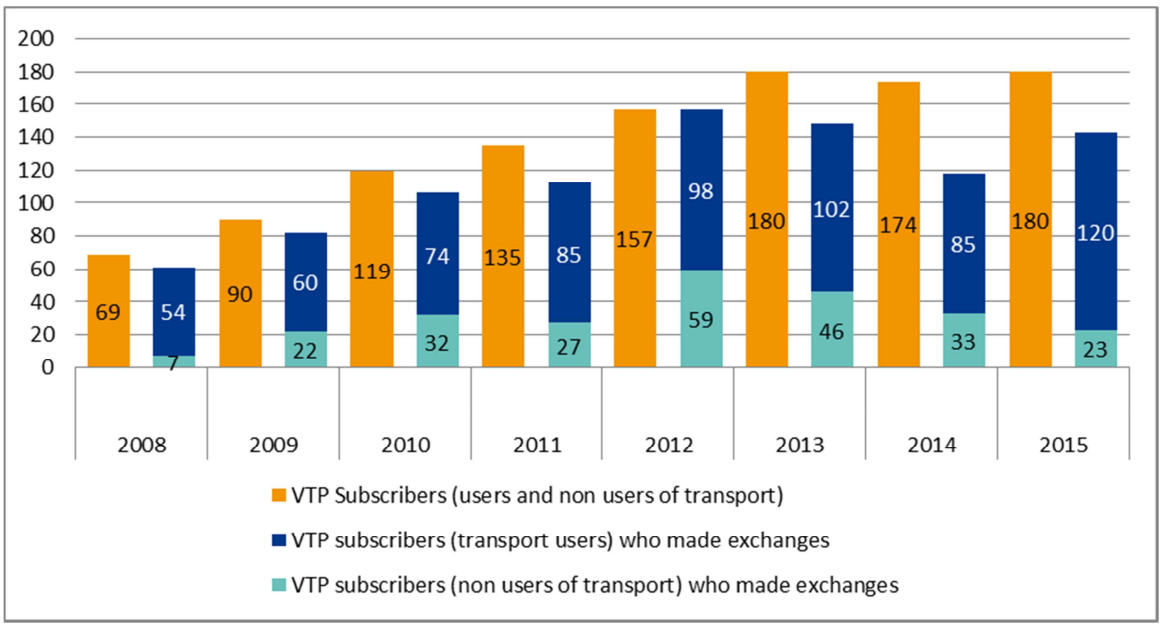
The price charged by mixed operators was 25.68 c€/m^3, 0.94 c€ higher than the price charged by pure wholesalers.

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. The new feature is that, since September last year, contracts managed by third-party Power Exchanges[148] can also be registered on the Virtual Trading Point. The new 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 2015, 143 bodies performed gas exchanges, sales and acquisitions at the VTP; only 23 of these were pure traders, insofar as they are non-users of the transport system.

Figure 4.8 VTP subscribers since 2008



Source: Annual Survey on Regulated Sectors

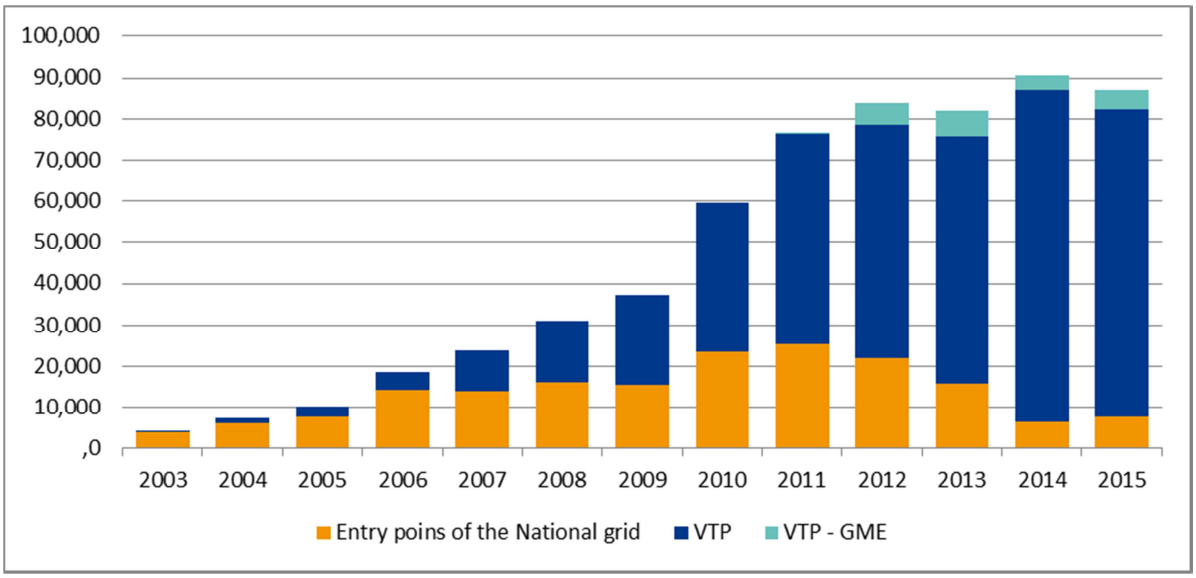
The positive trend in the demand for natural gas in 2015 increased the number of VTP subscribers to 180 units, as well as the number of those who carried out transactions, which this year amounted to 143 entities. Last year, the number of subscribers who had carried out exchanges at the VTP had dropped to 118 units from 143 in 2013. A further reduction, however, took place in the number of pure traders (i.e. subscribers but non-users of the transport system) fell to 23 units, compared to 33 in 2014. This trend has been ongoing for three years, after a historic high of 59 units reached in 2012.

[148] 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), primarily, but also on the G+1, G-1, M-GAS markets and, finally, those managed as clearing houses.

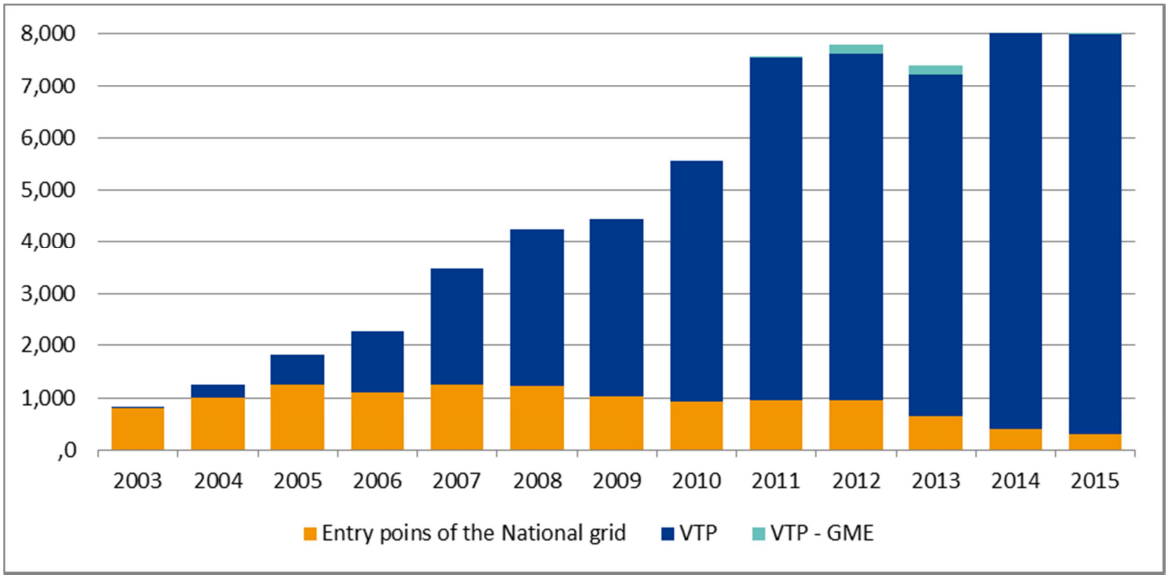
Figure 4.9 Volumes of transactions at the national network entry points

M(m^3) standard from 38,1 MJ; the transactions refer to the gas fed into the network by the user-seller



Source: AEEGSI elaboration on Snam Rete Gas data.

Figure 4.10 Number of transactions at the national network entry points



Source: AEEGSI elaboration on Snam Rete Gas data.

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 Panigaglia terminal by GNL Italia, and those that have been made since October 2009 at the terminal of Porto Viro (Rovigo) by Terminale GNL Adriatico, connected to the National Grid through the Cavarzere entry point. Most recently, in October 2013, gas redeliveries at the Livorno terminal, operated by OLT Offshore LNG Toscana, were added.

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 NTG 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 2015, however, due to the increase in imports, the volumes recorded at the NTG entry points showed a significant recovery (+16%), whereas OTC volumes traded at the VTP saw a 7% decrease as compared to 2014. The VTP-GME entry demonstrated remarkable growth of 27%, especially due to the clear growth in number of transactions at the PB-GAS, as well as of G+1 and G-1 markets (see below).

In addition, starting in autumn, the company Intercontinental Exchange, through the Ice Endex platform, began offering (and recording) future gas contracts with physical delivery at the VTP. The first contract was signed on 14 September 2015, between Axpo Italia and Electrade, for 5 MW to be delivered in October.

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.

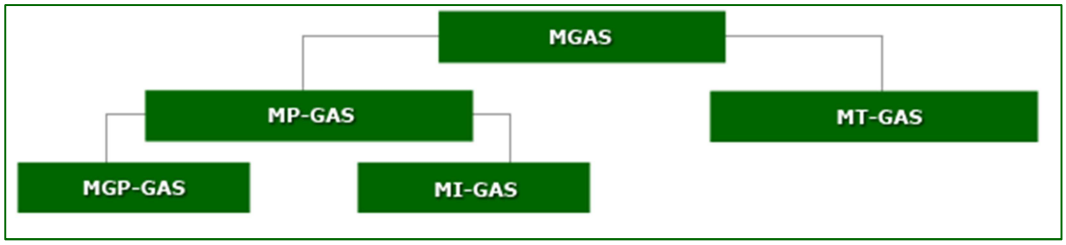
The first nucleus of the Gas Exchange was created in March 2010 with the institution of the trading platform for the exchange of imported gas, known as P-GAS. But the launch of the true natural gas spot market with the GME acting as the central counterparty took place in October 2010, with the foundation 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;
- MI-GAS (Gas intra-day market), in which the bargaining occurs on the same gas-day. The negotiation mode is continuous.

By decree of 9 August 2013, the Ministry of Economic Development set the date of 2 September 2013 for the launch of the futures market managed by the GME (MT-GAS). 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.

Therefore, as of September 2013, the spot market for natural gas M-GAS has been made up of MGP GAS, MI-GAS and MT-GAS, as shown in Figure 4-11.

Figure 4.11 M-GAS structure



Source: GME.

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, 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.

As already mentioned, in September 2015, the Regulatory Authority, in collaboration with the GME and Snam Rete Gas, completed the regulatory process[149] that allows the extension of the VTP the recording of transactions made at Power Exchanges managed by entities other than the GME. 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 PEGAS and the EEX group operated by Powernext, which, in March 2015, had already launched VTP futures products without physical delivery. This new element enables liquidity in Italy to be increased, currently very low due to the limited gas futures and spot exchanges managed by the GME, significantly lower than those recorded on PB-GAS and even lower than the OTC exchanges with VTP delivery.

In the course of 2015, as during 2014, no combination was registered on MGP-GAS.

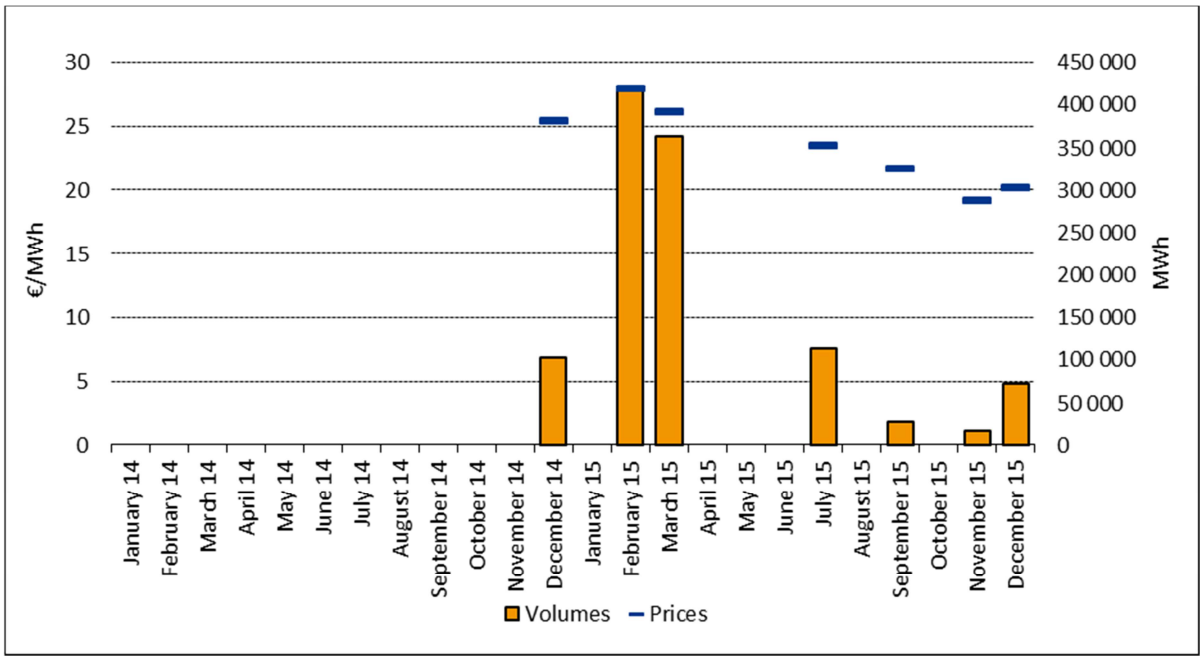
[149] Resolutions 282/2015/R/gas of 12 June 2015 and 436/2015/R/gas of 10 September 2015.

Also with regard to MT-GAS operations, from the launch date of 2 September 2013 until today, there have been no transactions referring to the various types of tradeable products: thermal year and calendar year, biannual, quarterly, monthly and Balance of Month (a product that includes the days of the current month not yet delivered).

In 2015, there were 33 useful sessions on MI-GAS, a clear increase compared to the four of the previous year (Figure 4.12). The average recorded price amounted to € 24.38/MWh, down 4% compared to 2014, against transited volumes of 1,009,437 MWh, compared with 102,130 MWh in 2014.

Figure 4.12 Daily contract prices and volumes on MI-GAS

€/MWh; MWh



Source: AEEGSI elaboration on GME data.

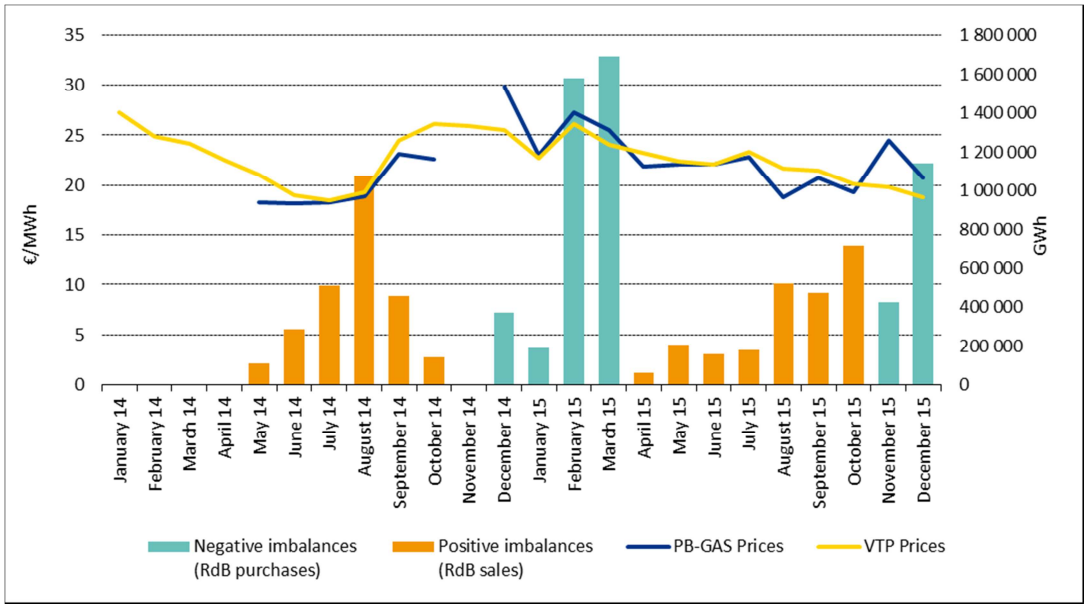
The only market managed by the GME actually used by operators and on which there was recorded significant and continuously improving liquidity was the PB-GAS sector, dedicated to daily balancing and accounting for 98% of the overall liquidity traded on GME-operated markets. With 99 registered operators and 70 active operators, overall volumes (including G-1 and G+1) amounting to 48.2 TWh (up 16% compared to 2014) were traded on PB-GAS in 2015.

During the course of 2015, the *ex ante* G-1 section was activated in 88 sessions out of 365 potential ones (about 22%), for a total of 7.3 TWh (approximately 18% of the volume traded on G+1). According to the Network Code, Snam Rete Gas operates only in sales during the injection period (April to October) and only in purchases in the supply period (November-March), activating the sector with its own offer when the provisional system imbalance appears, respectively, negative (long system, Snam Rete Gas selling) or positive (short, Snam Rete Gas purchasing). Specifically, Snam Rete Gas operated for 73 sessions in the injection period for a total of 2.3 TWh of volume, while in the supply period, until December, it operated for 15 sessions, for a cumulative volume of 5 TWh. The average price in 2015 (€ 22.92 / MWh) was aligned to the VTP price, which stood at € 22.16/MWh (Figure 4.13).

In sector G+1, a total of 40.9 TWh were traded at an average price of 22.14 €/MWh (-6% compared to 2014), broadly in line with the average VTP price (22.16 €/MWh).

Figure 4.13 Prices and volumes on PB-GAS (G-1)

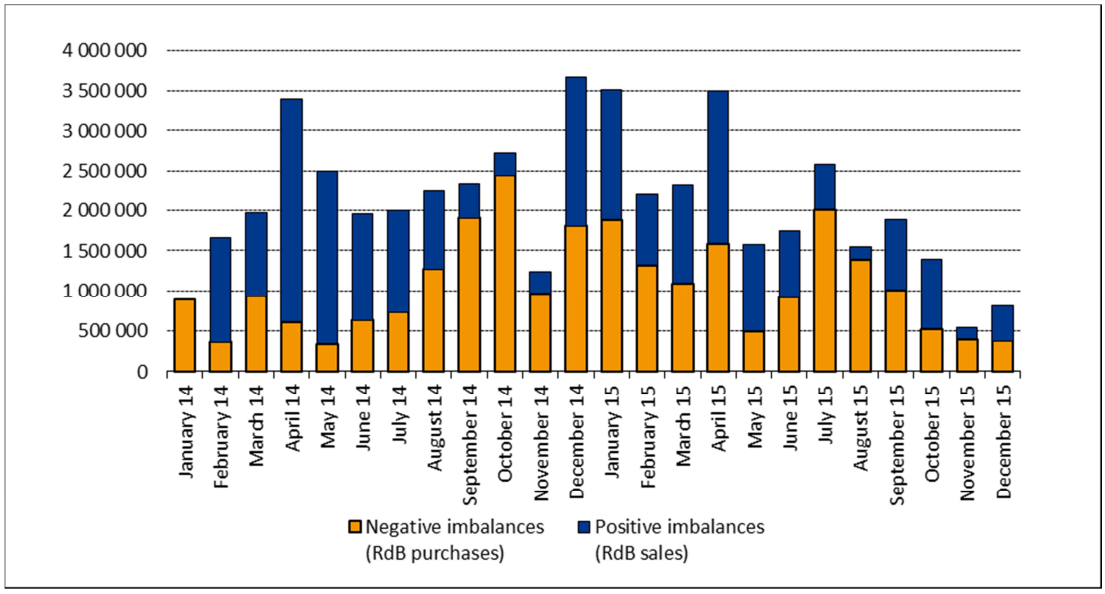
€/MWh; MWh



Source: AEEGSI processing on GME data.

Figure 4.14 Volumes traded by Snam Rete Gas on PB-GAS (G+1)

MWh

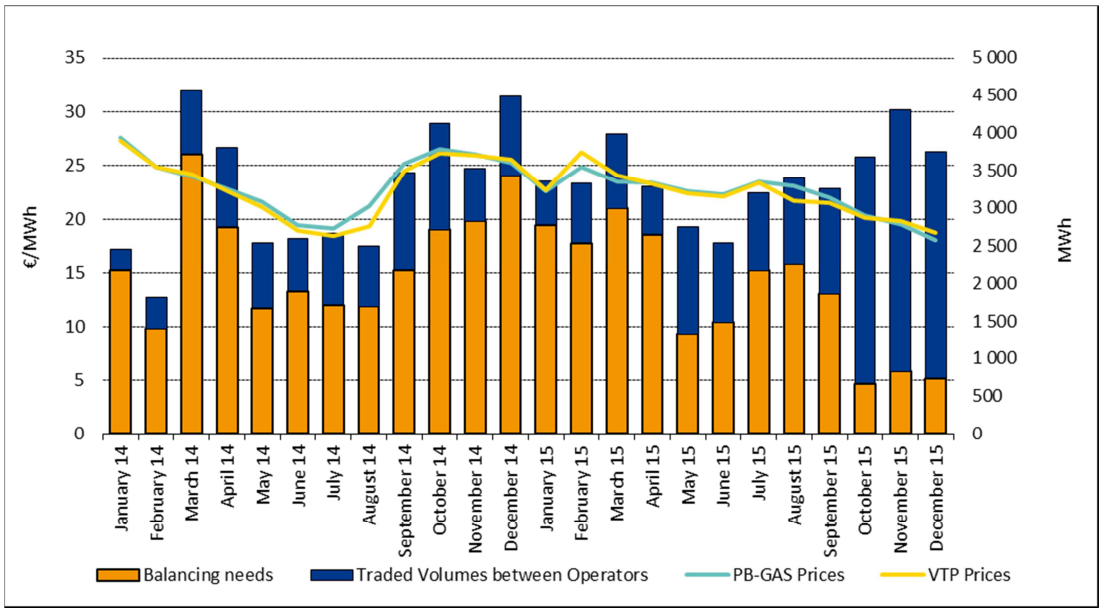


Source: AEEGSI processing on GME data.

54% of the volume (22 TWh) was traded by Snam Rete Gas as sales or purchases, to correct the defect or excess of the previous gas day (Figure 4.14). In particular, the purchases by the CoB totaled 13 TWh (negative imbalance), while sales amounted to 9 TWh (positive imbalance).
Trading between operators, namely trading beyond balancing needs, reached 18 TWh in 2015, a significant increase compared to 10 TWh in 2014 (Figure 4.15).

Figure 4.15 Overall prices and volumes traded on PB-GAS (G+1)

€/MWh; MWh



Source: AEEGSI processing on GME data.

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

Measures for the development of the 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:

- Snam Rete Gas' proposal was approved[150] to update the transport code of conduct and the conditions to access the virtual trading point (VTP), which strengthens the role of suppliers, namely those who can access the system to record the natural gas transactions without being users of the transport network and without having to resort - as in the past - to bilateral agreements with the so-called "Clearing user". Thanks to the new changes, suppliers can pay for their own financial guarantees to Snam Rete Gas to cover any imbalance;
- the proposal of the energy market operator (GME) was approved[151] to modify the PB-GAS regulations, as regards disciplinary measures - in connection to the several markets managed by the GME - to be adopted following breaches by operators and, in particular, dealing with suspension and exclusion from the markets, readmission criteria of previously excluded operators and provisions on the matter of verifying complaints on market operations.

[150] Resolution 21/2015/R/gas of 29 January 2015.
[151] Resolution 199/2015/R/gas of 30 April 2015.

4.2.2 Retail markets

Provisional Annual Survey results on the electricity and gas sectors show that in 2015 53.8 G(m^3) were sold to the retail market, to which must be added 312 M(m^3) delivered through the last resort and default services, which last year were not enucleated, but considered to be within standard market conditions[152]. In total, therefore, the value of final sales amounted to 54.1 G(m^3), an increase of 448 million compared to 2014.

This outcome, which quantified the comeback of the total market as 0.8% with respect to a year earlier, appears modest in comparison with the much more significant 9.5% increase, shown in the albeit also provisional data of the Ministry of economic development commented on the previous pages. The difference with the Ministerial data drops considerably when one considers self-consumption volumes, over 13 G(m^3), bringing the value of total consumption resulting from the annual survey to 67.3 G(m^3), that is, a value about 5% higher than in 2014. The two sources classify gas volumes handled in the year in different ways: the annual survey, in fact, includes only gas sales in the final sales - which took place in the open market or protected markets - which lead to the issuing of an invoice. Conversely, the Ministry's data deal with the volume of gas consumed in the year, regardless of whether the gas was invoiced or employed directly by the same company that has it available (because it produced, imported or purchased it from other retailers in the country).

[152] 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.

Table 4.6 Final consumption of natural gas in 2014 and 2015

Withdrawal points in the thousands; volumes in M(m^3)

	VOLUMES			WITHDRAWAL POINTS		
	2014	2015	% VAR. 2015-2014	2014	2015	% VAR. 2015-2014
Final sales	53,679	53,816	0.3%	21,466	21,221	-1.1%
Last resort and default supplies(A)	–	312	–	–	66	–
MARKET TOTAL	53,679	54,127	0.8%	21,466	21,287	-0.8%
Self-consumption	10,472	13,165	25.7%	1.8	2.0	13.8%
FINAL CONSUMPTION	64,152	67,292	4.9%	21,468	21,289	-0.8%

(A) In 2014 they were included in the final sales.

Source: Annual Survey on Regulated Sectors

The self-consumption entry increased significantly compared to 2014: about 26% in terms of volume and almost 14% in terms of withdrawal points. This entry has a very strong influence on electricity generation (88% of self-consumption belongs, in fact, to this area). The new rise in final consumption, both in the data emerging from the annual survey and in those of the ministry, appears therefore to be closely linked to climate trends in 2015 that drove up energy consumption for heating in the winter months (see below the increase in civilian consumption) and for cooling (brokered by electricity generation) in the summer months.

Table 4.7 Sales and prices to end users in 2015

M(m^3); c€/m^3

Operators	Number	Sales	Price
Pure retailers	260	11,784	49.61
Mixed operators	119	42,032	35.89
Totale	379	53,816	38.89

Source: Annual Survey on Regulated Sectors

Of the 53.8 G(m^3) of gas sold in the retail market, nearly 12 were sold by pure retailers while the remaining 42 were brokered by suppliers also active in the wholesale market. The average price charged to final customers decreased by 3.43 c€ (-8.1%) compared to 2014. As usual, this price what higher than what was offered to end users by wholesalers, which - as seen above - stood at 35.89 c€/m^3. The reason for the positive difference, equal to 3 c€, lies mainly in the type of customer and their characteristics. In fact, companies operating mainly in the retail market deal mostly with household customers who are connected to distribution networks and, although numerous, are characterized by low consumption. Conversely, the customers served by wholesalers are primarily great consumers, especially industrial types, who are surely able to obtain more favorable prices thanks to high consumption levels and who, moreover, 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 25.22 c€/m^3 charged by wholesalers, retailers requested on average 25.68 c€/m^3, i.e. about half a cent more. The price charged to other retailers also decreased compared to 2014 (-8.2%). In comparison with 2014 values, we can observe that both differentials rose slightly: last

year the one on the price set by the wholesalers to retail customers was essentially zero, while the one on the price charged to other intermediaries was 2.51 c€.

Despite the modest growth in final market sales (as we have just seen, 0.8%), the number of active suppliers in this segment of the supply chain increased significantly also in 2015: from 342 operators in 2014 to 379[153]. Therefore, the rising trend remained, also observed in the electricity market and the number of suppliers, although it is now since 2006 that the market does not expand or develops very slowly. The average unit sales volume fell once again, by almost 12% compared to 2014: on average, each gas market trader sold 142 M(m^3) in 2015, against the 157 M(m^3) sold in 2014, around 60% of the gas that each company was selling in 2009.

The increase in the number of suppliers is also explained by the many movements that occur each year between companies. In 2015:

- 31 companies started selling to end users, 10 companies in total went out of business, 4 companies acquired the business by means of business unit leases and, conversely, 4 companies sold their business selling to open market customers. The sale was partial in some cases and total in others.
- Est Più also sold its business selling to open market and protected customers to Eni, by which it was subsequently incorporated. In addition to the incorporation of Est Più, 6 more mergers by incorporation regarded the following: Edlo Energy, which incorporated two companies, Orobie Gas and Power & Lion Energy; Alento Gas, which was incorporated into Hera Comm Marche; Green Light Network & Gas, which was incorporated in Green Network; Energetic Source, which incorporated Tecnoenergia; Compagnia Energetica Italiana, which incorporated InEnergy; and Chiara Gaservizi, which was incorporated in Simecom.

8,7% (meaning 33) of the 379 active suppliers that responded to the Annual Survey serve customers throughout the all 19 Italian regions that use methane[154]; 61.2% of the companies (232) sold electricity in 6 to 18 regions; the remaining 119 companies (30.1%) dealt with 1 to 5 regions. The number of companies operating throughout the country has been growing steadily (they were 7% in 2014).

The shareholding structure of the share capital of gas suppliers displayed little foreign presence: only 13 companies (out of the 339 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, Austrian 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 2015, the concentration level in the final sales market, steadily declining for years, fell further compared to 2014. The first three groups controlled 44.8%, while the previous year the figure was

[153] As seen in the section dedicated to the wholesale market, this year 493 out of 565 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 2015 (even for a limited period of the year). Apart from the 37 companies that said they remained inactive, out of the remaining 456 there were 77 who sold gas exclusively in the wholesale market. The retail market operators were therefore 379.

[154] No gas service in Sardinia.

45.9%. Considering the first five groups, the portion of market served was 52.9% (against 54% in 2014).

The HHI index calculated on the sales market amounted to 878 (it was 929 in 2014), a level that begins to distance itself from the 1,000 threshold, the value below which the concentration is usually considered too weak.

Table 4.8 Top twenty groups by sales to the final market in 2015

Volumes in M(m^3)

GROUP	VOLUME	SHARE	POSITION IN 2014
Eni	12,763	23.7%	1st
Enel	5,701	10.6%	3rd
Edison	5,665	10.5%	2nd
Iren	2,228	4.1%	5th
Hera	2,105	3.9%	7th
E.On	2,091	3.9%	6th
Engie	1,926	3.6%	4th
Royal Dutch Shell Plc	1,351	2.5%	8th
A2A	1,334	2.5%	9th
Sorgenia	814	1.5%	10th
Ascopiave	801	1.5%	11th
Estra	701	1.3%	12th
Unogas	601	1.1%	17th
Erogasmet	585	1.1%	14th
Dolomiti Energia	547	1.0%	13th
Axpo Group	529	1.0%	19th
Gas Natural Sdg Sa	505	0.9%	15th
Metano Nord	368	0.7%	54th
Linea Group Holding	361	0.7%	21st
Repower Ag	337	0.6%	27th
Others	12,501	23.2%	-
TOTAL	53,816	100.0%	-

Source: Annual Survey on Regulated Sectors

However, Eni's market weight rose by one percentage point from 2014 and remained more than double than Enel's, which went back to being the second operator (in 2014 it was in third place, behind Edison). The distance between the second and third groups increased because of the simultaneous increase of Enel's share (up from 9.8% to 10.8%) and the decrease of Edison's (down from 11, 4% to 10.5%). This is because the Enel Group's sales increased by 10% compared to 2014, while Edison's went down by 7%.

About the shifting rankings of the groups, in addition to Enel and Edison exchanging positions, we should note that Engie (former GdF Suez) slipped from fourth to seventh place as well as some leaps forward, such as for Unogas and Metano Nord, mostly thanks to company acquisitions.

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 2015.

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).

Table 4.9 Final market by consumer sector

Customers in thousands and volumes in M(m^3)

CONSUMER SECTOR	2014				2015			
	STANDARD CONDITIONS[A]	OPEN MARKET	SELF-CONSUMPTION	TOTAL	STANDARD CONDITIONS	MERCATO LIBERO	SELF-CONSUMPTION	TOTAL
VOLUMES								
Household	9,637	4,125	8	13,770	9,754	4,980	252	14,986
Condo with household use	975	1,355	11	2,341	599	1,951	14	2,563
Business and services	143	6,314	206	6,663	28	7,140	73	7,241
Industry	41	18,836	1,763	20,639	15	17,907	1,169	19,090
Poweer generation	2	11,027	8,484	19,513	0	10,132	11,587	21,719
Public service	30	1,195	0	1,225	8	1,303	70	1,381
TOTAL VOLUMES	10,827	42,852	10,472	64,152	10,403	43,413	13,165	66,980
REDELIVERY POINTS								
Household	14,426	5,514	0	19,940	13,342	6,368	0	19,710
Condo with household use	113	81	0	194	60	141	1	201
Business and services	52	1,003	1	1,056	12	1,041	1	1,054
Industry	10	190	0	200	3	181	0	184
Power generation	0	1	0	1	0	1	0	1
Public service	4	72	0	76	1	72	0	73
TOTAL POINTS	14,605	6,861	2	21,468	13,417	7,803	2	21,223

(A) Includes customers supplied through last resort and default services.

Source: Annual Survey on Regulated Sectors

Overall, gas quantities increased compared to 2014 in every sector, with the exception of industry. Self-consumption, which rests mostly with the power generation industry, experienced a major rise (25.7%), the open market showed a 1.3% increase, while there was some loss (-3.9%) in sales at standard market conditions. However, the values of this market shown in Table 4.6 for the year 2014 include also the quantities provided through default and last resort services, which in 2015 totalled € 312 M(m^3). These are not included in the table, as they cannot be divided into the various sectors. If one includes the default and last resort services, the gas sold at standard market conditions becomes equal to 10.7 G(m^3), and the loss is attenuated, becoming quantifiable as -1%.

Customers who bought gas for self-consumption grew strongly, as well as those served in the rest of the market (open market); conversely customers of the market at standard conditions of service were reduced overall by 8.1% (but here too, if we take into account the default and last resort services the decrease is reduced to 7.7%).

The sector volumes showed a marked rise in civilian consumption, the household sector growing by 8.8%, consumption of condos with household use rising by 9.5%, the trade and services sector showing an 8.7% growth and public service activities rising by 12.7%. High growth was also apparent in the thermal power generation consumption (11.3%), however, also favoured by low gas prices. Only industry had another setback, equal to 7.5%. These overall positive change rates were even improved in the case of civilian consumption, if one considers only sales on the **open market**, where the volume of gas sold to households was 20.7% higher than in 2014, grew by 43.9% for condominiums, showed a variation of 13.1% for the tertiary sector and rose by 9% for public service activities. At the base of the volume growth there is also a significant increase in customers, overall by almost one million redelivery points (+ 13.7%), which follows in the wake of the remarkable increases recorded in the two previous years (respectively +1.4 million in 2013 and 1.3 million in 2014).

The picture changes completely if, instead, we look at the data of **standard conditions market**, showing very pronounced losses in terms of both volumes and customers. In this case, the only moderately positive sign comes from the volumes acquired by the household sector rising by 1.2% compared to 2014, despite a 7.5% loss of customers. 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-household 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 household end customers and no longer other users with different uses and low consumption or dealing in public service activities[155]. In this regard it should be noted that the sales volumes and non-household customers (or, rather, redelivery points counted according to the per day criterion) found in the columns of the tables under standard market conditions are due to the fact that the exit process from that market, given the choices exercised by the customers and respecting the notice schedule provided for in the Code of Business Conduct, extended also into 2015. In addition, 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 2015 the household sector bought 15 G(m^3), i.e. 22.4% of all gas consumed in total; condos with household bought 3.8%, or 2.6 G(m^3); business used 11%, corresponding to 7.2 G(m^3); industry consumed 28.5%, i.e. 19.1 G(m^3); power generation absorbed 32.4%, equivalent to 21.7 G(m^3); public service activities, finally, consumed 2.1%, equivalent to 1.4 G(m^3).

The portion of volumes purchased on average on the open market was 64.8%, at standard market conditions 15.5%, self-consumed 19.7%. If we consider sales in the strict sense and therefore exclude self-consumption, 80.7% of the gas was purchased on the open market and the remaining

[155] 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.

19.3% at standard market conditions. In terms of customers, however, 63.2% went with standard market conditions, while only 36.8% bought in the open market. Obviously, the gas fractions bought on the open market become more relevant as we move from households to the sectors for which gas is a production process input and where the use of gas is more intense. In fact, the proportion of volumes purchased on the open market amounted to 34% for households, 77% for condos, 100% for business, services, industry and power generation and 99% for public service uses (all the percentages are calculated on the total sales in a strict sense).

Table 4.10 Final market by customer type and size in 2015

M(m^3)

SECTOR	CUSTOMERS BY ANNUAL CONSUMPTION CLASS (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	9,648	661	84	1	9	-	10,403
Household	9,573	179	2	-	-	-	9,754
Condo with household use	62	459	78	0	-	-	599
Business and services	11	15	3	0	-	-	28
Industry	2	3	0	0	9	-	15
Power generation	0	0	0	-	-	-	0
Public service	1	5	1	-	-	-	8
OPEN MARKET	6,353	5,048	2,573	5,894	9,299	14,245	43,413
Household	4,806	141	16	13	4	-	4,980
Condo with household use	101	1,390	375	79	6	-	1,951
Business and services	1,130	2,373	1,095	1,765	747	31	7,140
Industry	246	748	806	3,549	7,560	4,997	17,907
Power generation	0	3	11	138	762	9,218	10,132
Public service	70	393	271	350	219	-	1,303
TOTAL	16,001	5,710	2,658	5,895	9,307	14,245	53,816

Source: Annual Survey on Regulated Sectors

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, the share of consumption covered by the open market over the total was on average 10.6% for customers from the first two consumption classes (less than 5,000 m^3/year and 5,000 to 50,000 m^3/year), 4.8% for the third class (50,000 to 200,000 m^3/year), 11% for the fourth (from 200 thousand to 2 million m^3/year), 17.3% for the next to last (2-20 million m^3/year) and 26.5% for the last (over 20 million m^3/year). We have already talked about the volumes of non-household consumption classes served at standard conditions (and greater than 200,000 m^3/year in the case of condos), but Table 4.10 allows us to observe that the sum of these volumes corresponds to a very small share of the whole market (0.09%).

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:

- 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 household and non-household 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 (see 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 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 under the requirements of Directive 2008/92/EC of 22 October 2008, concerning the EC procedure for the transparency of prices charged to industrial end consumers of gas and electricity.

The data from the second survey are instead used for the statistical analyses carried out by the Regulatory Authority, especially those at the basis of the Annual Report.

The interim analysis of the data from the survey conducted by the Regulatory Authority on 2015 shows that last year the average gas price (weighted by the quantities sold) charged by companies selling on the final market, net of taxes, totaled 38.9 c€/m^3 (

Table **4.11**). This price in 2014 was equal to 42.3 c€/m^3. Overall, therefore, the average price of gas in Italy showed a decrease of 8.1%. The classes with the greatest decrease (about 17%) were those with a consumption of over 2 million m^3. This contributed to widening the price gap between the smaller and larger customers, which during the five-year period under consideration increased from 19.5 to 29.2 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[156], whereas for larger customers, who are connected directly to the transport network, this component does not exist. Moreover, small power consumption is characterized by a higher correlation with the seasonal and weather conditions, which leads to higher modulation charges. In addition, supplies to large customers are characterized by a more

[156] On average in 2015, the cost of covering distribution was about 12 c€/m^3 for the typical 1,400 m^3 consumer.

flexible price system, in which the indexing formulas respond more quickly and intensely to the structural changes in international markets. More generally, 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.

Finally, as already shown in the electricity sector, we need to consider that the market's development greatly expanded the range of offers from suppliers to end users, who can then choose from many different packages. Some of these include ancillary services (maintenance, insurance, etc.), so the offered gas price may take into account additional elements other than just the cost of the gas. Other offers provide discounts on raw material; others yet benefits on the purchase of goods or services (supermarket, fuel and phone service discounts, etc.). Many suppliers also offer blocked prices, whose fee update mechanisms are not affected by economic trends in energy prices, but depend to a significant extent on the contract signing date (and in particular on the expectations at that time on the future prices of fuels), as well as on the duration of such contracts (the longer, the more the price agreed must take into account the risk of market changes). Still other offers are based on meeting certain consumption thresholds, above which additional price components are triggered.

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 CLASS	2011	2012	2013	2014	2015
Under 5,000	52.6	60.3	61.2	58.8	55.7
5,000 to 50,000	43.9	50.0	51.3	46.9	46.0
50,000 to 200,000	41.1	48.3	44.4	41.4	41.0
200,000 to 2,000,000	34.6	41.1	36.6	35.0	32.5
2,000,000 to 20,000,000	30.7	36.9	33.8	34.0	28.1
Over 20,000,000	33.1	36.8	32.7	32.2	26.5
TOTAL	39.3	45.5	44.0	42.3	38.9

Source: Annual Survey on Regulated Sectors

Tales 4.12 Retail sales prices on the final market by consumption sector and customer size in 2015

c€/m^3; annual consumption classes expressed in m^3

SECTOR	CUSTOMERS BY ANNUAL CONSUMPTION CLASS (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	
Household	55.8	46.0	40.9	36.5	39.0	-	55.5
Condo with household use	50.3	46.5	45.0	40.2	34.0	-	46.2
Public service	52.2	44.0	39.4	34.0	29.3	-	38.4
Business and services	54.9	45.8	40.7	33.2	30.2	25.8	41.7
Industry	57.5	46.1	39.8	31.9	27.6	26.3	29.8
Power generation	55.1	42.8	38.5	32.2	30.2	26.7	27.0
TOTAL	55.7	46.0	41.0	32.5	28.1	26.5	38.9

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, household customers, characterized 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.

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.

Section 3.2.2.1 mentioned how on 12 February 2015 the Regulatory Authority published *Retail monitoring. Annual Report 2012 and 2013*, which summarizes the results from monitoring[157] the market of electricity and natural gas sales to mass customers for those years. The report shows how for the natural gas sector, unlike the electric sector, the competition by suppliers takes place primarily on a regional or sub-regional scale, not national. In 2012-2013, only four suppliers held significant market shares in more than five regions, and of these, only two in more than 15 regions. More generally, several elements indicate that natural gas sales have limited competition. The regional concentration indices indicate, in fact, there are competitive advantages for traditional suppliers or local incumbents; in 2013, over 94% of the gas volumes were delivered in regions where the traditional suppliers had more than 75% of the total market share.

Standard service conditions were still the most common supply method for household customers (covering 77% of the gas consumed). There was, however, an expansion of the open market: Italy's 5.5% switching rate in 2013 resulted in line with the average rate in other European countries.

More generally, over the two years that were analyzed, the indicators on switching (in terms of regulation compliance and process effectiveness), quality of sales and telephone services, commercial quality of the distribution service, unsolicited contracts and non-payment showed significant improvements in several areas of the country, countered by the persistence of critical issues on which the Regulatory Authority focused its research and interventions.

With regard to household 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 **Trova Offerte *(Offer Finder)*** service and requiring suppliers to submit a cost comparison chart to their end customers before concluding the contract.

[157] See the Report 42/2015/I/com of 5 February 2015, available at: http://www.autorita.energia.it/it/docs/15/042-15.htm.

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 2015[158], was 6.5% total, or 48.7% 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[159], although the 2015 data for non-household customers, like those of the previous year, probably still suffered from the steps toward the open market driven by the regulatory changes that we talked about.

Table 4.13 Switching rates of final customers

CUSTOMERS BY SECTOR AND ANNUAL CONSUMPTION CLASS	2014 CUSTOMERS	2014 VOLUMES	2015 CUSTOMERS	2015 VOLUMES
Household	6.2%	7.2%	6.1%	7.0%
Condo with household use	7.4%	10.0%	9.1%	12.8%
Public service	15.8%	23.2%	19.0%	26.9%
Othe uses	10.5%	55.0%	12.2%	58.2%
of which:				
Up to 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%
over 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

In 2015, supplier switching by household consumers, certainly spontaneous, was still not particularly high but it has been stable or increasing for several years. Last year, the share of customers who switched at least once was, in fact, 6.1%, corresponding to a 7% portion of the volumes. The fraction of condos with household use who switched to another supplier was higher by three percentage points, with volumes corresponding to 12.8% of that consumption sector. 19% (equivalent to 26.9% 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

[158] The questions were asked in order to detect the phenomenon according to the definition provided by the European Commission. Therefore, the switching detection questionnaire already proposed in recent years was replicated, pertaining to supplier switching numbers in a given period of time (one year) and including the following:

- *reswitching*, when a customer switches for a second time or again, including during the chosen period of time;
- *switching back*, when a customer goes back to the first or a previous supplier;
- *switching* to a competitor of the incumbent and vice versa.

If a customer changes their area of residence, the switch is recorded only if it involves a supplier other than the incumbent in the new area; furthermore, a change in prices charged by the same supplier does not equal a switch, even when a new contractual formula is chosen or changing from a protected to a non-protected price offered by the same supplier or one of their subsidiaries.

[159] In fact, the overall percentage of customers who switched suppliers was 6.49% in 2014 and 6.51% in 2015.

protected market. Finally, the "other uses" that switched their supplier were all together 12.2% of the total in terms of customers and 58.2% in terms of volume. As always, "other uses" included switching rates that increase as consumption volumes widen, because for these customers gas purchase spending reaches significant levels and, therefore, they have a greater propensity to switch suppliers in search of better contract terms and more favourable prices.

Given the territorial fragmentation of the gas market, Table 14.4 shows switching levels by region and customer type.

Table 4.14 Switching rates by region and customer type in 2015

Percentages

REGION	HOUSEHOLD		CONDO WITH HOUSEHOLD USE		OTHER USES		PUBLIC SERVICE		TOTAL	
	CUSTOMERS	VOLUMES	CUSTOMERS	VOLUMES	CUSTOMERS	VOLUMES	CUSTOMERS	VOLUMES	CUSTOMERS	VOLUMES
Piedmont	6.0	6.6	8.4	10.8	12.6	64.4	20.4	35.3	6.5	54.0
Aosta Valley	3.4	3.7	6.2	8.5	10.2	48.1	16.0	9.5	4.3	39.6
Lombardy	5.8	6.8	11.7	17.7	13.0	63.1	20.5	22.2	6.4	52.2
Trentino Alto Adige	3.5	3.8	5.2	9.0	9.5	52.4	7.4	6.4	4.2	44.1
Veneto	5.5	6.3	9.2	12.9	14.0	69.0	20.5	32.4	6.3	56.3
Friuli Venezia Giulia	6.6	7.6	10.8	15.7	15.3	66.7	24.9	35.2	7.3	56.4
Liguria	6.0	7.6	8.8	9.3	10.9	79.6	26.4	14.8	6.3	59.6
Emilia Romagna	5.5	6.2	3.7	4.4	10.6	50.8	24.7	37.2	6.0	43.3
Tuscany	7.4	8.4	9.9	14.2	15.4	57.0	38.7	45.0	8.0	48.6
Umbria	6.9	8.1	10.0	12.6	15.0	60.6	12.5	25.0	7.5	50.7
Marche	5.7	6.2	7.5	9.2	11.1	66.8	13.1	29.0	6.1	50.9
Lazio	6.5	7.7	9.8	13.0	10.1	81.4	12.2	14.9	6.7	61.3
Abruzzo	8.2	10.0	10.6	14.0	7.7	59.2	18.1	46.1	8.2	47.8
Molise	7.6	8.9	32.4	5.8	14.7	18.8	18.6	14.6	8.2	16.4
Campania	7.4	8.0	9.8	8.7	10.7	77.3	11.4	24.4	7.5	64.2
Apulia	5.5	6.2	4.7	6.1	10.7	19.7	14.4	29.7	5.7	17.8
Basilicata	5.2	5.9	7.7	15.0	10.5	51.9	19.9	29.4	5.5	40.1
Calabria	5.4	6.3	6.2	6.9	10.4	50.5	12.7	20.0	5.7	46.9
Sicily	5.3	7.9	5.9	3.7	8.9	27.8	11.8	23.4	5.4	25.9
ITALY	6.1	7.0	9.1	12.8	12.0	23.1	19.0	26.9	6.5	14.6
NORTH	5.7	6.6	8.9	12.9	12.5	62.0	21.2	27.2	6.3	51.5
CENTRE	6.9	8.0	10.0	12.9	11.9	64.5	19.0	26.7	7.2	52.0
SOUTH & ISLANDS	6.0	7.1	7.7	7.9	10.3	39.3	13.0	25.6	6.2	35.0

Source: Annual Survey on Regulated Sectors

As in previous years also in 2015, household customers located in the Centre showed greater vivacity than the rest of Italy, with higher average switching rates than the national average. In general, however, the regional values maintained a fairly good spatial homogeneity, especially in the Centre-North and lower consumption intensity areas, while the South and the Islands exhibited lower overall switching rates.

Regarding household customers, Centre percentages were on average 6.9% in terms of customers and 8% in terms of volume, compared to the 6.1% (customers) and 7% (volume) national average. Similar data also emerged on switching by condos with household use, also higher in the Centre

than the national average (10% versus 9.1% in terms of customers and 12.9% versus 12.8% in terms of volume).

Regarding public service activities, the rates in the North were the highest in terms of customers (21.2% against 19% of the national average) and the corresponding volume (27.2% vs. 26.9%); "other uses" in the North and Centre showed homogeneous values for customers (around 12%) and much larger volume percentages than in the South.

Complaints and reports

In the period between 1 January 2015 and 31 December 2015, there were 13,756 communications regarding the gas sector (about 34%). Compared to 2014, the number of communications thus underwent considerable reduction. Again compared to the previous period, there was no significant difference in the ratio between requests for information and complaints (Table 4.15).

Table 4.15 Gas sector communications received by the energy consumer help desk

	2014		2015	
	GAS	TOTAL(A)	GAS	TOTAL(A)
Complaints	15,291	42,448	13,240	36,734
Requests for information	593	3,875	516	4,041
TOTAL COMMUNICATIONS	15,884	46,323	13,756	40,775

(B) Total for the electrical, gas and dual fuel sectors.

Source: Energy consumer help desk.

The most frequent topics of gas sector communications received by the help desk in 2015, subject to classification, were as follows: billing, bonuses and, in equal measure, the market and contracts (Table 4.16). Compared to 2014, there was an appreciable decrease in gas bonus and billing complaints and a slight one in complaints regarding contracts, connections and works, while those regarding the market were basically stable.

As for billing, the main issues 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, 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	2014		2015	
	NUMBER	SHARE	NUMBER	SHARE
Billing	6,197	39%	4,856	35%
Market	2,212	14%	2,248	16%
Bonuses	3,243	20%	2,856	21%
Contracts	2,369	15%	2,142	16%
Connections/Works	928	6%	798	6%
Technical quality	34	0%	30	0%
Metering	286	2%	308	2%
Prices and rates	174	1%	133	1%
Commercial quality	238	1%	229	2%
No competence	203	1%	156	1%
TOTAL CLASSIFIED	15,884	100%	13,756	100%

Source: Energy consumer help desk.

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.

Regarding just the gas sector, we should emphasise the successful **reform** of the regulation concerning the **measurement of the distribution network redelivery points** (also in implementation of Legislative Decree no. 102 of 4 July 2014).

After the usual consultations, the Authority reformed[160] the rules on the measurement of natural gas withdrawals by final customers, which included the switching process, to ensure the growth of the actual and validated data available to suppliers and, consequently, the final customers, and to promote user self-reading. Specifically, numerous changes and additions to the current regulations were approved regarding the following:

- reading rate, provision of measurements and any adjustments by distribution companies;
- self-reading and actual measurement data unavailability management;
- reading procedures and schedules and switching reading provision.

[160] Resolution 117/2015/R/gas of 19 March 2015.

The reform was completed by standardizing the information flows between distribution company and users, which serve the purpose of making available metering data - whether collected by the company or final customer self-reading - and possible adjustments thereof.

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 2015.

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

Consistency with Annex 1 of 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, including 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).

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[161] 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 (31 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 invoicing 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.

Moreover, the Italian legislation provides that the Integrated Information System (SII[162]) should develop the procedures for the centralized management of consumption data communication and their respective services, via a central register of the withdrawal points and an operator

[161] Resolution 100/2016/R/com of 10 March 2016.
[162] Adopted with resolution ARG/com 201/10 of 17 November 2010.

accreditation system; the first implementation phase of such procedures started and ended in 2012.

Finally, the Regulatory Authority introduced[163] 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 household 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 customers before concluding the contract.

MoUs with consumers' associations were also activated to promote consumer information.

[163] With consultation document 186/2015/R/eel of 23 April 2015.

The *Code of Business Conduct of the sale of electricity and gas to final users*[164] 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 21 February 2014, transposed into Italian law Directive 2011/83/EU on consumer rights, supplementing and amending some 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[165] 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 household 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 household 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 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 (see section 4.1.2).

The Regulatory Authority also provided[166] for the electricity sector that from 1 June 2016 all operations to move to a new supplier be carried out centrally through the Integrated Information System (SII), the national database initiated by the Regulatory Authority 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.

[164] Annex A to resolution ARG/com 104/10 of 8 July 2010.
[165] With resolution 269/2015/R/com of 4 June 2015.
[166] With resolution 487/2015/R/eel of 14 October 2015.

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, see below). In any case art. 35 on Public Service Requirements and consumer protection requires that all household 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 liberalized stages of the supply chain (procurement and marketing costs).

The Regulatory Authority initiated[167] a process to define a roadmap to review existing price protection mechanisms. More specifically, this roadmap is directed to define a gradual absorption of such mechanisms, in order to permit the maturation of a mass retail market. For the Regulatory Authority the abolition of price protection requires a plan detailing clearly identified actions and when they should be implemented, assessing the impact that each of them can have, also in terms of empowering of smaller customers.

The Regulatory Authority set out in detail the guidelines[168] on defining the reform process, identifying also approaches differentiated by final customer type and sector. In particular, the supply of electricity to small businesses, namely to customers at low voltage for other uses, was recognized as a possible area of initial implementation, with the possible exception of extremely small customers with power used up to 1.5 kW. The solutions adopted for these customers should then be evaluated in order to verify their adequacy compared to the needs of household customers, to be able to repeat their application.

In detail, a new stage was envisaged with the evolution of standard offer and voluntary customer processes. The adjustment of the standard offer service regulation would pursue making the service more consistent with the role of "last resort" (universal service), which it is intended to take. In this perspective, it is expected that customers not able to find a supplier in the open market remain supplied through the last resort service, in addition to those who find themselves without a supplier for reasons beyond their control, because of the latter's failure, for example.

As for envisaging voluntary processes, the new so-called ***Tutela Simile*** regime would be provided (a supply similar protection to an open market supply), in which final customers voluntarily choose to have access to an open market supply with pricing structure (but not levels) and contractual conditions supervised by the Regulatory Authority.

With regard to the factors described above, the so called "competition DDL", whose approval process started in 2015 and is currently under consideration in the second reading by the Industry, Trade and Tourism Commission of the Senate, contains provisions that establish, if the requirements they set out do occur, that the standard offer service cease, from 1 January 2018,

[167] With resolution 271/2015/R/com of 4 June 2015.
[168] With consultation document 421/2015/R/eel of 6 August 2015.

also for household customers. This creates[169] the need to accelerate the gradual process, with the consequent need to consider from the outset possible solutions for also household customers, analogous to what is set in the context of *Tutela simile* for non-household customers.

Further guidelines were established[170] in relation only to the electricity sector, for household customers and small businesses, so that by 1 January 2018 getting past the standard offer service will consist solely in the termination of price protection and not in the cancellation of the customers' right to have assured service continuity.

As for the reformed standard offer service, the Regulatory Authority is keen on adapting the regulation for the year 2017, providing both a change in the contractual conditions, with respect to the regulation of deposit money, instalments and annulment, and a review of fees, maintaining an *ex ante* definition of them, but ruling that the electricity supply components be determined based exclusively on the price formed in the day ahead market of the power exchange and with calculation methods that allow to transmit a better price signal to customers.

With regard to the introduction of ***Tutela Simile***, the Regulatory Authority intends to provide smaller customers with the opportunity to access the open market in high transparency and ease conditions, in a supply context supervised by the Regulatory Authority. The envisaged ***Tutela Simile*** would be characterized by the following:

- possession by suppliers of specific economic, financial strength, integrity and operational requirements consistent with the maximum number of customers they are willing to supply, initially verified and monitored on a quarterly basis;
- access allowed only to customers included in the reformed standard offer service, through a specific website (managed by the Single Buyer agency as service administrator), through which customers manifest their interest in a particular supplier to receive the related information and contract documentation. The conclusion of the contract should take place in the manner prescribed by law and in compliance with the Code of Business Conduct, within a total set time (45 days maximum);
- definition of contractual standards applied to all *Tutela simile* customers, regardless of the supplier, as the only concern of *Tutela simile* is the supply of electric energy without offering additional services. Among those conditions is included the duration of the contract, not exceeding one year, with effect from the switching date, and no longer renewable;
- definition of fees. The price charged to the customer shall be equal to that applied in the reformed standard offer service, net of the PPE equalization fee, in addition to a discount defined by the supplier for each customer type;
- option for customers to have access to *Tutela simile*, through the intermediation of aggregators; in these cases, suppliers can offer an incremental discount and identify consumer organizations and trade associations as admitted aggregators;
- indication of maximum number of customers to be served in *Tutela simile* by a single corporate group.

[169] As shown by the Regulatory Authority in memo 545/2015/I/com of 20 November 2015,
[170] With consultation document 75/2016/R/eel of 25 February 2016.

A protection mechanism has been active since January 2009, designed specifically for household 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 31 December 2015, the families that made use of the subsidy at least once were 2.4 million; the families with active bonus were 622,151 in 2015, down 33% from the previous year. The decline is attributable to the introduction of new methods for calculating the equivalent economic situation Indicator (ISEE), on whose value the option to access the bonus depends. The decree of the President of the Council of Ministers no. 159 of 5 December 2013 established, in fact, a new ISEE calculation procedure, designed to make more correct measurements of the economic condition of households and to improve equity access to social benefits, strengthening the fight against abuse, which in the past resulted in undue enjoyment of performances and benefits.

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 2015 were 28,267, up 8% 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 4 July 2014, transposing the European Directive on energy efficiency, was concluded in December 2015[171]. 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).

In February 2015, the Regulatory Authority envisaged some hypotheses of corrective action to the rules, which would add to the suggestions already made by the Regulatory Authority in a report made to the Government and Parliament in June of the previous year.

The different hypotheses have the purpose of increasing the range of beneficiaries, the saving rate for owners, 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.

The Regulatory Authority then made[172] further proposals, complementing those presented above for the following aspects:

- raising the percentage of annual expenditure reduction, in order to neutralize the negative economic impacts of the tariff reform. In the absence of corrective action, the introduction of tariff reform would entail an increase in overall spending for the vast majority of customers eligible for the economic hardship bonus, particularly for smaller nuclei;

[171] With resolution 582/2015/R/eel of 2 December 2015.
[172] Report 287/2015/I/com of 22 June 2015 to Parliament and Government.

- introducing a supplementary amount to the electricity bonus, equal to the difference of the additional average annual electricity consumption compared to the average annual consumption of all customers, for those who do not use the gas bonus;
- eliminating the current constraint by which only the supply active at the registered address of the person who is eligible for the bonus can be subsidised, also in the interest of simplification.

Pending the complete revision of regulations, the Regulatory Authority approved[173] some transitional provisions, under which in 2016 the calculation of the valid bonuses for customers suffering financial hardship should be made without recognising compensation amounts lower than already guaranteed or a worsening of economic conditions due to the electricity expense.

Definition of vulnerable customers - Gas Sector

Legislative Decree n. 93/11 described as "vulnerable" household customers, non-household 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 recognized as doing assistance work.

This provision was later amended by Decree-Law no. 69 of 21 June 2013, which provided that "*only for household customers*", as part of public service requirements, should the Regulatory Authority continue to update the protection service. 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 household customer;
- consumption points of condos with household use, with consumption not exceeding 200,000 S(m^3)/year.

Decree law no. 69/13 was ratified with Law no. 98 of 9 August 2013, confirming the termination of the protection service for non-household 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 protection service 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), characterized by a condition of excess supply. In detail, in implementation of the measures contained in the decree law no. 1 of 24 January 2012, (so-called "cresci-Italia"), the Regulatory Authority provided[174] that starting on the second quarter of 2013, the raw material update be calculated, for a 20% share, according to

[173] With the same resolution 582/2015/R/eel of 2 December 2015.
[174] With resolution 125/2013/R/gas of 28 March 2013.

prices determined on the European spot market, with reference to the Dutch platform named Title Transfer Facility (TTF).

With the fourth quarter of 2013 the process of reforming the methodology to calculate protection service supply conditions found fulfillment. 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[175] to define the protection services Roadmap, while the "competition DDL" set the fixed date of 1 January 2018 for the cessation of price protections for small natural gas consumers. Said 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 aware exit of the final customers from the current protection services toward the open market.

Legislative Decree no. 93/11 establishes, also based on the provisions of art. 30, para. 5 and 8 of Law no. 99 of 23 July 2009, 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.

Pursuant to Legislative Decree no. 93/11 (art. 7, paragraph 7) and the Ministerial Decree of 7 August 2013, the following customers are entitled to the last resort supply service: disconnectable final customers, that is, household 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), which provides the regulation of FUI dispensing conditions.

The instructions for conducting competitive procedures for the selection of companies providing the FUI service are found in the Ministerial Decree of 7 August 2013. The Regulatory Authority implemented the measures, regulating the instructions to the Single Buyer agency for the selection of FUI companies. Following publication of the Regulation for the procedures on its website, the Single Buyer agency selected the companies and issued notice on the outcome of the companies identification procedure. In particular, the list with the names of operators identified as FUI with annual quantity of gas offered was published for each macro-area.

The gas sector features also 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. In August 2014, the criteria were defined and the instructions specified to the Single Buyer agency to conduct the selection of Default Suppliers (FDD) for the two-year period 1 October 2014 - 30 September 2016. The criteria are consistent with the FUI selection requirements. The Single Buyer selected the companies and published the list with the names of the operators identified as FDD.

[175] With resolution 271/2015/R/com of 4 June 2015.

A protection mechanism has also been active since January 2009, designed specifically for household customers who are in situations of economic hardship or serious health conditions, by which they receive a gas bonus.

As of 31 December 2015, the customers who benefited from the economic hardship ***gas bonus*** amounted to 448,496 (28% less than the previous year), whose applications, 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 1.4 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 and the GS_T component, charged to customers other than household 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 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.

Because of the changes made to the Consumer Code, the Regulatory Authority also updated the regulation concerning unsolicited contracts. In particular, the preventive measures and complaint procedures were amended, so that such measures are in line with the new pre-contractual requirements provided by the Consumer Code. In detail, it was provided that the 30-day term for submitting the complaint regarding contracts unsolicited by the final household customer will have to start from:

- the tenth calendar day following the date on which the supplier sent the contract confirmation, even if the supplier decides voluntarily to send the confirmation of a contract concluded outside of business premises after the conclusion of the contract;
- day of expiry of the first bill received by the customer in other cases.

On the other hand, nothing changes as regards non-household customers.

The bill review project (Bill 2.0), launched in 2013 and geared toward simplification and greater flexibility and transparency, ended during 2014. With the new Bill 2.0, approved in the month of October, the customer is sent (in electronic form) only the summary picture, more complete, direct and comprehensible than the previous one, and, at their express request, a document detailing the elements of the invoice.

The part of the bill containing detail elements report the information of all items billed to the customer, while also indicating the unit prices and quantities to which they are applied, the individual brackets and the amount of energy attributed to each of them.

All the necessary steps to make sure Bill 2.0 was operational were defined and finalized during 2015. In particular, the following were set up and published on the Regulatory Authority's website:

- the Glossary[176] of the main terms used in the bill;
- a summary bill model for customers served in the protection scheme, with details on the unit payments that take part in determining the single amount.

Simultaneously:

- the aggregation level of the amounts billed to final customers was defined;
- two further elements that should appear in the summary bill[177] were introduced for the gas sector;
- further specifications were defined regarding the recalculations, the indication of some details and information on the average cost of supply;
- it was determined that the regulation of bill 2.0 should apply to invoices for electrical energy or gas consumption subsequent to 1 January 2016.

In order to facilitate the understanding of Bill 2.0, the Regulatory Authority provided for the activation of specific information tools. First, each supplier should publish on their website a bill reading Guide allowing the end customer a better understanding, with a clear description based on the terms set out in the Glossary for all the invoiced amounts. For the protection services, it was provided that the reading Guide be drafted directly by the Regulatory Authority and be published on the websites of both the Regulatory Authority and the service operators. Moreover, just for protection schemes, it was provided that the Regulatory Authority draw up and publish on its website a summary bill model, intended to allow interactive bill reading as well.

The Regulatory Authority took further action[178] for the quantification of the electronic bill discount to be applied to protection service customers, if these customers also activated an automatic invoice payment. Further changes to Bill 2.0 were also made, in order to take into account the household tariff reform as well as the related need to provide household customers with information about the maximum level of monthly capacity withdrawn[179] and also to allow charging subscription fees for private radio listening together with the energy supply invoices, as per art. 1, para. 153 and 154 of Law no. 208 of 28 December 2015.

Finally, in June 2015 the Regulatory Authority amended and supplemented the **rules on arrears** in the electricity and natural gas sectors. The measure approved provisions that relate to several prioritized thematic areas, which will subsequently be regulated as part of the retail market

[176] The Glossary of the electricity bill was approved with resolution 200/2015/R/com of 30 April 2015, which follows consultation document 61/2015/R/com of 19 February 2015.
[177] It's about the REMI Code, which uniquely identifies the power supply cabin, and the class of the meter.
[178] With resolution 610/2015/R/com of 11 December 2015.
[179] As provided by resolution 582/2015/R/eel of 2 December 2015.

regulation, including adjustment billing, how to stimulate billing on actual consumption or self-reading and the implementation of SII. It was also provided that, in order to prevent the suspension of supply in case of non-exhaustive answers in terms of invoicing, the minimum content be integrated of motivated replies to written complaints or requests for invoice corrections disputing abnormally invoiced amounts. This will be done in a subsequent ruling also in order to hear the associations representing final customers on the theme.

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 1 April 2013, starting full operation on 1 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 organized 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 21 May 2013 on alternative consumer dispute resolution and amending Regulation (EC) 2006/2004 and Directive 2009/22/EC.

The Regulatory Authority arranged for improvement actions regarding the conciliation service, also based on feedback received from stakeholders about its operation and the gradual spread of this tool among the final customers. In particular, in 2014 the Regulatory Authority adopted the following measures, operational from 1 July 2015:

- extending to prosumers the conciliation service for disputes with suppliers, distributors and GSE, and the justice procedure of complaint with the Regulatory Authority only for disputes as manufacturers with respect to the network operators;
- introducing a participatory requirement for standard offer service operators, distributors and the GSE, the latter only for regulated materials (exchange on the spot and dedicated withdrawal);
- extending distributor call options by the supplier as a technical aid;
- optimising certain procedural steps prior to the first conciliation meeting at the conciliation service, in order to allow more time to the parties to reach an agreement;
- convening appropriate technical meetings with stakeholders.

The experimental phase of the conciliation service ended on 31 December 2015. The Regulatory Authority mandated[180] 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 1 January 2017, in view of the changed

[180] With resolution 522/2015/E/com of 5 November 2015.

scenario due to the implementation of the mandatoriness of the conciliation attempt. This project was later approved by the Regulatory Authority[181].

During the experimental phase (1 April 2012 – 31 December 2015), the conciliation service received a total of 4,583 activation requests. The main access channel was the associations of final household customers (50%). 32% of the requests were due to the channel of delegates other than the associations and the final customer activated the conciliation service directly in 18% of the cases. Most of the conciliation service activation requests concerned final household customers and the electricity sector. From the aggregation of the data we obtain also the prevalence of household customers in both the electrical (69%) 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 as 53% of activated disputes: of these, 61% did not exceed € 2,000 (small claims threshold under Regulation (EC) 861/2007 of July 11 2007, establishing a European procedure for small disputes). The percentage of activation requests admitted to the conciliation service was equal to 79%; the inadmissibility cases (21%) were mainly due to non-successful transmission of the documentation to be attached to the activation request and breach of procedural deadlines.

Operator (suppliers or distributors) participation in the procedure activated by their customers took place on a voluntary basis until 30 June 2015[182], whereas after this date participation became mandatory for electricity standard offer market operators and distributors of both sectors. To date, membership on the list, with a commitment to participate, regards 29 open market suppliers (not required to participate). Having said that, operators participated in the procedure for 60% of admitted requests; in this context, the disputes successfully settled were 84% of those concluded.

In terms of information, the Regulatory Authority's website added a specific tutorial (operational from February 2015) to accompany the customer in the use of the conciliation service online platform. The website features also Frequently Asked Questions (FAQ) in the English language, as well as an updated list of operators who participate in the conciliation service procedures. That list also indicates procedures other than the conciliation service that the subscribing operators make available to their customers, including joint conciliations.

Other conciliation services

Legislative Decree no. 130/15 implemented for Italy the Directive 2013/11/EU. In implementation of this decree, the Regulatory Authority initiated proceedings[183] for the adoption of an ADR framework between final customers and operators in the regulated sectors that, referring to the sectors of the Regulatory Authority's competence, regulate the mandatory conciliation attempt as a condition of the legal proceedings, as provided by art. 2, para. 24, point b) of Law no. 481/95. In this sense, the Regulatory Authority launched a consultation, formulating its guidance on the

[181] With resolution 598/2015/E/com of 11 December 2015,
[182] Unless the operator did not commit to participating biennially in the Service by signing up on the ADR list published on the Regulatory Authority website.
[183] With resolution 522/2015/E/com of 5 November 2015.

matter[184], on a regulatory scheme of implementation procedures for the mandatory conciliation attempt, taking into account the experience of the Regulatory Authority's conciliation service, the different degree of maturity of ADR procedures among the various regulated sectors and the existence of more and different ADR procedures. It was proposed that the regulation become operational from January 2017.

Legislative Decree no. 130/15 designated the Regulatory Authority, for areas falling within its competence, as responsible for instituting, keeping and publishing the list of the ADR bodies delegated to manage national and cross-border disputes between consumers and businesses residing and established in the European Union.

In implementing these provisions, the Regulatory Authority established[185] said list, simultaneously approving the initial implementation regulation for signing up on, keeping, managing and supervising it, subject to the enactment of possible application Guidelines. The Regulatory Authority signed up its conciliation service on the list too, as it meets the requirements of Legislative Decree no. 130/15.

As of 31 March 2016, the list of the Regulatory Authority includes, in addition to the conciliation service, 2 individuals[186] and 4 fixed term joint conciliation bodies (until 30 September 2016, with a commitment to adapting to the requirements of Part V , Title II-a, of the Consumer Code and of the regulations contained in Annex A of resolution 620/2015/E/com).

The list and its updates are published on the Regulatory Authority's website and sent to the Ministry of economic development, as a single contact, for the purpose of communicating them to the European Commission, which draws up the consolidated list of ADR entities operating in the European Union.

Finally, in relation to other existing ADR procedures, the Regulatory Authority continued to support and monitor joint conciliation, by training consumer association personnel and recognising a contribution to these associations if the procedure ends successfully and also by evaluating specific annual reports transmitted by the major operators who signed memoranda of understanding with the final customer associations.

[184] With consultation document 562/2015/E/com of 26 November 2015.
[185] With resolution 620/2015/E/com of 17 December 2015.
[186] Resolutions, 91/2016/E/com of 10 March 2016 and 122/2016/E/com of 24 March 2016.