Report 332/2019/I

ANNUAL REPORT TO THE AGENCY FOR COOPERATION BETWEEN EUROPEAN ENERGY REGULATORS AND THE EUROPEAN COMMISSION ON THE BUSINESS CARRIED OUT AND THE TASKS OF THE ITALIAN REGULATORY AUTHORITY FOR ENERGY, NETWORKS AND THE ENVIRONMENT

31 July 2019

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1 FOREWORD

This document by the Italian Regulatory Authority for Energy Networks and Environment (ARERA) is an annual report to the Agency for the Cooperation of Energy Regulators (ACER) and the European Commission (EC) on regulatory activities and duties carried out pursuant to Arts. 37.1.e) of Directive 2009/72/ EC and 41.1.e) of Directive 2009/73/EC.

The structure of this report was consolidated with ACER and the Directorate General for Energy of the European Commission, so that its description of the Italian situation may be easily compared with similar reports from other Member States.

The report analyses the main elements of the structural evolution of Italy's electricity and gas markets in relation to the regulatory activity and the state of competition. A description is also included of the recent evolution in energy market laws and regulations regarding consumer protection and supply security, the latter as far as the aspects pertinent to the national regulator.

The recently completed Clean Energy Package for All Europeans is a major achievement in the development and harmonisation of a unitary, supranational EU legislation based on overall efficiency, and at the same time, the beginning of an important task of careful adaptation to the specific national and regional energy systems. There have been several approvals of network codes that now define the set of European standards in ever greater detail. These should then be adapted to the individual regulations of the Member States to design markets with a broad and long-term perspective.

The decentralisation of power generation brings about increasing forms of energy "democratisation"; in this scenario, the most aware among consumers will typically tend to take on an increasingly active role thanks to the influence of innovation. On the gas front, the implementation of the Network Code on harmonised tariff structures for gas transport should be consistent with the common goal of contributing to effective market integration, improved supply security and promotion of the interconnection between gas networks. The Authority has recently remarked that the behaviour of some Member States could lead to entry barriers to their gas transportation systems, quite the opposite of what is being strived for.

Alongside the design and development of increasingly integrated markets, a common European vision among national regulators when carefully monitoring the functioning of the sectors is also necessary. In particular, by applying a common vision of the REMIT EU Regulation for the prevention of abusive behaviour.

This is the first report of the new Council that took office a little less than a year ago for its seven-year Regulator mandate and, in line with the forecasts of the new strategic framework, will continue its intense work alongside ACER and the CEER, in order to proceed with the efficient integration of the markets and related infrastructure developments.

Milan, 30 July 2019

THE CHAIRMAN

Stefano Besseghini

2 SUMMARY/MAIN DEVELOPMENTS IN THE ELECTRICITY AND GAS MARKETS IN 2018

Main changes in European legislation

After a long and intense debate that began in December 2016 with the proposal of the European Commission, the European Parliament and the Council agreed on all the measures for the "*Clean Energy for All Europeans Package*" (also referred to as *Clean Energy Package*). The Package includes eight legislative acts that refer to four areas of operation:

The electricity market

- directive (EU) 2019/944 on common rules for the internal market for electricity (recast);
- regulation (EU) 2019/943 on the internal market for electricity (recast);
- regulation (EU) 2019/941 on risk preparedness in the electricity sector;
- regulation (EU) 2019/942 establishing an Agency for the Cooperation of Energy Regulators (recast);

Renewable sources

- directive (EU) 2018/2001 on the promotion of the use of energy from renewable sources (recast).

Energy Efficiency

- directive (EU) 2018/2002 amending Directive 2012/27/EU on energy efficiency;
- directive (EU) 2018/844 on the energy performance of buildings.

Governance

- regulation (EU) 2018/1999 on the governance of energy union and climate action.

The energy union and climate action governance regulation, along with the directive on the promotion of the use of energy from renewable sources and that on energy efficiency were all published in the Official Journal of the European Union on 21 December 2018. The directive on common rules for the internal electricity market, the regulation on the internal electricity market, the regulation on risk preparedness in the electricity sector and the regulation establishing an Agency for the cooperation of energy regulators were all published in the EU Official Journal of 14 June 2019.

The directive on the promotion of the use of energy from renewable sources will have to be implemented by the member states by 30 June 2021, while the electric directive will have to be implemented by the national legislation of the member states by 1 January 2021. Regulations, on the other hand, are self-implementing rules, therefore they are mandatory in all their elements and directly applicable in each of the Member States. 2019/943 regulation on the internal electricity market, however, requires that its rules apply from 1 January 2020.

At the beginning of 2019, the European institutions also achieved political agreement on a new directive amending some parts of the 2009/73/EC directive concerning common rules for the internal gas market and the applicability of European regulations on infrastructure by and for non-EU countries These amendments were approved on 5 April 2019 by the European Parliament and the Council and its transposition is expected within nine months after their entry into force.

The implementation of the Third energy package provisions continued in 2018 both in the electricity sector and the natural gas sector. There were no approvals during the year of new legislative texts for the electricity sector nor for the gas sector, except for the amendment to the aforementioned directive, but the acts and implementing provisions were adopted at national and EU level.

Main changes in national legislation

In the period between April 2018 and March 2019, many regulatory actions were carried out within the competence of the Italian Regulatory Authority for Energy, Networks and Environment (hereinafter, referred to as 'the Authority'), described below in order of approval.

Decree Law no. 91[1] **of 25 July 2018** extended to 1 July 2020 the deadline for the termination of price protection schemes in the electricity and natural gas sectors, which had been set for 1 July 2019 by Law no. 124 of 4 August 2017 It also postponed by 24 months the deadline for the entry into service of the geothermal and thermodynamic solar power plants, included in the public rankings by the Energy Services Manager (GSE), for access to the incentives provided for by the Interministerial Decree of 23 June 2016.

Art. 19 of **Decree Law no. 119**[2] of 23 October 2018, containing *Urgent fiscal and financial provisions*, set up specific conventional consumption criteria to determine the quantity of energy product necessary to produce a given quantity of electricity, thus seeking to define the necessary legal reference for the taxation of fuels used in cogeneration plants. In addition, point 11 of Table A attached to the Consolidated Law on Excise Duties shows a prospectus of the specific conventional consumptions to be used for calculating the amounts of fuels used for electricity and heat production, which can be used to calculate excise duties.

Decree Law no. 4[3] **of 28 January 2019**, containing *Urgent Provisions on Citizenship Income and Pensions*, provided for the allocation of tariff subsidies for electricity and natural gas supply ("social bonuses") to those entitled to citizenship income.

One measure being approved is a ***bill containing Provisions for the fulfilment of the obligations arising from Italy's membership in the European Union—European Law 2018*** (AS 822 - B). During the parliamentary debate, a regulation was introduced abolishing provisions to extend incentive deadlines for biomass, biogas and bioliquid plants (Art. 1, paragraphs 149, 150, 151 of Law 208 of 28 December 2015). Furthermore, the article was modified as far as responsibility for spent fuel or radioactive waste, ascribed to producers of spent fuel or radioactive waste and holders of authorizations for businesses or plants connected to spent fuel or radioactive waste management. Lacking the above, the State is responsible on a subsidiary basis.

Another measure under approval is a ***bill authorizing the Government to implement European directives and other European Union acts—European Delegation Law 2018*** (AS 944), which delegates the Government to implement both Directive (EU) 2018/410, to support more cost-effective emission reductions and promote low carbon emission investments, and decision (EU) 2015/1814, to establish and run a market stabilization reserve in the EU system for greenhouse gas emission allowance trading. This bill also determines the principles and specific criteria of delegation for the implementation of Directive 2018/844/EU, which amends the legislation on energy performance in buildings and energy efficiency, and which, as mentioned above, is part of the Clean Energy Package. The directive being transposed pursues reduced greenhouse gas emissions and greater energy supply security. The European Union has undertaken to reduce greenhouse gas emissions by at least 40% compared to 1990 by 2030 and to achieve a high-efficiency decarbonized energy system by 2050. The real estate sector plays an important role in this matter as it accounts for about 36% of all CO_2 emissions in the European Union. Lastly, the bill delegates the Government to adopt one or more legislative decrees to adjust domestic legislation to regulation (EU) 1938/2017, involving measures to ensure gas supply security. This adjustment will first of all deal with the implementation of solidarity mechanisms as planned, including assigning specific tasks to gas and transport system operators; next. it will deal with the identification of economic compensation directive criteria for member states and interested parties engaging in business related to the implementation of said mechanisms, including in coordination with this Authority; finally, it will deal competence to act in the guarantee of adequate measures for supply security purposes even in emerging and isolated areas.

[1] Converted by Law 108 of 21 September 2018.
[2] Converted by Law 136 of 17 December 2018.
[3] Converted with amendments by Law 26 of 28 March 2019

Developments in the electricity market

Main changes to regulation

In July 2018, the Authority ordered a series of defaulting companies, operating in both the electricity and gas sectors, to provide the information with which they declare their functional **unbundling** obligations as provided by regulation.

Completion of the comprehensive reform of the regulation on **dispatching services** continued in 2018, which includes the participation of plants powered by renewable and non-programmable sources, to be implemented in line with EU regulations (Capacity Allocation and Congestion Management–CACM and Electricity Balancing Guideline–EBGL). The reform has several purposes. The first one is to harmonize the design of the Italian market with the European one, keeping Terna's centralized management and prioritizing the launch of the intraday market in continuous trading on the Italian borders. Another aim is to improve the methods by which the previously excluded consumption and production units (non-programmable renewable sources, distributed generation, storage tanks and electric vehicles), can provide resources for dispatching services, including through effective forms of aggregation, without prejudice to the principle of technological neutrality and while considering the results of pilot projects. It is also important for the reform to review the imbalances so as to provide dispatch users with real time energy value price signals and overcome the current mechanism based on zonal/macro-zonal aggregations and nodal prices. Finally, the reform will have to identify the evolution of the role of distributors, in the context of a progressive diffusion of distributed production and accumulation resources and an increasingly active management of the power grid.

Meanwhile, the Authority has initiated the opening of the Dispatching Services Market (MSD) to previously excluded units, by means of pilot projects gathering useful information and to make new dispatching resources immediately available, without prejudice to the principle of technological neutrality (therefore pilot projects are not differentiated on the basis of sources, technologies, producers and consumers). Said pilot projects concern the voluntary participation in the MSD of non-relevant (i.e. not exceeding 10 MVA), and relevant producers currently not enabled nor included in the Mixed Enabled Virtual Units. Another pilot project, approved in July 2018, concerns the supply of the primary frequency regulation service through accumulation systems integrated with relevant production units.

Furthermore, at the end of 2018, the Authority started implementing the regulation of data exchange between Terna (TSO), electricity distribution companies (DSOs) and Significant Grid Users for the safe operation of the national electricity system, in compliance with the provisions of the European System Operation Guidelines and considering the experience gained through experimentation since December 2015.

The European Regulation RfG - Requirements for Generators started its implementation on 27 April 2019; this regulation establishes a network code for access to the interconnected system of power generation plants (synchronous generator sets, power plants and offshore power plants). This regulation also establishes obligations so that system operators will make appropriate use of the capacity of power generation plants, on a transparent and non-discriminatory basis, in order to ensure a level playing field throughout the European Union. To fully implement the regulation in Italy by the set date, it was necessary to update the current regulation and especially the technical connection conditions, which are the main issue. The *Integrated Text on Active Connections* had to be updated, as well as Terna's Network Code and some electrotechnical standards.

As to **grid safety and reliability regulation**, in addition to the usual power plant assessments essential for the safety of the electricity system, in 2018 the Authority dealt with the issue of **power distribution system resilience**. More resilient electricity networks increase the chances of handling severe and extensive weather events. The resilience of electricity networks depends on two complementary factors: the ability of the electricity system to withstand mechanical stresses (so-called stress resistance) and to return to acceptable working conditions after interruptions have occurred, including network restoration. After the consultation carried out on the subject, directives were approved in January 2018 for the integration of electricity system resilience sections in the development plans of distribution companies. Providing for the obligation to

publish and update Resilience Plans (as a section of Development Plans), these directives aim at the reputational incentive of distribution companies, focus on keeping networks resilient to mechanical stresses and lay the foundations for regulation development in the matters of economic incentives and increased power restoration effectiveness.

As to the **tariff regulation**, in 2015 the Authority defined the tariff regulation for electricity transmission, distribution and metering services for the 2016-2023 regulatory period. The duration of the regulatory period was divided into two sub-periods, each lasting four years (NPR1: 2016-2019 and NPR2: 2020-2023). As for NPR2, an overall expenditure approach was planned (known as *totex* approach), i.e. introducing a new incentive regulation approach, based on the overall control of the expenditure and the assessment of business plans submitted by network operators based on expected demand, system development needs and results. In this perspective, in 2017 the Authority provided the initial guidelines to define an activity plan for introducing this new approach, which was postponed, however. In April 2019, the Authority confirmed its intention to gradually adopt the *totex* approach, introducing with NPR2 the preparatory tools for a forward-looking and output-based regulatory system.

After defining the criteria for recognizing the capital costs of 2G smart metering systems in late 2016, the e-distribuzione company submitted its plan to have these systems running for the fifteen years from 2017 to 2031. After investigation, the Authority approved it, considering also that the total capital expenditure for its implementation was compatible with the substantial invariance of the metering service tariffs for end customers. In August 2018, the Authority then established the criteria for the recognition of tariffs for 2G meters installed by companies that as of 2019 would have not yet submitted to the Authority a massive second-generation smart metering installation plan. The provision was made necessary by the gradual unavailability of first-generation meters that forced operators to install new-generation meters due to failures or new users.

The *Annual Reports* of the last two years described the process phases underway for the **completion of the network tariff reform applied to households** to gradually replace the pre-existing progressive tariff structure by 2018. As 2018 got closer and based on explicit parliamentary resolutions and Government requests, the Authority deferred to 1 January 2019 the third step of the three-year process of gradual tariff reform implementation. The purpose of this deferral was to prevent cost increases resulting from tariff reform completion and incentive revisions for energy-intensive businesses from accumulating on the back of domestic customers with low annual consumption. However, during the second half of 2018, it became necessary to implement extraordinary measures regarding fee rates to cover general system charges, in order to counter expenditure increases deriving from the highly bullish scenario of energy commodity prices recorded in previous months. The Authority therefore deemed it appropriate to further defer the completion of the tariff price reform for domestic users, planning to maintain in force the two-tier tariff structure of 2018 until 31 December 2019.

Simultaneously with the full implementation of the new tariff structure, **measures were implemented to facilitate power supply expenditure optimization for domestic customers**. Thanks to the option of requesting closer power graduation levels and reducing the costs associated with power level changes, households now have the opportunity to identify the power level that will best meets their needs. After the first twelve months of application of the cost subsidies, the total engaged power increased by over 200 MW; this is a significant increase compared to the initial situation of the consumers concerned (+41.8%), but still imperceptible at national level, since it is equal to just over 0.2% of the total power engaged by the Italian domestic sector (93.3 GW). Considering the still very modest use of the aforementioned incentives (introduced on 1 April 2017), the Authority deemed it appropriate to postpone the deadline from 31 March to 31 December 2019.

In 2018, there was a significant reduction in the charges for encouraging renewable sources and similar, financed with the A_3 component, which decreased by around 1 billion euro compared to the previous year. Starting in 2018, account A_3 is also responsible for the charges for subsidizing energy-intensive businesses. Starting from 1 January 2018, the reform on general charges established that the former component A_E (which finances subsidies for energy-intensive businesses) would be replaced by the differences in the tariff

levels of the A_{SOS} component. This component is applied at a discounted rate to the beneficiaries of the subsidies, while all non-energy consumers (including domestic users) pay it in full and also pay an additional sub-component to cover the discounts granted to the energy-intensive consumers.

International coordination

In 2018, the Authority worked at integrating the Italian electricity market within Europe and collaborating with the other European regulatory authorities, involving mainly investment in new infrastructure consistent with EU development Plans and the implementation of European regulations for the electricity market.

With regard to **new infrastructure investment and consistency with EU Development Plans**, in December 2018, the Authority formulated and published its own assessment on the Ten-Year National Electricity Transmission Grid Development Plan. This assessment came at the end of consultations that took place in June and July 2018. The Authority's assessment underlines the continuous improvement of the 2018 Development Plan, provides recommendations for future improvements and approves the Ministry of Economic Development's 2018 Plan Design while setting some conditions.

Furthermore, during the year, the Authority assessed the **consistency between the Ten-Year National Electricity Transmission Grid Development Plan and the Ten-Year Network Development Plan (TYNDP)** of the European Union, both in the preparatory phase of the aforementioned assessment of the national transmission grid development plan and by contributing to ACER's opinion on electrical projects in national development plans and TYNDP 2018. In addition, the Authority participated in the ACER monitoring of Europe's TYNDP, whose findings are reported in the ACER Opinion 06/2019 of 15 January 2019. The monitoring showed that a significant share (about one third) of Italian and European projects are lagging, mainly due to authorization issues.

Also identified as network codes or guidelines, the **European regulations** of the electricity market are technical regulatory measures that aid in the completion of the internal energy market. They can be grouped into three large families: market, connection and network management. Network codes identify rules to be implemented at the domestic level, whereas guidelines call for the further processing of a series of enactments; therefore, publishing the Regulations does not complete secondary legislation development and publication, as it requires the creation of specific rules that regulators of each Member State are called to evaluate and approve. Methodologies started being developed in 2015 with reference to the Capacity Allocation and Congestion Management Guideline (CACM) and were continued in 2016 with the Forward Capacity Allocation Guideline (FCA GL) and 2017 with the System Operation Guideline (SO GL) and Electricity Balancing Guideline (EB GL). As of the end of 2018, the implementation status of guidelines and network codes is still incomplete; some work has been done, but there is a lot more for the Authority to do in the years to come. Most of the methodologies refer to the regulations adopted as guidelines, while network codes use this instrument of further standardization in a decidedly more limited way. It is also evident that there is still a lot of important work ahead; for example, only two methodologies have been approved for the EB GL regulation, which came into force in December 2017, with 32 still pending, only for some of which a final decision is expected by 2019.

The **FCA Regulation** sets the requirements that must be met by the long-term transmission rights assigned at European level, together with the allocation procedures. For Italy, the regulation in question applies at the borders with France, Austria, Slovenia and Greece. During 2018, the Authority took actions to implement this regulation which included approving the procedure for preparing a common European network model on long-term time horizons and updating specific allocation rules involving the border with Greece. The Authority also participated in European round table discussions for the definition of congestion income distribution criteria based on the allocation of transmission rights.

With the entry into force of **Regulation CACM**, it is now mandatory for European network operators to allocate cross-border electrical interconnection capacity on the day-ahead and intraday, according to the market coupling mechanisms. These mechanisms require network and market managers to cooperate in the performance of their respective operational tasks, as specifically set forth in the regulation. Before the entry into force of the CACM regulation, voluntary market coupling initiatives did develop in regional areas, both

for the day-ahead and intraday market. With regard to the intraday market, European network and market managers have implemented the Cross-Border Intraday (XBID) project, whose geographical scope will gradually be extended from an initial core of some European countries to all member states. In view of the XBID's entry into operation on an initial set of borders, which took place on 12 June 2018, the parties to the project, including Terna and GME (Gestore dei Mercati Energetici – Energy markets operator), drew up a complex contractual framework composed of several agreements. The Authority has positively assessed these agreements and the extension of XBID's operations to the Italian borders is planned for 2020. During 2018, there were also cases in which European regulators did not reach an agreement on approving or amending proposed methodologies. ACER intervened in such cases, approving the following terms and conditions or methodologies: opening and closing times of the intraday market session, operational methodologies of the market coupling algorithms for the day-ahead and intraday markets and the methodology for determining capacity price in the intraday market. ACER's decisions are directly applicable in the member states and appeals may be filed with the ACER Board of Appeal and the European Court of Justice.

In addition to the implementation of the various methodologies, the CACM Regulation also regulates the ways in which the configuration of offer areas can be reviewed at European, regional (CCR) and national levels. The zonal configuration currently in force in Italy dates to 2012. At the beginning of 2018, the Authority formally initiated the revision of the areas pursuant to the CACM Regulation (on a national basis and limited to internal areas with negligible impact on neighbouring countries). During 2017, specific rules were approved for the allocation of long-term transmission rights on the border with Switzerland, as well as the capacity allocation rules on a daily and intraday basis; of these, the daily rules are shared also at the border with Greece, for which market coupling has not yet been implemented pursuant to the CACM Regulation, and the intraday rules at the borders with Austria and France, pending the implementation of single intraday coupling at the European level.

The **Balancing Regulation**, which establishes guidelines for balancing the electricity system, entered into force on 18 December 2017. In 2018, the Authority was involved in the decision-making process of the first methodologies set by the regulation. The Authority approved the proposal of terms and conditions for dispatch users (in the European nomenclature: balancing service providers, BSPs, and balancing managers, BRPs), submitted by Terna pursuant to the BAL GL regulation.

Lastly, in 2018, the Authority increased its international efforts, strengthening dialogue and institutional cooperation at multilateral and bilateral levels, and collaborating with European and international institutions to help remove obstacles that prevent or slow down the sharing of common rules in the energy sector. The Authority also promoted actions to strengthen its reference regulator role in the Balkans and the Mediterranean, geographical areas of primary importance for the Italian energy system, by virtue of increased energy infrastructure investment in the coming years.

Wholesale and retail markets

According to provisional data from Terna, **electricity demand** was up to 303.4 TWh of power in 2018, substantially stable after an increase of 2% in the previous year. The highest growth was in the agricultural sector (+1.8%), but this has a marginal impact. 87.1% of domestic demand for electricity was met by domestic production (down 1.8% compared to 2017), the rest was met by the foreign balance (13.9%); imported energy increased by 10%, while exported energy was down (36.3%), recording a +16.3% balance for energy exchanged with foreign countries.

Gross domestic production dropped to 290.6 TWh from 295.8 TWh in 2017 (-1.8 %). This decrease is shared by all except for the hydroelectric source, which increased 36.1% compared to the previous year. 40% of gross electricity generation was produced from renewable sources, while 60% was produced by thermoelectric plants; among these, natural gas provided 45% of overall gross generation, a slight decrease compared to 47% in the previous year. The production share of the top three corporate groups (ENEL, ENI and EDISON) fell slightly, while those of A2A and EPH, which are the fourth and fifth largest groups in Italian electricity generation, recorded a slight increase. The HHI index on gross generation, equal to 610, was down

compared to 2017, when it was 638. The number of corporate groups with at least 5% of the net generation remained unchanged at 5, as in 2017. In Italy, electricity production plants powered by renewable sources benefit from various incentive mechanisms using various methods. Overall, the incentive instruments have involved an amount of electricity that currently stands at around 63 TWh, less than the 65 TWh of 2017 (-2%), at a cost of 11.2 billion euros, lower by 12.1 than in 2017 (-7%).

The amount of electricity **exchanged within the Italian System** was 295.6 TWh in 2018, slightly increased (+1.2%) compared to 2017, especially around mid-year, and reaching the maximum level for the last six years. The positive trend of recent years regarding the volumes traded on the stock exchange (213 TWh, +1.0%) was confirmed with the highest value recorded since 2010, equal to 72% of total trading on MGP; this liquidity is promoted for sale by non-institutional operators (+3%), while in terms of purchase there are lower volumes from the Single Buyer (-1.9%), which nevertheless continues to meet approximately 95% of its stock exchange requirements. Although on the rise compared to 2017, the programmes derived from PCE registrations of over-the-counter bilateral trade (83 TWh, +1.7%) are confirmed at relatively low levels. In 2018, the **average price of electricity purchase** (PUN) continued its recovery from last year, reaching € 61.31/MWh from € 53.95 MWh in 2017 (+14%), helped by a rise in raw material costs, especially gas and CO_2. The rise of Italy's PUN is not alone in Europe. In fact, the rise of the electricity price on the European market was substantially distributed throughout 3 macro-regions: a northern region composed of Scandinavian countries and Germany with prices rising to € 44/MWh, a continental area comprising France and Slovenia with a higher price level (€ 50/MWh) although with less marked increases, and finally a Mediterranean area with Italy and Spain, € 57/MWh and € 61/MWh respectively. The coupling mechanisms have allowed for the substantial alignment (understood as a price differential of less than € 1/MWh in a single hour) of the prices of the three macro-regions in 78 hours (+13 compared to 2017), concentrated in the months of March, April and December and, like the previous year, in the low load morning hours.

In 2018, the number of **end market suppliers** grew by 73 units on the free market. The expansion trend in the sales segment has continued almost uninterruptedly since 2008. 35% of the 434 active companies sold energy in a number of regions between 1 and 5; 87 companies, equal to 2%, sold electricity throughout the country; the remaining 195 companies (45%) carried out business in a number of regions between 6 and 19. The foreign presence (at least with reference to first-level direct investment) is not particularly high; only 25 companies (out of 415 that have provided this data) have a non-Italian majority shareholder. The direct foreign participants are mostly Swiss, Luxembourgish, Spanish or British companies, but there are also majority partners from other countries (Germany, Austria, Slovenia, Norway, Malta, Romania and the USA)

According to the annual survey results (as usual, to be considered provisional for 2018), **just over 255 TWh were sold to about 37 million customers in the end market**. Compared to 2017, total electricity consumption remained substantially stable with a slight downward decline (-0.5%), similarly, consumers fell by 0.4%. The contraction in consumption was most felt by households, while consumption in the non-domestic sector essentially held up. As has been the case for some time now, the standard offer service has lost further ground to the advantage of the free market. Furthermore, in 2018, the safeguard service was also significantly downsized.

More precisely, in a final market that fell by 1.3 TWh overall, protected market sales volumes fell by 4.7 TWh (-9.4% compared to 2017), the free market gained 3.4 TWh compared to the previous year (1.7%), while under the safeguard regime sales fell by 0.9% (-39 GWh). The total number of consumers decreased by 138,000 units down to 36.7 million. The reduction in withdrawal points took place under enhanced protection, which lost 1 million and 750.000 points, and in the safeguard service, which went down 11,000 units, while in the free sector, customers grew by 1 million and 623,000 compared to 2017. The **safeguard market** diminished by around 12% in terms of withdrawal points, but only by 0.9% in terms of energy consumed (-39 GWh). The electricity supplied on the **free market** grew in 2018; with 205.6 TWh sold, the sales level rose by 1.7% compared to 2017. The overall number of customers served grew by 1.6 million units, more in the domestic (+11.7%) than non-domestic sector (+7.1). Overall, therefore, the share of energy sold in the protected market fell to 17.7% of all the energy sold to the final market (compared to 19.5% in 2017), that of the safeguard service remained at 1.7% (same share as of 2016), while that of the free market

reached 80.6% (against 78.8% in 2016). In terms of withdrawal points, the ratio tends to turn upside down: 53.6% of customers are still served under enhanced protection, 46.2% have moved on to the free market.

In 2018, the number of **domestic customers** amounted to 29.5 million, of which 16.7 served under enhanced protection and 12.8 million in the free market. In an overall reduction setting (-79,000 domestic withdrawal points compared to 2017), the process of leading consumers towards the free market continues. Households purchasing electricity on the free market grew by 11.7%, while those served under enhanced protection fell by 7.9%. Assessing the shares of the two markets in terms of number of customers, it can be seen that in 2018 the free market reached 43.4%. **The average unit consumption of households** in the standard offer market was lower than that of households that bought energy in the free market, i.e. 1,840 kWh/year compared to 2,073 kWh/year, but both were **lower than in 2017**.

The **Annual Survey of regulated sectors** asked electricity and natural gas suppliers a few questions designed to assess the amounts, types and modes of supply that free market companies provide to their customers. **The range of commercial offers available on the free market** creates a very complex and varied reality; PLACET offers were added this year (starting from July), contracts with easily understandable offer structures, comparable between suppliers and differentiated only by their price. The results, about which we should always be cautious, the average of the commercial offers that each sales company was able to provide for its potential customers was equal to 16.7 for domestic and 39.2 for non-domestic. The number of offers available for domestic customers has been growing (there were 9 in 2016 and 14.5 in 2017), as it is correct to expect in a market that is gearing up for the end of the protection service and increasing its efforts to involve customers who have so far proved more reluctant to move on to the free market. Out of the 16.7 offers available on average to domestic customers, 6 can be purchased only online, but this type does not seem to interest households greatly, for now, as they chose it only in 3.4% of the cases. 86% of households signed a locked price contract on the free market (which means that the price will not change for at least one year from signing), while only 14% chose a variable-price contract, where the price changes according to contract terms and conditions. About 42% of domestic customers signed a contract providing for a rebate or discount involving one or more free periods or a fixed amount in cash or volume, which can be a one-off or permanent deal, and possibly linked to the occurrence of a given condition. With regard to additional services provided by the contracts, domestic customers that have chosen a fixed-price contract clearly prefer the guarantee of purchasing electricity produced from renewable sources (39% of customers signed a contract providing for this) or a points-based programme (36% of customers); 12.1% chose instead not to have additional services. Out of the customers who signed variable price contracts, more than half chose to have no additional services; the customers' interest for the guarantee of purchasing electricity produced from renewable sources (27.6% of customers) is apparent in this case too.

The ENEL group is to date the **dominant operator** in the entire Italian electricity market, slightly increasing this year with a share of 37.8% (it was 37.3% in 2017) and always well ahead of the second group. With an overall share of 4.9%, the EDISON Group returned to second place in 2017, after ranking third in 2017, overtaking the ENI group, whose share stopped at 4.3%, dropping to fourth position with a 11,055 GWh sales volume, as the HERA group's sales volume was around 20 GWh higher. The ENEL group maintains its position in the total market thanks to its substantial dominance in the so-called mass market, consisting of the domestic sector and non-domestic customers connected at low voltage; more than half of this market (52.9%) is in fact served by ENEL, while ENI and HERA are essentially both second with a 3.6% share each. Furthermore, in 2018 ENEL maintained its first place also in the segments of medium and high/very high voltage non-domestic customers, which it had lost in 2013 and regained in 2016. The concentration level of the retail market, measured on the basis of quantities of energy amounts sold by corporate groups, has grown compared to 2017, while that estimated on the basis of the number of customers has decreased. Using the measures calculated over kWh sold, the C3, i.e. the share of the top three operators (corporate groups) rose to 47% of total sales, while it was 45.9% in 2017. The HHI index also rose slightly to 1,571 from the 1,521 recorded in 2017. Using the measurements calculated on the withdrawal points, the concentration values rise, but the data confirm that in the household and low-voltage non-domestic segment concentration is decreasing, while in the segments concerning medium- and high-voltage customers, concentration is increasing.

In 2018, 9.1% of residential customers (2.7 million households) **switched** suppliers at least once during the year; this increased over the previous year but decreased in terms of volume. The reduction in switching volumes can be caused both by the fact that electricity consumption has decreased in general, but also by a greater tendency to save, which leads ever smaller customers (in terms of consumption) to move into the market searching for better deals. On the other hand, switching by non-domestic customers has undergone a decisive downturn for the first time in 2018 since 2011, although remaining rather lively. The decrease can be quantified in -2.8 percentage points in terms of customers and -9.9 percentage points in terms of switching volumes. Overall, in 2018, 17.2% of non-domestic customers switched suppliers (slightly less than 1.3 million withdrawal points), while in 2017, 19.9% of non-domestic customers did. In terms of volumes, in 2018 switching involved 28.5% of the energy distributed to the production sector, while in 2017 that share was 38.4%.

The **average price for domestic consumers** was 216.9 c€/kWh after taxes (of which 111.5 cents is the cost of the supply). The prices charged to domestic customers divided into classes of consumption show strong variability. The price drops constantly as customer size increases. Therefore, the characteristic U-shaped trend of the past is no more. This is due to the implementation of the first two phases of the network tariffs and system charges reform, which are meant to gradually replace the pre-existing progressive structure of the tariffs. As always, as consumptions increase, supply costs also decrease continuously. Electricity prices paid in the market by customers who have signed up for a dual fuel contract are almost invariably less convenient than buying electricity with a specific contract, but the consistency of these customers and the energy they buy is definitely reduced.

Overall, the companies that have served customers in the electricity sector and disclosed commercial quality data have received, in total, 284,507 written complaints; 53% of the complaints came from domestic and non-domestic customers on the free market, 41% from protected market customers and 6% from multisite customers. Overall, there was a **12% decrease of complaints compared to 2017**, especially from domestic customers, both in the free and protected markets; in contrast, there was an absolute increase in terms of complaints submitted by medium-voltage customers. Complaint issues concerned the following: 37%, billing and all things related to invoiced consumption and fees, self-meter reading, billing frequency, including the closing invoice, making payments and reimbursements; 15.9%, contract vicissitudes, such as withdrawal, change of ownership, transfer and takeover (finalization and transfer and takeover costs); 9.9%, the procedures for the conclusion of new contracts, the switching timetable and the seller's offer prices compared to those provided for in the contract and applied.

Developments in the gas market

Main changes to the regulation

In November 2018, following the favourable opinion issued by the European Commission, the Authority has ordered the **recertification for the company Infrastrutture Trasporto Gas** as manager of the natural gas transportation system under ownership unbundling. The recertification of the company, already certified as an independent transport manager, was made necessary as a result of a change to its ownership structure (i.e. the sale from Edison to Snam Rete Gas of the entire shareholding in the company).

2018 was the second year of operation of the new **balancing regime**, in compliance with the model defined in June 2016 that fully transposes Regulation (EU) 312/2014 of 26 March 2014. In August 2018 the Authority presented the trend of incentives in the period 1 October 2017 to 30 September 2018 (second incentive period), noting how the system of stimuli designed for the Italian market has been effective in relation to the objective of promoting an efficient management of network balancing. In the light of this result, the Authority has put some adjustments for the incentive period commencing on 1 October 2018 (so-called third incentive period) forward for consultation. In particular, the Authority has proposed: adjustment of the basic value of the indicator that measures the ratio between the difference in prices of balancing shares purchased/sold and the weighted average market price of each gas-day so as to make it more in line with the average

performance values observed; reduced incentives to further push the party responsible for balancing to have recourse to the market to supply the resources necessary to balance the network at the end of the day; a longer duration (compared with the two previous periods) of the third incentive period, so as to align it with the reform of the gas settlement. As a result of the consultation, the Authority has substantially approved these proposals.

In February 2018 the Authority has approved the **reform of the rules of gas settlement** which enters into force on 1 January 2020. The main changes have concerned the allocation to the main transport company, responsible for balancing, of the task of supplying the difference between the quantities entered in the distribution system by suppliers and those withdrawn by end customers, the simplification of the procedures for determining the physical and economic items relating to balancing and adjustment sessions and, finally, the application by the party responsible for balancing of a methodology for evaluating the climate in determining the daily withdrawals affecting redelivery points with measurement frequency less than or equal to monthly, as well as the revision of the withdrawal profiles. The supply, by the party responsible for balancing, of the volumes to cover the difference between the gas introduced into the distribution system by suppliers and that withdrawn by end customers, as well as the consequent additions to the balancing regulations and the incentives to the party responsible, has however been postponed to a subsequent measure. The guidelines on these aspects, aimed to introduce greater efficiency and transparency to the benefit of the system gas, were put forward for consultation in September 2018.

Regarding **access to the transport service,** with consultation of March 2018, some regulatory developments were envisaged that, together with the reform of the settlement described above, pursue the efficiency of the system and the reduction of barriers to entry for users of the transport network and for companies selling to end customers. The actions envisaged notably include the management of the mapping of the supply relationship between balancing users and distribution users. In fact, a system is considered to be more efficient when it unequivocally allocates the withdrawals of each end customer to a balancing user. The reform is made possible by the use of the Integrated Information System (SII) as an instrument for certifying commercial relations between balancing users, distribution users and connected customers. The reform has also proposed the modification of the procedures for the conferral of transport capacity at the point of redelivery of the transport network with the distribution networks and the corresponding output points. This is because current procedures appear costly both because, favouring suppliers who supply a high number of large customers and with different withdrawal characteristics, they constitute a barrier to access for new entrants (which generally at the beginning have few customers) and hinder the contestability of the customers themselves. The reforms outlined herein, having a significant impact on market dynamics, will be defined in 2019 and will not enter into force before the thermal year 2020-2021.

In July 2018 two **provisions were adopted aimed at making the implementation of infrastructure works and the access to capacity** by users more efficient. In order to protect the need for greater flexibility, typical of complex projects, the possibility for the provision of transport capacity to occur within a time range, rather than a single fixed date, was introduced. An amendment to the Network Code of Snam Rete Gas was also amended, which stipulates that users who undertake new import capacity and who withdraw from the transport contract, are obliged to pay the costs actually incurred until then by Snam Rete Gas, without charging Italian consumers.

In 2018, the introduction of a **system of incentives for storage companies** was proposed for the first time. The fact-finding investigation concluded in 2017 showed the existence of a differential between the maximum performance deliverable and the contractual performance that could be used to make the storage system more flexible and efficient. Based on these assumptions a consultation was opened in March 2018, which suggests a possible system of incentives aimed at encouraging storage companies to efficiently exploit this differential and to correctly enhance it. In particular, the incentive mechanism provides that storage companies allocate, according to a competitive procedures, additional input and delivery services to those already conferred, within the scope of short-term services, retaining a share of the revenues obtained from the same procedures. The proposed system, therefore, encourages companies to be more flexible and provide innovative services on the basis of the economic value that the market recognises and at the times

at which this value is greater. In November 2018 a system incentivising the value of the services provided began to be trialled.

Then, in September 2017, the Authority defined new regulations regarding access to the regasification service, which replaced those issued in 2015. The new regulations introduced market criteria, based on tender procedures, for the allocation of both long and short-term regasification capacity. The TIRG also establishes that the regasification companies can access the services offered by the Energy Markets Operator (GME), for the management of the procedures of allocation of the capacity. In March 2018 the **scheme for regulation of the Platform for assignment of regasification capacity (PAR)** organised and managed, precisely, by the Energy Markets Operator (GME), was approved.

In March 2018 the Authority has also defined, within the meaning of the TIRG, the **criteria for calculating reserve auction prices for the allocation of regasification capacity**, which were subsequently refined in light of the results of the first auction-based allocation procedures.

In October 2018 the Authority approved a proposal to urgently amend the regulation of the PAR submitted by the GME to allow the offer, via the same platform, of the new product of capacity, which allows the regasification terminals to offer a discharge for each month following the allocation, until the end of the thermal year.

In matters of safeguarding of the gas system, in 2018 the Authority also implemented the provisions governing the management and supply of the quantities of LNG to be kept in storage by the regasification terminals, and to be made available in the context of the so called “peak shaving service”. This allows the system to face eventual emergency situations, determining the base auction prices due to the cost-opportunity for a user to supply gas to be immobilised in the regasification tanks and to be used in the event of a system crisis. In November 2018 the Authority has also amended the provisions relating to the definition of the balancing price that must be applied in the case of activation of non-market measures, necessary to balance the transport network in situations of alarm or emergency envisaged by the emergency plan for the Italian natural gas system.

In August 2017 the criteria for **the regulation of transport tariffs** were approved for the transitional period 2018-2019. As regards the tariff provisions for the regulatory period commencing from 2020, in the course of 2018 the Authority has conducted a comprehensive consultation phase, which presented the initial and final guidelines regarding cost allocation, determination of revenues recognised and definition of the reference prices. In the context of the final guidelines, the Authority has proposed to confirm, in continuity with the existing criteria, the general principles for the recognition of capital costs and operating costs, which envisage incentivising regulation schemes limited only to operating costs and rate of return regulation schemes with reference to the capital costs, envisaging at the same time to introduce elements preparatory to a possible transition toward cost recognition logics based on total expenditure (*totex*). The Authority has also planned to gradually phase out the incentive criteria criteria (input-based) based on price increases of the rate of remuneration, introducing more selective and output-oriented infrastructural development logics. It has also been proposed to adopt, for the purposes of determining the tariff components applied to capacity, the capacity-weighted distance methodology (CWD), as described in Article 8 of Regulation 16 March 2017 (EU) 460/2017 the Commission as reference price methodology.

As regards the **quality of the transport service** for the regulatory period commencing from 2020, in August 2018 the Authority presented the initial proposals, expressing its confirmation of the framework currently in force and strengthening certain provisions relating to the safety of the networks, with the objective of increasing the reliability of the infrastructure.

In November 2018 the Authority presented the guidelines regarding the **technical and economic conditions access to and provision of services supplied by plants and by LNG storage infrastructures**, in order to gain further insight into the perimeter and activities related to Small Scale LNG services supplied by LNG terminals and develop the definition of accounting unbundling obligations.

International coordination

Regarding **investment in new infrastructure and consistency with EU development plans** in February 2018 the Authority launched the consultation on the ten-year plans for development of the natural gas transmission network related to 2017. The consultation of the Plans for 2017 ended on 30 April 2018, and the observations presented by the stakeholders, as well as the counter-deductions elaborated by the competent network operator, were published by the Authority on its website. As part of the dialogue between the Authority and managers of the transport networks, aimed at identifying a shared cost-benefit analysis methodology, in July 2018 the Authority has expressed its guidelines on **minimum information standards and guidelines for the Cost-Benefit Analysis** (CBA) **for the economic assessment of interventions to develop the natural gas transport network**. In September new procedures for consultation of the ten-year plans for development of the natural gas transmission network were envisaged, and the minimum requirements for the preparation of the plans were approved, in relation to the completeness and transparency of information and to the CBA, relevant for the purposes of the assessments under the Authority's competence.

Also in 2018 the Authority contributed to the implementation of the Treaty establishing the Energy Community of South East Europe and maintained constant international commitment in the context of the Mediterranean basin, in particular through MEDREG, which in 2018, for the gas sector, worked on the energy platforms promoted by the European Commission, among other things.

Wholesale and retail markets

In 2018 the growth of the Italian economy continued for the fifth consecutive year (+0.9%), however marking a slowdown compared to 2017, which is greater than that of the rest of the euro area. The growth was still driven by the good performance of the industrial sector. The gas intensive sectors, however, showed modest or negative results. As regards climate change, according to the data monitored and processed by ISPRA (The Italian Institute for Environmental Protection and Research), 2018 was the hottest year at least since 1961, with a fairly warm winter.

On the basis of the preliminary results broadcast by the Ministry of Economic Development, in 2018, the **net consumption of natural gas** fell by 3.3 G(m^3), reaching 70.3 G(m^3) from 72.7 G(m^3) in 2017. In percentage terms, consumption recorded a decline of 3.3%, the first after three years of rising from the historical low reached in 2014. Following the economic developments outlined above, in 2018 industrial consumption grew by 4.1%, while consumption for thermoelectric generation recorded a sharp decrease of 11%. Consumption of other uses also declined (-4.3%), which contain automotive uses in particular, while civil consumption (residential and tertiary) remained substantially unchanged compared to 2017 (-0.1%).

In the face of declining consumption, **net imports** have also suffered a contraction (-2.7%). The volumes of gas imported from abroad fell by 1.8 G($m3^3$) compared to 2017, reaching 67.9 G(m^3); exports increased by 118 M(m^3). Further reduction was seen in **national production** (-1.6%), although minimal compared to that of the last five years. During the year the withdrawals from storage were lower than the inputs; therefore, at the end of the year, the storage volumes were 264 M (m^3) higher than at the beginning of the year. Also considering system consumption and network losses, the net value of the national consumption was of 70.3 G (m^3) in 2018, a value that is 3.2% below that of 2017. The **level of dependence on abroad**, measured as the ratio between gross imports and the gross domestic consumption, rose again to 93.4%, the highest ever recorded.

Except for volumes from Norway, which increased by almost 21.5% compared to 2017, imports decreased from all other countries from which Italy purchases gas. In 2018, the weight of Russia among the countries that export to Italy remained substantially unchanged at 47.6% (47.5% in 2017), while Algeria's share dropped from 28% to 26.5%. The third most important country is Qatar, from which Italy receives 9.6% of the total imported gas (9.7% in 2017), followed by Libya, whose share remained stable at 6.6%. In 2017, 3.6% of Italian imports came from all the other countries together. Finally, the weight of imports from Northern Europe slightly increased, with Norway and the Netherlands accounting for 6.1 % together (5.5 % in 2017). As always, the first place in the rankings of the importing companies was held by Eni, which purchased 35

G(m^3) of gas in 2018, with a decrease of 109 M(m^3) compared to 2017. The slight decrease in Eni's imports (-0.3%), was significantly lower than that recorded by total national imports; this has brought up the company's market share to 52.3%, from the 51.1% reported in 2017.

As in previous years, the groups that hold a share of more than 5% of the overall gas supplied (i.e. produced or imported) are Eni, Edison and Enel. Together, these top three importers imported 83.5% of the natural gas entering the Italian market. Considering the quantities produced within the national borders, these three groups account for 83.4% of all the natural gas supplied. This share is decreasing (85.2 % in 2017 and 86.6 % in 2016), due to the decrease in the market shares of Edison and Enel not offset by the increase in Eni's share. The three groups are also the only groups that each hold a share of more than 5% of the available gas, with an overall share for all three (86.3%) that is slightly higher than that of gas supplied. As concerns **residual life**, import contracts in place in 2018 were overall still long enough, but the contract structure is getting shorter from year to year, albeit very slowly: 55.4% of contracts (56.8% in 2017) will expire within the next ten years and 38.6% of these (39.8% in 2017) have expiry dates within the next five years. In contrast, 36.6% of the contracts in force today have a residual life of more than 15 years. This share stood at 35.9% in 2017.

In 2018, the **total demand of the natural gas sector**, understood as the sum of the volumes of natural gas sold on the wholesale market (including reselling) and retail market plus self- consumption grew by 0.2%, reaching 286.4 G(m^3). The wholesale market handled 215.3 G(m^3), a significant increase compared to 2017 (2.1%); the retail market handled 56.7 G(m^3), recording a decrease of 5% compared to 2017, while self-consumption totalled 14.5 G(m^3), also with a decrease (-3.7%). Like in 2017, 4 industrial groups held a share of more than 5% of the total demand in 2017.

As in 2017, also in 2018, there was no increase in the number of companies that operated in the **wholesale market**, whereas the overall volume of gas they traded increased. In fact, 183 suppliers, four fewer than 2017, sold a total of 4.4 G(m^3) more than in 2017.

In 2018 the concentration of this market increased: the share of the biggest three companies (Eni, Engie Global Markets and Eni Trading & Shipping) rose to 34.3% from 31.3% calculated in 2017. Likewise, the combined market share of the top five companies (the three mentioned above plus Enel Global Trading and Edison) rose to 50.3% from 45.8% of the previous year. Obviously, the HHI calculated only on the wholesale market also rose, from 534 to 633. In 2018, the average price in the wholesale market was 24.05 €c/m^3, below the 25.41 €c/m^3 of the Virtual Trading Point (VTP; Platts data) and a notable increase (17.8%) compared to the 20.42 €c/m^3 recorded in 2017.

The main trading platform in the wholesale market in Italy is the **Virtual Trading Point** (VTP), operated by the leading transport network operator, Snam Rete Gas. The sales that can be registered are the ones carried out with bilateral contracts and the ones carried out in the regulated markets managed by the GME. In 2018, 164 entities performed the trade, sale and acquisition of gas on the VTP. Only 42 of these were pure traders, as they were not transport system users. Despite the negative trend of demand for natural gas, the number of subscribers to the VTP rose to 228 units, once again reaching a peak. The number of subscribers who have carried out transactions grew by four units (2.5%) compared to 2017, while a reduction (-4.5%) was seen in the number of pure traders (i.e. subscribers that are not users of the transport system) which decreased to 42 units, compared to 44 in 2017. The OTC volumes traded on the VTP recorded a decrease of 7%, reaching 86.2 G(m^3). The churn rate, obtained by comparing the total volumes traded on the VTP with the value of the registrations that translate into physical delivery, stabilised around 3.1 over the past three years.

Within the scope of the **gas markets operated by the GME**, in 2018, an overall 57.4 TWh of volumes were traded, recording an increase of 27.7% compared to the volumes traded in 2017. However, there is a greater division of these volumes across the different platforms, in the second year of full operation of the new gas balancing system. The highest liquidity volumes are observed in the intra-day Market (27.9 TWh), the same preferably used by Snam Rete Gas for its functions of balancing responsible entity (or party). On the Stored Gas Market (13.5 TWh; -19%) the main operator is also the balancing responsible entity. There has been a marked increase in the volumes traded on the Day-Ahead Market (13.0 TWh), favoured by the launch of the market-making mechanism in February. Trading on the Forward Gas Market also increased, with 231

combinations for a total of 0.79 TWh. Trades have also been recorded on the Regasification Capacity Allocation Platform (PAR) for a total of 12 slots referring to the product "Capacity that can no longer be allocated in auction", which amounts to 1.4 M(m^3) liquefied.

In relation to the prices found on different platforms, they can all be approximated to an annual average of 24 €/MWh, in line with the annual average price on OTC markets at the VTP, equal to 24.55 €/MWh (Thomson-Reuters data). In particular, the average prices of the two compartments of M-GAS - respectively 24.28 €/MWh for MGP-GAS and 24.43 €/MWh for MI-GAS - showed an infra-annual trend that reflects that of the price at the VTP. The correlation between the price at the VTP and the price of the compartment MGS is instead less: the average differential with the price at the VTP is -71 c€/MWh.

The provisional results of the Survey on the Electricity and Gas Sectors, conducted annually by the Authority, show that, in 2018, 56.7 G(m^3) were sold to the **end market**, to which are added the 183 M(m^3) supplied through last resort and default services. Overall, the end sales therefore amounted to almost 57 G(m^3), with a decline of 2 G(m^3) compared to 2017. To have a comparable figure with the final gas consumption data published by the Ministry of Economic Development mentioned above, we must however consider the volumes related to self-consumption, equal to 14.5 G(m^3), that bring the value of overall consumption given by the Annual Survey to 71.4 G(m^3), i.e. to a value comparable to the 70.3 G(m^3) reported by the Ministry. The two sources classify the volumes of gas handled over the year in different ways. Unlike more recent years, in 2018 self-consumption also showed a fairly substantial reduction, equal to 3.7% in terms of volumes. This item has a very strong influence in electricity generation (in fact, 87.5% of self-consumption falls within this sector). The decline of final consumption, which emerges both from the data of the annual survey (-5.1%), and the data from the Ministry, though to a lesser extent (-3.2%), appears to be tied to a more substantial downsizing of the productive sectors (and more precisely thermoelectric), compared to that of civil consumption.

The significant growth in sales on the end market is accompanied, for the first time, by a decline (-8 units) in the **number of suppliers** operating in this segment of the production chain: from 420 operators in 2017 to 412. The continuous increase in the number of companies declaring sales activity in the Authority Operators Registry means, however, that it is considered probable that this decline is influenced by the level of participation in the survey by suppliers, which has decreased compared to previous years. Of the 412 suppliers in operation that responded to the Annual Survey, 12.6% (i.e. 52 entities) supply customers throughout the country, i.e. in all 19 Italian regions supplied with methane; 166 companies (40.3%) sold electricity in between 6 and 18 regions; the remaining 194 companies (47.1%) operated in between 1 and 5 regions. The number of companies that operate all over the country has grown continuously (7% in 2014). The corporate breakdown of the share capital of gas suppliers, limiting the analysis to direct holdings, displayed poor foreign presence: only 28 companies (of around 398 that provided this data) have a non-Italian majority shareholder. The direct foreign shareholders are mostly Luxembourg or Swiss companies, but there are also German, British, Spanish and Austrian. In 2018 the level of concentration in the final sales market decreased. The first three groups control 43.5%, while in 2017 the share was of 45%. Considering the first five groups, the supplied market portion rises to 51.7% (from the 53.4% of 2017). The HHI calculated on the sales market was of 761, lower than the 817 of 2017. No change has occurred in the top three positions of the end market: Eni, Edison and Enel are as always, the groups in the first three positions; the weight of the Eni group (this year equal to 19.3%) reduced by one and a half percentage points compared to 2017, while those of the Enel and Edison groups remained virtually unchanged. The distance between Eni and Edison shortened (from 7.4% to 6%), while the distance between Edison and Enel remains stable at a little over two percentage points.

Overall, the gas sales decreased in almost all sectors compared to 2017, with the exception to sales to households. Self-consumption, which is mostly attributable to the thermoelectric sector, recorded a decline of 0.3%, the quantities of gas sold on the free market showed a loss of 4.3%, less significant than that recorded in sales on the regulated market, which fell by 10.1%. The containment of gas consumption was more significant (-7.1%) for the productive sectors than that recorded in the civil sector (-0.8%) that, in addition to the household sector, includes multi-occupancy buildings, the tertiary sector and public service

activities. The rate of growth of the civil sector improved significantly if we consider the sales on the free market exclusively, which grew by 4.2% as compared to 2017. In fact, natural gas volumes sold on the free market to households were 12.5% higher than in 2017, those of multi-occupancy buildings grew by 1.6% and those of trade remained substantially stable (-0.2%), while those of public service activity significantly decreased (-10.8%).

The proportion of volumes purchased on average on the **free market** was 68.3%, that of the regulated market was 11.3%, while self-consumption amounted to 20.3%. If we consider sales in its strict sense and therefore exclude self-consumption, 85.8% of the gas was purchased on the free market and the remaining 14.2% on the regulated market. In terms of customers, 53.2% turned to the regulated market, while 46.8% bought on the free market.

Considering only the **domestic sector**, we can observe that the share of volumes purchased on the free market in 2017 reached 50.6% for the families and 78.4% for central heating (both shares are calculated from the sales total in the strict sense of the word, i.e. net of self-consumption). In terms of the withdrawal points, in 2018 for the first time the proportion of households who purchased gas in the regulated market fell below half, more precisely to 49.9%.

Again, in the gas sector, as already described for electricity, the *Annual Survey* asked suppliers of natural gas certain questions aimed at assessing the quantity, types and the methods of supply that companies offer customers who have chosen the free market. Taking into account the due caution required in the interpretation of results, it emerged that: the average number of commercial offers that sales companies are able to make to their potential customers was 13.5 for domestic customers, 7.8 for central heating with domestic use and 24.9 for non-domestic customers. Over time the number of offers available for domestic customers has grown (8 in 2016 and 13 in 2017), as well as for multi-occupancy buildings (7 in 2016 and 7.6 in 2017) probably because suppliers are preparing for the end of the standard offer service. The number of offers available to non-domestic customers, instead, has markedly decreased compared to 2017, when it was 76.6. This decrease could be due, at least in part, to the fact that the free market for non-domestic customers is certainly more mature than for households and could therefore be streamlining the offers created for this clientele.

Of 13.5 offers on average made available to domestic customers, 6.6 can only be purchased online but, up to now, households do not seem to be very interested in this type of offer, with a take-up of just 2.6%. As concerns the preferred type of price, it was found that 70.4% of households has subscribed to a fixed price contract on the free market (i.e. with the price that does not change for at least one year from the time of the subscription), while 29.6% chose a variable price contract, i.e. with the price that changes according to the times and methods established by the contract itself. Also in this case, the figures have slightly decreased compared to the previous year, when the variable price was chosen by 31.4 % of domestic customers. 39.6% of the domestic customers subscribed to a contract that provides an abatement or a discount of one or more free periods or of a fixed sum in money or volume, that can be one-off or permanent, and eventually provided when a certain condition is established. The presence of additional services in the contracts entered into by households is more widespread in fixed price contracts in comparison to variable price contracts: 55% of customers who chose a fixed price offer sign a contract that also provides an additional service, while this percentage drops dramatically to 17% in variable price contracts. In fixed price contracts that provide an additional service there is clear preference (46.1%) for those contracts that involve participation in a points programme and a certain liking (6%) for contracts that offer an accessory energy service. These preferences are fairly stable over time.

For the first time the analysis of ***switching*** in the natural gas sector this year includes data collected from transport operators using the annual survey on the regulated sectors and data from the integrated information system (SII), managed by the single buyer. The percentage of **switching**, i.e. the number of customers who switched over to another provider during the calendar year 2017, was a total of 7%, or 27.1% when measured according to the consumption of customers who made the switch. Compared to 2017 the percentages are increasing or stable. In 2018 supplier switches of domestic consumers rose to 6.6% (corresponding to a portion of the volumes of 7.7%).

The interim analysis of data gathered in the survey conducted by the Authority for 2018 shows that, last year, the **average price of gas** (weighted by the quantities sold), after taxes, set by the sales companies operating on the end market, was 40 c€/m^3. This price was 34.3 c€/m^3 in 2017. Therefore, the overall average price of gas in Italy increased by 5.7 c €/m^3, corresponding to 16.6%. The highest increase, both in absolute terms (7.5 c€/m^3) and relative terms (20.7%) relates to the class of customers with annual consumption between 50,000 and 200,000 m^3, while the more contained increases concern: in absolute terms, large customers (between 2 and 20 million m^3), +3.5 €/m^3, +15.3%; proportionally smaller customers (less than 5,000 m^3), +6.2 c€/m^3, + 11.9%.

Overall, in 2018 the sales companies that serve the regulated and free natural gas market have received 194.074 **written complaints**, 62.5% of which referred to the free market, 30.5% to the regulated market and 7% to multi-site customers. There is a decrease in complaints relating to both the free market which fell from 126,538 to 121,257 (-4.2%), and the regulated market, -22.4% (from 76,243 to 59,135). In 2018, there were 21,368 cases of failure to comply with the standards that have entitled customers to obtain an overall compensation for the non-compliance with the standards set for commercial quality of the sale. In the same year compensation was paid for a total amount of 1,005,764 euros. As regards the topics of the complaints in the gas sector, the top three in terms of importance related to: in 47.5% of cases problems related to billing and everything that concerns the consumption and fees billed, self-reading, billing frequency, including the closing bill, making payments and repayments; for 11.5%, matters regarding the contract, such as withdrawal, change of account holder, transfer and takeover (completion and costs of transfer and takeover); in 9 % of cases metering (complaints relating to the functioning and replacement of the meter or failure to carry out readings, including malfunctioning remote reading, the timing and procedures for checking the meter, or reconstruction of the consumption due to malfunction).

Consumer protection

The Italian legislation, thanks also to the most recent provisions on billing, complies with the requirements of Directives 2009/72/EC and 2009/73/EC on the consumer protection measures including those in Annex 1.

With regard to **guaranteed access to consumption data**, the regulations on billing give customers the right to information on actual consumption data. Furthermore, the Italian legislation has established that the Integrated Information System (SII) must develop, via a central register of the withdrawal points and a system of operator accreditation, procedures for the centralised management of consumption data communication and the development of the respective services. The Authority pursues the primary goal of making withdrawal history or **energy footprint** data accessible and useful to consumers in digital format, to develop innovative services for energy efficiency and active management of demand, made possible by the availability of the new tools brought into operation with the 2G metering system. In June 2019 the Authority defined the procedures with which end customers, from 1 July 2019, can access their consumption data through the specific *Portale Consumi* present on the website https://www.consumienergia.it/portaleConsumi/.

Since 2017, the Authority has launched a new process for the promotion of new tools for the **information and the increased empowerment of domestic final customers and small companies** to face the retail markets for electricity and natural gas, believing that targeted information for these customers allows them to overcome the mistrust resulting from the limited knowledge of the market, on the one hand, and enables customers to exercise informed self-protection on the market, on the other. Subsequent legal measures have established that **from 1 July 2019 (then extended until 1 July 2020) price protection should be definitively phased out**. These measures required that, from 1 January 2018, end customer supplied under standard conditions should receive appropriate information from their supplier in relation to the phasing out of price protection, according to the procedures laid down by the Authority and that the **Authority must guarantee the publicity and dissemination of information on the phasing out of price protection and the conditions of the performance of services** to the benefit of customers, even availing itself of the Acquirente Unico (Single Buyer). In November 2017 the Authority, in implementation of such regulations, has established several initiatives for this purpose.

Communications included in the bills issued in the first and second half of 2018 informed end customers that price protection would be phased out, initially planned for 1 July 2019 and subsequently extended until 1 July 2020, inviting them to inform themselves on the opportunities of the free market. The text to be included in the bills issued in the first half of 2019 contains, on the one hand, an indication of how changing contract or supplier is easy and free of charge, with the guarantee of continuity of service and, on the other hand, elements that should urge the end customer to take advantage of the Authority's tools aimed at helping customers make informed choices, such as the electricity and gas *Portale Offerte* and PLACET offers.

In Italy there is not a specific tariff for the purchase of electricity or natural gas for customers who find themselves in economic difficulties. Since 2009, however, a protection mechanism was activated for the electricity supplies, specifically referring to domestic customers whom find themselves in situations of economic difficulties or in serious health conditions, that receive **a bonus or discount** on electricity supplies. Similarly, from 2009, there is also a social protection mechanism specifically for domestic gas supply customers who are in situations of economic hardship, similar to that present in the electricity sector: the **gas bonus, or a discount** on the supply of natural gas.

To access the bonus, families must prove their state of economic hardship through an indicator that assesses the economic situation at the household level, the ISEE (Equivalent Economic Status Indicator). Starting from 1 January 2017, the ISEE threshold for qualifying for the bonuses rose from 7,500 euros to 8,107.50 euros, as established by the decree of the Ministry of Economic Development of 29 December 2016; it remains unchanged for large families (ISEE not exceeding € 20,000).

At 31 December 2018 at least 3 million households benefited from the **electricity bonus**, 771,566 households had an active bonus in 2018, an increase of 9.1% compared with the previous year; this is in addition to the 23,600 beneficiaries of bonuses paid to holders of Purchase Cards (it is a card that can be used to support spending on food, healthcare and the payment of electricity and gas bills to which citizens who live in conditions of economic hardship and who request them are entitled; worth 40 euros per month), which decreased by 7.4% compared to 2017. There were 33,282 beneficiaries of the bonus for physical discomfort at 31/12/2018, an increase of 2% compared to 12 months prior.

519.375 customers benefited from the **gas bonus** for economic hardship at 31 December 2018, with an increase of 3.9% compared to the previous year; their requests, after all the controls related to the eligibility requirements from the Towns, were admitted to the facility after the verification of the gas distribution companies. Over 1,7 million families benefited from the bonus, at least once, since the activation of the mechanism.

In the course of 2018 the total amount of the bonuses paid, both for the electricity sector (economic hardship and physical discomfort) and for the gas sector, exceeded 1,3 million euros. Around 65% of the households that benefited from the electricity bonus also requested and obtained the gas bonus. Since 2017 there has been an increase in the applications submitted, after two years of substantial stability; 2018 confirmed the growth. This recovery is mainly attributable to the increase in the reference ISEE threshold; moreover, a certain number of applications were submitted as a carryover effect as a result of the definition of a bonus for the water sector.

In 2017 the Authority approved the *Integrated text for the adoption of measures preparatory to the confirmation of the contract for the supply of electricity and/or natural gas* and *voluntary reinstatement procedure* (TIRV). The TIRV applies to distance contracts or those negotiated outside of the business premises of the supplier; the text envisages documentary obligations for all suppliers aimed at proving the confirmation of a contract and includes a special resolution procedure, voluntary for both the end customer as well as the supplier, where the preventive measures have not been complied with in the contract confirmation phase. In December 2018 the Authority adapted the provisions of TIRV to the new regulations regarding **withdrawal**, common both to the electricity and the natural gas sector, introduced in November 2017, with particular reference to the provision that sending a *switching* request also constitutes the exercise of withdrawal due to change of supplier, as well as the new **regulations on the switching process in the natural gas sector**, approved in February 2018.

For the **management of disputes**, the **energy customers Conciliation Service** has been in operation in Italy since 2012, managed (in pooling) by the Acquirente Unico (Single Buyer) and operational, first under trial and then fully operational. The Conciliation Service is a voluntary procedure for the alternative resolution of the disputes, that can be activated by electricity and natural gas consumers for all kinds of issues (which do not concern fiscal and taxation profiles) towards the energy operators (exercising sales and distribution), in case of lack of or unsatisfactory answers to the complaints. The procedure is undertaken entirely online and in the presence of a third-party, impartial conciliator, expert in mediation. The possible final agreement has settlement effectiveness between the parties, according to Art. 1965 of the Civil code. Due to its characteristics, the Conciliation Service is in line with the EU regulations in matters of Alternative Dispute Resolution (ADR), lastly, with the 2013/11/EU Directive of the European Parliament and the Council of 21 May 2013 on the alternative resolution of the consumers disputes, that modifies the (EC) 2006/2004 regulations and the 2009/22/EC Directive.

With the approval of the Consumer Code, which has assigned to the Authority the power to regulate, with its own measures, the methods of conduct of the alternative dispute resolution procedure, the attempt at conciliation has become a condition of the admissibility of proceedings brought before the judicial authority for disputes which have arisen in the regulated sectors.

In 2016, the Authority implemented this legislation with the approval of an *Integrated Text of Conciliation* (TICO), which introduced a **procedure for trialling the mandatory attempt at conciliation with the Conciliation Service** and identified the established alternative procedures. The TICO, operational since 1 January 2017 for both the electricity and gas sectors, is applied to disputes which have arisen between operators (retailers and distributors, and limited to prosumers, also Energy Services Operator - GSE) and end customers of both electricity supplied at low and/or medium voltage, and natural gas and other gas distributed by means of networks supplied at low pressure.

In 2018 the revision of the TICO led to an **update of the website of the Conciliation Service** (conciliazione.arera.it) and information pages on the service itself present on the Authority's website. In particular, the FAQs on the conciliation procedure were updated. The **Annual Report 2018 of the Conciliation Service** was also published on the dedicated page of the Authority's website, as ADR body within the meaning of the Consumer Code, registered to the ODR platform of the European Commission. This Report, translated into English, was also published on the NEON website, the network of ombudsmen and ADR bodies that operate in EU countries in the energy sectors, of which the Authority has been a member since 2016 as owner of the conciliation service.

In 2018, the second year of operation of the TICO, requests submitted to the Authority's Conciliation Service were substantially in line with 2017 (10,705 requests, + 1%). 73% of the requests received by the Service concerned a domestic end customer (slight decrease compared to 76% in 2017). Regarding the subject of the disputes, the prevalence of billing (52%) is confirmed, although a decrease compared to 2017 (58%). 82% of the requests feature an estimated value of the dispute of less than 5,000 euros (threshold of small claims according to the European regulations). The average duration of the proceedings concluded is equal to 53 calendar days, 8 more than in 2017. The procedures with agreement had an average duration of 55 days, 9 more than in 2017.

As an alternative to the **Conciliation Service of Authority**, final customers can also fulfil the obligation to attempt conciliation for judicial purposes by using the other procedures indicated in the TICO. These are, primarily, conciliation procedures with the Chambers of Commerce that adhere to the convention between the Authority and by Unioncamere signed on 28 December 2016 and with appropriate training on energy sectors. In the second place, there are proceedings at the Organisations registered in the ADR directory created by the Authority, only for the domestic consumers.

At 31 March 2019, Unioncamere communicated membership of 49 Chambers of commerce, five more than the previous year, while 16 Bodies are registered to the Authority's ADR List (including the Authority's Conciliation Service).

Security of supply

In implementation of the Third Energy Package, Legislative Decree no. 93/11 assigns the functions and responsibilities relating to the security and continuity of supply to the Ministry of Economic Development.

3 THE ELECTRICITY MARKET

3.1 Infrastructure regulation

3.1.1 Unbundling

In 2015[4], the Authority updated the provisions on unbundling obligations for the electricity and gas sectors, approving the *Integrated Text on Functional Unbundling* (TIUF), in accordance with the provisions of Legislative Decree 93 of 1 June 2011 and Directives 2009/72/EC and 2009/73/EC. The innovations introduced by the TIUF, in force since 1 January 2016, include the introduction of new unbundling obligations concerning communication and brand policies for electricity and natural gas distributors, regardless of their size or business structure; they impose a complete unbundling between the sale and distribution of electricity and natural gas to avoid any risk of confusion.

In 2018[5], the Authority ordered a series of non-compliant electricity and gas businesses to send in the mandatory notifications required by the TIUF.

3.1.2 Technical regulation

Dispatching services

Pilot projects

The administrative reform of the dispatching service regulation is also being completed; it involves the participation of production units powered by renewable and non-programmable sources and is to be implemented in accordance with EU legislation (i.e. *Capacity Allocation and Congestion Management* - CACM and *Electricity Balancing Guideline* - EB GL). The reform has the following purposes:

- harmonise the design of the Italian market with the European one, while preserving Terna's centralised and optimised management of the system, prioritising the launch of the intraday market for continuous trading on the Italian borders;
- improve the methods by which previously excluded consumption and production units (non-programmable renewable sources, distributed generation), including electric storage and vehicles, will be able to provide resources for dispatching services, including by means of effective forms of aggregation, without undermining the principle of technological neutrality and taking into account the results deriving from pilot projects;
- review the imbalance regulation to provide dispatching users with price signals representative of real time energy values, thus making obsolete the current mechanism based on static zonal/macro-zonal aggregations and referring to nodal prices;
- identify the evolution of the distributor role in a setting of progressive diffusion of produced and stored resources being distributed and increasingly "active" network management.

Meanwhile, the Authority has opened[6] the Dispatching Services Market (MSD) to previously excluded units, by means of pilot projects for collecting useful information and making new dispatching resources

[4] Resolution 296/2015/R/com of 22 June 2015, replacing Resolution 11 of 18 January 2007.
[5] Resolution 400/2018/E/com of 26 July 2018.
[6] Resolution 300/2017/R/eel of 5 May 2017.

immediately available, while holding fast to the principle of technological neutrality (therefore, the pilot projects are not differentiated by source or technology or production/consumption unit type).

Said pilot projects concern the following:

- voluntary MSD participation by small production units (including storage systems), i.e. those whose power does not exceed 10 MVA (subject to the exceptions highlighted below), and by consumption units;
- voluntary MSD participation by large production units not currently authorised and not already included in the Authorised Virtual Mixed Units (UVAMs).

In the first case, voluntary MSD participation by small production units (including storage systems and except for the exclusions highlighted) and by consumption units, the interested parties participate in the MSD on an aggregate basis as Authorised Virtual Units (UVAs). The geographic aggregation perimeters cannot extend beyond the market area and are defined by Terna in accordance with the network model used by the algorithm that selects offers accepted on the MSD, so that the movement of units in the UVA will not involve violations of network constraints. In general, UVAs are only relevant with MSD participation, whereas for the purposes of participation in the energy markets and determining imbalance fees, production or consumption units continue to be included in the already existing dispatching points. The counterpart to the supply of dispatching resources is the Balance Service Provider (BSP), which can be different from the dispatching user. The BSP is therefore responsible for non-compliance with dispatching orders, while the dispatching user continues to be responsible for the regulation of imbalances. The UVAs are affected by the following:

- initial pilot project, which included only consumption units in the authorised virtual unit (UVACs - Authorised Virtual Consumption Units), also as part of different dispatching contracts. The regulation for this pilot project was approved in May 2017[7] and applied on 1 June 2017. The UVACs have been authorised to supply upward tertiary power reserves and balancing resources. UVAC services have been remunerated in the following alternative ways:
  - through normal MSD-derived remuneration, that is, based on a variable fee equal to the price offered by the BSP (pay as bid) applied only if the resources are activated on the MSD and limited to the quantities accepted on said market;
  - through the forward supply of resources, limited to the North and Central North market areas and the winter and summer seasons (that is, limited to the areas and periods in which there may be greater demand for resources to guarantee the safety of the electricity system);
- second pilot project, which included only small production units in the authorised virtual units (UVAPs), also as part of different dispatching contracts. The regulation for this pilot project was approved in August 2017[8] and applied on 1 November 2017. The UVAPs have been authorised to supply resources for programme congestion resolution, tertiary power reserve and balancing (upward or downward). The services rendered by the UVAPs were remunerated based on a variable fee equal to the price offered by the BSP (pay as bid) applied only if the resources are activated on the MSD and limited to the quantities accepted on said market;
- third pilot project, in which the first two projects were merged and is still in progress, which included small production units in the authorised virtual unit (whether programmable or non-programmable), as well as large production units that are not necessarily authorised sharing a connection point with

[7] Resolution 372/2017/R/eel of 25 May 2017.
[8] Resolution 583/2017/R/eel of 03 August 2017.

consumption units and consumption units (UVAMs - Authorised Virtual Mixed Units)[9]. The regulation for this pilot project was approved in August 2018[10] and applied on 01 November 2018. The UVAMs are authorised to supply resources (upward and/or downward) for programme congestion resolution, the tertiary reserve (both rotating and replacement) and balancing. UVAM services have been remunerated in the following alternative ways:

- through normal MSD-derived remuneration, that is, based on a variable fee equal to the price offered by the BSP (pay as bid) applied only if the resources are activated on the MSD and limited to the quantities accepted on said market;
- through the provision of resources in all areas and for periods no longer limited to the summer and winter seasons. In this case, UVAM owners have more stringent constraints in terms of offer commitments (upward balancing offers for at least 2 consecutive hours from 2 pm to 8 pm every day from Monday to Friday) and are paid two fees: one is a fixed fee resulting from a pay-as-bid descending price auction based on a maximum variable value from € 15,000/MW/year (for 2 hours of availability) to € 30,000/MW/year (for 4 hours of availability), provided on a daily basis in case of availability; the other is a variable fee equal to the price offered by the UVAM owner on the MSD (with a strike price of € 400/MWh) recognised only in case resources are activated on the MSD and limited to the accepted quantities.

In case large production units not currently authorised and not already included in the UVAMs participate voluntarily in the MSD, they will do so individually while referring to the same dispatching point valid for participation in the energy markets and the exploitation of actual imbalances. The counterpart to the supply of dispatching resources is the dispatching user, owner of the dispatching point, which is always the Balance Service Provider (BSP). The regulation for this pilot project was approved in July 2018[11] and applied on 1 September 2018 and is still ongoing.

The units in question are authorised to supply resources for programme congestion resolution, the tertiary power reserve and balancing (upward or downward). The services rendered are remunerated based on a variable fee equal to the price offered by the BSP (pay as bid) applied only in case resources are activated on the MSD and limited to the quantities accepted on said market.

Another pilot project concerns the supply of the primary frequency regulation service to large production units by means of integrated storage systems, approved in July 2018[12].

Finally, the Authority asked Terna to set up two additional pilot projects to assess the possibility of expanding the resources to be provided to the voltage regulation service. These pilot projects involve the following:

- the possibility and procedures with which plants selected through tender procedures—and to which the European Commission regulation (EU) 631/2016 of 14 April 2016 (RfG regulation - Requirements for Generators) does not apply—may be made available to provide voltage regulation resources in the

[9] There are two types of UVAMs
a) which includes small production units that are not yet required to be authorised sharing their network connection point with one or more consumption units, as long as input power at the connection point does not exceed 10 MVA, and UVAM-A consumption units
b) which includes large production units not required to be authorised with input power at the connection point that exceeds 10 MVA and UVAM-B consumption units sharing the same network connection point.
UVAMS may include electric storage and vehicles servicing the grid (so-called vehicle to grid).

[10] Resolution 422/2018/R/eel of 2 August 2018.

[11] Resolution 383/2018/R/eel of 12 July 2018.

[12] Resolution 402/2018/R/eel of 26 July 2018.

various electricity network areas, after appropriate adaptation of the systems and according to actual need and quantity;

- the possibility and procedures for obtaining additional voltage regulation resources through insolvency procedures, made available in the various electricity network areas by generation distributed through distribution companies, according to actual need and quantities.

Innovations pertaining to data exchange between Terna, electricity distribution companies and Significant Grid User

In late 2018, the Authority began[13] implementing the data exchange regulation between Terna, electricity distribution companies (DSOs) and Significant Grid Users (SGUs)[14], for the safe operation of the national grid in compliance with the provisions of European Commission Regulation (EU) 1485/2017 of 2 August 2017 (SO GL - System Operation Guidelines), while taking into account the experience gained in the trials started in December 2015[15].

Articles 40 to 53 of the SO GL regulation define provisions concerning the exchange of data between TSOs (Terna in Italy), DSOs and SGUs, for safe management of the electricity transmission system. At the national level, each TSO should coordinate with DSOs and SGUs and determine the applicability and scope of the data exchange, distinguishing between structural, planning, forecast and real-time data; moreover, the TSO and DSOs should agree on effective, efficient and proportionate procedures for this exchange, including, where necessary for efficient network management, communication of data relating to distribution systems and SGUs; the TSO should proceed with the actual implementation of the data exchange.

These data are necessary both for the TSO and the DSOs as they can bring benefits in terms of national grid safety, reduction of procurement costs for dispatching service resources and the logical evolution of distribution network management.

To this end, the Authority has already indicated that data exchange should take place by means of solutions that will minimise the cost/benefit ratio[16] and that:

- Terna should initiate one or more consultations to define data exchange boundaries, procedures, types, details, timestamping and frequency of communication. These should be carried out in coordination with the distribution companies;
- the Authority should draft one or more consultation documents to identify the most appropriate technological solutions for data collection and transfer and define responsibilities for the development and maintenance of the aforementioned solutions, as well as adjustment procedures and schedules for existing SGUs and to cover costs.

Implementation of EU regulation RfG in Italy

In 2016, based on the provisions of Regulation (EU) 714/2009[17], the European Commission adopted Regulation (EU) 631/2016 (RfG regulation - *Requirements for Generators*). The RfG regulation entered into

[13] Resolution 628/2018/R/eel of 5 December 2018.
[14] SGUs are users significant for grid security.
[15] Resolution 646/2015/R/eel of 22 December 2015.
[16] For example, using existing tools, where possible, to acquire, collect and transfer the necessary data and the centralised platforms and cloud systems that make these data available to those who are authorised to receive them.

[17] Regulation (EU) 714/2009 establishes non-discriminatory rules governing access to the network for cross-border exchanges of electricity in order to ensure the proper functioning of the domestic electricity market. Regulation (EU) 714/2009 also highlights that, in order to guarantee the safety of the interconnected transmission system, it is essential to establish a common interpretation of

force on 17 May 2016 and has been applied in the Member States since 27 April 2019. This regulation establishes a network code of requirements for connection to the interconnected system of electricity generation plants (synchronous generation units, generation plants and offshore generation plants). The regulation also establishes obligations so that grid operators will use the capacities of electricity generation plants appropriately, on a transparent and non-discriminatory basis, in order to guarantee a level playing field throughout the European Union and, for this purpose, it identifies the technical requirements of significant generation units (with a maximum power value equal to or greater than 0.8 kW) and differentiates them according to four macro-categories, called type A, type B, type C and type D, and delegates to each National regulatory authority, upon proposal by the relevant Transmission System Operator (TSO), the definition of the maximum power thresholds for the classification of significant generation units in the four aforementioned macro-categories.

The RfG regulation applies to the "new" generation units, connected to the grid after 17 May 2016, including generators whose owner has not concluded a final and binding contract for the purchase of the main generation machinery by 17 May 2018 and has not communicated the conclusion of the contract to the relevant system operator and TSO by 17 November 2018 (existing generators)[18].

In Italy, the current regulation had to be updated in order for the RfG to be fully implemented by the scheduled date, including the technical conditions for the connection, which represent the essential topic. The *Integrated Text on Active Connections* (TICA)[19] had to be updated, together with the Terna Network Code and some electro-technical regulations[20].

In July 2018, the Authority checked and approved[21] the Network Code changes proposed by Terna for implementing the RfG regulation provisions, while also clarifying their scope of application both as far as the "new" and "existing" generation units which are to undergo significant changes or be partially or totally rebuilt. To this end, the Authority approved the classification thresholds of the significant generation units proposed by Terna[22] and provided that the electricity production plants already in operation by July 2018 be

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the requirements applicable to the connecting production plants and consumption units. These requirements, which contribute to maintaining, preserving and restoring the safety of the system in order to facilitate the proper functioning of the domestic electricity market within and between synchronous areas, as well as to achieving cost efficiency, should be considered cross-border grid and market integration issues. This leads to the opportunity to define harmonised grid connection rules in order to establish a clear legal framework, facilitate electricity exchanges on the territory of the European Union, guarantee system security, facilitate the integration of renewable energies, stimulate competition and allow for more efficient uses of the network and resources, to the benefit of consumers.

[18] For more details on the definitions of "new" and "existing" generators, see paragraphs 3 and 4 of the RfG regulation. Please note that, as agreed by the European Regulatory Authorities responsible for assessing the implementation of the RfG regulation, the 17 November 2018 deadline by which to transmit the contracts to the relevant system operator and to Terna is to be considered as not binding. On the other hand, for the classification as an existing plant for the purposes of the application of the RfG regulation, the 17 May 2018 deadline stays in place, by which date it is necessary to finalise the final and binding contract for the purchase of the main generation machinery.

[19] Annex A to resolution ARG/elt 99/08 of 23 July 2008.

[20] The CEI 0-16 Standard and the CEI 0-21 Standard parts concerning the technical conditions for the connection.

[21] Resolutions 384/2018/R/eel of 13 July 2018 and 592/2018/R/eel of 20 November 2018.

[22] Based on the implementation of the RfG regulation in Italy following the approval of resolution 592/2018/R/eel, the significant generation units are classified in the following types:

- a generation unit is type A if the connection point is at a voltage level lower than 110 kV and the maximum power value is equal to or greater than 0.8 kW and less than or equal to 11.08 kW;
- a generation unit is type B if the connection point is at a voltage level lower than 110 kV and the maximum power value is greater than 11.08 kW and less than or equal to 6 MW;
- a generation unit is type C if the connection point is at a voltage level lower than 110 kV and the maximum power value is greater than 6 MW and less than 10 MW;
- a generation unit is of type D if the connection point is at a voltage level lower than 110 kV and the maximum power value is equal to or greater than 10 MW, or if the connection point is at a voltage level greater than or equal to 110 kV regardless of the maximum power value.

[20] Both schemes are provided for in arts. 64 and 65 of resolution 111/06 of 9 June 2006.

classified among the existing plants pursuant to and for the effects of the RfG regulation, without carrying out any further checks, and postponed to a subsequent provision the issue pertaining to the exchange of information between production plant and Terna, also because of the need to coordinate these provisions with those of regulation (EU) 1485/2017 of 2 August 2017, which establishes guidelines for transmission system operation (SOGL regulation - *System Operation Guideline*).

Regulation of network security and reliability

During 2018, the usual network safety assessments were carried out on generation plants, according to the provisions of the various regimes, as follows:

- ordinary regime and cost reintegration regime, pursuant to arts. 64 and 65 of resolution 111/06;
- alternative regime, pursuant to art. 65a of resolution 111/06;
- cost reintegration regime pursuant to art. 23, paragraph 3a of Decree Law 91/14

The essential electricity network security systems are structures technically and structurally indispensable for resolving network congestion and maintaining adequate security levels for the national electricity system, for significant periods of time. These systems are basically remunerated through the ordinary regime (i.e. the tariff system), or through the reintegration of variable costs (in this case, the owning company can also request a down payment) [23]. For a detailed description, see the 2018 *Annual Report*.

Regulation of the technical quality of services

Resilience of the electricity distribution system

A greater resilience of the electrical networks increases the chances of coping with severe and extensive weather events. The resilience of electrical networks can be represented by means of two complementary features: the ability of the system to withstand mechanical stresses, strictly dependent on design limits and type of meteorological adversity (known as stress resistance), and the capacity of the electrical system to return to an acceptable functioning state after interruptions have occurred, including with the help of temporary interventions (known as restoration). As a result of the consultation carried out on the subject[24], in January 2018[25] the *Directives for the integration of the sections relating to the resilience of the electrical system in the development plans of distribution companies* were approved. These directives, concerning the obligations to publish and update Resilience Plans (which are a section of the Development Plans), are reputation incentives for distribution companies focused on how well the networks hold up to mechanical stresses and lay the foundation for the future development of economic incentive regulation; they are also concerned with improving the effectiveness of supply restoration.

The main distribution companies are required to draw up their resilience plan each year, which should meet the following requirements:

- a horizon of at least three years;
- developed in coordination with Terna and the interconnected and underlying distribution companies;

[24]Consultation document 645/2017/R/eel of 21 September 2017, (see last year's Annual Report).

[22] Resolution 31/2018/R/eel of 25 January 2018.

- including interventions to contain the risk of power failure due to the main risk factors that may have an impact on one's distribution network;
- accompanied by data on the costs and benefits of the interventions;
- sent to the Authority and published.

From 2018, "main distribution companies" refers to distribution companies with more than 300,000 users and, from 2019, distribution companies subject to the obligation to publish their development plan pursuant to TICA, essentially those with more than 100,000 users.

The specific section of the distribution network development plan dedicated to increasing resilience, together with specific information on each intervention or set of interventions, should be published on the website of each main distribution company by 30 June of each year (with an update on the progress of resilience projects as of December 31 of the previous year).

Following the examination of the Resilience Sections of the 2018-2020 Development Plans and related data, the Authority put up for consultation[26] final guidelines on intervention incentives to increase the stress resistance of the distribution networks of the main distribution companies. The main issues up for discussion were the following:

- defining the scope of the interventions, which should take place according to priority and selectivity based on a risk index (IRI) and taking into account the probability of failures due to extreme events (so-called critical risk factors: ice layer forming on overhead cables of bare conductors, distribution cabins flooding, effects of heat waves on underground networks, etc.) in addition to the magnitude of the impact understood as the number of users who would be disconnected in case of an extreme event;
- the incentive horizon, which should take into account the operational and economic feasibility of the distribution companies;
- the definition of awards and penalties, in relation to the start and end date of the interventions, defined by the same distribution companies and based on responsibility.

As a result of the consultation, the "Economic incentive of the interventions to increase the resilience of the electricity distribution networks" was approved[27], which promotes the implementation of interventions to increase the stability of the electricity distribution networks against the stresses caused by the aforementioned critical risk factors. The essential points of the provision refer to the following:

- *the intervention selection mechanism.* The interventions should be selected autonomously by the distribution companies on the basis of criteria set by the Authority[28] and self-developed risk analysis methodologies; as mentioned, interventions should be selected according to priority and selectivity based on a risk index (IRI);
- *interventions subject to awards/penalties.* The interventions selected by companies with a pre-intervention return time (inverse of the annual probability of a disservice due to a specific critical risk factor) of less than 50 years and with a positive net benefit will be subject to awards; the interventions selected by companies with a pre-intervention return time of less than 50 years, regardless of the cost and benefit values, will be subject to penalties; interventions with a pre-intervention return time exceeding 50 years and those relating to protection and automation systems are excluded from the award/penalty mechanism;
- *the incentive period.* The interventions starting from 2017 onwards and ending in 2019 to 2024 can be awarded/penalised;

[26] Consultation document 460/2018/R/eel of 20 September 2018.
[27] Resolution 668/2018/R/eel of 18 December 2018, which updated theTIQE.
[28] Resolution 668/2018/R/eel.

- *the size of the awards and penalties.* The award for an intervention is 20% of its net benefit if concluded by the deadline set by the main distribution company when it was first planned (original deadline); the award is halved if the intervention is completed six months after the deadline; the penalty for an intervention is 10% of its cost if concluded one year after the deadline, 25% if the delay extends to 18 months or more. In the very last case, the company is required to draw up a detailed report on the causes of the delay and any extra costs, send it to the Authority and the Ministry of Economic Development and publish it on its website.

Modernisation of obsolete riser columns

Riser columns constitute the terminal portion of the electricity distribution network; they are located inside buildings, allowing the network to reach the metres placed in the individual housing units and are typically (but not solely) vertical. The obsolescence of these risers brings up some important issues:

- growing risks for the safe operation of the distribution network due to the progressive deterioration of the electricity infrastructure; risks deriving from the fact that these systems were designed with simultaneous use coefficients estimated under very different electrical load conditions than now; risks of not being able to cope with the power increases required by consumers;
- distribution companies have an obligation to keep up the efficiency of the systems they own and guarantee their safe operation.

Distribution companies often find it difficult to obtain the authorisation to carry out work in condominiums, which hampers the modernisation of the more obsolete risers.

In order to handle these issues, the Authority has outlined[29] a mechanism to incentivise agreements between distribution companies and condominiums to more easily determine whether the distribution company or the condominium is responsible for carrying out the modernisation, including through the opportunity of socialising building costs (also the electricity costs, in case the metres are centralised) with maximum tariffs established by the Authority.

Quality of electricity distribution: duration and number of outages

The duration and number of outages worsened in 2018, as it did in 2017, compared to 2016. This deterioration is mainly due to the outages that occurred between late October and early November 2018 as a result of exceptional weather conditions in the North-Eastern regions[30]. In terms of service continuity, 2018 shows similarities with the years 2012, 2015 and 2017, in which the impact of exceptional meteorological events contributed significantly to the increase in the duration and number of outages.

More in detail, in 2018, the duration of unexpected outages for which the distribution companies were responsible reached 45 minutes countrywide (Figure 3.1) and the number of long and short outages[31] and the number of unexpected long and short outages for which the distribution companies were responsible reached 3.38 per low-voltage customer on a national basis (Figure 3.2). The following are excluded from the calculation of these values:

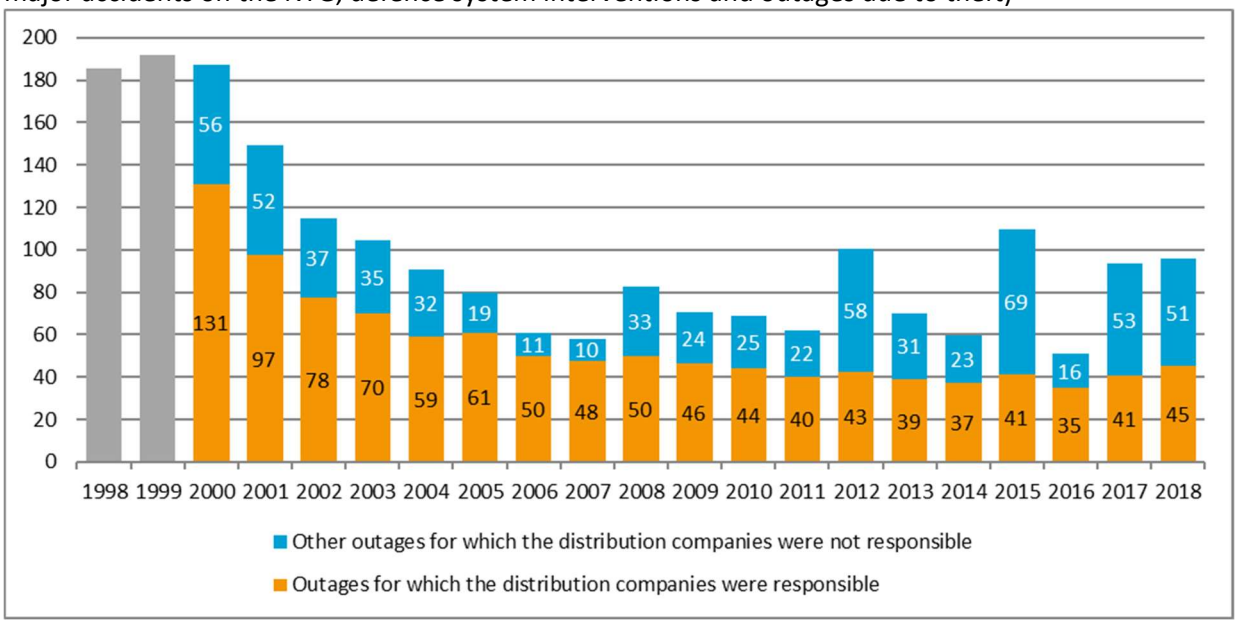
- outages originating on the national transmission network and high-voltage distribution network;
- exceptional outages occurring in periods of disrupted conditions[32];

[29] Consultation document 331/2018/R/eel of 14 June 2018.
[30] Lombardy, Veneto, Trentino-Alto Adige and Friuli-Venezia Giulia.
[31] Outages lasting between one second and three minutes.
[32] Based on statistics.

- outages due to exceptional events, acts of public authority and theft.

Figure 3.1 Average annual duration of outages per low-voltage customer

Minutes lost per customer per year(A); refers to e-distribuzione and other distribution companies (excluding major accidents on the NTG, defence system interventions and outages due to theft)

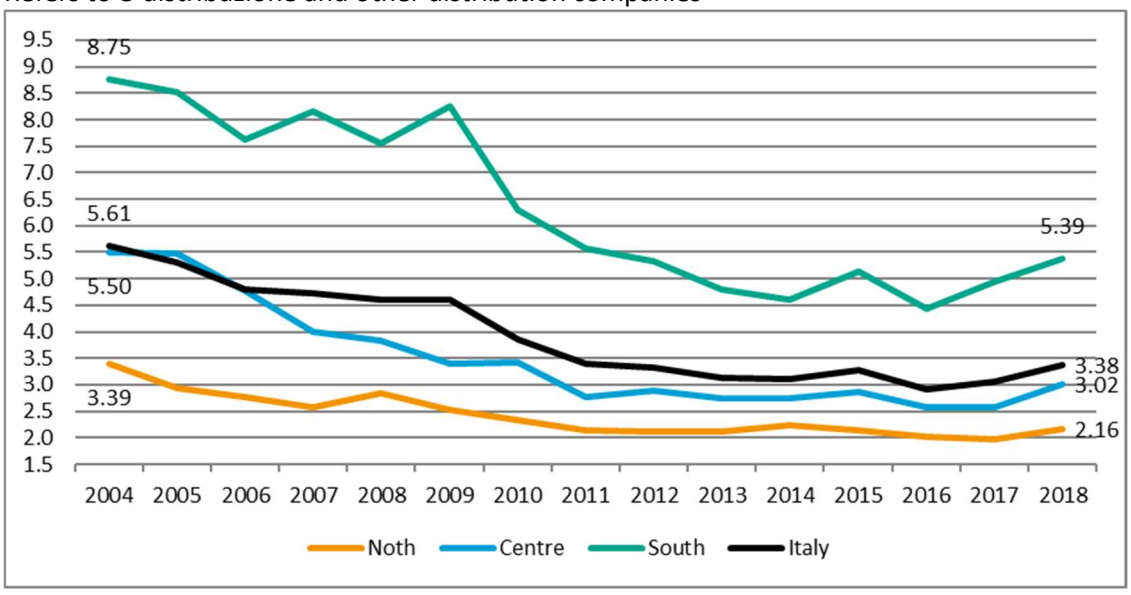


(A) The portion of minutes of outage for which the distribution companies were responsible in 2018 is still subject to checks by the Authority.

Source: ARERA. Processing based on declarations by operators.

Figure 3.2 Average annual number of unexpected long and short outages for which the distribution companies were responsible per low-voltage customer

Refers to e-distribuzione and other distribution companies(A)



(A) The portion of minutes of outage for which the distribution companies were responsible in 2018 is still subject to checks by the Authority.

Source: ARERA. Processing based on declarations by operators.

Network connection times

The *Integrated Text of the output-based regulation for distribution and metering services* (TIQE)[33] currently in force for the 2016-2023 regulatory period, establishes specific standards for connections with MV and LV electricity distribution networks. The regulation provides for the following:

- a maximum estimated time of 20 working days for the execution of works on the LV network and 40 working days on the MV network;
- a maximum of 15 working days to carry out simple jobs on the LV network and 30 working days on the MV network;
- a maximum supply activation time of 5 working days;
- a maximum supply deactivation time, at the request of the customer, of 5 working days for the LV network and 7 working days for the MV network;
- a maximum of 1 working day to reactivate the supply following suspension due to late payments.

Below we show the data pertaining to active and passive user connections. "Active connections" are those requested by power production plants from the transmission network or the distribution networks, mainly to allow said plants to feed energy into the electricity system. On the other hand, "passive connections" are those required by end customers from transmission or distribution networks to allow them to obtain power from the electricity system.

The data pertaining to the connection of active users to the transmission network, shown in these pages, refer to work carried out by Terna, while the data pertaining to the connections of active users to the distribution networks refer exclusively to the work carried out by distribution companies with more than 100,000 customers[34]. Finally, the figures pertaining to passive user connections were collected by Terna and the distribution companies as part of the customary Survey of the Regulated Sectors carried out annually by the Authority.

In 2018 Terna received 348 connection requests for electricity generation plants, corresponding to a total power of approximately 19 GWe. Terna provided 249 quotes for these requests, corresponding to a total power of approximately 14 GW, with average delays for the availability of the quotes (net of the allowed interruptions) equal to 26 working days. Finally, in 2018, 103 out of the quotes made available were accepted, corresponding to a total power of around 6 GW. For three quotes, corresponding to almost 50 MW, a request was made to make available the Minimum Detailed Technical Solutions (STMDs), which were released and accepted in all three cases. As of 31 December 2018, no connection was made for any of the three STMDs.

As for the connection of electricity production plants to the distribution networks, in 2018, the distribution companies received just over 61,700 connection requests for electricity production plants to be connected to the low- and medium-voltage networks, corresponding to a total power of about 5 GW. Based on these requests, in 2018, the distribution companies provided almost 56,000 quotes, corresponding to a total power of around 3.7 GW, with the following average times for providing a quote, net of permitted interruptions:

- 16 working days for input power requests of up to 100 kW;
- 34 working days for input power requests greater than 100 kW and up to 1,000 kW;
- 49 working days for input power requests greater than 1,000 kW.

[33] Approved with resolution 646/2015/R/eel of 22 December 2015.

[34] As of 20 April 2018, all distribution companies with more than 100,000 customers (AcegasApsAmga, Areti, Deval, e-distribuzione, Edyna, Inrete, Ireti, Megareti, Set Distribuzione and Unareti) sent the Authority the information on the connections of electricity production plants for the year 2017.

Just over 52,000 out of the quotes provided were accepted during the year, corresponding to a total power of around 2.9 GW. Furthermore, approximately 37,300 connections were made based on the requests received in 2018, corresponding to approximately 1 GWh, with the following average connection times, net of permitted interruptions:

- 12 working days, for simple jobs[35],
- 53 working days, for complex jobs[36],

with average connection activation times of 8 working days, net of permitted interruptions.
In 2018, the only distribution company that received connection requests for electricity production plants to be connected to the high-voltage networks was e-distribuzione with 74 connection requests, corresponding to a total power of almost 1.5 GW; in the same year, e-distribuzione provided 31 quotes, corresponding to a total power of almost 800 MW, with an average of 53 working days for providing a quote, net of permitted interruptions. 16 out of the quotes provided were accepted in 2018, corresponding to a power of just under 400 MW; there was no STMD request for any of them. Therefore, in 2018 (as in 2017), no connection was made to the high-voltage networks of electricity production plants that requested it in the same year.

As for passive user connections, in 2018 (Table 3.1), based on preliminary estimates, the data collected show that almost 231,000 connections were made to the distribution networks, almost all of them low voltage. For 75% of them, the supply was was activated during the year. Customers were connected within 5.7 working days on average. Low-voltage connections took on average 4.6 working days, whereas medium-voltage connections required 9.6 working days on average. Compared to 2017, the data show fewer requests (last year, they were 245,368, i.e. 6.2% more) and a clear reduction in connection times; in 2017, passive low- or medium-voltage connections required 9 working days on average, while in 2018 there was a reduction of 3.3 working days, 37% less. However, it is important to specify that the numbers of days shown above do not include the time elapsed to obtain authorisations and for end customers to meet their obligations. Each distributor made 1,734 connections on average during the year. If we exclude the operators who did not make any connections (39) from the calculation, the average number of connections made by each distributor for the year is 2,995.

In 2018, Terna connected one new high- and very high-voltage passive customer. The connection took an average of 123 working days (excluding the time elapsed to obtain authorisations and for the end customer to meet obligations, the latter taking 80 working days).

Table 3.1 Number of passive user connections with distribution networks and average connection time

VOLTAGE	NUMBER OF CONNECTIONS		AVERAGE TIME (WORKING DAYS)(A)	
	2017	2018	2017	2018
Low voltage	244,094	229,331	6.8	4.6
Medium voltage	1,274	1,290	17.3	9.6
TOTAL	245,368	230,621	9.0	5.7

(A) This value was calculated net of operators who did not make any connections, excluding the time elapsed to obtain any authorisations and/or for any obligations to be carried out by the end customer.

Source: ARERA. Annual survey of regulated sectors.

[35] Simple jobs refers to the realisation, modification or state-of-the-art replacement of the network operator's system limited to the outlet and the metering unit.
[36] Complex jobs refers to the realisation, modification or state-of-the-art replacement of the grid operator's system in all cases not included in the definition of simple jobs.

Electricity system protection measures

As for electricity system protection measures, please see the paragraph concerning network security and reliability.

3.1.3 Network connection and access tariffs

Tariff regulation for transmission, distribution and metering services

As mentioned in the previous editions of the Annual Report, in 2015, the Authority defined[37] the tariff regulation of electricity transmission, distribution and metering services for the 2016-2023 regulatory period, approving the Integrated Electricity Metering Text (TIME) and Integrated Text of Fees for the Provision of the Connection Service (TIC - Annex C), with effect from 1 January 2016, in addition to the Integrated Text of the Provisions for the Delivery of Electricity Transmission and Distribution Services (TIT - Annex A).

The regulatory period was divided into two sub-periods, each lasting four years (NPR1: 2016-2019 and NPR2: 2020-2023). During NPR1, incentive regulation schemes were applied for the recognition of operating costs and rate-of-return regulation schemes for capital costs, generally following the criteria adopted in the previous regulatory period. Furthermore, the annual reduction rate of the recognised unit costs was set to:

- 1,0% for the transmission service;
- 1,9% for the distribution service (including service marketing costs);
- 1,0% for the metering service.

As for NPR2, the adoption of an overall expenditure approach had been planned (known as totex), i.e. the introduction of a new incentive regulation approach based on the overall control of the expenditure and the evaluation of the business plans proposed by network operators in connection to expected demand and system development needs (forward-looking rationale) and expected outputs from regulated infrastructure services in the electricity sector (output-based rationale). With regard to the above, in 2017, the Authority provided the initial guidelines for the definition of an activity plan to introduce this new approach. However, it was postponed. Recently, the Authority confirmed[38] its intention to gradually adopt the totex approach, starting to introduce the preparatory tools for a regulatory system based on forward-looking and output-based rationales with NPR2. The Authority made clear its intention to apply an experimental total expenditure recognition approach to transmission companies starting in the last year of NPR2 and to extend such application to larger electricity distribution companies starting with the new regulatory period.

[37] Resolution 654/2015/R/eel of 23 December 2015.
[38] With resolution 119/2019/R/eel of 9 April 2015.

Tariffs for the transmission service

The Authority determined[39] the tariffs for the supply of electricity transmission services for 2019, approving the tariff proposals submitted by the transmission system operator, which contain the updated revenues to cover the costs for electricity transmission and dispatching. The Authority recognised a remuneration rate increase for 35 new investments forming part of the list of national network development works approved in August 2017[40]. Furthermore, incentives were recognised for 4 high-risk projects that were submitted pursuant to the provisions of March 2018[41].

Tariffs for the distribution and metering service

As for electricity distribution and metering services, in order to promote aggregations between small distribution companies, for the 2016-2019 period, the Authority[42] introduced differentiated methods for the recognition of capital costs based on the number of withdrawal points connected to the companies' network.

Strict methodological continuity was established for companies with over 100,000 withdrawal points, using the criteria adopted in the 2012-2015 regulatory period, both in terms of determining operating costs and of capital costs (individual investment recognition regime).

As for distribution companies that serve up to 100,000 withdrawal points, cost recognition mechanisms were established based on parametric criteria for both the distribution and metering service. Moreover, continuing from the previous regulation period, a decoupling was established between the single tariff applied to end customers ("mandatory tariff") and the tariffs set to restrict the admissible revenues of each distribution company.

Consistent with this regulatory framework, in December 2018, the mandatory tariffs were approved for the 2019 distribution and metering service for non-domestic[43] and domestic customers[44]. As for companies that serve over 100,000 withdrawal points, in March 2018, the provisional tariffs were approved[45] for determining the 2018 revenues.

As for companies that serve up to 100,000 withdrawal points, in April 2018, the Authority defined[46] the criteria for the recognition of the costs of energy distribution and metering services. The Authority established that, similarly to larger companies, the individual tariff regime will apply to companies that serve between 25,000 and 100,000 withdrawal points. As for companies that serve up to 25,000 withdrawal points, the individual tariff regime will apply for the years 2016 and 2017 while the parametric regime will be introduced starting from 2018, including an initial revision of the mechanism after the first 3 years of application. Furthermore, the introduction of the parametric regime planned for the distribution service will be accompanied by a gradual mechanism until the year 2023.

[39] With resolution 670/2018/R/eel.
[40] Resolution 579/2017/R/eel of 03 August 2017.
[41] Resolution 129/2018/R/eel of 08 March 2018.
[42] With Resolution 654/2015/R/eel of 23 December 2015.
[43] Resolution 671/2018/R/eel of 18 December 2018.
[44] Resolution 673/2018/R/eel of 18 December 2018.
[45] Resolutions 175/2018/R/eel and 176/2018/R/eel of 29 March 2018.
[46] Resolution 237/2018/R/eel of 11 April 2018.

Tariff provisions for second-generation 2G smart metering systems

As already highlighted in the previous edition of the *Annual Report*, the Authority identified[47] the criteria for the recognition of the capital costs of 2G *smart metering* systems, based on incentive regulation schemes. For the three-year period 2017-2019, these schemes are applied only to capital expenditure, while starting from 2020 the recognition of the same costs will be based on a total expenditure approach (*totex*).

After the Authority defined the cost recognition criteria, the company e-distribuzione submitted a plan to commission second-generation (2G) smart metering systems, which was followed by public consultation, plan and tariff impact evaluation and pertinent observations. At the end of its investigations, the Authority approved[48] e-distribuzione's plan for the fifteen-year period 2017-2031, setting the start date for 1 January 2017. The total capital expenditure forecast was compatible with the substantial invariance of end customer service tariffs.

In August 2018, the Authority established[49] tariff recognition criteria for 2G meters installed by companies that as of 2019 have not yet submitted a massive installation plan for second-generation smart metering systems to the Authority. This provision was made necessary by the progressive unavailability of first-generation meters which forces operators to install new-generation meters due to failures or new users.

Progressive review of domestic tariffs

For the last two years, the *Annual Report* has described the steps[50] to complete the tariff reform, which aims to phase out the pre-existing progressive tariff structure by 2018, following the gradual path outlined in Table 3.2.

Table 3.2 Scheme for the gradual reform of domestic tariffs

Option G2	From 1 January 2016	From 1 January 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	Transitional structure	New non-progressive structure
Committed power	Data availability	Data availability	Data availability
		Redefinition of rates	Redefinition of rates
		Reduction of flat fees	Reduction of flat fees

Source: ARERA. Consultation document 293/2015/R/eel.

As 2018 approached, on the basis of explicit parliamentary resolutions and requests made to the Government, the Authority deferred[51] the third step of the three-year process of gradual implementation of the tariff reform from 1 January 2018 to 1 January 2019. The purpose of this deferral was to prevent expense increases from accumulating on domestic customers with low annual consumption, the former due to the completion of the tariff reform and the revision of the incentives for energy-intensive companies.

[47] Resolution 646/2016/R/eel of 10 November 2016.
[48] Resolution 222/2017/R/eel.
[49] Resolution 419/2018/R/eel of 02 August 2018.
[50] Resolution 582/2015/R/eel of 02 December 2015.
[51] Resolution 867/2017/R/eel of 14 December 2017.

However, extraordinary measures had to be taken during the second half of 2018 in connection to the fee rates for covering general system charges, in order to counter the expenditure increases caused by the sharp increase in energy commodity prices recorded in previous months.

With the approaching tariff update of 1 January 2019, the Authority found that the simultaneous implementation of both the third step of the tariff reform (elimination of the progressivity of general charges for domestic customers) and the start of the path to the recovery of reduced charges applied in the second half of 2018 would have effectively led to an improper redistribution of revenues between two sets of domestic customers; the charges would have weighed more heavily on customers with low energy consumption compared to other domestic customers, in a disproportionate manner compared to the distribution of expense reductions enjoyed in the previous year.

Therefore, in order to ensure that the charge recovery phase would take place with the same tariff structure in force in the second half of 2018, the Authority deemed it appropriate[52] to further defer the completion of the tariff price reform for domestic users, maintaining the two-tier tariff structure in force in 2018 until 31 December 2019. The same provision extended for another year the applicability of the prices for domestic customers that in the past had adhered to tariff experimentation for households using electric heat pumps as the only heating system for the main house.

Concessions for domestic customers changing the committed power

Together with the full implementation of the new tariff structure, measures were implemented to help domestic customers optimise the cost of power supply. Thanks to the possibility of requesting closer power graduation levels and reducing the costs associated with power level changes, households can now identify the level of power that best meets their needs. After the first twelve months of application of the concessions on costs, the Authority asked the eight main distribution companies (representing 98% of total Italian domestic customers) to provide detailed data on power change requests received from 1 April 2017 to 31 March 2018.

During said period, almost 154,000 requests were recorded (with an average of about 13,000 per month), with a peak of 15,000 in January 2018; these operations involved approximately 152,000 customers, equal to about 1 for every 200 domestic customers served by the same eight companies; over 2,000 customers submitted two or more requests. Compared to the number of similar requests filed before the concessions came into effect, there is an average increase of 4%, although this value is highly variable from company to company.

As far as the direction and extent of the power change requests are concerned, it is first of all important to note that increases far outnumber reductions; 6 out of 7 requests were to increase the power committed (Table 3.3). A similar ratio also applies in terms of kW, since the average amount of both reductions and increases is substantially equal (2 kW). Overall, the total power committed grew by over 200 MW in twelve months; this is a significant increase compared to the starting situation of the consumers concerned (+ 41.8%), but still imperceptible at the national level, since it is equal to just over 0.2% of the total power used by the Italian domestic sector (93.3 GW). As to the amount of the requested individual power changes, it is interesting to note that 0.5 kW reduction requests were very few (e.g. to go from 3 to 2.5 kW), while almost half of the customers requested 1.5 kW increases and more than 20% 3 kW increases (typically from 3 to 6 kW).

Considering the still very modest use of the opportunities offered by the concessions (introduced on 1 April 2017), the Authority[53] deemed it appropriate to postpone the deadline from 31 March to 31 December 2019.

[52] Resolution 626/2018/R/eel of 05 December 2018.
[53] Resolution 671/2018/R/eel of 27 December 2018.

Table 3.3 Summary of data on total number and amount of changes to committed power recorded in the twelve months analysed (1 April 2017 - 31 March 2018)

CHANGES	REQUESTS SUBMITTED		COMMITTED POWER (kW)		
	NUMBER	SHARE	BEFORE	AFTER	CHANGE
Positive	22,051	14%	111,463	66,022	-45,441
Negative	131,812	86%	376,591	625,844	249,250
TOTAL	153,863	100%	488,054	691,867	203,809

Source: ARERA.

Reform of general system charges

As described in last year's Annual Report, after a specific investigation, the Authority established[54] that starting from 1 January 2018 the rates of the general charges will be applied to all types of customers classified as follows:

- general charges to support renewable energies and cogeneration, A_{SOS} component.
- other general charges, A_{RIM} component.

The A_{SOS} tariff component is applied differently depending on electricity consumption levels. The A_{SOS} component consists of several elements, applied separately to the various concession classes:

- A_{3*SOS} covers the costs to support renewable sources and CIP 6/92 cogeneration, with the exclusion of incentives for power produced from non-biodegradable waste. It is applied to a limited extent to withdrawal points owned by energy-intensive companies. It corresponds approximately to the A_3 component applied until 31 December 2017; it differs from it insofar as it excludes the incentives for power produced from non-biodegradable waste, which are now part of the A_{RIM} tariff component;
- A_{ESOS} covers the charges from the reduced application of the A_{3*SOS} element. It is only applied to withdrawal points not owned by energy-intensive companies. It corresponds to the tariff component A_e applied until 31 December 2017.
- $A_{91/14SOS}$ reduces the A_{3*SOS} element pursuant to the provisions of Law Decree 91/14. This (negative) element is applied to medium- and low-voltage withdrawal points with available power greater than 16.5 kW not owned by energy-intensive companies.

On the other hand, the A_{RIM} tariff component is undifferentiated with respect to concession classes. The A_{RIM} component also consists of several elements:

- A_{2RIM} covers the costs of dismantling decommissioned nuclear power stations, closing the nuclear fuel cycle and related and consequent actions. It corresponds to the A_2 tariff component applied until 31 December 2017;
- A_{3RIM} covers the incentive costs for production from non-biodegradable waste. It corresponds to the portion of the A_3 component applied up until 31 December 2017 which was not included in the A_{3*SOS} element;

[54] Resolutions 481/2017/R/eel of 28 June 2017 and 922/2017/R/eel of 27 December 2017.

- A_{4RIM} covers the costs for the equalisation of contributions replacing the special tariff regime granted to the RFI (Ferrovie dello Stato group). It corresponds to the A_4 tariff component applied until 31 December 2017;
- A_{5RIM} covers the research and development costs for technological innovation for the electricity system. It corresponds to the A_5 tariff component applied until 31 December 2017;
- A_{SRIM} covers the costs of adopting tariff protection measures for customers experiencing hardship in the electricity sector. It corresponds to the A_S tariff component applied until 31 December 2017;
- A_{uc4RIM} covers compensations to smaller electricity companies. It corresponds to the UC4 tariff component applied until 31 December 2017;
- A_{uc7RIM} covers the costs of measures and interventions to promote end-use energy efficiency. It corresponds to the portion of the UC7 component pertaining to the aforementioned charges applied until 31 December 2017;
- A_{SVRIM} covers the costs of financing interventions to promote technological and industrial development for energy efficiency. It corresponds to the portion of the UC7 component pertaining to the aforementioned charges applied until 31 December 2017;
- A_{mctRIM} finances territorial compensation measures. It corresponds to the MCT tariff component applied until 31 December 2017.

The new three-part tariff structure (one part for eurocent/withdrawal point/year, another in eurocent/kW/year and a third, variable part in eurocent/kWh) has been applied to non-domestic customers starting from 1 January 2018, in compliance with the provisions of art. 3, para. 2, point b) of Decree Law 210/2015 of 30 December 2015 and in accordance with European Commission Decision C(2017) 3406. In relation to domestic customers, the reclassification of the general charges in the two A_{SOS} and A_{RIM} groupings did not have substantial effects, as the tariff structure for the same general charges remained unchanged for them.

Status of the incentives for renewable and similar sources

In 2018, there was a significant reduction to the charges for incentivising renewable and similar sources, financed with the A_3 component, down by around 1 billion euros compared to the previous year. Beginning in 2018, the A_3 account also bears the charges of subsidising energy-intensive companies. Starting from 1 January 2018 , the general charges reform provides in fact that the former A_E component (which finances the incentives for energy-intensive companies) be replaced by the differences in the tariff levels of the A_{SOS} component; although the A_{3*SOS} element is applied at a discount to the beneficiaries of the subsidies, all non-energy intensive consumers (including all domestic ones) pay the A_{ESOS} component in addition to the full A_{3*SOS} rate, so as to cover the discounts made to energy-intensive consumers.

After the elimination of the A_E component, the misalignments recorded in previous years between charges for subsidies for energy-intensive businesses and the revenue of the A_E component are still charged to the A_3 account. This is especially true for the year 2016, during which the A_E component was cancelled (pending the decision of the European Commission on state aid). Therefore, in March 2018, the A_{ESOS} element was adjusted[55] upwards in order to offset the misalignments accrued between charges and revenue before 2018 by the end of 2019. The misalignments between the charges pertaining to 2018 and the revenue of the A_{ESOS}

[55] Resolution 172/2018/R/com of 29 March 2018.

element have not yet been remedied; the available estimates[56] substantially confirm the value of approximately 1.7 billion euros forecast by the Ministry for Economic Development, against the rates of the A_{ESOS} element set with a revenue objective of 1.5 billion euros[57].

Table 3.4 Details of the A_3 account charges

Millions of euros

CHARGES	2017		2018*	
	VALUE	SHARE	VALUE	SHARE
CIP6 renewable electricity trading	231	1.85%	100	0.86%
Withdrawal of green certificates	137	1.09%	106	0.91%
Conversion of green certificates into incentives	3,217	25.73%	3,006	25.89%
Photovoltaic	6,353	50.81%	5,806	50.02%
Dedicated withdrawal	18	0.14%	6	0.05%
All-inclusive rate	1,810	14.47%	1,823	15.70%
On-site exchange	139	1.12%	93	0.80%
Administered FER incentives	394	3.15%	462	3.98%
Other	1	0.01%	24	0.21%
TOTAL RENEWABLES	12,301	98.37%	11,425	98.42%
CIP6 similar to renewable trading	180	1.44%	163	1.41%
Similar to renewable CO_2 charges	24	0.19%	20	0.17%
Cover of similar to renewable green certificates	0	0.0%	0	0.0%
Charges from CIP6 resolution	0	0.0%	0	0.0%
TOTAL SIMILAR TO RENEWABLES	204	1.63%	204	1.58%
TOTAL A_3 CHARGES	12,505	100%	12,505	100%

(A) Preliminary data.

Source: ARERA. Processing on GSE data.

The A3 account also enjoyed a good financial situation in 2018, because it benefited from the payment methods established by the GSE for the incentives that replaced the green certificates (formerly, CV incentives)[58]. Thanks to these payment methods, the GSE pays about four months later than the time normally applied by the same GSE for the payment of other incentives. This situation has changed in the course of the current year 2019, as the GSE is aligning its schedules to those applied for other incentives, also due to some administrative appeals in which first-level judges cancelled proceedings concerning the payment schedules of former CV incentives.

Table 3.4 summarises the charges to the A_3 account in 2018 (preliminary data) compared to those of 2017.

Subsidies for energy-intensive companies

During 2018, provisions were issued to complete old regime activities, based on a system of reimbursing *ex post* benefits by CSEA (Cassa per i Servizi Energetici e Ambientali is a public economic body that provides for the financial management of the funds and the payment of contributions in the field of renewable and assimilated sources, energy efficiency, quality of service, interruptibility, equalization, system research, nuclear decommissioning, projects in favour of consumers etc.), as well as to start a new subsidy system[59],

[56] Estimates based on the results of data collected through the portal of the Energy and Environmental Services Fund from 15 May to 9 July 2018.
[57] Resolution 923/2017/R/com of 28 December 2017.
[58] Referred to in art. 24, para. 5, point b) of Legislative Decree 28 of 3 March 2011, (as implemented by art. 19 of the Inter-ministerial Decree of 6 July 2012).
[59] Resolution 921/2017/R/eel of 28 December 2017.

whereby reduced general charges are applied ex ante to energy-intensive companies in accordance with the new tariff structure of such charges.

Table 3.5 shows the estimation of the amount of the subsidies for affected energy-intensive companies in the years 2014, 2015, 2016 and 2017 and the collection of component A_E that pays for these subsidies.

Table 3.5 Estimate[(A)] of the subsidies for affected energy-intensive companies for 2014, 2015, 2016 and 2017 and contribution of non-energy intensive customers to the collection of the A_E component

	MILLIONS OF EUROS (COMPETENCE)				ENERGY (TWh/YEAR)			
	2014	2015	2016	2017[(B)]	2014	2015	2016	2017[(C)]
SUBSIDIES								
MV energy-intensive companies	-308.2	-324.4	-332.7	-269.2	24.2	24.4	23.3	n/a
HV/VHV energy-intensive companies	-288.9	-292.4	-315.9	-255.1	27.8	28.1	27.1	n/a
TOTAL SUBSIDIES	-597.1	-616.9	-648.6	-524.2	52.1	52.5	50.3	n/a
A_E CONTRIBUTION (NOT ENERGY-INTENSIVE)								
LV domestic	201.5	168.6	0.0	143.0	58.8	59.9	58.0	n/a
LV non-domestic	297.4	261.3	0.0	18.9	63.6	67.9	67.3	n/a
IP (LV and MV)	26.4	21.8	0.0	245.2	6.1	6.1	6.0	n/a
MV not energy-intensive	270.5	223.6	0.0	205.9	69.5	69.9	69.4	n/a
HV not energy-intensive	5.7	13.2	0.0	12.9	5.7	8.5	9.2	n/a
TOTAL NOT ENERGY-INTENSIVE CONTRIBUTON	801.5	688.6	0.0	625.8	203.7	212.3	209.9	n/a

(A) Data may be subject to changes due to CSEA checks still ongoing.
(B) Authority's estimate based on volumes from previous years.
(C) Reliable 2017 data on energy-intensive volumes are not yet available.

Source: ARERA processing on CSEA data.

Costs associated with residual nuclear activities

In November 2017, the company Sogin transmitted the new full-life programme of the nuclear project, for the purpose of defining the Economic Efficiency Criteria to recognise the costs of dismantling disused nuclear power plants for the new regulatory period. At the same time, Sogin requested that the application of the Economic Efficiency Criteria provided for the second regulatory period, which ended in 2016 and were extended to 2017, also be extended to the year 2018.

The analysis of the full-life programme submitted by Sogin revealed some aspects worthy of further study which have to do with the schedule and costs budgeted for the nuclear project. It was also observed that the feasibility of the programme depends on the resolution of some critical exogenous issues, first of all the creation of a national repository for radioactive waste, plus the adequacy of the resources of the Inspectorate for Nuclear Safety and Radiation Protection (ISIN).

The full-life programme was subjected to an international peer review provided by the Artemis services of the International Atomic Energy Agency (IAEA), which found compliance with international standards in terms of plant care and maintenance, technologies used and cost estimation process, while also identifying areas for possible improvement in handling the project and coming up with recommendations and suggestions for Sogin, with regard to the overall governance of the process and the adequacy of the regulatory framework, which is within the scope of competence of the national government.

In November 2018, the Authority[60] requested Sogin to supplement and/or rectify, where necessary, by 30 June 2019, the full-life programme submitted on 16 November 2017, including an update based on the main exogenous issues and the peer review recommendations. Furthermore, in order to guarantee to Sogin the financial coverage necessary to fulfil its nuclear safety obligations, the Authority provided[61] for the years 2018 and 2019 a substantial extension of the Economic Efficiency Criteria in force in the second regulatory period. For the year 2018, the Authority suspended the bonus/penalty mechanism with regard to further delays in the progress of the programme's decommissioning activities and the numerous requests for further postponements on milestones, while still planning to establish a list of milestones for the same year (based on Sogin's proposal) in order to continue monitoring the progress of the project. For the year 2019, the Authority reserved the right to adopt additional measures to strengthen the regulation of the project, also following in-depth technical analyses with ISIN on nuclear safety priorities, including penalty mechanisms for failing to achieve minimum progress targets on decommissioning and/or strengthening cost effectiveness and efficiency monitoring.

Therefore, the Authority provided for[62] the recognition of the nuclear costs estimated for the year 2018 as well as for the establishment of the related milestones. Finally, it should be noted that no progress was made in 2018 in the process of identifying a national repository for radioactive waste.

Exclusion of cross-transfers between supply chain activities

Administrative and accounting unbundling obligations were introduced for electricity and gas companies; one of their purposes is to prevent these companies from cross-transferring resources between different activities in the supply chain. In the course of 2018, the Authority did not initiate or conclude any procedures to establish breaches of the regulations on accounting unbundling obligations in the electricity sector.

3.1.4 International regulation and cooperation on cross-border infrastructures

New infrastructure investments and consistency with EU Development Plans

Assessment of the outline of the NTG's Ten-Year Development Plan

With regard to the ten-year plan for the development of the electricity grid, the Operator is required to transmit the Plan annually to the Ministry of Economic Development and to the Authority, which then submits it to the consultation of actual and potential network users and publishes the results of the consultation. For the purposes of reviewing and monitoring the implementation of the Plan, the Authority also assesses whether this covers all the investment needs identified during the advisory procedure and whether it is consistent with the non-binding 10-year development plan of the EU network. At the end of this process, the Authority shall transmit the result of its assessment to the Ministry.

In December 2018, the Authority published its own assessment[63] of the Ten-Year Development Plan of the National Transmission Grid (NTG).

This assessment follows the consultation process that took place in June and July 2018, which also included a public discussion session, held on 2 July at Terna's headquarters in Rome. This session followed the consolidated method of conducting public events (preceded by questions from the interested parties, to which Terna provided answers and observations in addition to a general presentation of the Plan).

[60] Resolution 606/2018/R/eel of 27 November 2018.
[61] Resolution 606/2018/R/eel.
[62] Resolution 606/2018/R/eel.
[63] Opinion 674/2018/I/eel of 18 December 2018,

Having assessed the outline of the 2018 Development Plan, the Authority highlighted its continuous improvement, confirmed by positive feedback from various stakeholders, provided recommendations for future improvements and authorised its approval by the Minister of Economic Development, provided that the following conditions are met:

- for the Sardinia - Corsica - Continental Italy operation (Sa.Co.I.3 code 301-P), as anticipated by Terna, the French contribution should be appropriately valued to reduce the costs for the national electricity system, together with any European contributions that seem desirable in relation to the positive externalities of the operation in matters of supply security for the insular electrical systems of Corsica and Sardinia and innovation for the European system;
- the Italy-Tunisia interconnection operation (code 601-I) should be confirmed as "under evaluation", pending a more complete information framework that will reveal the benefits for each country, in view of a consequent allocation of development costs, as well as evidence of its usefulness not only for the Italian electricity system, but more generally for the entire European system, thus involving aspects to be addressed in the appropriate European forum;
- the development of the second hub within the Italy-Montenegro interconnection (code 401-P) should be separated from the first hub and placed "under evaluation", in light of the conditionality indicated by Terna with regard to the development of electricity networks and markets in the Balkans, limited utility for the Italian electricity system and critical remarks from public consultation on this matter;
- the new 220 kV Italy - Austria interconnection should be placed "under evaluation/study" to promote greater clarity on possible options for evolution, including the HVDC solution and synergy with other infrastructure activities;
- the evaluation of the new HVDC Centre South - Centre North (or North) operation, which is still at a preliminary stage, should continue as part of the assessment of the 2019 Plan outline, after a more precise identification of the network connection points, the connection's nominal power and the estimate of the investment costs, also in light of the results of the independent audits initiated by the Authority;
- the evaluation of the new HVDC Continent - Sicily - Sardinia operation, which is still at a preliminary stage, including continent location "to be defined", and is characterised by benefits slightly lower costs in one or higher costs in the other of the two scenarios of the 2018 Plan outline, should continue as part of the assessment of the 2019 Plan outline, also in light of the results of the independent audits initiated by the Authority;
- the eight proposals for the acquisition of 150 kV or 132 kV stations owned by producers and their inclusion in the NTG indicated on page 34 of the 2018 Plan outline should be deleted and re-proposed together with the proper information as specific requests for NTG enlargement made to the Ministry of Economic Development or in subsequent development plan outlines.

Lastly, the Authority considered the following projects from promoters other than Terna to be an integral part and a priority of the 2018 ten-year development plan:

- PCI Verderio (IT) - Sils (CH);
- PCI Somplago (IT) - Wurmlach (AT);
- interconnessione AC 110 kV Redipuglia (IT) - Vrtojba (SL);
- interconnessione AC 110-132 kV Dekani (SL) - Zaule (IT).

Assessment of consistency with the EU development plan and monitoring

The Authority assessed the consistency between the Ten-Year Development Plan of the National Transmission Grid and the Ten-Year Network Development Plan (TYNDP) of the EU on two occasions:

- during the preparation of the aforementioned assessment of the national transmission grid development plan[64];
- in its contribution to ACER's opinion (scheduled for the second quarter of 2019) on electricity projects in national development plans and the TYNDP 2018.

Furthermore, the Authority contributed to the ACER monitoring of the European TYNDP, the results of which are reported in the ACER Opinion 06/2019 of 15 January 2019.

The main result of this monitoring shows that a considerable percentage (about one third) of the Italian and EU projects are late, mainly due to authorisation issues.

Integration of wholesale electricity markets and implementation of EU regulations

EU electricity market regulations are technical regulatory measures for the completion of the internal energy market. In line with the electricity market regulation known as the Third Energy Package, Regulation (EC) 714/2009 defined the areas of intervention and indicated the development and approval process, which ended in 2017. Regulations can be broken down into three large informal sets: market, connection and network management. The complete list is shown in Table 3.6. Regulations are divided into Network Codes (NC) and Guidelines (GL); the former primarily identify rules that can be implemented at the national level while the latter focus on general indications on the basis of which implementing provisions should be developed, called Terms and Conditions or Methodologies. Thus, publishing regulations entails developing and publishing secondary legislation; every guideline requires that specific rules (methodologies) be developed by Transmission System Operators (TSOs) and/or Nominated Electricity Market Operators (NEMOs), which the regulatory authorities of each member state of the European Union are called upon to evaluate and approve; methodologies are also to be developed for network codes, albeit to a lesser extent and limited to very detailed aspects.

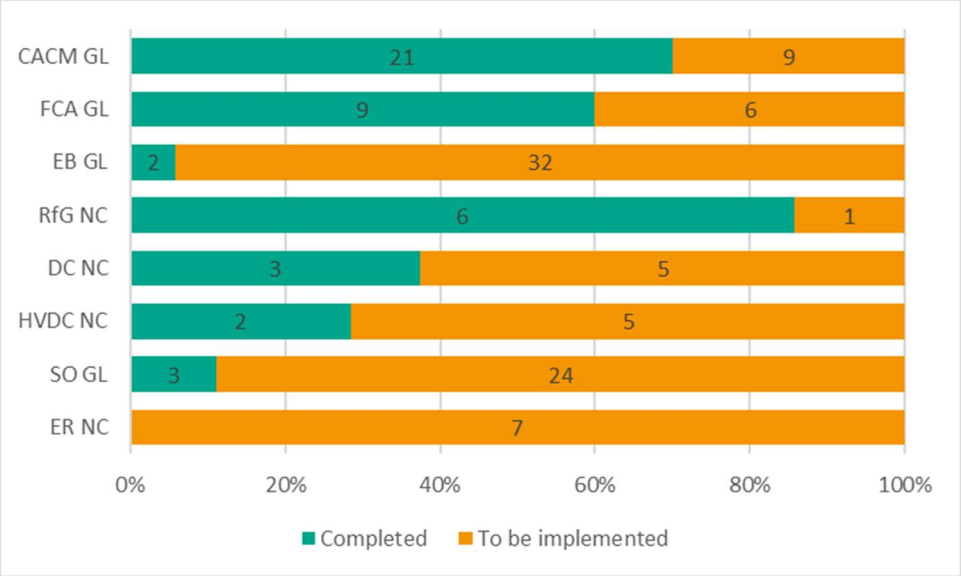
Table 3.6 Regulation (EC) 714/2019 network codes and guidelines

CODE	REGULATION	ABBREVIATION (ACRONYM)	ENTRY INTO FORECE
Market codes	(EU) 2015/1222	Capacity allocation and congestion management (CACM)	15 August 2015
	(EU) 2016/1719	Forward capacity allocation (FCA)	17 October 2016
	(EU) 2017/2195	Electricity balancing guideline (EB GL)	18 December 2017
Connection codes	(EU) 2016/631	Requirements for generators network code (RfG NC)	17 May 2016
	(EU) 2016/1388	Demand connection network code (DCC)	07 September 2017
	(EU) 2016/1447	High voltage direct current network code (HVDC NC)	28 September 2016
Network operation codes	(EU) 2017/1485	System operation guideline (SO GL)	14 September 2017
	(EU) 2017/2196	Emergency and restoration network code (ER NC)	18 December 2017

Source: ARERA.

[64] Opinion 674/2018/I/eel of 18 December 2018,

Figure 3.3 Implementation status of network codes and guidelines in Italy

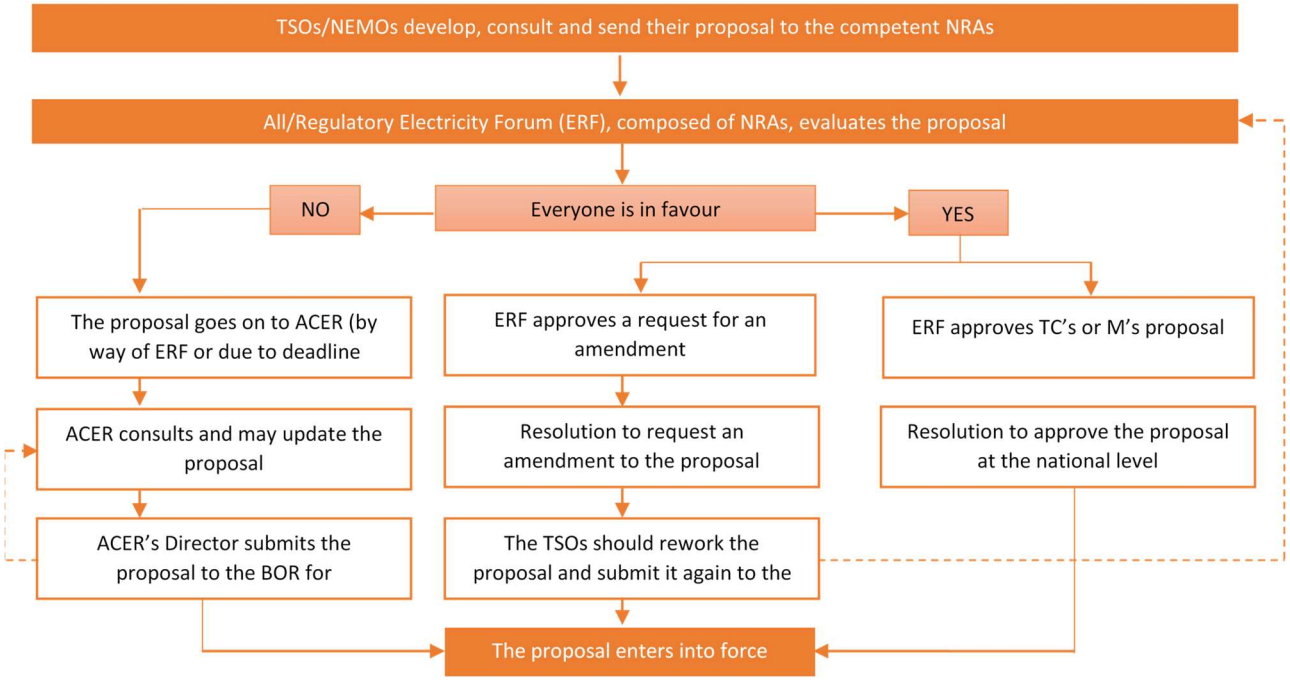


Source: ARERA.

The methodology development process was launched in 2015 with the CACM GL regulation and extended to all other guidelines and network codes from 2016 to 2017. Figure 3.1 summarises the implementation status as of the end of 2018; most methodologies pertain to regulatory guidelines, whereas network codes use this instrument of further standardisation in a decidedly more limited way. It is also evident that there is still a lot to do; for example, only two methodologies have been approved so far for the EB GL regulation, which came into force in December 2017, while 32 are still pending and a final decision by 2019 is expected only for some of them.

Methodologies are adopted at all levels, including pan-European, domestic and regional. Pan-European decisions involve all EU regulatory authorities and are adopted through a cooperation platform called the Energy Regulators' Forum (ERF), which admits the Norwegian Regulatory Authority and ACER as observers, but not the European Commission. Several CACM GL and FCA GL methodologies pertain to Capacity Calculation Regions (CCRs), approved by ACER with decision 06/2016. Italy is part of the Italy North CCR, which includes the borders with France, Slovenia and Austria, and the Greece - Italy CCR, which includes the border with Greece and the borders between the areas within the national territory; Italy is also monitoring the development of the methodologies concerning the Core CCR (which includes Central Europe from France to Romania), as the CACM GL regulation provides for the eventual merger of the Italy North CCR with the Core CCR. For decisions regarding the Italy North and Greece - Italy CCRs, the Authority promoted the establishment (in 2017) of regional cooperation platforms (the INERRF, Italy North Energy Regulators' Regional Forum, and the GIERRF, Greece - Italy Energy Regulators' Regional Forum). The SO GL regulation provides for some methodologies pertaining to CCRs (to be evaluated by the regional forums INERRF and GIERRF), while other methodologies are specific to each synchronous area, i.e. the portion of the European network that shares the same frequency. Italy is included in the Continental Europe synchronous area. Lastly, the EB GL regulation varies its areas of inclusion depending on the methodologies involved; some include only the member states that intend to use a given balancing product, others coincide with the CCRs and yet others are based on agreements for the exchange of specific resources. The cooperation of synchronous areas and specific EB GL inclusion areas is usually defined on a case-by-case basis by the regulatory authorities involved without resorting to any specific cooperation platform.

Figure 3.4 Approval scheme of European or regional methodologies



Decisions made by regulatory authorities on pan-European or regional methodologies should be unanimous, regardless of the geographical area to which the methodologies refer. Possible decisions consist in approving proposals sent by TSOs or NEMOs or requesting amendments. In the first case, each national regulatory authority incorporates the methodology into its domestic system, while in the second case it instructs the relevant TSOs and/or NEMOs, respectively Terna and GME (Gestore dei Mercati Energetici – Energy markets operator) in the Italian case, to amend the proposal. If there is no unanimous consent, the methodology proposal is transferred to ACER which, after consultation with the interested parties, finalises the text and approves it (subject to the positive opinion of the Board of Regulators which is expressed by a qualified majority of two thirds). The overall process is summarised in the diagram in Figure 3.2. In terms of duration, according to a rigorous reading of the regulations, this process could take up to a maximum of twenty-two months; in reality, to date, even longer processes have occurred in connection to multiple requests for changes by the regulatory authorities.

Integration of wholesale electricity markets and market codes

As regards market codes, in 2018, the Authority was involved both at the pan-European and regional level. The main actions of 2018 are shown below for each code, together with their classification in the context of the integration of EU electricity markets.

Forward capacity allocation (FCA)

The FCA GL regulation describes the requirements and criteria for the issuance and allocation of long-term transmission rights (annual at the most) between market areas within the European Union.

For Italy the regulation in question finds application at the borders with France, Austria, Slovenia and Greece; similar provisions to those provided for by the FCA GL regulation are also in force on the border with Switzerland following bilateral agreements; for areas within the national territory, on the other hand, the Authority continues to rely on the coverage products currently in force (CCC and CCP) in line with what was decided in this regard during 2017. During 2018, the Authority's actions to implement this regulation included the approval of the methodology for the preparation of the common European network model on long-term

time horizons[65] and the updating of specific allocation rules relating to the border with Greece additional to the general European level rules[66]. The Authority also participated in the EU Round Table to define the criteria for allocating congestion rent deriving from allocating transmission rights, by preparing the pertinent request for amendments (approved by the EU Round Table in late November 2018 and ratified by the Authority in early 2019)[67]. Lastly, in 2018, in bilateral agreement with the regulatory authorities of neighbouring countries, the Authority updated the rules for the appointment of long-term transmission rights for the borders with Switzerland, France, Austria and Slovenia[68] as well as that with Greece[69].

Capacity allocation and Congestion management (CACM)

With the entry into force of the CACM regulation, it became mandatory for European grid operators to allocate cross-border electricity interconnection capacity within the day before and intraday, according to market coupling mechanisms (single day ahead coupling, SDAC for the day before and intraday coupling, IDC for the intraday horizon). These mechanisms require the cooperation of network and market operators while carrying out their respective operational tasks, as specifically set forth in article 10 of the CACM regulation.

Before the CACM regulation entered into force, voluntary market coupling initiatives were developed in regional areas, both for the day-ahead and the intraday market. As for the intraday market, European network and market operators have implemented the Cross Border Intra Day (XBID) project, whose geographical scope, starting from an initial core of some European countries, will be progressively extended to all member states. In view of the entry into operation of XBID on a first set of borders, which took place on 12 June 2018, the parties to the project, including Terna and the GME (Gestore dei Mercati Energetici – Energy markets operator), prepared a complex contractual framework composed of several agreements:

- for cooperation between network and market operators, the Intra Day Operational Agreement (IDOA);
- for cooperation between network operators only, the TSO Cooperation Intra Day (TCID);
- for cooperation between market operators only, the All NEMO Intra Day Operational Agreement (ANIDOA).

The Authority has positively assessed[70] the aforementioned agreements; the extension of XBID's operations on the Italian borders is scheduled for 2020.

As regards the day before market, regional initiatives have given rise to two major projects:

- Multi-Regional Coupling (MRC), following the merger of regional projects in central-western, northern and south-western Europe and the Italian borders;
- Four Markets Market Coupling (4M MC), including the borders between Romania, Hungary, the Czech Republic and Slovakia.

Each regional coupling project adopted a specific contractual framework to regulate operations. In view of the merger of the regional projects to create the Single Day Ahead Coupling provided by the CACM regulation, network and market operators have decided to enter into a single pan-European agreement, which replaces the previous regional agreements: the Day Ahead Operational Agreement (DAOA), which regulates all

[65] Resolution 378/2018/R/eel of 05 July 2018.
[66] Resolution 634/2018/R/eel of 5 December 2018,
[67] Resolution 5/2019/R/eel of 15 January 2019.
[68] Resolution 267/2018/R/eel of 11 April 2018.
[69] Resolution 410/2018/R/eel of 26 July 2018.
[70] Resolution 292/2018/R/eel of 17 May 2018.

aspects of cooperation between network and market operators, including sharing costs pursuant to the CACM regulation. The DAOA is part of a broader contractual framework, which includes cooperation contracts between network operators only, the TSO Cooperation Day Ahead (TCDA) and market operators only, the All NEMO Day Ahead Operational Agreement (ANDOA), as well as service provision contracts made with third parties. The Authority positively assessed[71] the part of the contractual framework of the day-ahead market set to enter into force on 1 April 2019, namely the DAOA, the TCDA and the service agreement with the JAO auction office.

Furthermore, together with the Belgian and Dutch regulators, the Authority led all European regulators in the evaluation of some pan-European terms and conditions or methodologies, such as the list of products that can be used in the day-ahead and intraday markets (approved by the Authority in February 2018)[72], the methodology for defining backup procedures to be adopted in case market coupling operations cannot be completed (approved by the Authority in February 2018)[73] and the common grid model (CGM) developed by all European network operators (approved by the Authority in July 2018)[74].

During 2018, there were also cases in which European regulators did not reach an agreement to approve or amend the proposed methodologies. ACER intervened in such cases, approving the following terms and conditions or methods (subject to review): the opening and closing hours of the intraday market session (approved by ACER on 24 April 2018 with decision 4/2018), the operating methods of the market coupling algorithms for the day-ahead and intraday markets (approved by ACER on 26 July 2018 with decision 8/2018) and the methodology for determining capacity price on the intraday market (approved by ACER on 24 January 2019 with decision 1/2019). ACER's decisions are directly applicable in the member states and appeals may be filed with the ACER Board of Appeal and the European Court of Justice.

The CACM regulation also provides for the development of regional methodologies; in 2018, the Authority led the work of assessing the methodologies for determining the capacity to be made available at the borders between the various market areas (CCM) and activating countertrading and redispatching (CTRD) resources, to guarantee the aforementioned capacity and avoid congestion between market areas and for the related cost sharing. For the Greece - Italy CCR, the aforementioned methodologies were approved in July[75] (CCM methodology) and August[76] (cost sharing methodology) 2018.

For the Italy North CCR, work is still in progress. In late 2018, Terna was instructed to implement specific amendments for CCM[77], CTRD[78] and cost sharing[79]; the TSOs approved the amended proposals in February 2019 and the final decision on these methodologies is expected in the coming months. The Authority also continued to implement the intraday market on Italian borders; in December 2018, Terna and the GME were given additional instructions[80] to develop complementary intraday auctions to be used alongside intraday coupling, while in May 2018 decisions were adopted[81] regarding the allocation of costs between NEMO and TSO. Lastly, in December 2018, the methods were defined[82] by which the GME can recover the costs related to the implementation of market coupling on the various time horizons.

[71] Resolution 62/2019/R/eel of 26 February 2019.
[72] Resolution 53/2018/R/eel of 01 February 2018.
[73] Resolution 54/2018/R/eel of 01 February 2018.
[74] Resolution 379/2018/R/eel of 05 July 2018.
[75] Resolution 411/2018/R/eel of 26 July 2018.
[76] Resolution 434/2018/R/eel of 02 August 2018.
[77] Resolution 687/2018/R/eel of 18 December 2018.
[78] Resolution 685/2018/R/eel of 18 December 2018,
[79] Resolution 686/2018/R/eel of 18 December 2018.
[80] Resolutions 657/2018/R/eel (CCR Italy North) and 656/2018/R/eel (Greece - Italy) of 11 December 2018,
[81] Resolution 290/2018/R/eel of 17 May 2018.
[82] Resolution 658/2018/R/eel of 11 December 2018.

In addition to the implementation of the various methodologies, the CACM GL regulation also governs the ways in which the configuration of market areas can be reviewed at European, regional (CCR) and domestic level. Art. 32 of this regulation defines the various phases of the process (from identifying alternative area configurations to the TSOs making assessments), while Art. 33 lays out the minimum review criteria (operation safety, market impact, area configuration robustness over time). In 2018, after intense preparatory work carried out together with Terna in the previous years, the Authority promoted a review of the national areas, in order to update the configuration in force since 2012 and make it more consistent with the actual state of the markets and the national electricity system. The review process started in January 2018[83] and continued with a public consultation supervised by Terna on possible alternative configurations to that in force and in March with a public seminar held in Rome in which a European Commission representative participated. In May 2018, Terna sent the final review proposal containing the cancellation of the limited production centres of Foggia, Brindisi and Priolo (as they are no longer congested), moving Umbria from the Centre North to the Centre South area (for better representation in the energy flow markets required in that area) and replacing the limited production hub of Rossano with a new physical area Calabria (as congestion in the area also depends on Calabria's renewable production load, which would have drowned in the entire southern area with the Rossano configuration). In July 2018, the Authority partially approved[84] Terna's proposal, providing for the cancellation of the Foggia, Brindisi and Priolo hubs from January 2019 and postponing to subsequent provisions assessments regarding the movement of Umbria and the introduction of the Calabria area.

Electricity Balancing Regulation

EU Regulation 2195/2017, which establishes guidelines for balancing the electricity system, entered into force on 18 December 2017.

During 2018, the Authority was involved in the decision-making process over the initial methodologies provided by the regulation. The Authority approved[85] the proposal of terms and conditions for dispatching users (in the European nomenclature: balancing service providers, BSPs, and balancing responsible parties, BRP) submitted by Terna pursuant to the electricity balancing regulation. Domestically, the balancing terms and conditions are set out in Terna's Transmission, Dispatching, Development and Network Security Code (Network Code). Most of the terms and conditions required by the energy balancing regulation were already reflected in the current version of the Network Code, while, although not yet regulated, Terna submitted to the Authority's verification some modifications to Chapter 4 and related annexes, to comply with the provisions of the regulation.

During 2018, the Authority expressed its opinion on two other European level methodological proposals by TSOs, concerning the framework for implementing a European platform for the imbalance compensation process and the framework for implementing a European platform for balancing energy exchange from replacement reserves. The first proposal is about creating a common platform that will allow TSOs to compensate for imbalances between different systems while minimising secondary reserve activations. In the context of European cooperation, the Regulatory Authorities considered the proposal to be non-approvable, it was therefore decided unanimously to transmit to the TSOs a request for amendments to the proposal sent: the Authority specifically instructed[86] Terna on the matter. Unlike the imbalance compensation methodology, the second proposal, concerning the replacement reserve exchange platform, does not have a European scope of approval, for it was developed and submitted by TSOs stating that they use the replacement reserve. The final methodology represents the evolution of the TERRE project (which had established voluntary cooperation between different European countries precisely for replacement

[83] Resolution 22/2018/R/eel of 18 January 2018.
[84] Resolution 386/2018/R/eel of 12 July 2018.
[85] Resolution 535/2018/R/eel of 23 October 2018.
[86] Resolution 7/2019/R/eel of 15 January 2019.

reserve exchange), in which the Authority was active from the beginning. The unanimous decision to approve the proposal, made by all the regulators concerned, took place in December 2018, and the Authority transposed[87] this methodology into national law.

Lastly, during 2018, the Authority took part in the other activities related to the balancing regulation implementation process at the European level, coordinating interactions with the TSOs together with other regulatory authorities in order to define methodologies to determine the price of balancing energy, for settlement between TSOs and the harmonisation of imbalances. These methodologies were officially sent by the TSOs in December 2018, therefore the decision-making and implementation process by the regulatory authorities will fall within the activities of 2019.

International coordination

During 2018, the Authority continued to collaborate with the other European regulators. This occurred both multilaterally and bilaterally; the former through the European Agency for the Cooperation of Energy Regulators (ACER), the Council of European Energy Regulators (CEER) and the regional platforms provided by the new European regulations for the electricity market, and the latter through meetings to deepen the discussion on issues of common interest, especially with the regulators of neighbouring countries. These activities had the purpose of defining 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 (ACER)

During 2018, the Authority actively participated within ACER, often assuming leading roles in the working groups entrusted with the preparation of the various dossiers for which the Agency is responsible; Clara Poletti led the natural gas working group (this assignment ceased after she was appointed Chairman of the Board of Regulators), while in the electricity sector Authority representatives act as heads of specific task forces (markets, system operations and infrastructure) and consultants for the preparation of specific methodologies and dossiers.

The Authority's areas of operation within the Agency are described in the section above on the integration of wholesale electricity markets. In addition, the Authority cooperated in preparatory activities for other tasks assigned to the Agency pertaining to the Third Energy Package; for example, in relation to Regulation (EU) 1227/2011 REMIT, Infrastructure Regulation (EU) 347/2013, preparing various monitoring reports on the state of the internal market, recommendations on the cost/benefit analysis methodologies and system adequacy reports (both electricity and natural gas).

Council of European Energy Regulators (CEER)

The CEER, an independent association of national energy regulation authorities, brings together the representatives of EU and other countries.

The Authority took an active part in the various activities promoted by the association in the course of 2018. Clara Poletti led the natural gas working group (this assignment ceased after she was appointed Chairman of the Board of Regulators of ACER), while there was also active participation in the round tables dedicated to the electricity sector and consumer protection.

[87] Resolution 8/2019/R/eel of 15 January 2019.

Energy market of the South-Eastern European Countries

In 2018, there was a consolidation of activities in the framework of the Berlin[88] Western Balkans 6 (WB6) process, whose many objectives include the development of day-ahead electricity market coupling mechanisms in the six countries of the Western Balkans (Albania, Bosnia and Herzegovina, Macedonia, Kosovo, Montenegro and Serbia).

During 2018, Terna (the electricity transmission grid operator), the GME (the energy markets operator) and the Authority[89] continued to implement the activities under the *Memorandum of understanding (MoU) on Regional Electricity Market Development and establishing a Framework for other Future Collaboration* signed by energy ministers, regulators, TSOs and power exchanges of WB6 member countries.

In 2018, the Energy Community Regulatory Board (ECRB) faced some crucial regulatory challenges, including the negotiation on the adoption of the Network Codes for the electricity and gas sectors between the European Commission and the Energy Community countries[90] and the adoption of Regulation (EU) 1227/2011 REMIT on the integrity and transparency of wholesale markets in a reduced version compared to the European one, more adapted to the progress of the markets of the Energy Community countries. An *ad hoc* working group was created on the implementation of the aforementioned regulation.

During 2018, ECRB intensified its market monitoring activities and developed a greater capacity to analyse them. The ECRB then continued its collaboration with other international organisations, including MEDREG (Mediterranean Energy Regulators). MEDREG's and ECRB's technical working groups worked jointly to produce the *Complaint Handling and Dispute Settlement Procedures available to Household Customers.*

In 2018, the cooperation between CEER, ECRB and MEDREG became consolidated with the organisation of the first trilateral meeting *Workshop on Consumer Involvement and Retail Market Opening* and the signing of a Memorandum of Understanding (MoU) set forth to structure collaboration on activities of common interest.

As to the work done within the *Electricity Working Group* (EWG), the Authority continued to coordinate *Task Force 1 - Wholesale Market Opening* for electricity markets in the Balkan region. EWG dealt with the possibility for contracting parties to implement some provisions of the European Network Codes before their formal adoption in their respective countries. In addition, the following reports were approved at the December 2018 meeting: *Bi-Annual Monitoring Report on Activities related to Electricity Cross-border Transmission Capacity in the Energy Community; ECRB Market Monitoring Capacities and Procedures of Energy Community Regulatory Authorities; ECRB Wholesale Electricity Market Monitoring for the Energy Community Contracting Parties*.

The*Customer and Retail Market Working Group* (CRWG), together with the MEDREG consumer group, participated in the work on the report by ECRB and MEDREG *Complaint Handling and Dispute Settlement Procedures Available to Household Customer*. The following reports were also approved at the December 2018 meeting: *Market Monitoring Report on the Functioning of Gas and Electricity Retail Markets in the Contracting Parties*; *Market Monitoring Capacities and Procedures of Energy Community Regulatory Authoritie*.

During 2018, the two annual forums for the electricity and gas sectors were also held, in Athens and Ljubljana. During the Athens Forum, held in June 2018, the implementation of day-ahead markets in the Balkans was

[88] The Berlin Process (also known as the Western Balkan 6 Process-WB6) is a diplomatic intergovernmental cooperation initiative started on 28 August 2014 with the Conference of Western Balkan States in Berlin; it is promoted by German Chancellor Angela Merkel for the Balkan countries to join the EU in the future.
[89] The Authority signed the MoU in 2016; TERNA, the GME and the Ministry for Economic Development signed it in 2017.
[90] The countries adhering to the Treaty establishing the *Energy Community* are: Albania, Bosnia and Herzegovina, Georgia, Kosovo, Macedonia, Moldova, Montenegro, Serbia and Ukraine.

promoted as an essential condition for the development of market coupling mechanisms between neighbouring countries. *Western Balkan 6* activities will have to coordinate with those of CESEC (*Central and South Eastern Europe Connectivity*). The possible future scenarios of the Balkan gas market were discussed at the Gas Forum in September 2018.

Know-how Exchange Programme (KEP) Project "Central European Initiatives (CEI) Support for Strengthening Energy Regulatory Authorities in the Western Balkans"

In 2018, as part of the project KEP (*Know-how Exchange Programme)* - CEI (*Central European Initiative Support for Strengthening Energy Regulatory Authorities in the Western Balkans*)[91], four thematic workshops were organised in the four countries involved (on 26 January in Rome, 21 March in Tirana, 18 and 19 June in Belgrade and 10 October in Budva). On 11 October 2018, in Budva, after the workshop, a conference was held which included representatives of the governments and embassies of the countries involved, the European Commission, the Energy Community, the GME, Terna and sector stakeholders, who gave their opinion on the development and integration of electricity markets in the Balkan region.

The Authority approved[92] its own participation in the second phase of the project and, with the CEI Technical Secretariat[93], will coordinate activities in collaboration with GME and Terna, implementing four technical workshops on capacity building.

The purpose of the project is to develop the technical skills for the integration process and the operation of the electricity markets; this should also provide a better evaluation of the TSO and Stock Market proposals involved in the coupling project.

Energy market in the Mediterranean countries

During 2018, the Authority continued its international activity in the Mediterranean basin through MEDREG (Mediterranean Energy Regulators), of which it is a founder and promoter. MEDREG extended the number of its members to 27 with the adhesion of the *Lebanese Centre for Energy Conservation* (LCEC) and the *Moroccan Electricity Regulatory Authority* (ANRE).

MEDREG's 25th General Assembly took place on 5 July 2018 in Lisbon and was hosted by the Portuguese regulator (ERSE - *Energy Services Regulatory Authority*). The main technical documents prepared by the working groups were approved at the meeting. On the day before the meeting, the Portuguese regulator organised the workshop *Future of Gas in the Mediterranean Region*. The meeting was an opportunity to present MEDREG's most recent studies on gas: *Gas Infrastructure Map* and *Assessment of Natural Gas Competition Prices in the Mediterranean Basin.*

On 29 November 2018, in Istanbul, the Turkish regulator (EMRA) hosted the 26th General Assembly and was elected as the new President and the Albanian (ERE) and French (CRE) regulators as the two new Vice Presidents; the Authority reconfirmed its role as permanent Vice President. During the meeting, a Memorandum of Understanding was approved for the purpose of consolidating the cooperation between MEDREG, CEER and ECRB, which signed it in December 2018. One of the main documents approved was that of the Electricity and Renewables Group, *Smart grids in the Mediterranean Countries* and those of the Gas Group, *Monitoring of Compliance with the Guidelines of Good Practice (GGP) on TPA for gas in MEDREG countries* and *Establishment of MEDREG Guidelines of Good Practice on Capacity Allocation.*

MEDREG also supported the activities of the new network of Mediterranean gas transport operators MEDGIO (Mediterranean Gas Infrastructure Operators), which includes Snam, Defa (Cyprus), Desfa (Greece), Empl-Metragaz (Morocco), Enagas (Spain), GRTgaz (France), Ingl (Israel), Jordanian Egyptian Fajr (Jordan), Plinacro (Croatia), Plinovodi (Slovenia), REN (Portugal), and Energy and Water Agency - Government of Malta (Malta). Through this platform, gas transport operators can exchange information and facilitate the integration of

[91] This is a project of the CEI/EBRD (European Bank for Reconstruction and Development) Technical Cooperation - Know-How Exchange Programme (KEP) to aid regulators in Albania, Montenegro and Serbia. In this regard, see the 2018 Annual Report.
[92] With resolution 604/2018/A of 27 November 2018.
[93] CEI is an intergovernmental regional cooperation forum that represents an opportunity for non-EU and Balkan countries to adhere to EU models. There are currently 18 members, of which ten are EU and eight non-EU.

Mediterranean gas systems, as well as foster the security of supply in the region. The following was carried out

- The Working Group on Institutional Affairs (INS WG), co-chaired by the Greek (RAE) and Israeli (PUA) regulators, with the vice-presidency of the Albanian regulator (ERE), concluded the programme for the application of the peer review methodology to the Jordanian regulator (EMRC). During the year, support to national regulatory reforms continued, including technical assistance to the Israeli gas regulator (NGA) and a workshop organised in Algeria to promote auction mechanisms as an incentive to use renewable energy sources;
- The Electricity Working Group (ELE WG), co-chaired by the French (CRE) and Jordanian (EMRC) regulators, with the vice-presidency of the Palestinian regulator (PERC), worked on the reports *Regulatory Options for the Stimulation of Infrastructure Investments* and *Fact Finding and Identification of Concrete Challenges in Investment in Infrastructure*, as well as an updated version of the Report - Observatory on the Mediterranean Electricity Market (MEMO).
- The Renewable SourcesWorking Group (RES WG), co-chaired by the Portuguese (ERSE) and Cypriot (CERA) regulators, with the vice-presidency of the Algerian regulator (CREG), jointly with the electricity group drew up the report *Smart Grids in the Mediterranean Countries*.
- The Consumers Working Group (CUS WG), co-chaired by the Maltese (REWS) and Spanish (CNMC) regulators, with the vice-presidency of the Algerian regulator (CREG), wrote the paper *Overview on Disconnection Procedures due to non-Payment in the Mediterranean Region* and–jointly with ECRB group Customer and Retail Working Group – the report*Complaint Handling & Dispute Settlement Procedures available to Household Customers.*

During 2018, the three energy platforms promoted by the European Commission carried out Union for Mediterranean activities as described below.

- *Electricity Platform.* As an active member of MEDREG, the Authority continued to collaborate with Med-TSO as part of the work programme that concerns the implementation of the Euro-Mediterranean platform for the electricity sector Regional Electricity Market Platform (REM). MEDREG continued its collaboration with Med-TSO on the cost benefit analysis and the guidelines for interconnections, with particular regard to cosy allocation.
- *Platform for Renewable Sources and Energy Efficiency.* The annual Conference on Platforms was held in Barcelona on 29 and 30 January 2019; this was an opportunity to reflect on the state of progress of activities.

Cooperation within the Organization for Economic Cooperation and Development (OECD): Network of Economic Regulators (NER)

In 2018, the Authority continued its work within the OECD. The Authority was confirmed as a Board Member of the Network of Economic Regulators (NER)[94].

Two NER meetings were held in Paris on 9 April and 26 November 2018, hosted by the OECD Secretariat, featuring debates about the impact of technological developments on regulated industries and the role of regulators in encouraging investment; the preliminary results of a survey were also presented on the governance indicators of regulators, to which the Authority had responded with regard to the electricity, gas and water sectors.

[94] The Network of Economic Regulators (NER) is a forum that promotes dialogue between member state authorities and OECD observers, who are responsible for economic regulation in multiple sectors. As an OECD body, the NER can provide opinions and develop studies within the scope of its competence at the Regulatory Policy Committee's request.

3.1.5 Compliance with EU regulations

In the year that just ended, no legally binding decisions were adopted by the Agency or the Commission which the Authority would have to implement pursuant to Article 37.1.d) of Directive 72/2009/EC. As to the competences and powers of the Regulator pursuant to current legislation, please see the 2013 Report and the regulatory changes reported in paragraph 2.

3.2 Promoting competition

3.2.1 Wholesale markets

Table 3.7 shows the 2018 electricity balance sheet in Italy compared with the previous year; the data are from Terna and provisional.

In 2018, electricity demand was still up by 0.5%, after the 2% increase of the previous year; albeit very slight, growth affected all production sectors, with a peak in the agricultural sector (+ 1.8%).

87.1% of the domestic demand for electricity was met by national production (down 1.8% compared to 2017), while for the remaining part by the foreign balance (13.9%); imported energy increased by 10%, while exported energy was down (36.3%), recording a balance of energy exchanged with foreign countries up by 16.3%.

Table 3.7 Terna's electricity balance sheet in Italy

TWh

	2017	2018*	CHANGE
Gross production	295,830	290,585	-1.8%
Auxiliary services	10,564	10,269	-2.8%
Net production	285,266	280,316	-1.7%
Received from foreign suppliers	42,895	47,179	10.0%
Sold to foreign clients	5,134	3,270	-36.3%
For hydroelectric generation	2,478	2,233	-9.9%
Electricity demand	320,548	321,992	0.5%
Network losses	18,668	18,619	-0.3%
Consumption net of losses	301,881	303,373	0.5%

(A) Provisional data.

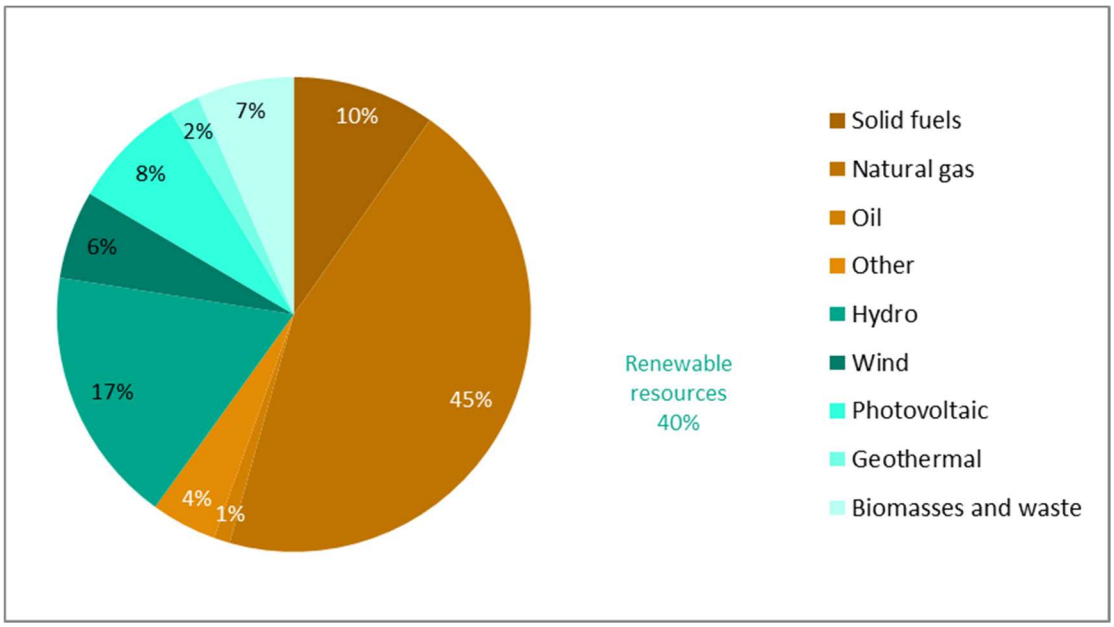
Source: ARERA processing on Terna data.

In 2018, there was a decrease of 1.8% in gross national production, which fell to 290.6 TWh from 295.8 TWh in 2017. This decrease was recorded for all sources except for hydroelectric, which saw an increase of 36.1% compared to the previous year.

In general, while thermoelectric production decreased by 8.4%, renewable energy production increased by 10.4%, driven by a strong water source increase; photovoltaic (-7.1%) and wind (-1.4%) production was also down. In thermoelectric generation, the use of solids decreased by 13.3%, that of natural gas fell by 7.6%, while oil products decreased by 21.6%.

In 2018, 40% of gross electricity generation was produced from renewable sources, while 60% was achieved with thermoelectric plants; among these, natural gas provided 45% of overall gross generation (Figure 3.5), a slight drop compared to 47% in the previous year. The share of the gross generation of the top three corporate groups (Enel, Eni and Edison) fell slightly (35.5% against 36.4% in 2017), while those of A2A and EPH, which are the fourth and fifth most important groups in Italian electricity generation, recorded a slight increase. In general, however, the differences from one year to the next are marginal for all the most important corporate groups, i.e. those with a share greater than 1% in 2018, compared to the Terna total. The greatest increases, although modest, were recorded for groups where the hydroelectric production share is important (e.g. A2A). The share of other smaller producers increased compared to the previous year, going from 33.0% in 2017 to 34.2% in 2018.

Figure 3.5 Gross production by source in 2018



Source: Terna, provisional data.

Table 3.8 Wholesale market development

YEAR	DEMAND(A) TWh	PEAK DEMAND (GW)	NET INSTALLED CAPACITY (GW)	CORPORATE GROUPS WITH >5% SHARE IN NET GENERATION	% SHARE OF THE TOP 3 NET GENERATION GROUPS
2001	304.8	52.0	76.2	4	70.7
2002	310.7	52.6	76.6	3	66.7
2003	320.7	53.4	78.2	4	65.9
2004	325.4	53.6	81.5	5	64.4
2005	330.4	55.0	85.5	5	59.4
2006	337.5	55.6	89.8	5	57.1
2007	339.9	56.8	93.6	5	54.7
2008	339.5	55.3	98.6	5	52.0
2009	320.3	51.9	101.4	5	50.6
2010	326.2	56.4	106.9	5	48.2
2011	332.3	56.5	118.4	4	43.6
2012	325.5	54.1	124.2	3	41.2
2013	316.0	53.9	124.7	3	39.1
2014	308.2	51.6	121.8	3	41.2
2015	315.0	60.5	118.3	3	40.1
2016	311.8	56.1	114.2	4	43.9
2017	318.1	56.4	114.2	5	35.6
2018(B)	319.4	57.8	115.0	5	38.6

(A) Net of energy for hydroelectric generation and gross of network losses.
(B) Provisional data.

Source: ARERA processing on Terna data and Annual surveys on regulated sectors.

The Herfindahal-Hirschman (HHI) gross generation index, equal to 610, was down compared to 2017, when it was 638. The number of corporate groups with at least 5% of the net generation remained unchanged at 5, as in 2017 (Table 3.8).

Multiple incentive mechanisms coexist In Italy for electricity production plants powered by renewable sources, ranging from all-inclusive incentive rates (feed in tariff)[95] to feed in premium incentives[96]. Overall, incentive instruments have enabled incentives for an amount of electricity that currently stands at around 63 TWh, lower than the 65 TWh of 2017 (-2%), at a cost of 11.2 billion euros, lower than the 12.1 of 2017 (-7%). In 2017, 34% of the 65 TWh of incentivised renewable energy was produced from photovoltaic plants, 25% from wind farms and just as much by biomass, 13% by hydroelectric plants and 3% from geothermal sources. According to preliminary data, these percentages do not change by much in 2018: 32% came from solar energy, 26% from biomass, 25% from wind, 15% from water and 2% from geothermal. With the end (in 2016) of the "green certificates" mechanism, the incentive costs of renewable sources have generally been covered by a tariff component called A_{SOS}. In addition to said costs, this component allows the provision of special trade regimes (minimum guaranteed prices and on-site exchange) as well as cogeneration incentives (also for plants associated with district heating not supplied by renewable sources).

As we have already seen, electricity demand marked a small increase compared to the previous year (0.4%), reaching 321.9 TWh (319.4 net of energy for pumped storage) (Table 3.8). On the other hand, the foreign balance recorded a jump of 16.3%, because in 2018 Italy imported 43.9 TWh against 37.8 TWh in 2017. Consequently, the share of domestic demand covered by the foreign balance rose to 13.6% from 11.8% in the previous two years. Italian imports grew by 10%, returning to ten-year average levels, despite the usual contraction of imported energy with respect to the transport capacity available on the North interconnection in the winter period, due in part to the higher consumption of powered electricity heating systems in Northern Europe and partly to the new maintenance of the French nuclear power stations. The majority (49%) of our foreign balance also comes from Switzerland in 2018. 33% of imported net electricity comes from France and 15% from Slovenia. Only 3% comes from Austria, and 1.1% comes from Greece this year. Market coupling has been in operation with Slovenia, France and Austria.

In 2018, the total net power stood at about 115 GW (Table 3.8 provisional figure), 47% renewable and 53% thermoelectric. The highest demand occurred on 1 August, when the peak power requirement reached 57.8 GW (56.4 GW in 2017). Compared to the absolute peak for the Italian electricity system, registered in summer 2015 (equal to 60.5 GW), the 2018 summer peak remained however lower.

As for net installed capacity, there are four groups with a market share of over 5%: Enel (24.2%), A2A (8%), Edison (5.7%) and Eni (5%). The first three groups held 32% of the capacity, down compared to 2017 (37.8%). The HHI index for net installed capacity shows a slight reduction in market concentration; the value for 2018 is 730, while it was 755 in the previous year.

With regard to the corporate composition of the production operators that participated in the 2018 survey[97], they are held mainly by natural persons (55%), followed by different companies (31 %) and public bodies (6%). As for the shareholders of the respondents, they are mostly Italian, as only 6.8% are of foreign origin.

[95] Feed in tariff means that the incentive recognised for the electricity input in the network includes the sale of electricity and is no longer available for the producer. The electricity input into the network is withdrawn at a price that includes the incentive.
[96] Feed in premium means that the incentive recognised for the electricity produced doesn't include the sale of electricity that is still available for the producer.
[97] Here, as in all the volume, the shares are calculated without weighting and refer to the direct participation of the single shareholders of the share capital of the producers, without considering any indirect participation.

The structure of the electricity market

The Energy Markets Manager (GME) manages the Energy Spot Market (MPE) and the Electricity Futures Market (MTE) with the obligation of physically delivering the energy; the MPE in turn breaks down into the Day Ahead Market (MGP), Intraday Market (MI) and Dispatching Services Market (MSD).

Multi-Regional Coupling (MRC) was launched on the northern Italian border with France, Austria and Slovenia in February 2015. MRC is a market coupling process that introduces implicit auction models replacing explicit daily auctions, coordinates capacity allocation and energy sales and facilitates the integration of the various markets, thanks to optimal exploitation of the interconnection capacity (Net Transfer Capacity – NTC), as well as the cancellation of uneconomic flows[98].

Following the integration of spot markets (MGP and MI) in European coupling projects, it became necessary to reduce payment deadlines from two months to a week, so that the GME could meet the financial needs necessary to make cross-border payments, to be made within two days. In consideration of the need stated by numerous operators to be able to continue to negotiate daily products while maintaining payment to the second month following the exchange, starting from 29 September 2016, the Daily Product Market (MPEG) was established, where all the electricity market operators can negotiate different baseload and peakload daily contracts. Currently, operators can offer volumes at prices expressed solely as differentials with respect to the actual average national single price (PUN) for the delivery date of the product being traded.

Furthermore, the GME manages the platform for the physical delivery of financial contracts concluded on the IDEX (energy derivatives delivery platform - CDE)—a segment of the Italian Stock Exchange derivatives market for trading financial futures energy contracts—and collects offers on the market for the dispatching service (MSD)[99] managed by Terna. In November 2008, the Italian Stock Exchange launched the Italian market of electricity derivatives (IDEX), dedicated to the trading of derivative financial instruments, with the PUN as underlying. Next, the GME entered into a collaboration agreement with the Italian Stock Exchange in order to allow operators participating in both markets to regulate financial contracts concluded on IDEX through physical delivery.

Traders can sell and buy energy not only through the market organised by the GME, but also by entering into sales contracts outside the offers system. The PCE came into force starting May 2007, introducing wide flexibility for operators to optimise their contract portfolio in the medium to long term. The quantities underlying bilateral forward contracts (mostly negotiated on brokerage platforms) and contracted on the CDE platform for which an operator requested to exercise the physical delivery option on the underlying electricity market are recorded on the PCE.

Exchange trading and bilateral trading

In 2018, the amount of electricity exchanged in the Italian System, equal to 295.6 TWh, increased slightly (+ 1.2% compared to 2017), especially around mid-year, reaching the highest level in the last six years (Table 3.9). Different dynamics are observed in the individual areas compared to last year; while purchases grew in all areas, with the only exceptions in the Centre-North (-0.5%) and Centre-South (-1.4%), sales showed concentrated increases in the North (+ 4.8%) and in Sicily (+3.3%) and drops elsewhere, especially significant in the Centre-South area (-10.9%).

[98] Hours during which the flow goes from the more expensive area to the least expensive one, i.e. in the opposite direction to the one that the price differential would suggest.

[99] The purpose of the Dispatching Services Market (MSD) is for Terna to procure the necessary resources for safe system management through resolving internal congestion, establishing reserve capacity and real time balancing.

Table 3.9 Electricity market

TWh

YEAR	MGP NEGOTIATIONS		
	Total	*Stock Market*	*bilateral*
2004	231.6	*67.3*	*164.3*
2005	323.2	*203.0*	*120.2*
2006	329.8	*196.5*	*133.3*
2007	330.0	*221.3*	*108.7*
2008	337.0	*232.6*	*104.3*
2009	313.4	*213.0*	*100.4*
2010	318.6	*199.5*	*119.1*
2011	311.5	*180.4*	*131.1*
2012	298.7	*178.7*	*120.0*
2013	289.2	*206.9*	*82.3*
2014	282.0	*185.8*	*96.1*
2015	287.1	*194.6*	*92.5*
2016	289.7	*202.8*	*86.9*
2017	292.2	*210.9*	*81.3*
2018	295.6	*213.0*	*82.6*

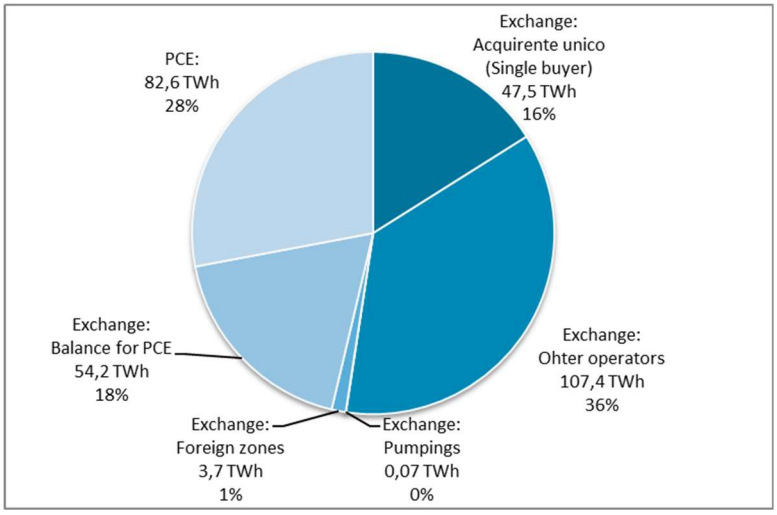
Source: ARERA processing on GME data.

With regard to technology, there was an increase in the renewable component (95.5 TWh sold; + 14.4% compared to 2017), driven by hydroelectric plants in the North (+ 28%) and wind power plants in the South (+20%) and in Sicily (+19%); on the other hand, the sales of thermoelectric plants fell slightly (149.6 TWh, -8.0%), especially those running on coal (-18%) and fuel oils (-26%), partly replaced by higher imports (48.1 TWh, + 9.1%).

The positive trend of the last few years regarding volumes traded directly on the stock exchange (213 TWh, +1.0%) was confirmed, the highest value recorded since 2010 and equal to 72% of total exchanges on MGP; this liquidity is promoted for sales by non-institutional operators (+3%), while for purchases there are lower volumes from the Single Buyer[100] (-1,9 %), which nevertheless continues to satisfy about 95% of its stock market requirements. Although on the rise compared to 2017, the programmes derived from recording bilateral over-the-counter exchanges (83 TWh, +1.7%) on the PCE were confirmed at relatively low levels (Table 3.10).

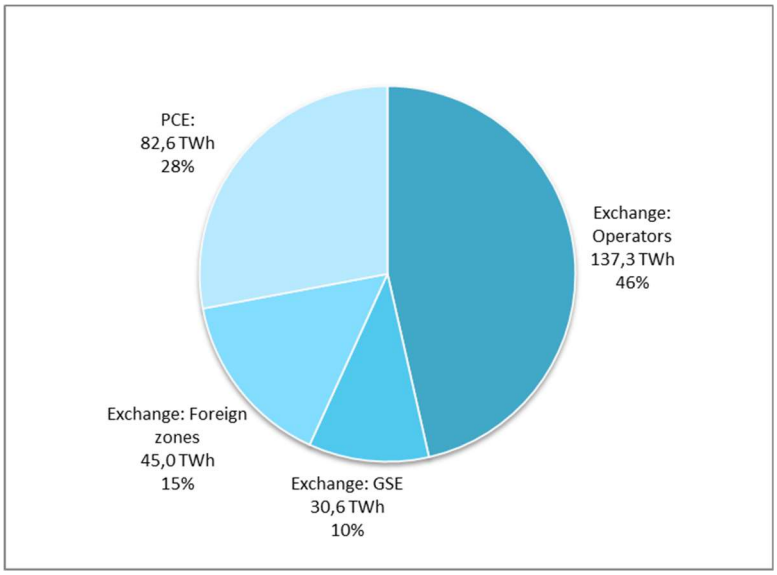
[100] Entirely owned by the Energy Services Operator, Single Buyer is the public company established to guarantee electricity supply to customers under the standard offer regime. It is responsible for procuring electricity on the wholesale market which it sells back to standard offer customers at a price that reflects the costs it has incurred, including those for energy purchase and supply. Over time, the company has also taken on other support tasks, such as, for example, managing the Integrated Information System and the Offer Portal.

Figure 3.6 Composition of electricity demand in 2018



Source: ARERA processing on GME data.

Figure 3.7 Composition of electricity supply in 2018



Source: ARERA processing on GME data.

Table 3.10 Bilateral contracts

TWh

CONTRACTS	2011	2012	2013	2014	2015	2016	2017	2018
Bilateral contracts	131.1	120.0	82.3	96.1	92.5	86.9	81.3	82.6
Domestic	148.8	146.9	156.8	162.5	143.5	134.9	125.7	136.9
Single Buyer	*36.8*	*38.8*	*43.9*	*37.9*	*29.1*	*17.6*	*3.7*	*2.5*
other operators	*112.0*	*108.1*	*112.9*	*124.6*	*114.4*	*117.3*	*122.0*	*134.4*
International	0.4	0.5	0.1	28.5	0.1	0.03	0.07	0.0003
Final balance for PCE programmes(A)	-18.1	-27.4	-74.6	-66.5	-51.0	-48.0	-44.5	-54.2

(A) In each relevant period, it is the difference between the sum of the input programmes and the sum of withdrawal programmes, coming from the Energy Accounting Platform, registered on MGP. The final balance of the PCE programmes is also equal to the algebraic sum of the physical balancing of the energy accounts (input and withdrawal).

Source: ARERA processing on GME data.

Mergers and acquisitions in electricity generation in 2018

In 2018 several corporate transactions were carried out in the electricity generation sector, including numerous transfers and acquisitions of systems between operators, albeit mostly small ones.

Among the main groups, the Erg policy seems significant; in 2018, Erg rose among the top 5 operators in generation from solar sources, due to the acquisition of several companies specialised in the production of photovoltaic energy, all previously belonging to another corporate group.

Eni Group's generation reorganisation is also to be noted. In 2018, Enipower sold its photovoltaic systems to a special purpose company within the same corporate group (Eni New Energy); Enipower now only deals in thermoelectric generation.

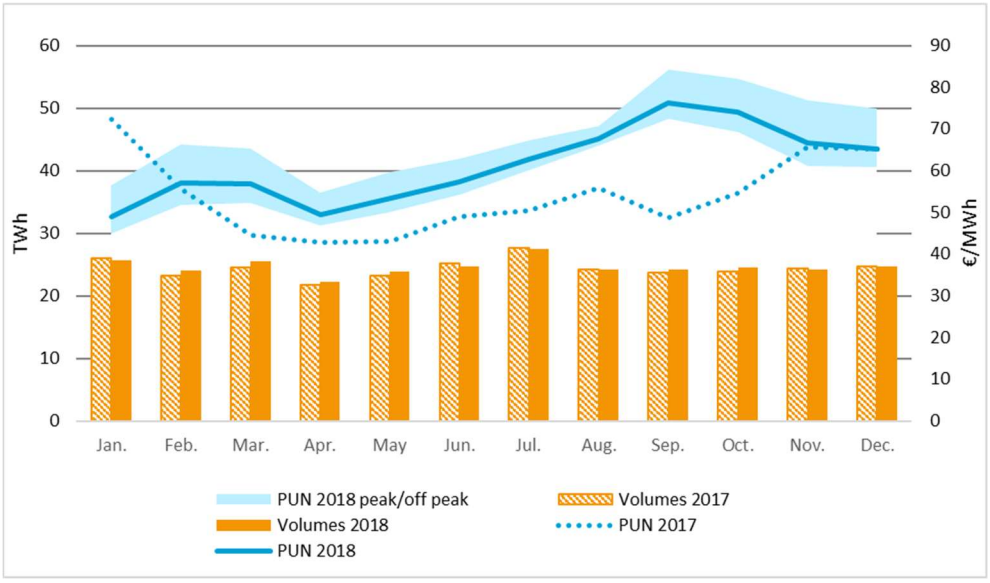
3.2.1.1 Monitoring of wholesale market prices

The day ahead market

In 2018 the average purchase price of electricity (PUN) continued last year's recovery, reaching 61.31 €/MWh from 53.95 €/MWh in 2017 (+ 14%), aided by a rise in raw material costs, gas and CO_2 in particular; the increases are concentrated between February and October (approximately +13 €/MWh). This growth dynamic remained homogeneous for all groups of hours: the annual average stood at 68.46 €/MWh (+10%) during peak hours[101], 59.03 €/MWh (+15%) in the off-peak hours of business days and 55.81 €/MWh (+18%) on holidays. Therefore, the daily dynamics of price differentials remained stable between different groups of hours, even recording a differential reduction in the morning hours (3.8).

Figure 3.8 Monthly trend of the PUN and the total traded volumes for the Italian System

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



Source: GME.

At the zonal level, the price growth was characterised by increases between 12-19% and values between 59 €/MWh in the South, confirmed for the tenth consecutive year as the area with the lowest price, and 69 €/MWh in Sicily, which recorded the highest zonal price for the twelfth consecutive year. Sicily continued to

[101] Peak load hours concern only working days and are between 8 am and 8 pm, or relevant periods from 9 am to 8 pm.

record a differential increase with the North area (8.77 €/MWh, compared to almost 5-6 €/MWh in the previous two years), while the differential between Sardinia and the North, which in recent years had recorded differences between 1 and 3 €/MWh, was zero.

In its second year of full-time operation, the Daily Product Market (MPEG) recorded 2,373 transactions, for a total of 3.2 TWh (-19%) traded, predominantly baseload (80%). Trading was concentrated in the first half of the year, corresponding with greater activity by the Single Buyer, the main purchasing counterpart of this market (78% of volumes). The average price of daily baseload products was reduced to 0.18 €/MWh (-0.06 €/MWh), without any particular infra-annual variations.

Forward electricity market

In 2018, relatively standardised products with physical delivery were traded on the futures market managed by the GME, for a total of about 1.2 TWh, slightly less than the previous year (-13%) (Table 3.11). The most significant portion of the traded volumes (MW) were baseload (87%), in particular for the monthly (53%) and quarterly duration (28%). An average of 12 couplings were recorded per month, mainly concentrated in March, October and November. For the third consecutive year, no bilateral transactions for clearing purposes only were recorded.

Table 3.11 Volumes traded on the Forward Market

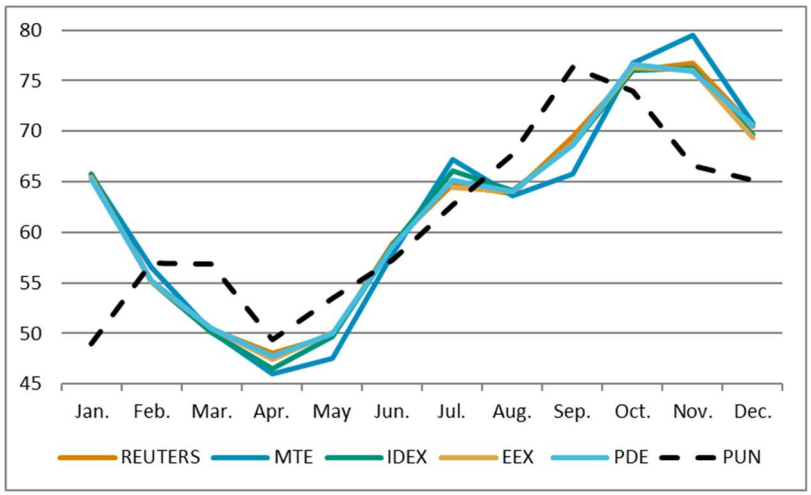
MWh

DURATION	2010	2011	2012	2013	2014	2015	2016	2017	2018	2017/2018 CHANGES	SHARE
CONTRACTS (MW)	2,366	7,673	8,882	2,171	2,944	1,004	411	518	391	-25%	100%
Base load	1,146	5,563	8,253	679	2,829	899	323	449	357	-20%	91%
Peak load	1,220	2,110	629	1,492	115	105	88	69	34	-51%	9%
VOLUMES (GWh)	6,285	31,667	30,358	7,996	18,402	5,087	1,069	1,356	1,191	-12%	100%
Base load	5,011	28,007	28,895	3,618	18,356	5,007	1002	1,335	1,155	-13%	97%
Peak load	1,275	3,660	1,463	4,379	46	79	67	21	36	70%	3%

Source: ARERA processing on GME data.

Figure 3.9 2018 average prices of the monthly base load product with subsequent month expiry on the different trading platforms

€/MWh



Source: ARERA processing on data from different sources.

Looking at the price trend of the generally more liquid forward product, i.e. the monthly baseload with expiry in the month immediately following (M+1), operators indicated prices between 46 and 80 €/MWh for the months of 2018. This performance is in line with the trend recorded during the year by the underlying PUN, with at most a one month delay in the convergence of the price level (Figure 3.9).

Intraday market

The overall volumes traded in 2018 on the intraday market (25.4 TWh) were stable compared to the previous year, just as most of the exchanges (70%) continued to be distributed in the first two market sessions, although in the subsequent sessions they kept increasing, touching the maximum volume ever traded (7.5 TWh). The prices recorded remain strongly correlated to the values of the day-ahead market, both in terms of time and zone; in particular, average monthly prices[102] were recorded growing from a minimum of 49-57 €/MWh in early January to a peak of 74-84 €/MWh in September and then settling at 66-74 €/MWh at year's end. We also note that the prices of the first 5 sessions were strongly aligned with each other, while the MI5 and MI6 sessions recorded average price differentials of up to 11 €/MWh in May and August. The prices reflected MGP dynamics also on a zonal basis, recording the lowest average price in the South macro area (58 €/MWh) and the highest in Sicily (85 €/MWh).

Degree of integration of the Italian market in the European context

For the second consecutive year, there was an upward trend in the price of electricity on the European market; compared to 2017, the largest increase in the energy price was recorded in the Scandinavian market (NordPool), where it grew by 49.6%, while a significant increase was also recorded in Germany (EPEX), where it rose by 30.1%. On the other hand, there were more modest increases in Italy (+13.6%), France (11.6%) and Spain (9.7%).

The rise in the electricity price on the European market was basically distributed over 3 macro-regions: a northern region composed of the Scandinavian countries and Germany with prices rising to 44 €/MWh, a continental area comprising France and Slovenia with a higher price level (50 €/MWh) although with less marked increases and a Mediterranean area with Italy and Spain, whose prices were 57 € MWh and 61 €/MWh.

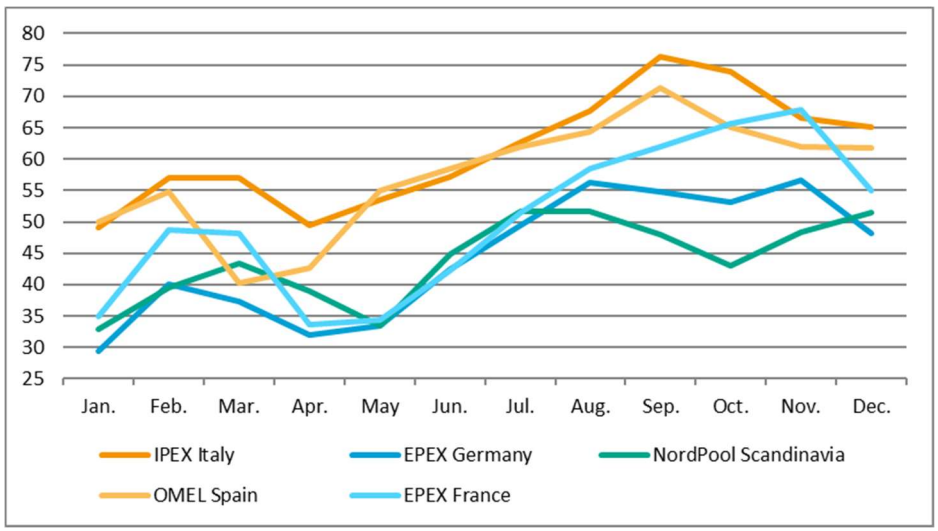
The coupling mechanisms allowed for a substantial alignment[103] of the prices of the three macro-regions within 78 hours (+13 compared to 2017), concentrated in the months of March, April and December and, like the previous year, in the low load morning hours. The Austria and Germany areas, previously listed jointly in the Price Coupling of Regions (PCR), separated starting from 1 October 2018. In the last quarter of 2018, the price of the former was about +10 €/MWh compared to the latter and separated from it for about 75% of the hours. With regard to the northern Italian border, the coupling mechanism allocated an hourly capacity of 2.9 GWh in import (+60 MWh compared to 2017) and 1.1 GWh in export (-104 MWh) on average; the share of total capacity allocated by implicit auction was around 80% on the Slovenian border (+25 percentage points), 86% on the French border (+4 percentage points) and 93% on the Austrian border (+2 percentage points).

[102] The values refer to the average prices in the domestic areas only.

[103] The alignment is understood as a price differential of less than 1 €/MWh within a single hour between the following borders: North-France, France-Germany, Germany-Scandinavian Area.

Figure 3.10 Average monthly price trend in the main European Stock Markets in 2018

Average base load values; €/MWh



Source: ARERA processing on European Electricity Stock Markets data.

3.2.1.2 Monitoring of the level of transparency, including compliance with obligations on transparency and on the degree and efficiency of market opening and competition

In the first months of 2018, the Authority completed all the regulatory procedures initiated in June 2016 following the monitoring of wholesale markets. The latter highlighted that, in the period between January 2015 and July 2016, there were several cases of non-compliance with the principles of diligence, prudence, expertise and foresight that should characterise the behaviour of a dispatching user in the planning of withdrawals and inputs in the dispatching service[104].

In addition, in order to increase the effectiveness of the monitoring tools available to the Authority, in 2018 priority was given to the definition of analyses of historical data input into the resolution algorithm for the planning phase of the dispatching service market, with particular reference to the definition of integrated and non-integrated network constraints for the control of reactive power, as well as the methods for simulating the results of the same market in accordance with the provisions of the Integrated Text for monitoring the wholesale market and the dispatching service market (art. 3, paragraph 3.11). With these developments it has been possible to historically reconstruct the market structure in which to frame the proceedings concerning the supply strategies adopted by some dispatching users who own production units authorised for the dispatching service.

[104] As already explained in more detail in the 2017 Annual Report, the monitoring of wholesale markets, carried out pursuant to the Integrated Text of the monitoring of the wholesale electricity market and the Market for Dispatching Services (MSD) (TIMM), showed that in the first half of 2016:

- some dispatching users, owners of consumption units or generating units powered by non-programmable renewable sources, seemed to have adopted planning strategies that were not consistent with the principles of diligence, prudence, expertise and foresight that should characterise the behaviour of an operator in the dispatching service;
- some dispatching users seemed to have behaved in such a way as to increase the value of the fee for the supply of resources in the MSD (so-called uplift).

Therefore, on 24 June 2016, by resolution 342/2016/E/eel, the Authority initiated a procedure for the adoption of regulatory measures and the assessment of potential misconduct, against various dispatching users who have acted as described above, aimed at promoting competition and ensuring the proper functioning of the markets.

The closure of the individual regulatory procedures did not preclude the initiation of the same number of penalty procedures for violation of the dispatching regulations.

Remit

With regard to the monitoring of wholesale markets, it is also worth mentioning the activities carried out for the implementation of REMIT, which has fully entered its implementation phase at European and national level.

During 2018, the Authority strengthened its coordination with the GME and with Terna in relation to the obligations to report potential breaches of Articles 3 and 5 of Regulation (EU) 1227/2011 on wholesale energy market integrity and transparency (REMIT), which Article 15 assigns to them as market operators, i.e. "persons" who carry out transactions in wholesale energy products on a professional basis (PPAT - person professionally arranging transactions). In addition, the Authority has confirmed its active contribution to the working groups both in the ACER and CEER framework, in order to promote a coordinated approach in the implementation of the REMIT Regulation, contributing to:

- the preparation of ACER guidelines dedicated to the identification of specific manipulative cases;
- the constant updating of the Market Monitoring Handbook, a manual for the internal use of ACER and the regulators aimed at promoting cooperation and coordination in the management of REMIT cases;
- the sharing of tools, methodologies and means for the surveillance of wholesale markets, as well as issues relating to the coordination of cases of potential market abuse with a cross-border dimension;
- the monitoring of developments in financial regulation.

3.2.2 Retail markets

In 2018, according to data published by Terna, total consumption (net of losses) was approximately 303 TWh, up 0.5% on 2017. Table 3.12 describes the breakdown of the latter by final sector of use.

Table 3.12 Breakdown of national electricity consumption by final sector

TWh

PRODUCTION SECTOR	2014	2015	2016	2017	2018	2017/18 Variation
Domestic	64.3	66.2	64.3	65.5	65.5	0.1%
Agriculture	5.4	5.7	5.6	6.0	6.1	1.8%
Industry	122.5	122.4	122.7	125.5	126.2	0.6%
Tertiary	98.9	102.9	102.9	104.9	105.5	0.6%
TOTAL	291.1	297.2	295.5	301.9	303.4	0.5%

Source: Terna.

In the context of the Authority's Register of Operators, operators declared that in 2018 they had sold (even for a limited period of the year) electricity to 127 subjects in the standard offer market, 2 in safeguarding and 638 in the free market. In 2017, there were 131 suppliers in the standard offer regime, 2 in safeguarding and 565 in the free market. The number of subjects exercising the standard offer has therefore decreased by five units compared to 2017, as a result of corporate transactions for the sale of the business[105]. On the contrary

[105] In fact, the exit of the five subjects is due to the transfer of the sales activity to protected customers of the companies Hofer Ernst and Asm Laces to Edyna, of the Municipality of Isera to Set Distribution and of Eni Gas and Light (which had inherited it from Eni in July 2017) to EnergiaBaseTrieste from 1 January 2018.

- and as usual - the number of electricity sales companies on the free market has increased significantly (by 73 units). The expansion trend of suppliers has been almost uninterrupted since 2008. The Authority's annual survey was answered by 127 (i.e. all) subjects who provide the standard offer service and 496 (i.e. 78% of 638) companies who sell electricity on the free market. Of these, 62 declared that they remained inactive throughout the year. As a result, 434 companies active on the free market responded to the Annual Survey.

Table 3.13 shows the breakdown of final electricity sales (net of self-consumption and network losses) together with the total number of customers[106] by type of market, determined on the basis of data from the Authority's annual survey provided by electricity operators: producers, standard offer service and safeguarding service operators, wholesalers and free market suppliers. The sales data collected by the Authority (considered together with own consumption) are representative of a population that reflects 93%[107] of the final consumption estimated by Terna, the electricity network operator.

The results of the annual survey (to be considered provisional for 2018, as standard) show that last year just over 255 TWh were sold on the end market to about 37 million customers. Compared to 2017, total electricity consumption remained substantially stable with a slight decrease (-0.5%), as did that of consumers, which fell by 0.4%. The contraction in consumption was more pronounced among households, while consumption in the non-domestic sector remained substantially stable; conversely, more customers were lost in the non-domestic sector than in the domestic sector. As has been the case for some time now, the standard offer service has lost further ground in favour of the free market. Moreover, in 2018, the safeguarding service also declined sharply.

In an end market that reduced overall by 1.3 TWh, the sales volumes of the standard offer market fell by 4.7 TWh (-9.4% compared to 2017), the free market gained 3.4 TWh compared to the previous year (1.7%), while in the safeguarded regime sales fell by 0.9% (-39 GWh).

In 2018, the total number of consumers decreased by 138,000 to 36.7 million. The number of delivery points fell in the standard offer service, which lost 1.750 million points, and in the safeguarding service, which fell by 11,000 units, while in the free market the number of customers grew by 1.623 million units compared to 2017.

In 2018, the safeguarding market fell by about 12% in terms of delivery points, but only by 0.9% in terms of energy consumed (-39 GWh). As will be seen in more detail on the following pages (see the dedicated section), the sharp fall in the number of delivery points is attributable to customers connected to the low and medium voltage network, while those connected to the high voltage network increased slightly.

As mentioned above, there was an increase recorded for electricity supplied on the free market in 2018: with 205.6 TWh sold, in fact, the level of sales rose by 1.7% compared to 2017. The total number of customers supplied increased by 1.6 million units, more in the domestic sector (+11.7%) than in the non-domestic sector (+7.1%). The average consumption per unit has therefore fallen by another 8%, as has been the case for many years: from 25,500 kWh/year in 2011, in 2018 it fell to 12,000 kWh/year. The continuous resizing is largely due to domestic consumers entering this market, typically characterised by lower average withdrawal than non-domestic consumers (and increasingly low over time).

Overall, therefore, the proportion of energy sold in the standard offer market fell to 17.7% of all energy sold to the end market (compared to 19.5% in 2017), that of the safeguarding service remained at 1.7% (same share since 2016), while that of the free market reached 80.6% (compared to 78.8% in 2016). In terms of delivery points, the ratio was inverted: 53.6% of customers were still supplied under the standard offer, while 46.2% went over to the free market.

[106] Approximated by the number of delivery points always counted according to the pro die criterion (i.e. counted for the fractions of the year for which they were served).

[107] To obtain the percentage indicated, the data collected in the survey for personal and group consumption, as well as sales to end customers not connected to distribution networks which are not included in the table itself, must be added to the final consumption of the survey as shown in Table 3.15.

Table 3.13 End users market for the sale of electricity

Net of self-consumption and losses

	VOLUMES (GWh)			DELIVERY POINTS (thousands)		
	2017	2018	VAR. %	2017	2018	VAR. %
Standard offer market	49,979	45,271	-9.4%	21,455	19,704	-8.2%
Domestic	33,495	30,658	-8.5%	18,083	16,659	-7.9%
Non-domestic	16,484	14,613	-11.4%	3,371	3,046	-9.7%
Safeguarding service	4,309	4,269	-0.9%	91	80	-11.9%
Free market	202,140	205,583	1.7%	15,349	16,972	10.6%
Domestic	24,256	26,520	9.3%	11,449	12,794	11.7%
Non-domestic	177,884	179,062	0.7%	3,901	4,179	7.1%
END MARKET	256,428	255,123	-0.5%	36,895	36,757	-0.4%

Source: ARERA. Annual survey on regulated sectors.

In 2018, the number of domestic customers was 29.5 million, of which 16.7 million were served under the standard offer service and 12.8 million in the free market (Table 3.13). In terms of overall reduction (-79,000 domestic delivery points compared to 2017), consumers' shift toward the free market continued: against 1,424,000 domestic delivery points lost in the standard offer market with respect to 2017, the free market in fact gained an increase of 1,345,000. Households purchasing energy on the free market grew by 11.7%, while those supplied under the standard offer decreased by 7.9%. An evaluation of the two markets' shares in terms of the number of customers shows that in 2018 the free market reached 43.4%. Twelve years on from the complete opening of the electricity market on 1 July 2007, the standard offer service still serves well over half of all domestic customers.

The average consumption per unit of households in the standard offer market is lower than that of households who purchase energy on the free market: 1,840 kWh/year compared to 2,073 kWh/year, but both have decreased compared to 2017. The differential between the two markets was also slightly reduced in 2018 to 233 kWh/year (it was 266 in 2017), due to the greater contraction (-46 kWh) suffered by the average unit consumption of households served in the free market compared to the standard offer market (-12 kWh).

Standard offer service

Households and small businesses[108] connected to the low-voltage network that have not concluded a sales contract in the free market benefit from the market under standard conditions (standard offer service). The service is guaranteed by special sales companies or distribution companies with less than 100,000 users connected to their network, on the basis of economic and commercial quality conditions indicated by the Authority.

More precisely, under the standard offer regime, a sole buyer (called the 'Single Buyer') is responsible for the supply of electricity on the wholesale market, which it resells to operators at a price that reflects the costs it has incurred, including those for energy. The standard offer prices are set by the Authority on the basis of wholesale market prices in order to cover the supply costs incurred by the undertakings entrusted with providing this service. As regards the component covering marketing costs, the criterion used by the Authority reflects the costs incurred by a hypothetical new entrant in accessing the market segment of

[108] Under Decree Law No 73 of 18 June 2007, as amended by Law No 125 of 3 August 2007, "small businesses" are end customers other than domestic customers with fewer than 50 employees and an annual turnover or balance sheet total not exceeding 10 million Euros.

electricity sales to households. In summary, the energy component of the standard offer prices is set according to a market-based methodology, while the marketing component is set according to a standard cost methodology, based on the entry costs of a hypothetical new operator. The total price is charged to all consumers supplied in the ongoing offer regime without geographical differentiation.

In 2018, 45.3 TWh were sold at about 19.7 million delivery points (calculated on a pro die basis) under standard offer conditions. Compared to 2017, consumption decreased by 4.7 TWh (-9.4%), while the delivery points served decreased by 1.7 million units (-8.2%). The drop in the number of delivery points confirms a trend that has been underway for many years: the service was created, on a transitional basis, when the market was completely opened up to support households and small businesses that were not yet able to choose a supplier and will be exhausted over time, also in accordance with the relevant regulatory provisions (i.e. from 1 July 2020, according to the latest legislative provisions). Thus, last year, 1.4 million domestic customers (7.9% of the total) and 0.3 million customers with other uses (-9.7%) left the standard offer service. Within households, the decrease in residents (1 million, -7%) is proportionally lower than that of non-residents (0.4 million, -11%).

In general, since electricity consumption fell slightly in 2018 compared to the previous year, the reductions in quantities sold (-8.5% for households and -11.6% for other uses) are greater than those of the points served (-7.9% for domestic, -9.7% for other uses). Public lighting showed more limited variations, with a decrease of 1.2% in the number of points served and 3% in the energy sold; however, it should be considered that this is a rather marginal consumer sector. The shares of the various categories in total consumption have changed little compared to 2017. 67.7% of the volumes were purchased by domestic customers (30.7 TWh), which, in terms of number (16.7 million delivery points), represents 84.5% of the total.

As usual, the prevailing contractual conditions for the standard offer service are compulsory two-tier and time of use tariffs, which together account for 97.3% of the delivery points. Almost all domestic customers (97.2%) pay the mandatory two-tier tariff, i.e. the economic condition that varies according to the time slot in the day and that, starting from 1 July 2010, is automatically applied to customers with reprogrammed electronic meters; only 1.8% of customers pay the voluntary two-tier rate, i.e. the rate explicitly requested by customers even before 1 July 2010; the remaining 1% of domestic delivery points are still subject to the old non-time of use tariff.

In the case of domestic customers, residents account for 78.5% of delivery points and 89.3% of consumption. 92% of residents have a contract with a power of up to 3 kW. (Table 3.14). In 2018, the average consumption per unit of the domestic customer was 1,840 kWh/year, almost unchanged from the 1,852 kWh recorded in 2017. Considering that a large part (72.2%) of resident domestic customers under the standard offer regime have a contract with power up to 3 kW, we can identify the average consumption of Italian households at 1,946 kWh/year, a value 31 kWh lower than that observed in 2017. The average consumption of residents with a power of more than 3 kW, which last year was 3,830 kWh, is higher, at 3,792 kWh, and also slightly decreased; the average consumption of non-residents is also decreasing, dropping from 926 kWh in 2017 to 918 kWh in 2018, an identical level to two years before.

It should also be noted that per 100 delivery points with a power of up to 3 kW, which, as already mentioned, represent the most important part of domestic customers served at standard conditions, 91.1 belong to the first four consumption classes: that is, they purchase a maximum of 3,500 kWh/year. With regard to residents with a power output of more than 3 kW, more than two-thirds (69.2%) fall into the three classes of medium-large consumption (from 2,500 to 15,000 kWh/year); however, it should be considered that these classes represent only 4.3% of all domestic customers served under the standard offer. However, as far as the delivery points of non-residents (mostly second homes) are concerned, low unit consumption prevails: 72.1% of these customers fall into the first class (less than 1,000 kWh/year) and 86.1% do not exceed 1,800 kWh/year.

Table 3.14 Domestic customers in the standard offer service by type and class of consumption in 2018

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

CUSTOMER TYPE AND ANNUAL CONSUMPTION CLASS	VOLUMES	SHARE	DELIVERY POINTS	SHARE	AVERAGE CONSUMPTION
0 -1,000, kWh	2,177	7.1%	5,088	30.5%	428
1,000 -1,800 kWh	5,715	18.6%	4,066	24.4%	1,405
1,800 -2,500 kWh	6,783	22.1%	3,180	19.1%	2,133
2,500 -3,500 kWh	7,692	25.1%	2,622	15.7%	2,933
3,500 -5,000 kWh	5,092	16.6%	1,252	7.5%	4,069
5,000 -15,000 kWh	2,869	9.4%	439	2.6%	6,542
> 15,000 kWh	331	1.1%	13	0.1%	26,004
DOMESTIC TOTAL	30,658	100.0%	16,659	100.0%	1,840
OF WHICH:					
Domestic residents up to 3 kW	23,418	76.4%	12,031	72.2%	1,946
Domestic residents over 3 kW	3,948	12.9%	1,041	6.3%	3,792
Domestic non-resident	3,293	10.7%	3,587	21.5%	918

Source: ARERA. Annual survey on regulated sectors.

Table 3.15 Non-domestic customers in the standard offer service by type and consumption class in 2018

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

CUSTOMER TYPE AND ANNUAL CONSUMPTION CLASS	VOLUMES	SHARE	DELIVERY POINTS	SHARE	AVERAGE CONSUMPTION
0-5 MWh	2,833	19.4%	2,464	80.9%	1,150
5 – 10 MWh	1,834	12.6%	262	8.6%	6,995
10 - 15 MWh	1,249	8.6%	102	3.4%	12,216
15 - 20 MWh	1,004	6.9%	58	1.9%	17,314
20 - 50 MWh	3,503	24.0%	115	3.8%	30,512
50 - 100 MWh	2,161	14.8%	32	1.0%	67,873
100 - 500 MWh	1,916	13.1%	12	0.4%	159,897
500 – 2,000 MWh	100	0.7%	0	0.0%	678,386
2,000 – 20,000 MWh	12	0.1%	0	0.0%	3,206,849
20,000 – 50,000 MWh	0.4	0.0%	0	0.0%	29,188,400
TOTAL NON-DOMESTIC	14,613	100.0%	3,046	100.0%	4,798
OF WHICH					
Non-domestic up to 16.5 kW	7,394	50.6%	2,815	92.4%	2,627
Non-domestic over 16.5 kW	6,828	46.7%	212	6.9%	32,274
Public lighting	391	2.7%	19	0.6%	20,098

Source: ARERA. Annual survey on regulated sectors.

Table 3.15 shows the breakdown of volumes (14.6 TWh) and delivery points (3 million) for non-domestic use served at standard conditions by consumption class. As in 2017, about one fifth (19.4%) of the energy used for other purposes was sold to customers in the first consumption class (<5 MWh/year), which accounts for 80.9% of all non-domestic consumers. The second class, that of customers with annual consumption ranging between 5 MWh and 10 MWh, includes 8.6% of the delivery points and uses 12.6% of the electricity sold. Therefore, 89.5% of non-domestic customers who purchase electricity for other uses have annual consumption not exceeding 10 MWh.

Delivery points with a power of less than 16.5 kW represent 92.4% of the non-household consumers served under standard offer and 50.6% of consumption. Withdrawal points with a power exceeding 16.5 kW are only 6.9% of consumers, but they purchase 46.7% of the volumes. These customers are obviously characterised by higher annual consumption: almost half of their delivery points fall into the classes with consumption between 20 and 500 MWh.

Safeguarding service

The safeguarding service encompasses non-domestic customers who find themselves, even temporarily, without a contract for the purchase and sale of electricity in the free market, but do not have the right to access the standard offer service. These same customers are also admitted to the safeguarding service when they persist in a condition of default.

Since 2008, the service has been provided by sales companies selected by auction[109], which obtain the right to exercise the service for two consecutive years. The safeguarding service for the two-year period 2017-2018 was awarded at the end of November 2016 to the same companies that managed it in the 2014-2016 period: Enel Energia and Hera Comm. However, the new award resulted in changes in the territories served. The selection procedure for the two-year period 2019-2020 ended on 26 November 2018 with the award of the service to the two previous operators Enel Energia and Hera Comm, to which A2A Energia was also added.

According to the data received from the two safeguarding operators in 2018, the service was significantly reduced compared to the previous year. More precisely, last year 80,457 delivery points were served in the safeguarding regime (calculated on a pro die basis, i.e. counted for the fractions of the year for which they were served), compared with 91,345 in 2017. A total of 4,269 GWh were delivered, compared with 4,309 in 2017. In practice, the safeguarding market was reduced by about 12% in terms of delivery points, but only by 0.9% in terms of energy consumed compared to 2017 (Table 3.16).

The sharp decline in the delivery points is attributable to customers connected to low and medium voltage, while those connected to high voltage increased slightly: from 21 to 26 units. Overall, low voltage points served decreased by 12% compared to the previous year, due to a drastic decrease in public lighting points (-18%), but also to a sharp drop in points for other uses (-9.7%). Corresponding and significant falls were seen in the volumes acquired by these customers, who purchased 96 GWh less than in 2017 (-6.3%). Medium voltage customers in the safeguarding service also decreased significantly by around 675 units (-10.6%).

The average consumption of users connected to low voltage increased slightly from 17.9 to 19 MWh, that of users connected to medium voltage increased from 413 to 457 MWh and the average volumes withdrawn by high voltage customers increased from 8 to 9.7 GWh.

Enel Energia's share of this market increased slightly, from 45.2% in 2017 to 45.9% and the gap between the two safeguarding operators decreased due to the growth recorded by Enel Energia's sales (+0.6%), while those of Hera Comm decreased by 2.1%.

[109] As established by the decree of the Ministry of Economic Development of 23 November 2007.

Table 3.16 Safeguarding service by type of customer in 2017 and 2018

Volumes in GWh; delivery points in thousands

CUSTOMER TYPE	VOLUMES			DELIVERY POINTS		
	2017	2018	VARIATION	2017	2018	VARIATION
Public lighting	543	478	-12.0%	23.6	19.3	-18.0%
Other uses	977	946	-3.1%	61.4	55.4	-9.7%
TOTAL LV	1,520	1,424	-6.3%	85.0	74.8	-12.0%
Public lighting	21	21	1.7%	0.1	0.1	-5.5%
Other uses	2,599	2,571	-1.1%	6.2	5.6	-10.7%
TOTAL MV	2,619	2,592	-1.1%	6.3	5.7	-10.6%
Other uses	169	253	49.6%	0.0	0.0	22.4%
TOTAL HV	169	253	49.6%	0.0	0.0	22.4%
TOTAL SAFEGUARDING	4,309	4,269	-0.9%	91.3	80.5	-11.9%

Source: ARERA. Annual survey on regulated sectors.

Free market

As we have seen on the previous pages, according to the (provisional) data collected in the annual survey on regulated sectors, in 2018 205.6 TWh were sold on the free electricity market, 3.4 TWh more than in 2017, to just under 17 million customers, an increase of 10.6% compared to 2017.

The free market is constantly expanding both in terms of customers and in terms of energy sold, although the expansion of the latter has taken place over time at a slower pace than that of customers.

Regardless of the quantities sold, there has been a steady increase in the number of active companies for years, albeit at decreasing rates since 2014. In 2018, growth in the number of operators returned to a healthy level after 2017, which was an exception in this respect. According to the responses to the Annual Survey on Regulated Sectors, in 2018 it returned to an increase of 24 units (+5.9%), while in 2017 it had grown by only 4 units. The concomitant expansion of the market, which was lower in percentage terms, led to a new "normal" reduction in the average unit sales volume of companies operating in this market, as in previous years. In 2018, in fact, the average unit sales volume of companies operating on the free market was 474 GWh, 3.9% lower than the 493 GWh recorded in 2017, thus reaching a new low point in the historical series. In fact, it fell to 35% of that observed in 2007 (1,349 GWh), the year in which the market was completely opened up.

Compared to 2017, the number of very large or large suppliers (i.e. with sales of more than 5 TWh) remained unchanged at 10 companies. The share of the market served by companies selling less than 1 TWh in 2018 is 15%, compared to 15.6% in 2017. Therefore, unlike the last two years, in 2018 smaller suppliers, while growing in number, failed to take market share away from larger suppliers. In fact, companies with sales of more than 1 TWh (i.e. 29 companies, corresponding to 6.7% of active suppliers) covered 85% of total sales; the same figures, calculated in 2017, were 7.6% and 84.4%, respectively.

Of the 434 active companies, 35% sell energy in a number of regions between 1 and 5; 87 companies, or 20%, have sold electricity throughout the country; the remaining 195 companies (45%) have operated in a number of regions between 6 and 19. In 2017, 21.5% of 410 active suppliers sold all over Italy and 34.4% had a sales area limited to 5 regions.

The corporate breakdown of the share capital of electricity suppliers as at 31 December 2018, limited to first level direct shareholdings, shows kiw foreign presence: only 25 companies (out of the 415 that provided these data) have a non-Italian majority shareholder. The majority of direct foreign shareholders are Swiss, Luxembourg, Spanish or British companies, but there are also majority shareholders from other countries (Germany, Austria, Slovenia, Norway, Malta, Romania and USA).

Table 3.17 Free market by customer type

CUSTOMER TYPE	VOLUMES (GWh)			DELIVERY POINTS (THOUSANDS)		
	2017	2018	VARIATION	2017	2018	VARIATION
LV	80,294	83,857	4.4%	15,249	16,860	10.6%
Domestic	24,256	26,520	9.3%	11,449	12,794	11.7%
Public lighting	4,226	4,103	-2.9%	224	224	-0.1%
Other uses	51,811	53,234	2.7%	3,576	3,842	7.4%
MV	95,685	95,498	-0.2%	99	111	12.1%
Public lighting	321	322	0.4%	0.90	0.98	9.4%
Other uses	95,364	95,176	-0.2%	98	110	12.2%
HV and VHV	26,162	26,227	0.3%	0.96	0.98	2.3%
Other uses	26,162	26,227	0.3%	0.96	0.98	2.3%
TOTAL	202,140	205,583	1.7%	15,349	16,972	10.6%

Source: ARERA. Annual survey on regulated sectors.

The breakdown of customers by type and voltage (Table 3.17) shows an increase of almost 1.6 million points served. Mostly to low voltage customers and in particular to domestic customers, although there was also a moderate increase in the delivery points of other uses (+7.4%). Households served in the free market increased by 1,345,000 units, or 11.7% compared to 2017; 266,000 new delivery points purchased electricity in the free market for other low-voltage uses. Medium voltage customers, however, also recorded a significant growth, having increased by 12,000 units (12.2%) to be attributed mainly to other uses, although the points for public lighting also rose by 86 units compared to 2017. The high/very high voltage delivery points also showed a slight increase, although they remained below 1,000 units.

With the exception of other medium voltage uses, for which there was a slight reduction (-0.2%) in the energy purchased compared to 2017 despite the sharp increase in customers, for all other types of customers the changes in the energy purchased are the same as those observed in the number of customers. As a result, there was a very positive growth (+9.3%) in electricity sold to households, a 2.7% increase in energy purchased for other low-voltage uses and a certain reduction in the volumes purchased by public lighting connected to the low-voltage network (-2.9%) associated with a 0.1% drop in the points served.

As always, among **domestic customers**, the most relevant class in terms of delivery points is that with consumption between 1,000 and 1,800 kWh, which accounts for 25.3% of customers. However, the adjacent classes also have a similar weighting. If we look at purchase volumes, on the other hand, the most important class is that with consumption between 2,500 and 3,500 kWh/year, to which 25.9% of all the energy acquired by the domestic sector in the free market is sold. In fact, 87.4% of the delivery points have a level of consumption that does not exceed 3,500 kWh/year. The average consumption that emerges from the data relating to the free market is very similar to that of domestic customers served under standard offer conditions, except in the case of customers who consume up to 1,000 kWh/year for which, on the other hand, the average consumption in the free market (497 kWh) is 16.2% higher than that of customers under standard offer conditions, equal to 428 kWh.

In 2018, 13.9% of domestic customers, about 1.8 million, signed a dual fuel contract. The number of domestic customers with this type of contract[110] has increased, as last year they were 1.7 million, but their share has slightly decreased compared to that recorded in 2017 (which was 14.6%). The total consumption of these customers is 3.6 TWh, 13.6% of all energy sold to domestic customers on the free market. The portion of domestic customers who purchase dual fuel contracts maintains a fairly constant trend over time, with small shifts both downward and upward. This is another case in which average consumption is very similar to that

[110] Dual fuel customers are those who receive one bill for the supply of electricity and gas; therefore, customers who, despite having a contract with the same supplier for both electricity and natural gas, receive separate bills for the two services are excluded from the calculation.

of customers who sign contracts for electricity only.

In contrast to what happens in the market at standard conditions, where the two-tier tariff is largely prevalent as it is mandatory from a certain date onwards, the breakdown of customers by tariff applied in the free market shows a substantial preference for the non-time of use contractual mode, which was chosen by 63.3% of all customers (representing 62.2% of volumes) and is growing over time (it was 48% in 2013, the year from which it began to increase). 28.6% of customers have chosen the two-tier tariff and only 8.1% have chosen the time of use tariff. The elements that make the non-time of use price more attractive are probably due to the simplicity of calculation and control of the tariff in the bill, as well as the absence of a constraint in the consumption times.

As far as **non-domestic** customers are concerned, sales in terms of volumes are concentrated in consumption classes ranging from 100 to 20,000 MWh/year, which together include 59% of the total energy purchased by the non-domestic sector. However, 61% of customers belong to the first class, i.e. they consume less than 5 MWh per year.

Among non-domestic customers, dual fuel contracts are not widespread: in 2018, the delivery points that preferred a supply of this type were about 78,000 out of a total of almost 4.2 million and almost all connected at low voltage; the energy purchased is just under 1.9 TWh out of a total of 179.1.

Offers available in the free market

Once again this year, the *Annual Survey of Regulated Sectors* asked electricity and natural gas suppliers certain questions aimed at assessing the quantity, types and the methods of supply that companies offer customers who have chosen the free market. The panorama of commercial offers available on the free market is a very complex and varied reality, this year enriched by the presence of PLACET offers (free price offers under uniform contractual conditions).

The purpose of these offers is to increase the capacity to evaluate commercial offers, an objective which is met by identifying easily comprehensible offer structures, comparable between suppliers (differentiated only in price level) and distinct from each additional service proposal of the same supplier. PLACETs apply to small customers served in the free market identified, for the electricity sector, with all customers (domestic and non-domestic) connected to the low voltage network and, for the natural gas sector, with end customers (domestic, central heating and other uses) holding points with annual consumption of less than 200,000 m^3. Each supplier in the free market is therefore obliged to include in its menu of commercial offers two formulas of PLACET offers - one at a fixed price and one at a variable price - characterised by general supply conditions set by the Authority with the exception of the price, the level of which is freely defined by the supplier (in accordance with a predefined structure of fees). In both cases, the price of energy is divided into a fixed fee expressed in €/customer/year and a share of energy expressed in €/kWh or €/m^3 and therefore proportional to the volumes consumed. The data described below on the types of offers available and actually chosen by customers in 2018, however, does not include a separate category for PLACET offers as they were applied in the middle of the year.

As in previous years, the objective of the questions asked to suppliers on the quantity and quality of commercial offers was to classify the numerous offers on the market, although not completely exhaustive of the reality. Therefore, the usual note to consider the results presented in these pages with caution remains in place. Moreover, since the supply of non-domestic customers traditionally has much more varied and complex needs than those of households, the presentation of the results collected focuses almost exclusively on the latter[111].

[111] The only result shown for non-domestic customers is the number of offers available because the question in the questionnaire for suppliers has achieved a good response rate.

The average number of commercial offers that sales companies are able to make to their potential customers was 16.7 for domestic customers and 39.2 for non-domestic customers. The latter, of course, enjoys a greater possibility of choice as the customer is generally more important in terms of volumes consumed and certainly with more differentiated needs (multi-site, more varied hourly consumption profiles, etc.) than those of a domestic customer. To this customer the seller is certainly able to provide more personalised services and more individualised contracts. Over time, the number of offers available to domestic customers has grown (9 in 2016 and 14.5 in 2017), as is right to expect in a market that is preparing for the end of the standard offer service and that is increasing efforts to involve customers who have so far proved more reluctant to move to the free market.

The number of offers available to non-domestic customers, on the other hand, has fallen sharply compared to 2017, when it was 60.5. This decrease could be due, at least in part, to the fact that the free market for non-domestic customers is certainly more mature than that for households and could therefore find itself in a phase of streamlining of the offers created for these customers. Part of the decrease, however, could also be explained by the suppliers' better classification of offers, this being the third edition of the Survey that asks for data on commercial offers.

Returning to domestic customers, Figure 2.21 shows, however, that 24% of suppliers offer only one contract, about a quarter of them (23%) offer up to 3 and the remaining 53% of suppliers offer their customers a range that includes upwards of 4 offers. Compared to 2017, the number of sellers offering only 1 or 2 contract terms has decreased, while those offering 4 or 8 contract terms have increased.

Of the 16.7 offers made available on average to domestic customers, 6 can only be purchased online (4.4 in 2017), i.e. only through the Internet, which is now a very important sales channel through which the company can clarify its offer with all the necessary details and save on operating costs. However, 25.7% of suppliers do not even offer one online offer. In 14% of cases, the number of online offers is the same as the total number of offers made to customers, while in the remaining 86% of cases, the number of online offers was lower than the total number of offers.

Online offers are not currently very popular with households, as only 3.4% of customers (corresponding to 3.8% of electricity purchased in the free market) have signed a contract offered in this way. The result is lower than in 2017, when 3.8% of households chose to subscribe to an electricity offer through the Internet.

As concerns the preferred type of price, it was found that 86% of domestic customers has subscribed to a fixed price contract on the free market (i.e. with the price that does not change for at least one year from the time of the subscription), while only 14% chose a variable price contract, i.e. with the price that changes according to the times and methods established by the contract itself. Again, the figures are slightly down on the previous year, when the variable price was chosen by 16% of household customers.

In addition, 2.3% of customers have signed a contract with a minimum contractual term clause, meaning that for the application of the established price it is required that the customer does not change supplier for a minimum of time established by the contract itself. The percentage is higher in the case of variable-price contracts where the minimum contractual duration applies to 2.5% of customers, while it is 2.2% in the case of fixed price contracts.

There are various types of indexation methods for variable-price contracts. 41% of customers who signed a variable-price contract signed a contract that provides for a fixed discount on one of the components established by the Authority for the standard offer service (37% in 2017); 35% of customers chose a contract that provides for indexation to the trend of the PUN (national single price) and 18% of customers chose one that is indexed to the trend of Brent (last year the values were more similar: 30% indexed to Brent and 29% indexed to PUN). 7% of customers chose a contract that provides for a different form of indexation from those mentioned above (4% in 2017).

About 42% of domestic customers have signed a contract that provides for a rebate or discount of one or more free periods or a fixed sum in cash or volume, which can be one-off or permanent, and possibly provided for the occurrence of a certain condition (e.g. discount for contracts signed by friends of the customer, discount for bank account address). More specifically, the discount is applied on average to 33%

of customers who have chosen a fixed price contract and 97% of customers who have chosen the variable price. The share of contracts purchased with a rebate or discount has increased significantly compared to 2017, when it was 26%. In an expanding market with new and inexperienced customers, it seems therefore that households prefer simple, easily understandable and immediately applicable contract methods.

Finally, regarding the presence of additional services in the contracts signed (Table 3.18), in domestic customers who have chosen a fixed-price contract, a clear preference emerges both for the guarantee to purchase electricity produced from renewable sources (39% of customers have signed a contract that provides for it), and for the participation, through the electricity contract, in a points programme, which can be both of the sales operator and of other subjects (e.g. those that can be spent in a supermarket chain): 36% of customers have chosen a contract that offers this additional service. However, 12.1% of customers chose a contact without additional services. As the latter is available for the first time, the percentages of all additional services are reduced proportionally compared to the previous ones.

Table 3.18 Percentage of customers who have signed a contract for the supply of electricity with additional services

ADDITIONAL SERVICES	FIXED PRICE CONTRACTS			VARIABLE PRICE CONTRACTS		
	2016	2017	2018	2016	2017	2018
Offers with additional services subscribed in relation to the total	84.6	83.9	85.9	15.4	16.1	14.1
ADDITIONAL SERVICES						
No additional services	not available	not available	12.1%	not available	not available	52.9%
Guarantee of energy from renewable sources (total or percentage green supply)	49.6%	45.7%	39.2%	60.9%	48.9%	27.6%
Points collection programme (own or others)	42.2%	45.0%	36.1%	5.8%	6.9%	2.5%
Additional energy services (e.g. digital and collaborative tools to control energy consumption and costs, tools to increase energy efficiency, professional services such as telephone assistance, plant maintenance, insurance, etc.).	3.9%	5.7%	7.4%	22.0%	16.1%	8.5%
Free gift or gadget	not available	1.4%	0.2%	not available	23.1%	3.1%
Discounts on the purchase of other goods or services (e.g. petrol discounts, magazine subscriptions, etc.)	2.6%	0.5%	0.3%	4.1%	3.6%	1.4%
Other not included above (specify)	1.8%	1.7%	4.7%	7.2%	1.4%	4.1%
TOTAL	100.0%	100%	100%	100.0%	100%	100%

Source: ARERA. Annual survey on regulated sectors.

However, more than half of the customers who have signed a variable-price contract have chosen one without additional services. However, even among these customers, there is a high interest in the guarantee of purchasing electricity produced from renewable sources (27.6% of cases). The second preference goes to the possibility of obtaining, together with electricity, ancillary energy services (8.5%). The point collection programmes and the obtaining of free gifts/gadgets collect a fairly small share of preferences, equal to 2.5% and 3.1% respectively. Also, in this case, the percentages of the previous years are all reduced by that relating to the signing of contracts without additional services that was not available in previous years.

Concentration in the electricity sales market

The ranking (provisional, given the preliminary nature of the data collected) of the top twenty groups for total sales to the final market in 2018 (Table 3.19) presents some new features compared to last year for the

turnover of suppliers in the various positions.

The dominant operator of the entire Italian electricity market remains the Enel Group, with a slightly higher share of 37.8% (from 37.3% in 2017) and is still some distance ahead of its nearest competitor group. With an overall market share of 4.9%, the Edison Group returned to second place. In 2017, it was in third place, surpassing the Eni Group, whose market share stopped at 4.3%. With a sales volume of 11,055 GWh, the latter even fell to fourth place in 2018 because it was exceeded by the Hera Group, whose sales volume was about 20 GWh higher. However, it should be noted that the Axpo group has moved to fifth position since the seventh in 2017, as well as the rise to seventh place of the Green Network group, which last year was twelfth.

The Enel Group keeps its position in the total market primarily 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 - 52.9%, to be precise - is in fact served by Enel, while Eni and Hera, which are substantially equal in second place, each have a share of 3.6%. Furthermore, in 2018, Enel also maintained its dominant position in the segments of non-domestic customers with medium and high/very high voltage, which it had lost in 2013 and regained in 2016.

In 2018, 70.1% of the energy consumed by households was sold by the Enel group (72% in 2017); with a 6% share, the second group is Eni, while Acea maintained its third position with 3.3%. Overall, the top five operators (A2A and Hera together with those already mentioned) hold 84.7% of the domestic sector (86.3% in 2017).

Considering sales to non-domestic customers supplied at low voltage, the Enel group's share, at 39.5% (down from 40.8% in the previous year), remains well behind the 4.5% of the second group, which was Hera (in second place in 2017 as well). This is followed by Edison with 3.4%, which in 2017 was in sixth place, A2A with 3.3% (in third place in 2017) and Iren with 3% (in fourth place in 2017).

In 2018, the Edison Group, which traditionally followed the incumbent, climbed to fifth position (it was seventh in 2017) in the mass market, which, as mentioned, is the segment consisting of households and non-domestic customers powered by low voltage; in sales to non-domestic customers connected to high and very high voltage Edison remained the fourth group (as last year) with a share of 12.2%, and for medium voltage customers it fell to third place with a share of 5.7%.

In the medium voltage segment, the Hera group gained ground, rising to second place with 6.3%, from fifth place in 2017. With 5.2%, the Eni Group is in fourth position (it was third in 2017) and the Axpo Group has risen to fifth position, with its share rising from 3.6% in 2017 to 4.5%.

In sales to high-voltage and very-high voltage customers, after Enel the second group remained, as last year, the Duferco group, with a share of 13.9%, followed shortly after by Axpo (12.6%) and Edison (12.2%).

In 2018, the level of concentration in the retail market, as measured by the quantities of energy sold by the corporate groups, increased compared with 2017, while that measured by the number of customers decreased. Table 3.22 provides details of the concentration measurements, which can also be broken down by voltage level. In the first part of the table, measurements are calculated from the volumes sold by corporate groups in the retail market, while in the second part of the table, measurements are calculated on the basis of the customers (delivery points) served by the corporate groups themselves.

Table 3.19 Top twenty groups by sales in the end users market in 2018

GWh

GROUP	CUSTOMERS	NON-DOMESTIC CUSTOMERS			TOTAL	POSITION
	DOMESTIC	LV	MV	HV/VHV		IN 2017
Enel	40,078	28,959	21,509	5,889	96,435	1st
Edison	1,153	2,513	5,552	3,222	12,440	3rd
Hera	1,402	3,289	6,139	243	11,073	4th
Eni	3,445	1,302	5,139	1,169	11,055	2nd
Axpo Group	50	1,617	4,429	3,340	9,437	7th
A2A	1,615	2,407	4,296	701	9,019	6th
Green Network	229	1,226	3,539	2,453	7,447	12th
Iren	1,290	2,222	3,094	356	6,962	8th
Duferco	60	586	2,246	3,669	6,560	11th
E.On	345	1,513	3,001	694	5,553	9th
CVA	121	1,602	3,029	197	4,948	13th
Acea	1,874	1,450	1,394	224	4,942	10th
Metaenergia	5	620	3,231	230	4,087	5th
Repower Ag	0	1,956	1,890	63	3,908	18th
Alperia	327	1,020	2,383	74	3,804	19th
Egea	58	697	2,756	247	3,759	20th
Dolomiti Energia	614	1,337	1,562	46	3,558	15th
Eviva	77	1,716	1,664	54	3,511	14th
Sorgenia	228	1,378	1,616	46	3,268	17th
Telecom Italia	0	953	1,106	0	2,059	22nd
Other operators	4,205	15,011	18,515	3,565	41,296	-
TOTAL	57,179	73,374	98,090	26,481	255,123	-

Source: ARERA. Annual survey on regulated sectors.

Using the measurements calculated on the kWh sold, C3, the share of the first three operators (corporate groups), rose to 47% of total sales, compared to 45.9% in 2017. The HHI also rose slightly to 1,571 from 1,521 in 2017. A HHI value between 1,500 and 2,500 indicates a moderately concentrated market, while a value above 2,500 indicates a highly concentrated market (the maximum value of the index is 10,000). The number of corporate groups needed to exceed 75% of total sales, on the other hand, remained at 16, as in 2017. In 2018, the Enel group was the only one with a market share of more than 5%, as in 2017. The Edison Group, with a market share of 4.9%, and Hera with 4.3% follow suit. The top ten operators (corporate groups) account for 65.5% of total sales (compared with 63.8% the previous year).

Using the measurements calculated at the delivery points, the concentration values are higher than those indicated by the volumes of energy sold, with the exception of those for non-domestic customers served at high and very-high voltage. However, in comparison with the data for 2017, the data confirm that in the segment of households and that of non-domestic customers connected to low voltage the concentration is decreasing, while in the segments relating to medium and high voltage customers the concentration is increasing.

Table 3.20 Concentration measurements in the retail market

Measurements calculated for corporate groups

VOLTAGE LEVELS	2017			2018		
	GROUPS> 5%	C3	HHI	GROUPS> 5%	C3	HHI
MEASUREMENTS CALCULATED ACCORDING TO ENERGY SOLD BY COMPANY GROUPS						
Low voltage (domestic)	2	81.3%	5,280	2	79.4%	4,987
Low voltage (non-domestic)	1	48.0%	1,761	1	47.4%	1,667
Medium voltage	5	29.9%	544	4	33.8%	715
High and very high voltage	6	47.4%	1,124	5	48.7%	1,144
TOTAL MARKET	1	45.9%	1,521	1	47.0%	1,571
MEASUREMENTS CALCULATED ACCORDING TO CUSTOMERS SERVED BY CORPORATE GROUPS						
Low voltage (domestic)	2	82.0%	5,465	2	80.3%	5,172
Low voltage (non-domestic)	1	67.9%	3,913	1	65.6%	3,632
Medium voltage	2	42.4%	1,111	3	44.6%	1,038
High and very high voltage	3	40.3%	856	3	43.8%	871
TOTAL MARKET	1	78.8%	5,117	1	76.9%	4,825

Source: ARERA. Annual survey on regulated sectors.

3.2.2.1 Monitoring of the level of retail market prices, the level of transparency and the degree and efficiency of market opening and competition

Monitoring the level of retail market prices

The Authority has two surveys of sales prices in the retail electricity market:

- The survey, which was carried out pursuant to Resolution ARG/elt 167/08 of 20 November 2008, provides quarterly data about the prices billed[112] by suppliers to domestic and non-domestic customers, broken down into consumption classes and market types;
- the survey carried out as part of the *Annual survey of regulated sectors*, in which data is collected for the previous year and broken down into various categories of detail (type of market, sector and consumption classes, type of contract applied).

At the end of 2011, the Authority approved[113] the *Integrated Text for the Monitoring of the Electricity and Natural Gas Retail Markets* (TIMR), which requires operators engaged in the final sale of electricity (with more than 50,000 delivery points served) to communicate to the Authority each quarter the data relating to the average monthly prices of electricity charged on the final market, together with numerous other indicators (see the following paragraph). In fact, starting in January 2012, the average prices collected by the Authority pursuant to Resolution ARG/elt No. 167/08, limited to suppliers who are required to comply with the TIMR, will be included in the retail monitoring system. However, pursuant to an institutional agreement, all data collected pursuant to Resolution ARG/elt 167/08 is provided every six months to the Ministry of Economic Development, which sends them to Eurostat to comply with its obligations with regard to statistics

[112] More specifically, these are average unit sales obtained from the ratio between revenues collected and the quantities of energy billed in the reference quarter.
[113] By resolution of 3 November 2011, ARG/com 151/11.

on the final prices of electricity and natural gas. These obligations were amended in 2016 with the adoption of *Regulation (EU) 2016/1952 concerning European statistics on natural gas and electricity prices and repealing Directive 2008/92/EC*. The Authority has therefore renewed[114] its systems for recording the prices charged by suppliers of electricity and natural gas to end customers in order to adapt them to the requirements of the new European Regulation. The new price recording systems will be applied as from the communication of prices for the first half of 2019, as Italy has obtained an extension for the application of Regulation 2016/1952.

The data in the *Annual survey* are more detailed and are used to prepare annual reports for national and European authorities.

As part of the *Annual survey of regulated sectors*, sales operators were asked, as usual, to provide data on the final prices charged to their customers, both net of taxes and for the part connected only to supply costs (which are the sum of the components relating to energy, dispatching, network losses, imbalance and sales marketing costs). The analysis of the prices transmitted by the operators showed a high variability in the unit spending of customers. This result can be found for all consumption classes, albeit with some differences.

As can be seen in Table 3.21, which shows the average prices charged to domestic customers divided by consumption class, the values range from a minimum of around 170 €/MWh, found for larger customers (over 15,000 kWh/year), to a maximum of 535 €/MWh, relative to the smallest class (0-1000 kWh). The price is constantly decreasing as the size of the customers increases. Therefore, the characteristic U-shaped trend that emerged in the past has been completely phased out. This is due to the implementation of the first two stages of the network tariff and system charge reform[115], aimed at gradually phasing out the pre-existing progressive tariff structure. As always, the cost of supply also decreases continuously as consumption increases.

Table 3.21 Average final prices after tax for domestic customers in 2018

€/MWh; provisional data

CONSUMPTION CLASS (KWh/year)	QUANTITY OF ENERGY (GWh)	DELIVERY POINTS (THOUSANDS)	PRICE NET OF TAXES	OF WHICH SUPPLY COSTS
<1,000 kWh	3,634	8,018,033	535.0	172.6
1,000 -1,800 kWh	10,285	7,306,789	227.5	117.1
1,800 -2,500 kWh	12,478	5,844,756	196.4	109.3
2,500 -3,500 kWh	14,561	4,963,259	187.4	105.8
3,500 -5,000 kWh	9,863	2,423,467	182.9	102.9
5,000 -15,000 kWh	5,694	869,809	179.8	99.2
> 15,000 kWh	664	26,493	169.6	91.7
TOTAL DOMESTIC CUSTOMERS	57,179	29,452,607	216.9	111.5

Source: ARERA. Annual survey on regulated sectors.

As evidence of the high variability of prices charged by suppliers, one can observe the data presented in Table 3.22 which, for each consumption class of domestic customers, breaks down by price bracket (expressed in €/MWh), the supply costs found in the free market and the corresponding share of electricity sold. The two extreme classes have the highest concentration, with more than 60% of sales in a single bracket: over 150

[114] By resolution of 29 March 2018, 168/2018/R/com, which also repealed resolution ARG/elt 167/08.
[115] Resolution 582/2015/R/eel of 2 December 2015. In particular, on 1 January 2017 the full application of the non-progressive tariff for network services took place and the first intervention on system charges was carried out, in order to reduce the progressive effect and limit the number of annual consumption bands to two.

€/MWh for smaller customers (less than 1,000 kWh/year), between 75 and 100 €/MWh for larger consumers (over 15,000 kWh/year). On the other hand, the maximum dispersion of values can be found for the second class of customers (consumption between 1,000 and 1,800 kWh/year), in which all price ranges have significant shares, although the price range between 100 and 125 €/MWh is higher than the others (41%). There is a more limited dispersion in the four intermediate classes (consumption between 1,800 and 15,000 kWh/year), in which procurement costs are condensed in the range from 75 to 125 €/MWh, which in all four cases covers about 80% of sales.

As just mentioned, over the years the number of offers available to end customers has increased. Some of these offers include supplies at a fixed price for a predetermined period (one or two years), in which the mechanisms for updating the prices are therefore not influenced by the economic dynamics of energy prices, but largely depend on the date of signature of the contracts and in particular on the expectations on the evolution of energy prices existing at that time, as well as on the duration of the contracts themselves (the longer it is, the more the agreed price must take into account the risks of change in the market). Other offers are at variable prices. Some of them provide discounts on the raw material component, while others provide advantages on the purchase of other goods or services (such as discounts at the supermarket, or on fuel, or on telephone services, insurance maintenance services, etc.). Other offers are linked to compliance with certain consumption thresholds, above which additional price components are triggered.

Table 3.22 Percentage of prices applied to domestic customers in 2018 by price range

Minimum and maximum prices in €/MWh

CONSUMPTION CLASS (KWh/year)	PRICE BANDS					MINIMUM PRICE	MAXIMUM PRICE
	0-75	75-100	100-125	125-150	> 150		
<1,000 kWh	7%	7%	7%	15%	63%	22.8	420.6
1,000 -1,800 kWh	8%	15%	41%	26%	11%	22.0	426.4
1,800 -2,500 kWh	8%	24%	52%	12%	4%	24.8	256.4
2,500 -3,500 kWh	9%	37%	44%	8%	2%	22.7	223.1
3,500 -5,000 kWh	9%	46%	37%	6%	1%	20.2	259.6
5,000 -15,000 kWh	11%	59%	26%	3%	1%	23.2	199.0
> 15,000 kWh	16%	67%	15%	1%	1%	22.6	407.0
TOTAL DOMESTIC CUSTOMERS	9%	34%	33%	11%	13%	20.2	426.4

Source: ARERA. Annual survey on regulated sectors.

Table 3.23 Average final prices net of tax for non-domestic customers in 2018

€/MWh; provisional data; excluding the safeguarding market

VOLTAGE LEVEL	QUANTITY OF ENERGY (GWh)	DELIVERY POINTS (THOUSANDS)	PRICE NET OF TAXES	OF WHICH SUPPLY COSTS
Low voltage	73,374	7,187	195.7	92.6
Medium voltage	98,090	117	139.0	70.2
High and very high voltage	26,481	1	82.9	61.9
TOTAL NON-DOMESTIC CUSTOMERS	197,944	7,305	152.5	77.4

Source: ARERA. Annual survey on regulated sectors.

Table 3.24 shows the value of prices net of taxes, breaking down electricity customers by type of hourly tariff (excluding the safeguarding market), while the tables below show the electricity prices paid by customers in the free market who have signed a dual fuel contract, which are almost invariably less favourable than buying electricity under a specific contract. However, the same tables show that the number of such customers and the energy purchased by them are very small.

Table 3.24 Average final prices after tax in 2018 by type of hourly tarif

€/MWh; excluding the safeguarding market; provisional data

HOURLY TARIFF	QUANTITY OF ENERGY (GWh)	DELIVERY POINTS (THOUSANDS)	PRICE NET OF TAXES	OF WHICH SUPPLY COSTS
Non-time of use	46,057	9,449	179.63	94.89
Two-tier	90,892	21,100	164.22	87.89
Time of use	113,905	6,128	163.10	77.68
TOTAL CUSTOMERS	250,854	36,677	166.54	84.54

Source: ARERA. Annual survey on regulated sectors.

Table 3.25 Average final prices (after tax) for the purchase of electricity on the free market charged to domestic customers with dual fuel contracts in 2018

€/MWh; provisional data

CONSUMPTION CLASS (KWh/year)	QUANTITY OF ENERGY (GWh)	DELIVERY POINTS (THOUSANDS)	PRICE NET OF TAXES	OF WHICH SUPPLY COSTS
<1,000 kWh	186	369	559.51	180.44
1,000 -1,800 kWh	684	484	260.34	118.64
1,800 -2,500 kWh	852	399	217.45	108.74
2,500 -3,500 kWh	975	333	200.51	103.49
3,500 -5,000 kWh	595	147	189.17	99.62
5,000 -15,000 kWh	298	46	180.73	96.13
> 15,000 kWh	29	1	170.50	90.09
TOTAL DOMESTIC CUSTOMERS	3618	1779	230.48	110.18

€/MWh; provisional data

Table 3.26 Average final prices (after tax) for the purchase of electricity on the free market for non-domestic customers with dual fuel contracts in 2018

€/MWh; provisional data

VOLTAGE LEVEL	QUANTITY OF ENERGY (GWh)	DELIVERY POINTS (THOUSANDS)	PRICE NET OF TAXES	OF WHICH SUPPLY COSTS
Low voltage	1266	78	170.24	89.14
Medium voltage	692	1	103.59	68.57
High and very high voltage	16	0.01	94.17	25.14
TOTAL NON-DOMESTIC CUSTOMERS	1974	79	146.24	81.40

Source: ARERA. Annual survey on regulated sectors.

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

The **retail market monitoring system** is designed to enable the Authority to regularly and systematically monitor the operating conditions of retail sales, including the degree of openness, competitiveness and transparency of the market, as well as the level of participation of end customers and their degree of satisfaction.

Legislative Decree No. 93 of 1 June 2011, implementing Directives 2009/72/EC and 2009/73/EC, established that the Authority shall monitor the retail markets, with regard to both the electricity and natural gas sectors. For both sectors of the mass market, this activity was launched with the Integrated Text of the monitoring system for the electricity and natural gas retail markets (TIMR), as mentioned in the previous paragraph.

With reference to the year 2017, Report 596/2018/I/com illustrates the main results of the monitoring activity, describing, where possible, the evolution of significant phenomena in the first six years of monitoring (2012-2017). In line with previous reports, it analyses the data collected on the subject of:

- supply structure and competitive dynamics in the mass sales sector;
- frequency with which customers change supplier (switching) or renegotiate their contract with the current supplier;
- organisational processes and mechanisms to support the functioning of the sales market;
- default, as assessed by the analysis of requests for suspension of supply and economic indicators, such as bills and unpaid amounts.

The results of the monitoring activity confirmed, for 2016, that there were no significant problems for MV customers for other uses, although with some signs of lesser dynamism. Therefore, the Report does not highlight the need for specific regulatory interventions in this regard, but only the opportunity to limit the action of the Authority to a careful monitoring of the phenomena found. On the other hand, for LV customers with other uses, the competitive dynamics and the structure of the sales market have shown encouraging signs of liveliness, which, however, have not yet found long-term continuity. These signals are therefore worthy of particular attention in the monitoring activities to come, also in order to be able to find confirmation with further feedback. On the other hand, the results that emerged with reference to domestic customers, in the electricity sector, and to domestic customers and central heating in the natural gas sector, suggest greater attention in the process of regulatory accompaniment to the complete liberalisation of the market. In detail, attention should be paid first of all to the high levels of concentration and the persistence of the competitive advantage of the operators of the standard offer services. Other elements that could be explored in more detail in the future activity are:

- the impact on final prices of the greater differentiation of the offer found in the segment of domestic customers compared to non-domestic customers;
- how changes in wholesale supply prices may or may not be passed on in the offers available to end customers in downstream markets and in the prices paid by customers.

For both the electricity and gas sectors, it is important to take into account the low share of demand[116] and these elements must be considered carefully in the light of the evolution of the retail market, in order to prevent, in the upcoming context of removal of the protection mechanisms,customers not being able to fully seize the opportunity to benefit from all the opportunities offered by the free market. In this perspective, it

[116] The low level of demand is also highlighted by the demoscopic surveys launched by the Authority into the behaviour and choices of customers in liberalised energy markets. These surveys show, on the one hand, that most customers who change supplier do not do so proactively (but only after having been contacted by the call centre or a sales agent) and, on the other hand, the lack of knowledge of the opportunities offered by the market by customers who have remained in the protection services.

is necessary to remove the elements that may limit the ability of the customer to contend with the risk of leaving the standard offer services. Moreover, it is necessary to encourage a greater participation of demand, also in order to increase the awareness and the trust of the customers about the benefits, also in terms of price, obtainable through switching, and to allow them to discern the most convenient choices for them. Finally, with reference to the evolution of the retail monitoring system, the action of exploiting the potential of the IIS in order to collect the data subject to monitoring continued and was strengthened, minimising the information costs for operators. Work is also underway to exploit this potential to achieve greater detail in the information monitored[117], greater timeliness in making it available to the Authority and a broadening of the phenomena monitored.

Switching

According to the data provided by distributors as part of the annual survey, it can be seen that in terms of delivery points in 2018 household switching increased compared to the previous year, while in terms of volumes it decreased (Table 3.27). In 2018, in fact, 9.1% of household customers - 2.7 million households - changed supplier at least once in the year. The volumes corresponding to this portion of customers, however, are equal to about 10.2% of the total energy distributed to the domestic sector, while the volumes corresponding to 7.9% of households that switched supplier in 2017 corresponded to 11.6% of the energy delivered. The reduction in the volumes involved in switching can be caused both by the fact that, in general, electricity consumption has decreased, but also by a greater tendency to save, which pushes smaller and smaller customers (in terms of consumption) to move around the market in search of more favourable economic conditions.

Table 3.27 Switching rates of end customers

CUSTOMER TYPE	2017		2018	
	VOLUMES	DELIVERY POINTS	VOLUMES	DELIVERY POINTS
Domestic	11.6%	7.9%	10.2%	9.1%
Non-domestic	38.4%	19.9%	28.5%	17.2%
of which:				
- low voltage	34.1%	19.7%	27.9%	17.0%
- medium voltage	46.9%	38.1%	36.5%	30.2%
- high and very high voltage	26.2%	22.2%	9.9%	13.5%
TOTAL	32.6%	10.3%	24.6%	10.7%

Source: ARERA. Annual survey on regulated sectors.

For the first time since 2011, on the other hand, in 2018 switching activity by non-domestic customers fell sharply, although it remained quite lively. The decrease is quantifiable as -2.8 percentage points in terms of customers, and -9.9 percentage points in terms of volumes underlying switching. Overall, in fact, in 2018, 17.2% of non-domestic customers switched supplier (slightly less than 1.3 million delivery points), while in 2017 19.9% of non-domestic customers switched supplier. In terms of volumes, in 2018 switching accounted for 28.5% of the energy distributed to the production sector, while in 2017 the same share was 38.4%.

The split by voltage level shows that switching activity decreased more as the voltage level increased. In fact, the percentage of delivery points that changed supplier in 2018 fell, compared to 2017, by 2.7 percentage points in the case of low voltage customers, 7.8% in the case of medium voltage customers and 8.7% in the case of customers served at high or very high voltage. Similarly, the share of volumes underlying switching

[117] In particular, it is very important to update the information monitored about the offers of the end customers (to improve their understanding of both the price charged and the mark-up obtained by the sellers) and the elements of differentiation and innovation introduced.

decreased by 6.2 percentage points (from 34.1% to 27.9%) for low voltage customers, 10.1 percentage points for medium voltage customers and 16.6 percentage points for customers connected to high voltage.

Complaints relating to the commercial quality of the electricity sales service and compensation

The Authority is required to ensure the effective handling of complaints and conciliation procedures of end customers against suppliers and distributors of natural gas and electricity, using the Single Buyer, and to ensure that the principles on consumer protection as set out in Annex I of the Directives 2009/72/EC and 2009/73/EC of the European Parliament and of the Council are applied, as provided for in Article. 44, paragraph 4, of Legislative Decree no. 93/11.

The Integrated Text regulating the quality of electricity and natural gas sales services (TIQV)[118] has established a series of rules to protect end customers and commercial quality indicators, with which all electricity and gas sales companies are required to comply. These indicators are of two types: general and specific. Written complaints, billing adjustments and double billing adjustments are subject to specific minimum standards on performance time, while written information requests are subject to general standards. The TIQV requires that, if the supplier does not comply with the specific commercial quality standards, the customer automatically receives compensation when the first useful bill is issued. The basic automatic compensation (€25 from 2017 onwards) doubles if the performance of the service subject to compensation takes twice as long as the standard and triples if the performance of the service takes more than three times as long as the standard or more. Regardless of the expected escalation, compensation must be paid to the customer within 6 months by the supplier who has received the written complaint or the request for billing or double billing adjustment. Compensation is not due if the non-compliance with specific quality standards is due to causes beyond the control of the supplier.

For 2018, overall, the actual average times for electricity suppliers, in cases of written response to complaints, billing and double billing adjustments, are below the minimum standards set by the Authority, and are better than in 2017. The average response times for requests for information are also lower than the general standard, but slightly higher than in 2017.

Overall, the companies that served customers in the electricity sector and provided data on commercial quality received a total of 284,507 written complaints; 53% of the complaints came from domestic and non-domestic customers in the free market, 41% from customers in the standard offer market and 6% from multi-site customers. Overall, there was a 12% decrease in complaints compared to 2017, with a particular focus on domestic customers in both the free and standard offer markets, while there was an absolute increase in complaints from MV customers (Table 3.28). As regards requests for information in 2018, 73.1% came from customers in the free market and, in particular, from domestic customers (49%). Multi-site customers accounted for 14% of total information requests, followed by 12.9% of customers in the standard offer market.

In 2018, the billing adjustments resulting from written complaints on bills already paid, the content of which is disputed, mainly concerned the free market and, in particular, domestic customers (45.8%), followed by non-domestic customers in the free market (23.3%). Overall, billing adjustments decreased by 51.2% compared to 2017, due to a decrease in adjustments for all types of customers.

Finally, double billing adjustments caused by errors in switching procedures (for the same consumption period the final customer receives a bill from both the outgoing and the incoming supplier), in 2018, were a largely residual phenomenon (2,191 cases), which mainly affected domestic and non-domestic customers in the free market.

[118] Attachment A to the resolution 21 July 2016, 413/2016/R/com.

Table 3.28 Complaints, requests for information and billing adjustments in 2018

	2017	2018	VARIATION
Number of complaints	323,572	284,507	-12.1%
Number of requests for information	211,619	147,167	-30.5%
Number of billing adjustments	19,006	9,245	-51.4%
Number of double billing adjustments	3,798	2,191	-42.3%

Source: ARERA processing on data from the Help Desk for the Energy Consumer.

The subjects of the complaints concerned: about 37% billing and everything related to consumption and billed fees, self-reading, the periodicity of billing, including the closing bill, payments and refunds; in 15.9% of cases, the events of the contract, such as withdrawal, change of name, transfer and take-over (completion and costs of transfer and take-over); in 9.9% of cases, the procedures for concluding new contracts, the timing of the switch and the economic conditions proposed by the supplier at the time of the offer compared to those provided for in the contract and applied.

Overall, in 2018, 31,276 cases of non-compliance with the standards, which gave rise to the right to compensation for services relating to the commercial quality of the sale, were paid out and automatic compensation of almost 1.6 million Euros were paid out.

Complaints to the Call Centre of the Help Desk for electricity and natural gas consumers

In 2018, 388,159 calls received during working hours were handled by the call centre at the Help Desk, 95.1% of which were attributable to the energy sectors. There were 16,663 customers or users who hung up without waiting for the operator's answer (23,536 fewer than in 2017), while the average call time was 178 seconds, down from 191 seconds in 2017. The average waiting time also fell, from 134 seconds to 131 seconds.

The topics covered in the telephone calls received at the Help Desk concerned, in particular, gas, electricity and water bonuses (42%), dispute resolution procedures (21%), rights and regulations (14%), practices at the Help Desk (12%) and other questions (concerning Tutela SIMILE, PLACET offers and the Offers Portal - see next paragraph) in 11% of cases.

During 2018, the Help Desk also received 6,595 written requests for information for the energy sectors, of which 1,743 (11.3%) were classified as complex because they were linked to potential disputes and needed preliminary information on the applicable regulation, as well as an indication of the out-of-court dispute resolution tools available in the absence of an agreement negotiated with the supplier. The Help Desk also received 3,884 second level complaints, for which it informed the customer of the conciliation tools provided for at the second level of the protection system and which can be used to resolve the dispute, i.e. the Conciliation Service or other conciliation bodies.

In total, 5,627 customers were redirected directly or indirectly to the Conciliation Service or other conciliation procedure (7,524 in 2017). Of the 4,852 requests for simple information concerning the electricity and gas service, 34.8% regarded billing and, in particular, the sub-topic "incorrect estimated consumption"; 19.1% of the respondents were interested in the subject of "market" and, specifically, the issues of "alleged unsolicited contracts" and "switching" were of interest to end customers. Lastly, 12.4% of simple requests for information related to "arrears and suspension", while, for "contracts" (10.1%), requests for information focused on the issues of withdrawal and take-overs and transfer. As far as complex requests for information are concerned, it should be noted that most of them are concentrated on just three items: "billing" (32.5%), "market" (28.2%) and "connections and technical quality" (20.9%), with a breakdown therefore not perfectly mirroring that of simple requests for information.

The special information procedures have been applied since 1 January 2017 in the energy sectors for specific cases, identified by the Authority, marked by information encoded in central databases, such as the

Integrated Information System (IIS) or the Compensation System (SIND,) and rules "to be applied automatically". By virtue of these characteristics, the Help Desk, according to the documentation sent by the end customer and access to the databases mentioned above, can provide the information requested. In 2018 requests for activation of special information procedures amounted to 20,159, a significant increase (+77%) compared to 2017. The breakdown by sector is in line with that of the previous year: 76% of requests related to the electricity sector, 18% to gas and 6% to both sectors.

3.2.2.2 Recommendations on final sales prices, investigations, inspections and imposition of measures to promote competition

Investigations and inspections

Enforcement of the provisions laid down by the Authority is carried out by monitoring the behaviour of the operators, from time to time identified on the basis of planning documents prepared annually or following reports or evidence in the possession of the Offices. To this end, the Authority makes use of investigations, inspections and documentary controls concerning plants, processes and services relating to the sectors of interest to the Authority.

During 2018, the following took place:

- fact-finding investigations, relating to issues identified as priorities by the *Authority's Strategic Framework for the four-year period 2015-2018*, in particular the investigation into investments declared by companies for the purpose of recognising such costs in tariffs continued during the reference period;
- on-the-spot inspections, covering a wide range of subjects, with particular attention to priority issues such as consumer protection, quality of service, the proper functioning of the markets and the control of incentives and cost items recognised in the tariff;
- document controls, in particular relating to the correct application of the obligations of brand unbundling and the communication policies of the electricity and gas distribution companies, and to the correct contribution, by the regulated companies, of the operating charges of the Authority, as well as to the information provided in the Authority's Register of Operators.

As a result of the control activities in the event of non-compliance with the regulatory provisions, the consequent sanctioning and/or prescriptive measures are adopted against the operators. The results of this activity are also relevant to the implementation or updating of the regulatory framework, with a view to its continuous improvement and effectiveness, in the regulatory cycle process adopted.

During 2018, which saw a strong development of activities related to the investment investigation and documentary checks, **a total of 101 inspections were carried out in the electricity and gas sectors** with an even wider spectrum of topics than in the past. In 2018, in fact, inspections were carried out in three new fields of investigation (economic compensation of arrears for fraudulent withdrawals under the standard offer regime, Bill 2.0 and investments declared by electricity distribution companies). The consolidation of inspection activities in the other priority areas also continued, in order to ensure adequate coverage of controls with respect to the number of operators present and users served, with particular attention to the quality of electricity and gas services.

Measures for the effective promotion of competition

As already explained in last year's Report, in 2017 the **competition law** was approved (Law No. 124 of 4 August 2017), which introduced regulations relating to the retail market for electricity and natural gas with

the particular aim of (i) ceasing, as from 1 July 2020[119], the transitional price regulation defined by Law No. 125 of 3 August 2007, and (ii) introducing measures to support the further development of retail markets.

During 2018, the Authority continued, within the framework of the regulations outlined by Law 124/2017, its interventions to support the further development of retail markets, in line with the activities carried out in previous years and, in particular, forwarded *Report 117/2018/I/com on the monitoring of the electricity and gas retail markets* to the Ministry of Economic Development

In particular, according to the provisions of Article 1, paragraph 66, of Law no. 124/2017, the Report offered the Ministry an evaluation on the following aspects:

- the operation of the IT portal for the collection and publication in open data mode of current offers on the electricity and gas retail market, with particular reference to households, low voltage connected companies and companies with annual consumption not exceeding 200,000 m^3, as referred to in paragraph 1.61 of the same Law;
- the completion of the legislative and regulatory framework and the effectiveness of the tools needed to ensure compliance with the switching timing as required by Article 3(5)letter a) of Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 and Article 36) letter a) of Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009, as implemented by Legislative Decree No 93 of 1 June 2011;
- the completion of the legislative and regulatory framework and the effectiveness of the instruments necessary to ensure compliance with the timing of billing and adjustment in accordance with the provisions of Annex I, point 1, letters i) and j) of the aforementioned Directive 2009/72/EC and Annex I, point 1, letters i) and j) of the aforementioned Directive 2009/73/EC, as implemented by Legislative Decree no. 93 of 1 June 2011;
- the operation of the Integrated Information System, as per Decree Law No. 105 of 8 July 2010, converted, with amendments, by Law No. 129 of 13 August 2010, managed by the Single Buyer;
- the completion of the legislative and regulatory framework and compliance with the Authority's provisions on the implementation of brand unbundling, in accordance with the provisions of Article 26(3) of Directive 2009/72/EC and Article 26(3) of Directive 2009/73/EC, as implemented by Legislative Decree No. 93 of 1 June 2011;
- the protection of families in conditions of economic hardship, as well as the enhancement of the system of supervision and information to protect consumers.

Until the service under standard conditions is terminated, i.e. the transitional regulation of prices, the Authority regulates the service in accordance with the principles of temporariness with respect to the process of market opening and proportionality, as identified by the European Court of Justice[120]. To this end, from 1 January 2017, the Authority[121] has ordered the revision of the conditions for the provision of the standard offer service with the aim of making the characteristics of this service more consistent with those of universal service. In particular, the methods for determining the fees to cover the costs of supplying electricity were modified, establishing that the cost of purchasing electricity (PE element of the PED fee) shall be determined with exclusive reference to the price in the wholesale spot markets of electricity. The methods for determining marketing costs have also been changed.

In addition, the law has entrusted the Authority with the task of adopting provisions to ensure, at the end of the standard offer service, the safeguarding service also for domestic customers and small businesses

[119] Initially, the transitional price regulation was scheduled to end on 1 July 2019, but by Decree Law No 91 of 25 July 2018, converted into Law No 108 of 21 September 2018, this deadline was extended to 1 July 2020.
[120] Ruling of the European Court of Justice - Grand Chamber, 20 April 2010, Case C-265/08.
[121] By resolution of 4 November 2016, 633/2016/R/eel, operational as of 1 January 2017.

without an electricity supplier, through competitive procedures by territorial areas, and at conditions that encourage the transition to the free market. This service will therefore have the task of guaranteeing the continuity of the service (universal service function) in residual cases where the customer is not supplied in the free market.

Tutela SIMILE

With the intention of favouring the gradual absorption of the price protection mechanisms, but also of allowing the maturation of a mass retail market and, therefore, the voluntary and conscious exit of end customers from the current standard offer services towards the free market, in 2016 the Authority has also introduced a free market contract, called Tutela SIMILE.

From 1 July 2017 until 30 June 2018, customers served under standard conditions could sign this contract, choosing from a group of suppliers admitted meeting particular requirements. Specifically, the Tutela SIMILE contract provided for standard conditions, defined by the Authority, and had as its sole object the supply of electricity; therefore, the possibility of providing additional services was excluded. In this contract, the economic conditions were the same as those of the standard offer service, net of a discount, freely defined by each supplier, to be paid in the first bill (so-called “one-off bonus"). The 27 sales companies operating at national level are the suppliers eligible for Tutela SIMILE; the one-off bonuses they offer[122], differentiated for domestic and non-domestic customers, ranged from a minimum of 10 Euros to a maximum of 200 Euros.

As of 30 June 2018, the deadline for signing up to the *Tutela SIMILE*, 13,490 customers, almost all domestic (95%), had chosen this contract as a result of switching, transfer and new activations. In 11% of cases, the contract was signed with the same party that already provided the end customer with the standard offer service and in 39% of cases with the supplier that already served the customer in the natural gas sector.

PLACET offers

Increased understanding of commercial offers by end customers is a prerequisite for their active participation in the market. Such participation is indispensable to achieve a framework in which the free market is the normal way of purchasing electricity and gas even for small customers, especially in view of the end of services at standard conditions. For this reason, the Authority has introduced[123], for both the electricity and natural gas sectors, free price offers under uniform contractual conditions (PLACET Offers).

PLACET offers increase the ability to evaluate commercial offers on the open market because they have offer structures that are easily comparable between suppliers (differentiated only in price level) and distinct from each additional service proposal of the same supplier. PLACETs apply to small customers served in the free market identified, for the electricity sector, with all customers (domestic and non-domestic) connected to the low voltage network and, for the natural gas sector, with end customers (domestic, central heating and other uses) holding points with annual consumption of less than 200,000 S(m^3). Each supplier on the free market is therefore obliged to include in its menu of commercial offers two formulas of PLACET offers - one at a fixed price and one at a variable price - characterised by general conditions of supply set by the Authority with the exception of economic conditions, the levels of which are freely defined by the supplier (in accordance with a predefined fee structure). In both cases, the price of energy is divided into a fixed quota

[122] The one-off bonus is fixed for the duration of the Tutela SIMILE from 1 January 2017 to 30 June 2018.
[123] By resolution of 27 July 2017, 555/2017/R/com.

expressed in €/customer/year and a quota of energy expressed in €/kWh or €/S(m^3) and therefore proportional to the volumes consumed.

The PLACET offers for electricity at variable prices provide, in each month, for a price indexed to the PUN (Single National Price) expressed in €/kWh, as determined by the GME. The price is differentiated by time zone in the presence of a remotely managed meter. In particular, for domestic customers who are remotely managed, the price is differentiated in the F1 and F23 time bands, while for non-domestic customers who are remotely controlled, it is differentiated in the F1, F2 and F3 time bands[124]. For customers, both domestic and non-domestic, who do not have a remotely managed meter, the price is the same at all hours. PLACET offers of natural gas at variable prices provide for a price indexed to the TTF determined in each quarter as the arithmetic mean of the quarterly forward OTC prices for the quarter in question, at the TTF hub, recorded by ICIS-Heren with reference to the second calendar month prior to that quarter.

At the end of 2017, the Authority identified the "Offers Portal", created and managed by the Single Buyer (the operator of the IIS) as the tool for the collection, publication in open data mode of all offers on the retail market of electricity and gas and for the comparison of PLACET offers. The Offers Portal became operational on 1 July 2018. From that date until today, consumers can identify, compare and choose mainly PLACET offers through the Portal while, from 1 December 2018, all existing offers on the market will be available.

As of 31 March 2019, the Portal contained 274 active offers for domestic customers in the electricity sector and 267 for those in the gas sector. For non-domestic customers, 277 electricity and 271 gas offers were available.

As part of the PLACET offer regulation, a model of the general supply conditions was also defined, which can be used on a voluntary basis by suppliers and constitutes the benchmark for drawing up supply contracts. Suppliers who adopt this model may not modify and/or integrate the relevant clauses, while those who do not adopt it must still comply with the discipline of PLACET offers for the purposes of drafting the general supply conditions of the relevant contracts. As of 31 March 2019, 89% of the commercial counterparties had used the model of the general supply conditions drawn up by the Authority, both for the electricity sector and for the natural gas sector.

3.3 Security of supply

3.3.1 Monitoring balance of electricity supply and demand

Monitoring the balance between electricity demand and supply does not fall within the remit of the Authority: pursuant to art. 1 of Legislative Decree no. 93/11 this remit is attributed to the Ministry for Economic Development (MSE).

[124] More precisely, the bands are defined as follows:
F1 (peak hours): from 8 am to 7 pm from Monday to Friday, excluding national holidays.
F2 (intermediate hours): 7 a.m. to 8 a.m., 7 p.m. to 11 p.m. Monday to Friday and 7 a.m. to 11 p.m. on Saturdays, excluding public holidays.
F3 (off-peak hours): from midnight to 7 a.m. and from 11 p.m. to midnight from Monday to Saturday, Sunday and public holidays every hour of the day.
F23: from 7 p.m. to 8 a.m. every day, including Sundays and public holidays. This band includes the hours included in the F2 and F3 bands.

3.3.2 Monitoring of investments in generation capacity with regard to security of supply

Pursuant to Legislative Decree no. 93/11 the following functions regarding capacity investment monitoring were attributed to the MSE:

- network operating security (Art. 7 of Directive 89/2005/EC);
- investments in the interconnection capacity in the next 5 years or more (Art. 7 of Directive 89/2005/EC);
- expected demand and supply for the next 5 years and 1-15 years (Art. 7 of Directive 89/2005/EC).

Capacity market

Legislative Decree 19 December 2003, no. 379, introduced a new remuneration system for electricity production capacity (capacity market), aimed at increasing the degree of coordination between investment choices in production capacity and transmission capacity, reducing risks and at the same time, increasing market contestability. The same decree established that the Authority defines the criteria and conditions based on which Terna (the TSO) must draw up the framework for regulating the capacity remuneration system and that this scheme be approved by decree of the Minister of Economic Development, after consulting the Authority.

In recent years the process aimed at launching the capacity market has required the parallel management of the relationship with the European Commission on the one hand, for the purposes of notification and the decision on the compatibility of the measure with the Community regulations on State aid and, of the process of completing the framework of rules necessary for the purpose of launching capacity auctions, on the other.

On the European front, after a complex process of dialogue with the Commission, on 7 February 2018, the latter approved the Italian capacity market, in the light of EU regulations on State aid, highlighting, among other things, that the measure devised by Italy will contribute to ensuring security of supply, while protecting competition in the single market.

On the national front, in 2018 the process of review of the capacity market rules started in previous years, continued (see the 2017 and 2018 Annual Reports). This process was necessary in order to obtain the decision of compatibility with respect to the Community legislation on State aid from the Commission and to implement the Authority's proposal to anticipate the entry into operation of the mechanism by defining a phase of first implementation of the capacity market.

As part of the procedure described above, in April 2018 the Authority modified and supplemented[125] the criteria and conditions for the regulation of the capacity market, established in 2011[126]. The innovations introduced can be classified in the following three categories:

a) reform of the 2011 regulation in order to bring it into line with the ministerial guidelines of 25 October 2016 and the commitments that the Italian State has made with the European Commission to make the capacity market compatible with the Community legislation on State aid;

b) evolution of the criteria for the regulation of the capacity market on aspects submitted for consultation in 2016 and 2017 (see the 2017 and 2018 Annual Reports);

c) additional changes to the criteria, to outline a more efficient allocation of risks and to change the destination of the congestion rent that is determined as a result of the aforementioned market.

With reference to the innovations referred to in letter a), the Authority established:

[125] With resolution 11 April 2018, 261/2018/R/eel.
[126] With resolution 21 July 2011, ARG /elt 98/11.

- the start of the first implementation phase which is differentiated by planning periods even lasting less than one year;
- phasing out of the minimum bonus and the provision of long-term contracts (up to 15 years) for investments in new capacity, introducing, at the same time, the concept of minimum investment threshold;
- the opening of the capacity market to actively participate in demand and non-programmable renewable generation, as well as localised capacity abroad;
- the priority selection, with the same bonus offered, of the capacity that meets certain flexibility and/or capacity requirements characterised by a better carbon dioxide emission index;
- the definition of incentive capacity, giving the operator the possibility to choose whether to benefit from the incentive or participate in the capacity market;
- the simplification of the guarantee system, through the elimination of capital requirements;
- the implicit participation in the auctions, with capacity equivalence offered with zero bonus, of the productive capacity pertaining to plants (or groupings of plants) subjected - in the period of delivery of the auction itself - to one of the must run regimes;
- in the full implementation phase, the reserve of a part of the capacity requirement for supply through adjustment auctions to be carried out the year before the relevant delivery period (so-called capacity reserve).

In relation to the changes referred to in letter b), the Authority has provided for:

- the clarification of the criteria for the active participation of flexible demand, which, among other things, must not already be the subject of contracts aimed at guaranteeing the security of the electricity system;
- the definition of the methodology for the Authority to determine the exercise price, with the possibility that this methodology may be subject to changes over time, however respecting, specific criteria to guarantee the participants;
- the alteration of the offer obligations and the criteria for the calculation of the reference prices, to take into account the quantities accepted on the intra-day market and to avoid opportunistic behaviour by operators;
- to manage the risk of market power and the minimisation of the burden for consumers, the differentiation between the maximum bonus recognisable for the existing production capacity and the maximum bonus recognisable for the new production capacity, and the introduction of the concept of maximum bonus that can be offered by the existing production capacity (bid cap), which may be different from the bonus recognisable for the same capacity;
- the introduction of transitional provisions regarding the criteria for the construction of capacity demand curves, aimed at allowing their construction according to the costs of the production capacity - instead of being based on its value - in line with what was approved by the Commission;
- the procedures for the Authority to be able to carry out compliance checks on the demand curves and on the determination of maximum bonuses.

The changes referred to in letter c) include:

- the definition of the timing for the appointment of the committed capacity, so as to allow operators to manage accidents more efficiently;

- the introduction of transitional provisions regarding the system of guarantees, pending verification of the degree of liquidity of the adjustment auctions and of the secondary market and in order to contain the volatility of the amounts of these guarantees;
- acknowledging Terna the faculty to stipulate, also in the phase of full implementation, contracts with annual delivery period for the supply of the entirety of the capacity necessary to satisfy the capacity requirements of the year in question, however without prejudice to the capacity reserve in the phase of full implementation;
- the amendment to the criteria for identifying the fee to cover the net capacity supply costs, in order to allocate the congestion rent that is determined after the capacity auctions to reducing the uplift;
- the obligation for the holder of withdrawal capacity engaged in the capacity market, if such capacity is offered and accepted for purchase in a subsequent adjustment auction, to pay Terna, if positive, a fee (equal to the difference between the bonus of the second auction and the bonus of the first) intended to reduce the net charge of the capacity market, so as to keep the price-risk associated with the sale of its position the responsibility of the owner of the capacity involved in the withdrawal;
- the updating and supplementing of some definitions (peak hours, load factor, production capacity to be adapted, new production capacity);
- the reformulation of the terms of the preparatory activities for carrying out competitive tenders.

3.3.3 Measures to cover peak demand or supply shortfalls

The measures needed to cover the electricity peak demand and shortfalls of suppliers are not part of the Authority's competences: according to Art. 1 of Legislative Decree no. 93/11 this competence was attributed to the Ministry for Economic Development (MSE).

4 THE GAS MARKET

4.1 Infrastructure regulation

4.1.1 Unbundling

Unbundling regulations

The regulation of functional and accounting unbundling is common to the electricity and natural gas sectors. Therefore, for this part please refer to what is illustrated for the electricity sector, in paragraph 3.1.1.

Certification of the transmission system operator

In July 2018, the Authority adopted[127] the preliminary decision for certifying the company Infrastrutture Trasporto Gas (ITG) as operator of a natural gas transportation system in ownership unbundling, pursuant to Article 9, paragraph 1 of Directive 2009/73/EC. The provision was determined by the fact that ITG, which was already certified[128] as an independent transport operator, submitted a request for recertification to the Authority following a change in its ownership structure, due to the sale of the entire shareholding in the company by Edison to Snam Rete Gas.

The preliminary certification, with which the Authority verified ITG's compliance with the requirements of article 9 of the aforementioned Directive, was notified to the European Commission in accordance with the provisions of article 3 of Regulation (EC) No. 715/2009; in this regard, the European Commission has expressed an opinion in full agreement with the Authority's decision.

In accordance with the term of two months from receipt of the opinion sent by the Commission, in November 2018 the Authority then adopted[129] the final ITG certification decision in accordance with the model of ownership unbundling pursuant to Article 9 of Directive 2009/73/EC.

4.1.2 Technical regulation

Economic merit-order balancing of natural gas

2018 was the second year in operation of the new balancing regime, according to the model defined by the Integrated Text on Balancing (TIB) in June 2016[130] which fully transposes the Regulation (EU) 312/2014 of 26 March 2014.

The Authority's balancing actions were therefore concentrated on the precise definition of the calibration of Snam Rete Gas incentives, introduced in 2016[131] and reviewed in 2017[132].

On the occasion of the August 2018 consultation, the Authority presented[133] the trend of the incentives in the period 1 October 2017 - 30 September 2018 (second incentive period), noting that the incentive system designed for the Italian market was effective with respect to the objective of promoting efficient management of network balancing. In light of this result, with the consultation the Authority proposed the

[127] Resolution 12 July 2018, 381/2018/R/gas.
[128] Resolution 26 September 2013, 404/2013/R/gas.
[129] Resolution 20 November 2018, 589/2018/R/gas.
[130] Annex A to resolution 16 June 2016, 312/2016/R/gas.
[131] Resolution 06 October 2016, 554/2016/R/gas.
[132] Resolution 28 September 2017, 661/2017/R/gas.
[133] Consultation document 2 August 2018, 429/2018/R/gas.

following adjustments for the incentive period starting from 1 October 2018 (so-called third incentive period):

- an adjustment to the base value of the indicator that measures the ratio, expressed as a percentage, between the difference in the prices of the purchase/sale balancing actions and the weighted average market price of each gas-day-gas (indicator p2), to make it more in line with the average observed *performance* values;
- a decrease in the maximum value associated with the p2 incentive, in order to further incentivise the balancing responsible entity to use the market to supply the resources needed to balance the network at the end of the day;
- a reduction by one third of the incentive expected for the third incentive period, compared to what was achieved in the second incentive period;
- a longer duration (compared to the two previous periods) of the third incentive period, in order to align it with the reform of gas settlement;
- confirmation of the same maximum level of penalties that can be achieved by the balancing responsible entity (BRE).

Following the consultation, the Authority substantially approved[134] the aforementioned proposals, thus defining the incentive parameters valid for the period 1 October 2018 - 31 December 2019. Furthermore, in order not to put a brake on the incentive to improve the BRE, the Authority also introduced the possibility for the BRE to recover the sum corresponding to the aforementioned reduction (by one third of the incentive expected for the third period incentives) following the achievement of further improvement and efficiency objectives due to the definition and implementation of some critical processes, such as the reform of gas settlement.

Reform of the settlement regulation

In February 2018 the Authority approved[135] the reform of the gas settlement rules, contained in the "Integrated Text of the provisions for the regulation of the physical and financial transactions of the natural gas balancing service (TISG)". This reform will come into force on 1 January 2020 and is characterised by the following main changes:

- the assignment to the Balancing Responsible Entity (BRE), or the main transport company, of the task of procuring the difference between the quantities entered into the distribution system by the sellers and those taken from the end customers (delta^{IO} or Δ_{IO});
- the simplification of the procedures for determining the physical and financial transactions relating to the balancing and adjustment sessions;
- the sterilisation of the uncertainty for the balancing user (BU) with reference to the withdrawals destined for the Redelivery Points (RP) with a reading frequency lower than monthly; in fact, the quantities to be procured for these points are the subject of a forecast by the BRE and these transactions are not redetermined, thus reducing the risk associated with their adjustment;
- centralisation in the Integrated Information System (IIS) of some activities that were previously the responsibility of distribution companies;

[134] Resolution 27 September 2018, 480/2018/R/gas.
[135] Resolution 08 February 2018, 72/2018/R/gas.

- the implementation by the BRE of a methodology for the assessment of the climate factor in determining the daily withdrawals concerning the RPs with a reading frequency lower or equal to monthly, as well as the review of the withdrawal profiles.

The aforementioned reform requires[136] that procurement by the BRE of the volumes covering the delta^{IO} be subsequently regulated, as well as the consequent additions to the balancing regulations and the incentives to the BRE.

The guidelines on these aspects, aimed at introducing greater efficiency and transparency to the benefit of the gas system, were presented with the consultation[137] of September 2018. In particular, it was proposed that the BRE will supply for the market not just the quantities covering the delta^{IO}, but also those necessary to cover self-consumption (C,) losses (L), gas not accounted for (GNA), expected linepack changes (ΔLP). This solution has the following benefits:

- the minimisation of the quantities to be supplied by the BRE and, consequently, of the total cost, possibly being able to offset volumes to be purchased and volumes to be sold on a daily basis;
- the elimination of the storage capacity reserve destined for the BRE - to manage the differences between the daily quantities of self-consumption, network and GNA losses and the quantities expected to be delivered to users - and its availability to the users;
- the simplification of the management of the neutrality mechanisms of the BRE with respect to the aforementioned transactions, as currently defined by the Integrated Text on Balancing (TIB), which would concern just the economic development and no longer the differences between the quantities of energy recognised by the users and the actual quantities;
- the introduction of mechanisms to also encourage efficiency in the management of these transactions on a daily basis and to minimise the related supply cost.

With regard to transmission companies other than the BRE, with a view to optimisation and simplification, it has been proposed that the activities carried out by these companies be centralised by the BRE itself, also through a specific service offered by the latter; alternatively, each transport company should act as a user of the Virtual Trading Point (VTP) to buy the necessary quantities and it would be necessary to provide for mechanisms similar to those defined for the BRE to hedge price risk. Finally, the amendments and/or additions to the regulation on the subject of provisional balance were illustrated with the aim of making the regulation consistent with that of gas settlement starting from January 2020.

For the management of adjustment sessions for previous years (from 2013 to the start of the new regulation), the Authority has provided for[138] two processes:

- one for the calculation of the balance of the financial transactions attributed to the BU at the time of the final balance, again applying the algorithm already used in the balancing session, currently in force, and redetermining the imbalance of each BU (DSk_{agg});
- the other aimed at developing the amount of responsibility of each BU, subject of compensation, of the difference between input and withdrawal at the connection point between the transport network and the distribution network (city gate), dividing the recognised annual quota of such difference in proportion to the withdrawals allocated during the year to the BU at the same city gate (IO_{agg}).

[136] Article 9 of resolution 72/2018/R/gas.
[137] Consultation document 20 September 2018, 462/2018/R/gas.
[138] Resolution 05 October 2017, 670/2017/R/gas.

With regard to the adjustment sessions for previous years, further provisions were then adopted. In particular, in April 2018 the Authority defined[139] the methods for determining the overrun fee for the 2013-2019 period. Specifically, it was envisaged that:

- until the new settlement regulations come into force, it is possible to proceed with the recalculation and adjustment of the fees already paid for differences in transport capacity only within the first adjustment session which includes the year in which the overrun occurred[140];
- the re-determination takes place upon presentation by the transport user of a request indicating the relevant year and the indication of the redelivery and/or exit points of the transport network object of the request and which concerns the revision of the overrun fees applied to the same points with reference to the entire calendar year indicated;
- the transmission companies shall adjust the amounts relating to the overrun fees of the transportation capacity, deriving from the adjustments referred to in this provision, according to the timings and procedures defined later;
- the revenue deriving from the application of the overrun fees relating to the years 2018 and 2019, relevant for the purposes of determining the transport tariffs concerning the years 2020 and 2021, respectively, are considered net of the amounts relating to the adjustments referred to in the previous point; if there is a negative difference between the revenue deriving from the application of the overrun fees and the aforementioned adjustments, this difference is recognised to the transport tariffs for the year 2020 and 2021;
- transmission companies can introduce an administrative allowance, commensurate with the incremental costs incurred, at the expense of the user who requests the adjustment, applied for each point (of redelivery or exit) object of the request, and that this falls within the revenue transactions of the transport company not subject to adjustment and therefore must not be considered in the transport tariffs within the RSCN and RSCR items;
- the transmission companies shall define the methods and timings for the submission of the aforementioned requests, giving adequate information to the users. In December 2018 the methods and timings for the payment of the adjustments by the transport companies were defined[141].

Furthermore, in October 2018 the Authority issued[142] instructions to the Energy and Environmental Services Fund (CSEA) for the purpose of providing the sums relating to the results of the first adjustment session[143], to cover the difference between the amount to be paid to the BUs and what they must pay to the BRE. More specifically, with regard to the adjustment session for the years 2013-2016, a mandate was given to pay the BRE the amounts relating to the IO_{agg} term, amounting to € 109,540,710.16, to be applied to the gas settlement charges account and to the DSk_{agg} term amounting to € 12,783,125.38, to be applied to the gas balancing charges account. Furthermore, in accordance with the principles of neutrality of the BRE, provided for by the European and national regulations, it was established that the BRE transmits to CSEA, together with the communication to the Authority provided for by the Network Code, the amount not paid in relation to the invoices issued and not covered by the guarantees, with distinction of the quotas pertaining to the two IO_{agg} and DSk_{agg}, components, duly documented, together with the economic amount subject to instalment payment, and that CSEA proceeds with the payment of the amounts shown in the aforementioned communication within ten days following the date of receipt, applied to the accounts identified above. The

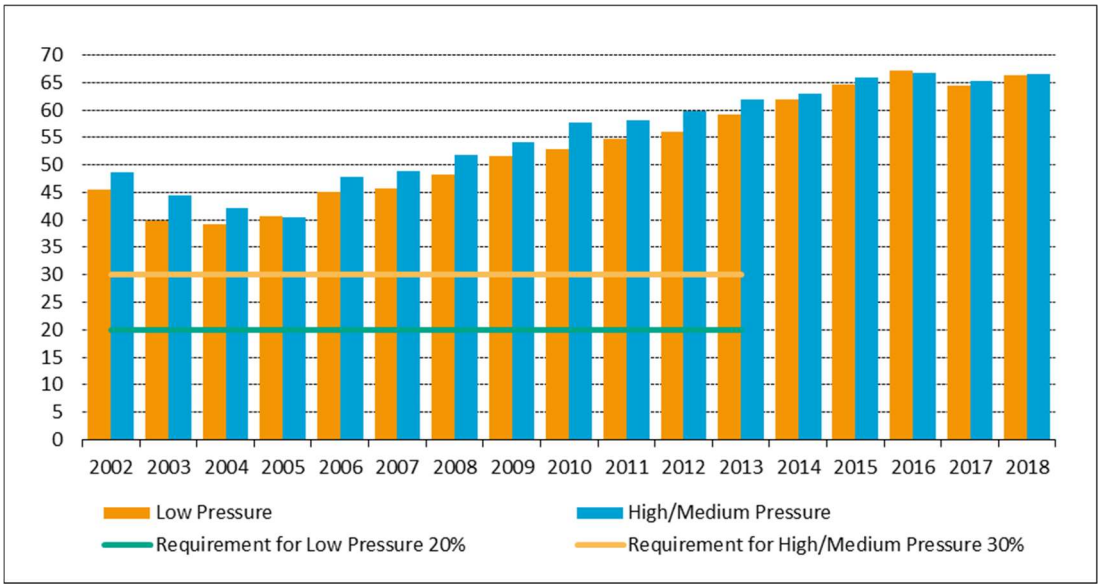
[139] Resolution 05 April 2018, 223/2018/R/gas.
[140] Year defined pursuant to resolution 670/2017/R/gas.
[141] Resolution 18 December 2018, 676/2018/R/gas.
[142] Resolution 30 October 2018, 548/2018/R/gas.
[143] Adjustment session carried out pursuant to resolution 670/2017/R/gas,

receivables subsequently recovered, and the paid instalments will be paid by the BRE to CSEA at the end of the month following the recovery month.

Gas distribution service quality

At the end of 2013, the Regulation of the quality of gas distribution and metering services for the regulation period of 2014-2019 - Part I of the Consolidated text of the regulation of the quality and tariffs of the gas distribution and metering services for the regulation period 2014-2019 (RQDG), was approved[144]. The RQDG regulates certain relevant activities for the security of the gas distribution service. Among these we can mention the emergency services, the inspection of the distribution network, the activity of localisation of the dispersions after inspection or notification by third parties and gas odorisation. The regulation of these matters has the objective of minimising the risk of explosions and fires caused by distributed gas and, therefore, its true purpose is the protection of persons and property from damage resulting from accidents caused by the distributed gas. The following diagrams and tables illustrate the development of the security of the gas sector in recent years.

Figure 4.1 Percentage of network inspected since 2002



Source: Declarations by distribution companies to ARERA.

Figure 4.1 shows the amount of network inspected in the period between 2002 and 2018. The regulation provided a minimum annual obligation until 2013, then, in 2014, it introduced an inspection obligation equal to 100% of the network in the three years (high/medium pressure network, HP/MP) or in the mobile four-year term (low pressure network, LP). There is an increase for 2018 compared to 2017. Network inspections have the general objective of intercepting leaks for greater citizen safety.

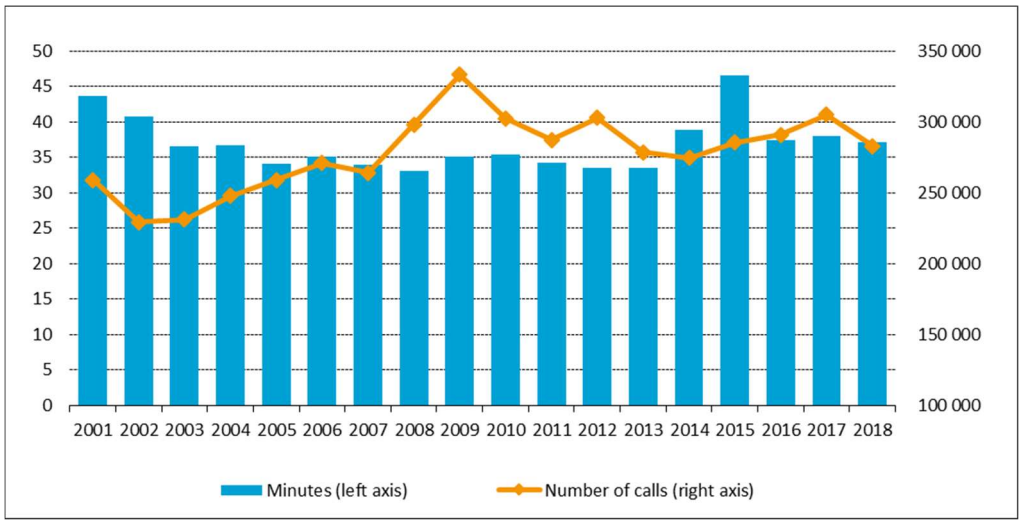
Concerning the requirements in matters of emergency services, figure 4.2 shows the arrival time on site after a phone call, for which an average national value of 37 minutes was recorded, slightly lower than in 2017. The regulation requires that the percentage of calls for emergency intervention for which the operators arrive at the call location within a maximum time of 60 minutes is equal to at least 90%. The obligation of recording the calls, introduced from 1 July 2009 and accompanied by control campaigns on gas emergency services, implemented with the help of the Guardia di Finanza (Financial Police), induces the companies to record the data precisely. We must also add that the companies obliged to participate in the premium-

[144] With resolution 12 December 2013, 574/2013/R/gas.

penalty regulation related to safety recovery has gradually increased and the compliance with the emergency regulation is an essential requirement for acknowledgement of the bonuses.

Figure 4.2 Emergency intervention on distribution systems since 2001

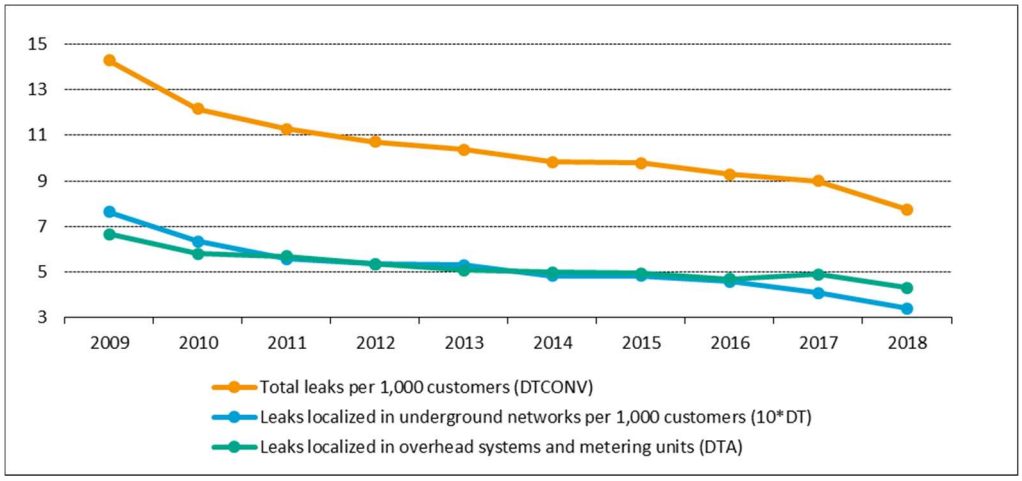
Number of calls and time of arrival on-site (in minutes)



Source: Declarations by distribution companies to ARERA.

Figure 4.3 Number of localised leaks following third party notifications every 1,000 customers

Systems subject to incentive regulation - Period 2009-2017



Source: Declarations to ARERA from distribution companies.

Figure 4.3 shows the number of localised leaks following third party notifications per thousand customers for the distribution systems subject to the premium-penalty regulation: a significant decreasing trend was found both for the underground network and the aerial network in 2018, about three underground leaks and four aerial leaks per thousand customers were recorded.

Connection times for the transmission and distribution networks

The data related to the connections is divided into connections to natural gas pipelines or connections to distribution pipelines. In each type of system, the data related to the number of connections made and the average time passed in order to obtain them are highlighted, net of the time needed to acquire any

administrative authorisations or fulfil obligations by the end customer who requested the connection. The average time is indicated in number of working days used for the realisation of the redelivery point and any other works needed to make the transport capacity available, according to what is provided in the stipulated contract.

In 2018, 77 connections were made with the transmission networks, of which 59 at high pressure and 18 at medium pressure (Table 4.1). On average, it took 84 working days for high pressure pipelines and 38.5 days for medium pressure. Compared to the previous year, the number of connections for both types of pipelines and the average time for their realisation has increased: seven more working days in the case of high-pressure networks and three more days for medium networks (this figure may be affected by the different incidence of the companies that answer the questionnaire from year to year). For the distribution network a decrease in the number of connections realised can be observed (Table 4.2): in 2018 it amounted to 104,156 against 124,114 in 2017. As always, most of the connections involved low pressure pipelines (96.4%) and the remainder medium pressure, given that no connection was made to high pressure distribution networks, as was the case last year. There is a noticeable shortening of waiting times for connections to medium-pressure networks, passing from an average of 21.2 to 13.7 working days, while instead there is a considerable increase in average times for connections to low-pressure networks, from 7.7 to 17.6 working days.

Table 4.1 Connections to transport networks and average connection time

Number and average time in working days

PRESSURE	2017		2018	
	NUMBER	AVERAGE TIME (A)	NUMBER	AVERAGE TIME (A)
High pressure	54	76.9	59	84
Medium pressure	12	35.6	18	38.5
TOTAL	66	69.4	77	73.4

(A) Excluding the time passed to obtain any authorisations.

Source: ARERA. Annual surveys on regulated sectors.

Table 4.2 Connections to distribution networks and average connection time

Number and average time in working days

PRESSURE	2017		2018	
	NUMBER	AVERAGE TIME(A)	NUMBER	AVERAGE TIME(A)
Low pressure	0	-	0	-
High pressure	3,602	21.2	3,707	13.7
Medium pressure	120,512	7.7	100,449	17.6
TOTAL	124,114	8.1	104,156	13.8

(A) Does not include the time needed to obtain ant authorisations and the time needed for fulfilments of obligations by the end customer.

(B) Source: ARERA. Annual surveys on regulated sectors.

Transport service access

With the consultation[145] of March 2018, some regulatory developments were envisaged which, together with the settlement reform described above, have as their objective the efficiency of the system and the reduction of entry barriers for users of the transport network and for companies selling to end customers. The proposed interventions include:

[145] Consultation document March 1, 2018, 114/2018/R/gas.

- the management of the mapping of supply relationships between balancing users and distribution users and, consequently, the relationships between these entities, the transport companies and the distribution companies for the management of transport and balancing services. In this context, it is envisaged to phase out the current configuration which provides for the allocation to the user of the distribution of a portion of the gas withdrawn from the city gate, according to a set of distribution rules defined in the Snam Rete Gas Network Code. In fact, a new system that provides for the unambiguous allocation of the withdrawals of each end customer to a balancing user is considered more efficient. The reform is made possible by the use of the Integrated Information System (IIS) as a tool for certifying the commercial relationships between balancing users, distribution users and connected customers;
- changing the procedures for allocating transport capacity at the redelivery points of the transport network with the distribution networks and the corresponding exit points. This is because the current procedures appear to be particularly burdensome and because, by favouring the sellers who provide a high number of customers with different withdrawal characteristics at a city gate, they constitute a barrier to the access of new entrants (who generally at the beginning have few customers) and hinder customer contestability.

The reforms described here, having a significant impact on market dynamics, will be defined in 2019 and will not enter into force before the thermal year 2020-2021.

Some proposals to update the method for defining the tariffs for the TAP pipeline that were approved in 2013[146], were received in July 2018[147].

In July 2018, two provisions were adopted aimed at making the construction of infrastructure works and access to capacity by users more efficient. In order to protect the need for greater flexibility typical of complex projects, the possibility has been introduced[148] that the provision of transportation capacity can take place within a time range, rather than on a single fixed date, as previously envisaged[149]. Furthermore, an amendment to the Snam Rete Gas Network Code was approved[150], which provides that users who realise new import capacity[151] and who back out from the transport contract, are required to pay the costs actually incurred up to that time by Snam Rete Gas, without burdening Italian consumers.

Access to the storage service

According to a consolidated practice, in the thermal year 2018-2019 most of the storage capacity has again been assigned through competitive tenders (auctions). For some years the market situation in Italy and in Europe has been characterised by very low seasonal price differentials that make the purchase of storage capacity by operators an opportunity and not a necessity, given the availability of winter gas at prices slightly higher than summer ones.

This situation, which suppresses the opportunities for storage companies to achieve revenues, has made it necessary, also in 2018, to define[152] a sterilisation mechanism (with credit or debit balances) of the economic impacts on storage companies. In particular, the mechanism was renewed for 2018 too, according to which

[146] Resolution 07 November 2013, 495/2013/R/gas.
[144] Resolution 12 July 2018, 382/2018/R/gas.

[148] Resolution 26 July 2018, 405/2018/R/gas.
[149] Resolution 21 January 2010, ARG/gas 2/10.
[150] Resolution 26 July 2018, 404/2018/R/gas.
[151] Resolution ARG/gas 2/10.
[152] Resolution 21 June 2018, 350/2018/R/gas.

the Energy and Environmental Services Fund offsets the difference monthly, in favour of storage companies, from the revenues that these companies would have received with the application of the previous tariff charges established by the Authority and how much is actually invoiced based on the results of the auctions. With reference to the period April 1, 2018 - March 30, 2019, the mechanism is substantially the same as that activated in the previous year[153].

In 2018, for the first time, the introduction of an incentive system for storage companies was proposed. In the fact-finding investigation completed in 2017[154], the existence of a differential between the maximum benefits payable and the contractual ones emerged, which could be used to make the storage system more flexible and efficient. On these assumptions, in March 2018 a consultation was opened[155], in which the structure of a possible incentive mechanism aimed at encouraging the storage companies to efficiently exploit this differential and to properly promote it was proposed. The incentives generally appear effective and convenient to the extent that the value for the system, deriving from a more efficient storage service, is greater than the costs of the incentive.

In particular, the incentive mechanism provides that storage companies, according to tender procedures, allocate injection and withdrawal services in addition to those already assigned, within short-term services defined in the storage codes, withholding a share of revenues obtained from these procedures. The proposed structure, therefore, encourages companies to make additional flexibility and innovative services available based on the economic value recognised by the market and at times when this value is greater.

In November 2018, therefore, the trial of an incentive system was launched[156] for the value of the services made available, through the maximisation of the availability and flexibility of the services offered to users, in relation to the disbursement phase of the thermal storage year 2018/2019 which ended on 31 March 2019. This system requires that Stogit withholds:

- for the supply of fortnightly products, the amounts deriving from the application of a cost function to the sale and purchase offers of fortnightly products presented by users and which are combined;
- for the offer of the other products, a share of the auction proceeds understood as the difference between the revenues and the amounts to be recignised to users.

Access and distribution of the regassification service

In September 2017, the Authority defined[157] new regulations on access to the regassification service, to replace those issued in 2015[158]. The new regulations (TIRG) introduced market criteria, based on tender procedures, for the allocation of both the long and short-term regassification capacity, in line with the Directives considered during the consultation phase[159]. The TIRG also provides that the regassification companies can access the services offered by the Energy Markets Operator (GME), for the management of the capacity allocation procedures. The regulatory framework for the regassification Capacity Assignment Platform (PAR) organised and managed by the GME in line with the provisions of the TIRG, was approved[160]

[153] Resolution 03 August 2017, 589/2017/R/gas.
[154] Resolution 03 August 2017, 589/2017/R/gas.
[155] Consultation document 15 March 2018, 155/2018/R/gas.
[156] Resolution 27 November 2018, 614/2018/R/gas.
[157] Resolution 28 September 2017, 660/2017/R/gas.
[158] Resolution 19 March 2015, 118/2015/R/gas.
[159] Consultation document 01 December 2016, 714/2016/R/gas.
[160] Resolution 01 March 2018, 111/2018/R/gas.

in March 2018. In the same month, the application methods contained respectively in the network codes of OLT Offshore LNG Toscana and Terminale GNL Adriatico were approved.

In March 2018 the Authority also defined[161], pursuant to art. 7 of the TIRG, the criteria for calculating the reserve prices of the auctions for the allocation of the regassification capacity, which were subsequently refined[162] in light of the results of the first auctioning procedures.

In July 2018, the Authority approved[163] a proposal to update the regassification code submitted by the company GNL Italia, containing the application methods for the allocation of regassification capacity through tender procedures provided for by the TIRG and the methods for determining the fees for the flexibility services offered by the terminal[164].

In September 2018 the Authority approved[165] the urgent changes to the PAR regulation presented by the GME and aimed at:

- aligning the provisions of the regulation with what is regulated by OLT in its regassification code, where it is envisaged that the allocation requests submitted by the interested parties are expressed in liquid cubic meters per year (m^3liq/year) instead of the number of regassification capacity slots;
- starting up the section dedicated to GNL Italia in line with the provisions of the company's updated code[166].

In October 2018, the Authority approved[167] a proposal to urgently modify the PAR regulation presented by GME to allow the offer, through the same platform, of the new capacity product, which allows the regassification terminals to offer an unload for each month following the allocation, up to the end of the thermal year.

In October 2018, the Authority also approved[168] a proposal by the company Terminale GNL Adriatico which redefines the methods for determining the fee for the signing of the flexibility service (CSS) based on the estimate of the annual fixed costs to be incurred for the offer of the same service, in accordance with the provisions of art. 12 of the TIRG.

Supervision of the gas system safeguard measures

Articles 4 and 8 of Legislative Decree no. 93/11 define the safeguard measures and plans that the Ministry for Economic Development must accomplish in case of an unexpected crisis on the energy market and when the physical integrity or the security of persons is threatened, as provided by Art. 46 of the 2009/73/EC Directive. Art. 43.3, letter c) of this Decree attributes supervision of the application of these measures by the operators, to the Italian regulator, in compliance with what is provided by Art. 41.1, lett. t) of Directive 2009/73/EC.

In matters of safeguard of the gas system, again in 2018 the Authority has implemented[169] the provisions of the Decree of the Minister for Economic Development of 18 October 2013, related to the management and

[161] Resolution 29 March 2018, 186/2018/R/gas.
[162] Resolution 01 June 2018, 308/2018/R/gas.
[163] Resolution 05 July 2018, 376/2018/R/gas.
[164] Art. 12 of the TIRG.
[165] Resolution 13 September 2018, 447/2018/R7gas.
[166] Resolution 376/2018/R/gas.
[167] Resolution 09 October 2018, 500/2018/R/gas.
[168] Resolution 16 October 2018, 513/2018/R/gas.
[169] Resolution 27 September 2018, 484/2018/R/gas.

supply of the quantities of LNG to be kept in storage by the regassification terminals, and to be made available in the context of the so called "peak shaving service". This measure allows the system to face any emergency situations, determining the base auction prices based on the cost/opportunity for a user to supply gas to be immobilised in the regassification tanks and to be used in the event of a system crisis.

In November 2018, the Authority amended[170] the provisions relating to the definition of the imbalance price that must be applied in the event of activation of non-market measures, necessary to balance the transport network in alarm or emergency situations as envisaged by the Emergency Plan of the Italian natural gas system adopted by the Minister of Economic Development with the Decree of April 19, 2013.

4.1.3 Network and regassification terminal tariffs for connection and access

Transport

In February 2017, the Authority initiated[171] a process to define the provisions on tariffs and quality of the natural gas transport and dispatching service for the adjustment period starting in 2018.

In August 2017 the criteria for the regulation of transport tariffs for the transitional period 2018-2019 were approved[172] (*Regulation of tariffs for the transportation and dispatching service of natural gas - RTTG*). In terms of tariff structure, variable fees have been confirmed, applied to the amount of energy transported, and capacity charges, applied to the transport capacity employed. The latter are differentiated by entry point into the national network (CP_e), exit point from it (CP_u) and regional network (CR_r); compared to previous years, the distribution of national network revenues between entry and exit was changed: the ratio went from 50/50 to 40/60; this reflects the degree of utilisation of infrastructures in recent years, in harmony with the recent EU provisions on the subject[173].

With regard to 2019, the tariff proposals relating to the transportation fees were approved[174] in June 2018.

With regard to the tariff provisions for the regulatory period starting from 2020, during 2018 the Authority conducted a detailed consultation phase, during which the initial[175] and final[176] guidelines on the allocation of costs, for the determination of recognised revenues and the definition of reference prices, were presented.

Within the final guidelines, the Authority has proposed to:

- confirm the duration of the regulation period as 4 years;
- confirm, in continuity with the current criteria, the general principles for the recognition of capital costs and operating costs, which provide incentive regulation schemes limited to operating costs and rate of return type regulation schemes with reference to capital costs, while envisaging the introduction of preliminary elements for a possible transition towards cost recognition based on total expenditure (totex), such as greater coordination between tariff regulation and assessments of the ten-year transport network development plans, and the launch of a specific investment monitoring and trials for incentives to make investment costs more efficient;

[170] Resolution 27 November 2018, 612/2018/R/gas.
[171] Resolution 23 February 2017, 82/2017/R/gas.
[172] Resolution 04 August 2017, 575/2017/R/gas.
[173] Regulation no. 460/2017, which establishes the TAR code, aimed at the convergence of the tariff criteria on a European level; it provides, among other things, the cohesion of transport tariffs with service costs.
[174] Resolution 01 June 2018, 306/2018/R/gas.
[175] Consultation documents 29 March 2018, 182/2018/R/gas and 21 June 2018, 347/2018/R/gas.
[176] Consultation document 16 October 2018, 512/2018/R/gas.

- phase out the recognition of network losses, self-consumption and gas not accounted for (GNA) in kind, providing that transport companies supply the necessary quantities for the centralised natural gas market;
- gradually phase out the input-based incentive criteria based on the increases in the remuneration rate, introducing more selective and output-oriented infrastructural development logic;
- adopt, in determining the tariff components applied to the capacity, the capacity-weighted distance (CWD) methodology, as described in Article 8 of the Commission Regulation 16 March 2017 (EU) 460/2017 (hereafter, TAR Code) as a reference price methodology;
- subject the regional gas pipeline network to the reference price methodology, since both the national and regional networks allow a transport activity that meets the requirements of the TAR Code to be carried out, since the expenses of this are determined by the cost drivers of capacity and distance and are related to the investment in the infrastructure and its operation.

With regard to the quality of the transport service for the regulatory period starting from 2020, in August 2018 the Authority illustrated[177] the initial proposals, expressing the tendency to confirm the current arrangements and to strengthen some provisions on the subject of network security, with the aim of increasing infrastructure reliability. In particular, the Authority proposed:

- to strengthen the obligations relating to network surveillance;
- to streamline and simplify the regulatory framework regarding the continuity of the alternative transport service with a tank truck, with the aim of increasing the level of reliability, security and operational continuity of the service and appropriately allocating the costs and responsibilities associated with the service, in a way such as to provide the correct incentives to minimise charges;
- to simplify the regulatory framework for commercial quality and improve performance standards for service users;
- introducing mechanisms aimed at promoting, from an experimental perspective, innovative uses of transport networks and, in particular, the development of innovative technologies for the integration of gases other than natural gas (such as for example biomethane, other green gases and synthetic gases) in existing transport networks, in view of the new challenges posed by decarbonisation and the widespread diffusion of generation from renewable sources.

Regassification

In September 2017, the Authority approved[178] the tariff regulation criteria for the LNG regassification service, for the transitory period of 2018-2019 (RTRG 2018-2019), extending the effective regulations of the fourth regulation period[179], except for certain refinements, such as the acknowledgement of the preliminary investments for the year preceding this tariff year and a review of the calculation criteria for the revenue covering factor, also in order to consider the effective revenues deriving from the allocation of the capacity with tender procedures.

[177] Consultation document 02 August 2018, 420/2018/R/gas.
[178] Resolution 28 September 2017, 653/2017/R/gas.
[179] Resolution 438/2013/R/gas.

In November 2018, the Authority set out[180] the guidelines on technical and economic conditions for accessing and providing services provided by LNG storage facilities and infrastructures, in order to investigate the perimeter and the activities attributable to Small Scale LNG services provided by LNG terminals and develop the definition of accounting unbundling obligations.

In December 2018 the Authority approved[181] the tariff proposals for 2019 submitted by the regassification companies, determining the tariffs for the LNG regassification service, and at the same time approved the changes to the regulation necessary to balance the variances between the final balance sheet data and preliminary data.

Storage

In February 2017, the Authority initiated[182] a process to define the provisions on tariffs and quality of the natural gas storage service for the new regulatory period and, temporarily, extended the criteria in force to 2019. In December 2018, the Authority established[183] provisional revenues for the storage service for 2019 for the companies Stogit and Edison Stoccaggio.

It is also necessary to highlight that the storage tariffs now have a residual application, since they only concern the operating balancing services of mineral storage and transport companies, which, all together, absorb a share lower than 5% of the total storage capacity.

The strategic storage, which absorbs approximately one quarter of the capacity, is remunerated through the C^{ST} variable fee, applied to the imported and nationally produced gas[184]. This parameter is determined by the main storage company based on the cost of the service[185].

As indicated in the section related to access, for several years the allocation of part of the storage capacity has depended on tender procedures. The fees for services relating to this capacity are determined by the market following the outcome of specific auctions. The tender procedures are open to the participation of all the natural gas market operators and they currently regard the allocation of approximately 70% of the total storage capacity. The fees are determined with the marginal price method for the first auction for the seasonal peak service and by pay-as-bid for all the others.

Distribution

In December 2016, the *Regulation of the tariffs of gas distribution and metering services* (RTDG) was approved[186]for the three-year period 2017-2019, which introduced new provisions on recognised operational costs, the determination of the tariff component to cover the costs of the metrological checks, recognition of the costs of remote metering/remote management systems and concentrators and definition of the standard costs of electronic metering units.

In December 2018, the tariffs applied to end customers for natural gas distribution and metering services were approved[187] for 2019. Consistent with the approach adopted in previous years, in order to increase the

[180] Consultation document 20 November 2018, 590/2018/R/gas.
[181] Resolution 20 December 2018, 398/2018/R/gas.
[182] Resolution 08 February 2018, 68/2018/R/gas.
[183] Resolutions 20 December 2018, 696/2018/R/gas and 697/2018/R/gas.
[184] Article 11 of Resolution 49/2015/R/gas.
[185] Article 8 of Resolution 01 March 2018, 121/2018/R/gas.
[186] Resolution 22 December 2016, 775/2016/R/gas.
[187] Resolution 18 December 2018, 667/2018/R/gas.

stability of tariffs, the relevant volumes of gas used in the determination of the variable rates of the tariffs were determined as the moving average of the data relating to the gas distributed over the last four years.

In implementation of Article 14 of Legislative Decree 16 December 2016, no. 257, relating to the "Implementing regulation of Directive 2014/94/EU of the European Parliament and of the Council, of 22 October 2014, on the deployment of alternative fuels infrastructure", in May 2017 a procedure was started[188] concerning isolated networks of liquefied natural gas (LNG). In April 2018, the Authority illustrated[189] the guidelines regarding tariff issues relating to the coverage of the infrastructure costs necessary for the distribution of LNG through isolated networks. In particular, the Authority proposed that, in order to define the tariff regime to apply to isolated LNG networks, to be understood as natural gas distribution networks not directly or indirectly connected with the national transport network or the regional natural gas transport networks, similarly to what is provided in relation to the gas distribution service, for gas other than natural gas, by means of channelled networks, the fees related to the distribution and metering services cover the costs of network infrastructures, maintenance and operation of the channelled networks and the cryogenic storage depots and of the local regassification facilities directly connected to the same channelled distribution networks. Furthermore, it was suggested that the tariff charges be duly defined for each district made up of a set of locations supplied with isolated networks fed through LNG belonging to the same Region and served by the same distribution company. The Authority also believes that the tariff regime described above will be applied as long as these networks remain isolated and not interconnected. Once interconnected directly or indirectly with the national transport network or regional natural gas transportation networks, the normal tariff regulation envisaged for the distribution of natural gas will be applied and a specific tariff framework will be established for Sardinia.

Provisions related to the tenders for the management of the gas distribution service

The tender procedures for the assignment of the gas distribution service are aimed at identifying the 177 District Operators (ATEM) into which Italy has been divided. In this regard, the Authority carries out an evaluation activity pursuant to Legislative Decree 164/00 and Decree 226/11:

- of the offset between the distribution systems refund value (VIR) and the related Regulatory Asset Based (RAB);
- of the tender documents transmitted by the Contracting Authorities of the ATEM.

The procedure for the assessment of the VIR-RAB deviations provides the analysis of the documentation transmitted to the Authority by the Contracting Authorities using an appropriate IT platform and dialogue with the Authorities themselves. This process precedes the verification of the calls for tenders[190].

In December 2017 the Authority illustrated[191] its guidelines on the simplification of the procedures for the assessment of refund values (VIR) and the invitation to tender assessment procedures. In December 2017, the Authority approved[192] the following at the end of the consultation:

[188] Resolution 12 May 2017, 324/2017/R/gas.
[189] Consultation document 5 April 2018, 216/2018/R/gas.
[190] Referred to in Article 9, paragraph 2, of Decree 226/11.
[191] Consultation document 02 November 2017, 734/2017/R/gas.
[192] Resolution 27 December 2017, 905/2017/R/gas.

- the integrated Text of the Authority's provisions in matters of determination and verification of the refund value of the natural gas distribution networks for the specific tender purposes[193];
- the integrated Text of the Authority's provisions in matters of tenders for the natural gas distribution services for the specific tender purposes[194].

In 2018, the Authority expressed its opinions[195] on the refund values with deviations of over 10% compared to the RAB for the municipalities of 3 ATEM. Evaluations are ongoing for a further 1264 municipalities of 56 ATEM.

With regard to the analysis of the tender documentation, in July 2018 the Authority expressed its opinions[196] on what was prepared by another ATEM. In July 2018, the Authority established[197] the "IT platform for the acquisition of documentation relating to the analysis of VIR-RAB deviations". This platform is designed for the systematic acquisition of the documentation of the Municipalities:

- falling under the "ordinary individual regime for the Municipality";
- falling under the "simplified individual regime for the Municipality".

The compilation of the platform screens must only be done for the Municipalities for which deviations between VIR and RAB of more than 10% occur.

In July 2018, the Authority established[198] the “IT platform for the acquisition of documentation relating to the simplified VIR-RAB deviation analysis”, prepared for the purpose of implementing the provisions of law no. 124/17 (annual law for the market and competition), which introduced simplifications of the evaluation procedure of the refund values.

In August 2018, the Authority defined[199] the operating procedures for determining the value of the net fixed assets revalued in the event of misalignment with sector averages, both for the purposes of comparison with the refund value (VIR), and for the purpose of publication of RAB estimation values in the calls for tenders, which are applied in case of availability of the new reconstruction value stratification (VRN).

Exclusion of cross-subsidies between activities in the supply chain

The obligation of administrative and accounting unbundling for the companies operating in the electricity and gas sectors has been introduced, among others, to exclude the companies operating in the electricity and natural gas sectors from carrying out resource cross-subsidies between the different sector activities. During 2018, the Authority did not initiate or conclude, in the gas sector, procedures for ascertaining violations of the regulations concerning administrative and accounting unbundling obligations.

[193] Annex A to Resolution 905/2017/R/gas.
[194] Annex B to Resolution 905/2017/R/gas.
[195] Resolutions of 17 May 2018, 283/2018/R/gas 56/2019/ R/gas, relating to the ATEM Livorno, Vicenza 3 and Modena 1.
[196] Resolution July 26, 2018, 399/2018/R/gas, relating to the Atem Udine 2.
[197] DIEU Decision 11 July 2018, no. 8/2018 “Update of the provisions on the acquisition of documentation for the purpose of verifying the deviations between the VIR and the RAB for the Municipalities falling under the ordinary individual regime for the Municipality and in the simplified individual regime for the Municipality pursuant to resolution 905/2017/R/gas, and repeal of decision 1/2015”.
[198] DIEU Decision 11 July 2018, no. 9/2018 “Provisions regarding the acquisition of documentation for the purpose of verifying the deviations between the VIR and the RAB for the Municipalities falling under the simplified regime pursuant to law no. 124/17, as implemented with resolution 905/2017/R/gas”,
[199] DIEU Decision 7 August 2018, no. 12/2018, “*Operating procedures for the determination of the value of the net fixed assets of natural gas distribution in the case of misaligned values with respect to the sector averages for the verification of the VIR-RAB deviations and for the purposes of estimating the values referred to in article 22 of the RTDG for publication in the tender notice*”.

4.1.4 International regulation and cooperation on cross-border infrastructures

Investments in network infrastructures and consistency with Community Development Plans - Evaluation of the ten-year plans for development of the transport network and cost-benefit analysis

Art. 26 of Law of 29 July 2015, no. 115, *Provisions for the implementation of the requirements deriving from Italy's membership to the European Union (European Law 2014)*, has modified Legislative Decree no. 93 of 1 June 2011, for the transposition of the Third energy package, providing, among other things, that the TSO must send the ten-year network development Plan each year to the Ministry for Economic Development and to the Authority that submits it for consultation to the effective and potential network users, rendering the results of the consultation public.

With reference to the ten-year plans for the development of the natural gas transportation network for 2017, the Authority launched the related public consultation in February 2018. As part of the consultation, on 21 March 2018 the Authority organised a seminar open to all stakeholders of the gas system (such as operators, consumers and their associations) regarding the methodologies for evaluating the development interventions of the gas transportation network and cost-benefit analysis, with the presentation of national and international best practices, in order to encourage discussion around the topic for the definition, by the Authority, of Guidelines to be applied on a national level concerning Development Plans. The consultation of the Plans for 2017 ended on 30 April 2018, and the observations made by the stakeholders, as well as the counter-deductions elaborated by the competent network operator, were published by the Authority on its website.

In the context of the dialogue[200] between the Authority and the transport network operators, aimed at identifying a shared cost-benefit analysis methodology, in July 2018 the Authority disclosed its guidelines[201] on minimum information requirements and guidelines for the Cost-Benefit Analysis (CBA) for the economic evaluation of the development interventions of the natural gas transportation network.

In September 2018, new methods for consulting the ten-year plans for the development of the natural gas transportation network were established[202] and the minimum requirements for the preparation of the Plans were also approved, in relation to the completeness and transparency of the information and to the CBA, relevant for the purposes of the assessments for which the Authority is responsible. In particular, the Authority gave a mandate to the major transport company, Snam Rete Gas, to draw up a proposal for the application criteria of the CBA for the transport network development interventions contained in the Plans, to be submitted for the approval of the Authority, after consultation with other network operators and all interested parties.

Energy market of the Countries of South-Eastern Europe

Again in 2018, the Authority contributed to the implementation work of the Treaty that establishes the South-Eastern European Energy Community (EnCT).

With regard to the natural gas sector, the gas working group (ECRB GWG) focused mainly on the implementation of network codes in coordination with neighbouring European countries, in order to apply the correct measures to the interconnection points between the neighbouring countries. During the meetings held in September and December 2018, the following reports were adopted: *ECRB Quality of Gas Distribution and Supply Services in the Energy Community*; *ECRB Transparency of Gas Transmission System Operators in the Energy Community Contracting Parties; ECRB Monitoring Report on the functioning of Gas and Electricity Retail Markets in the Energy Community; ECRB Market Monitoring Capacities and Procedures of Energy Community Regulatory Authorities*.

[200] Resolution 689/2017/R/gas.
[201] Consultation document 05 July 2018, 374/2018/R/gas.
[202] Resolution 27 September 2018, 468/2018/R/gas.

At the Gas Forum, held in September 2018 in Ljubljana, the possible future scenarios of the Balkan gas market were discussed.

Energy market in the Mediterranean area Countries

During 2018, the Authority continued its activities in the international sphere, in the Mediterranean basin, through MEDREG (Mediterranean Energy Regulators), of which it is the founder and promoter (as described in chapter 3).

As regards the activity carried out in the gas sector, the Gas Working Group (GAS WG), co-chaired by the Authority and the Egyptian gas regulator (EGAS), with the Turkish vice-presidency (EMRA), concentrated its activities on the following reports: *Establishment of Guidelines of Good Practice on Capacity Allocation; Gas Infrastructure Map; Assessment of Natural Gas Competition Prices in the Mediterranean Basin; Guidelines of Good Practice on Third Party Access in the Mediterranean Region; MEDREG Good Practice on Tariff Methodologies.*

The energy platform activities, promoted by the European Commission, continued during 2018. The Gas platform, in which MEDREG also participates through the meetings coordinated by the technical secretariat headed by the OME (Mediterranean Energy Observatory), is actively involved in the creation of the report *Role of the Regulatory Framework to Promote Investments for a Gradual Development of Gas Interconnections in the Mediterranean Region.*

4.1.5 Compliance with Community regulations

During this last year, no legally binding decisions that the Authority had to implement pursuant to article 41.1.d) of Directive 73/2009/EC were adopted by the Agency or the Commission.

Compliance of the tasks assigned to the Authority pursuant to the gas directive

For an illustration of the main competences and powers bestowed on the Authority by the current regulations please refer to the Annual Reports of 2013 and 2018.

4.2 Promotion of competition

4.2.1 Wholesale markets

The growth of the Italian economy continued for the fifth consecutive year, however marking a slowdown compared to 2017, greater than that of the rest of the Euro area. According to the provisional values published by Istat, in 2018 the GDP (adjusted for inflation) increased by 0.9%, while in 2017 the growth was 1.7%. This growth was driven by the performance of the industrial sector (the added value of manufacturing industries grew by 2.1%), the service sector by 0.6% and construction by 1.7%. However, the gas intensive sectors recorded modest or negative results: metallurgy increased by 0.6%, an increase of 0.4% was obtained in the production of chemical products, plastics and non-metallic mineral working decreased by 2.4%, and the wood, paper and print productions decreased by 3.9%.

As for climate change, according to the data checked and processed by Ispra, 2018 was the hottest year since at least 1961, with a rather warm winter.

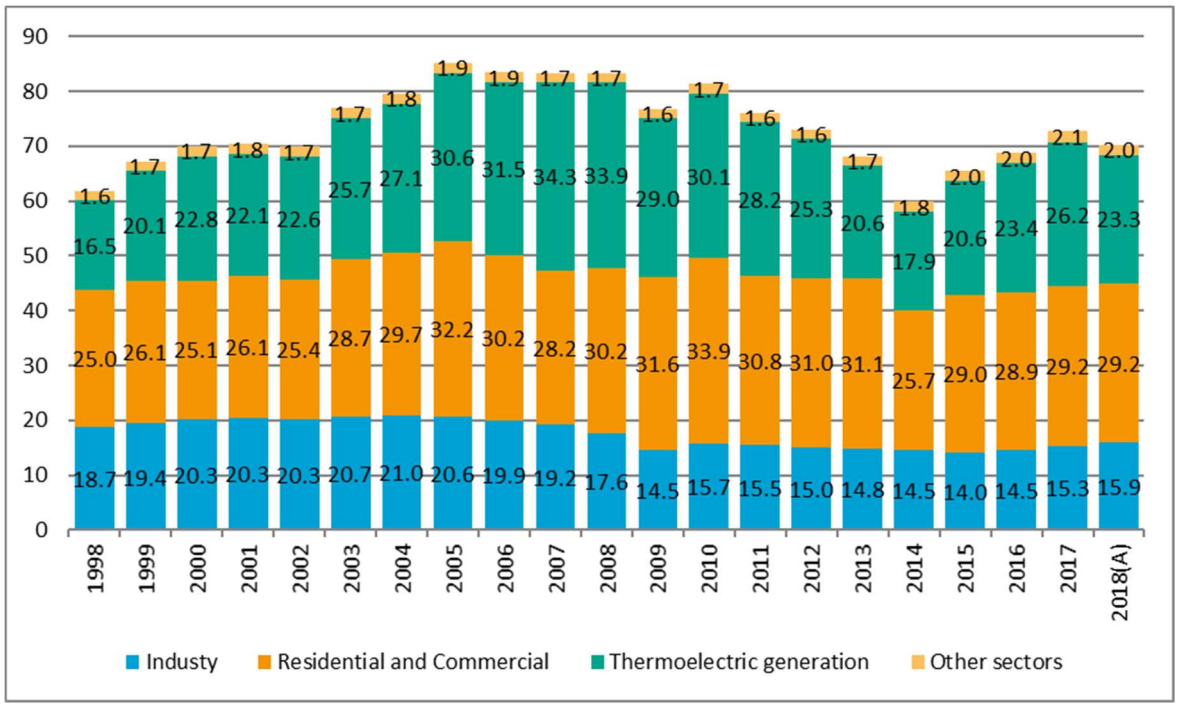
On the basis of the preliminary results disseminated by the Ministry of Economic Development (figure 3.1), in 2018, the net consumption of natural gas decreased by 3.3 G(m^3), reaching 70.3 G(m^3) from 72.7 G(m^3) in 2017. In percentage terms, consumption recorded a 3.3% reduction, the first after three years of rising from the historical low reached in 2014, when the total value of gas consumed decreased to 59.9 G(m^3).

Consistent with the economic trends in our country, industrial consumption grew by 4.1% in 2018, while consumption in thermoelectric generation recorded a sharp decrease of 11%. Consumption of other uses also fell (-4.3%), containing in particular those for transport, while civil consumption (residential and tertiary) remained substantially unchanged compared to 2017 (-0.1%).

Compared to the high of 85.3 G(m^3) that gas consumption reached in 2005, in 2018 the final demand for gas amounted to 82%.

Figure 4.4 Natural gas consumption by sector

G(m^3); values net of consumption and system losses



(A) Provisional data.

Source: Ministry of Economic Development, National energy balance, several years.

Against the drop in consumption, net imports also declined (-2.7%). In fact, the volumes of gas imported from abroad decreased by 1.8 G(m^3) compared to 2017, reaching 67.9 G(m^3); exports, on the other hand, rose by 118 M(m^3). A further decrease was seen in national production (-1.6%), albeit to a lesser degree than that of the last five years. During the year the withdrawals from storage were lower than the inputs; therefore, at the end of the year, the storage volumes were 264 M(m^3) higher than at the beginning of the year. Also considering system consumption and network losses, the net value of national consumption was 70.3 G(m^3) in 2018, a value that is 3.2% lower than 2017.

The level of dependence on foreign supplies, measured as the ratio between gross imports and gross domestic consumption, rose again to 93.4%, the highest value ever recorded so far.

Production

According to the data collected in the customary Annual survey on the regulated sectors carried out by the Regulatory Authority for energy networks and the environment, in 2018 a total of 5,268 M(m^3) were extracted by 18 companies (20 companies in 2017), belonging to 13 corporate groups. Since last year's production was 5,390 M(m^3), in 2018 the decrease measured in the survey data was of 2.3%. The share of domestic production held by Eni group companies also decreased slightly in 2018, reaching 76.2% from 77% the previous year (it was 81.5% in 2016). The group remains the dominant operator of this segment with an absolute major share, very distant from the second corporate group, Royal Dutch Shell. As in 2017, in 2018 the production of the latter increased by over 100 M(m^3) (+ 20%) and, consequently, its share rose to 13.9% from 11.3% in 2017. Conversely, the Edison group production decreased, whose companies extracted around 100 M(m^3) less gas than in 2017 (-24%). The share of the Edison group therefore fell by two percentage points compared to last year, reaching 6.8%. It should be noted, however, that within the Edison group, the parent company transferred the business unit for the extraction, cultivation, purchase and sale of liquid hydrocarbons to Edison Exploration & Production from June 2018.

Imports

In 2018 gas imports in Italy reached 67,872 M(m^3), therefore decreasing by 2.6% compared to 2017, because 1,778 M(m^3) less than the previous year were purchased from abroad. The exports also increased, going from 273 to 391 M(m^3). The foreign balance therefore decreased from 69,377 to 67.482 M(m^3).

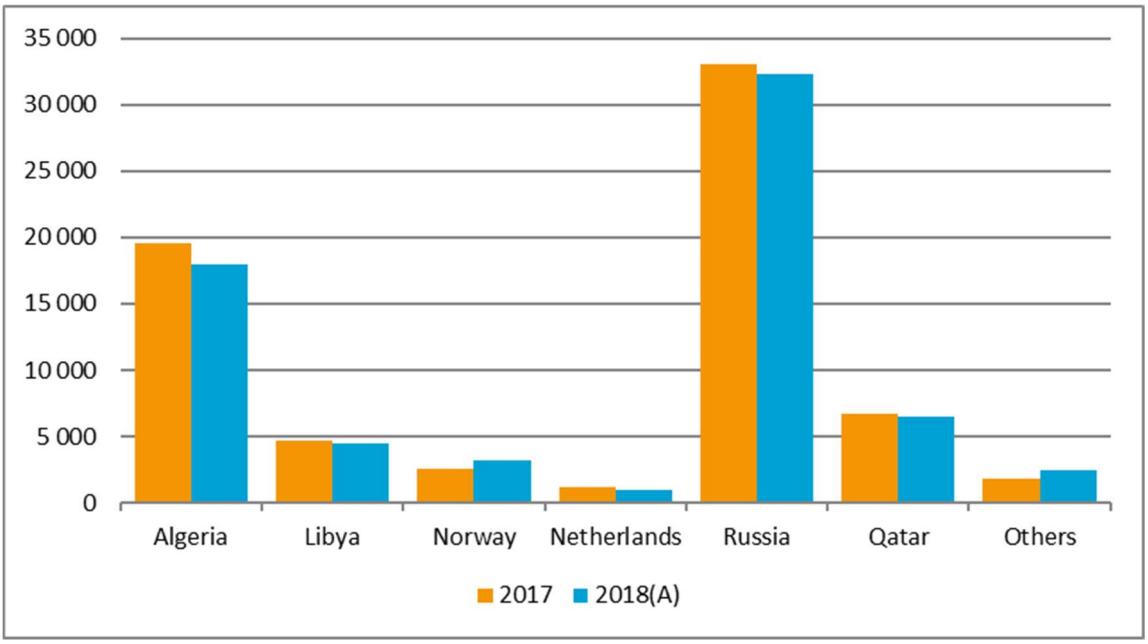
Figure 4,5 shows the amounts of gas supplied in the last two years by country of origin[203] of the gas. With the exception of volumes from Norway, which increased by almost 21.5% compared to 2017, imports decreased from all other countries from which Italy traditionally imports gas. In particular, compared to 2017, 1.5 G(m^3) less entered Italy from Algeria, 787 M(m^3) less from Russia and about 200 M(m^3) less from both Holland and Qatar arrived in the country; on the other hand, volumes from other areas increased by around 600 M(m^3) (or 31%).

In 2018, therefore, the importance of Russia among the countries that export to Italy remained substantially unchanged at 47.6% (it was 47.5% in 2017), while Algeria's share fell from 28% to 26.5%. The third most important country is Qatar, from which Italy receives 9.6% of the total imported gas (9.7% in 2017), followed by Libya, whose share is 6.6%. In 2017, 3.6% of Italian imports came from all the other countries together. Finally, the incidence of imports from Northern Europe has increased slightly, with Norway and Holland accounting for 6.1% together (5.5% in 2017).

[203] Imports are divided by Country of physical origin of the gas, not by contract. Even the gas imported in swap regime is accounted for according to its Country of physical origin.

Figure 4.5 Gross gas imports by country of origin

M(m^3); assessments carried out according to the input point of the gas



(A) Preliminary data.

Source: Ministry of Economic Development.

According to the (provisional) data collected with the Authority's annual survey on the regulated sectors, 67 G(m^3) were imported into Italy in 2018, 1.8 less than in 2017[204]. Therefore, the decline was 2.6%, similar to what can be deduced from the Ministry of Economic Development[205] data. 4.3% of the total gas supplied from abroad, approximately 2.9 G(m^3), is purchased through the European Exchanges.

As always, the first place in the rankings of the importing companies was held by Eni, which purchased 35 G(m^3) of gas in 2018, with a decrease of 109 M(m^3) compared to 2017. The slight decrease in imports by Eni (-0.3%) was lower than that recorded for total national imports; this caused the company's market share to increase to 52.3% (51.6% if it is calculated on the Ministry's import value), from the 51.1% highlighted in 2017. This share therefore remains above the low point reached in 2010, when - thanks to the operation of the antitrust limits established by Legislative Decree no. 164[206]of 23 May 2000 - the portion of foreign gas supplied by Eni went down to 39.2%.

Edison's imports, second in the rankings, fell by 5.2%, which is greater than the overall national value. In 2018 this company supplied 14.6 G(m^3), 0.8 less than in 2017. Its share in the import market went down to 21.8% from the previous 22.4% and the distance from Eni was again increased by more than a percentage point (after the four points taken away in 2016 and 2017).

[204] Data from Annual surveys on regulated sectors.

[205] The differences compared to the Ministry data are due, in part, to the number of companies who answer the Authority's Annual survey, and also due to the discrepancies in the classification of the import data. In other words, it is possible that some of the quantities that are classified as imports by the Ministry, will be considered as "Acquired at the Italian border", due to the Customs clearance procedures.

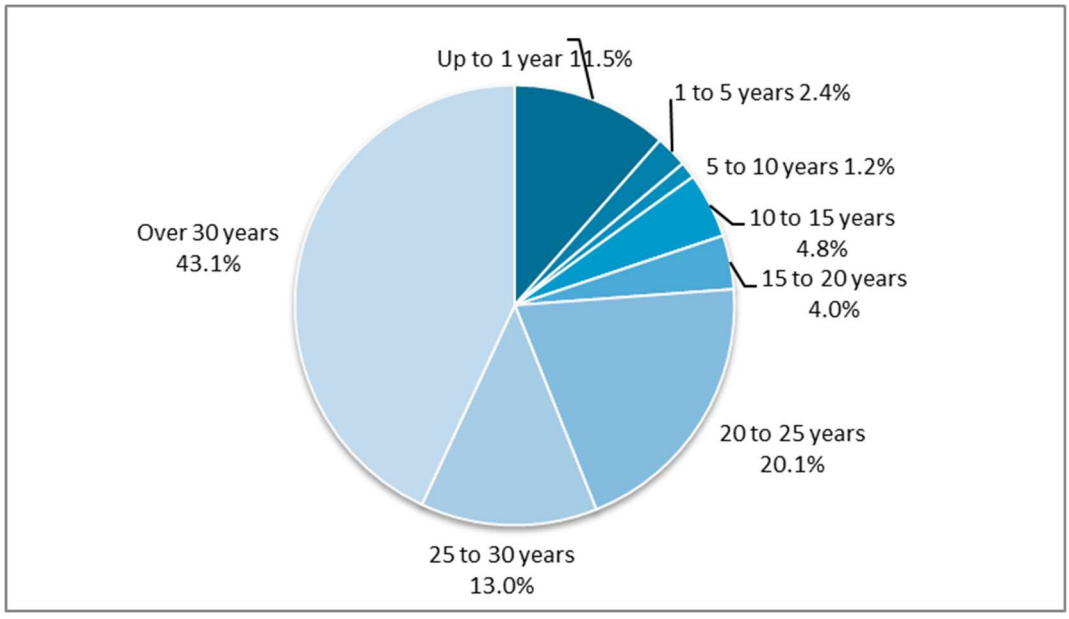
[206] This decree provided, among other measures, the imposition of maximum limits for the import and sales on the end market of natural gas by a single operator (75% of the imports in 2002, that reaches 61% in 2010), with the objective of defining the conditions for the entry to the market of gas imported by entities other than Eni and the other two entities historically present on the gas import market, even if their shares are small.

There was also a marked reduction in the imports of Enel Global Trading (the new name of Enel Trade), which rose from around 8 G(m^3) in 2017 to 6.3 G(m^3). Nevertheless, Enel Global Trading remained in third place with a share of 9.4% (from the previous 11.6%). As in 2017, in 2018 the fourth position in the ranking of importers is occupied by DXT Commodities SA (new name of Dufenergy Trading), whose imported quantities, however, are slightly less than 2 G(m^3) and therefore represent less than one third of those of Enel Global Trading, i.e. the third importer.

As in previous years, the groups[207] that hold a share of more than 5% of the overall gas supplied (i.e. produced or imported) are Eni, Edison and Enel (Table 4.3). Together, these top three importers imported 55.9 of the 67 G(m^3), 83.5% of the foreign gas entering the Italian market. Considering the quantities produced within the national borders, these three groups account for 83.4% of all the natural gas supplied. This share is decreasing (it was 85.2% in 2017 and 86.8% in 2016), due to the decline in the shares of Edison and Enel not offset by the increase in Eni's share. The three groups are also the only groups that each hold a share of more than 5% of the available gas, with an overall share for all three (86.3%) that is slightly higher than that of gas supplied.

The analysis of the import contracts (annual and multi-year) active in 2018 according to the entire duration (Figure 4.6) outlines a still rather long structure. The share of long-term contracts, those whose entire duration exceeds 20 years, is in fact equal to 76.2%, although a slight decrease compared to last year (when it was 77%). The incidence of short-term imports, those with a duration shorter than five years, increased (13.9% from 10.9% in 2017), while the medium duration contracts (5-20 years) decreased by two percentage points compared to last year (10% instead of the 12.1% of 2017).

Figure 4.6 Structure of the contracts (annual and multi-year) active in 2018, according to the entire duration



Source: ARERA. Annual survey on regulated sectors.

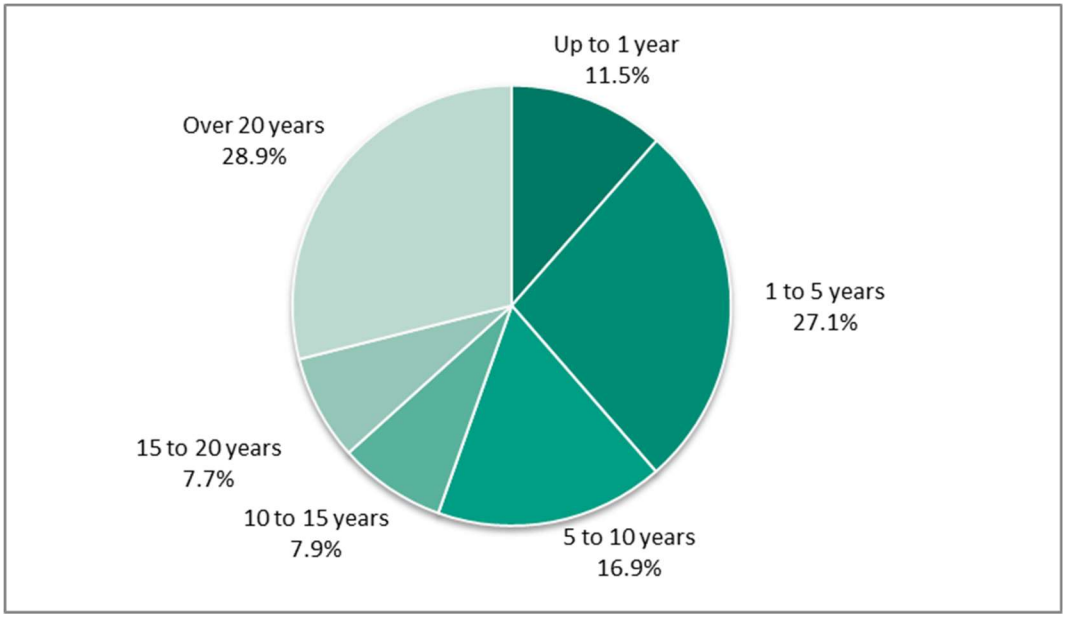
The annual contract quantities underlying the amounts shown in the figure are, however, constantly decreasing: in 2018, in fact, the volumes negotiated amounted to 82.8 G(m^3) overall, against an average over the last 3 years of 85.5 G(m^3). The incidence of spot[208] imports, i.e. those with a duration of under a year, increased in 2018 to 11.5% from 9.8% in 2017. In terms of residual life, the import contracts in place in 2018

[207] In the survey on the gas market the stake in a corporate group is defined according to what is specified in art. 7 of the Law of 10 October 1990, no. 287: in short, belonging to a group is established even when there is a de facto control of the stakeholder in the subsidiary.

[208] Evaluated, as always, excluding the Annual Contract Quantities of spot contracts that did not result in imports to Italy, as the gas was resold directly abroad by the operator, active in Italy, who purchased it.

(figure 3.7) show that 55.4% of the contracts will expire within the next ten years (56.8% in 2017) and 38.6% will come to an end within the next five years. In contrast, 36.6% of the contracts in force today have a residual life of more than 15 years. This share has been steadily increasing since 2014, when it was 31.8%.

Figure 4.7 Structure of the contracts (annual and multi-year) active in 2018, according to the residual duration



Source: ARERA. Annual survey on regulated sectors.

In 2018, the total demand of the natural gas sector, understood as the sum of the volumes of natural gas sold on the wholesale market (including reselling) and retail market plus self-consumption grew by 0.2%, reaching 286.4 G(m^3) (Table 4.3).

Overall, the gas sold on the total sales market (wholesale market and end market) reached 272 G(m^3), with an increase of 0.5% compared to the same figure in 2017. The wholesale market handled 215.3 G(m^3), a significant increase compared to 2017 (2.1%); the retail market handled 56.7 G(m^3), recording a decrease of 5% compared to 2017, while self-consumption totalled 14.5 G(m^3), also a decrease (-3.7%). As in 2017, 4 industrial groups held a share of more than 5% of the total demand in 2018.

More precisely, the industrial groups and their respective shares, indicated in brackets, are: Eni (24.3%), Engie (13.4%), Edison (9.7%) and Enel (9%). The first three groups account for 47.3% of the total demand, a proportion much higher than that of last year (44.4%).

The following paragraph describes the sales and prices of the wholesale market in detail.

Table 4.3 Wholesale market development

Year	Demand Total(A) G(m³)	Peak demand(B) M(m³)/day	Production G(m³)	Import capacity G(m³)/year				No. of companies with a production share and import capacity >5%	No. of companies with an available gas share (D)> 5%	Share of the three largest groups over total demand
				Total	Priority access for transit(C)	Priority access for LT contracts	Unreserved access			
2001	125.1	not available	15.5	not available	not available	not available	not available	not available	2	68.2%
2002	111.8	not available	14.3	84.0	0.5	77.3	4.2	3	3	67.4%
2003	123.6	not available	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%
2014	210.9	330	7.1	121.7	0	95.5	26.1	3	3	51.4%
2015	244.5	340	6.8	120.3	0	83.4	36.9	3	3	50.6%
2016	267.4	384	5.8	120.1	0	85.2	34.9	3	3	46.3%
2017	285.7	425	5.5	121.7	0	81.0	40.8	3	3	44.4%
2018	286.4	396	5.4	120.4	0	77.9	42.5	3	3	47.3%

(A) Volumes of gas sold on the national wholesale and retail market; includes resales and self-consumption.

(B) Peak input reached on: 26/01/2004, 19/12/2005, 25/01/2006, 18/12/2007, 18/02/2008, 21/12/2009, 17/12/2010, 25/01/2011, 7/02/2012, 11/02/2013, 29/01/2014, 3/02/2015, 20/01/2016, 10/01/2017, 28/02/2018; the volume indicated includes inputs, supply from storage, losses and internal network consumption.

(C) In Italy there is no differentiated process for transits that are treated as normal transport; the value indicated in the table refers to a transit contract that has obtained priority access as it belongs to a multi-year contract.

(D) The volumes of gas available include production, net imports and storage.

Source: ARERA processing of Snam Rete Gas data and operator declarations.

4.2.1.1 Monitoring of wholesale market prices

The data relating to the wholesale gas market come, as usual, from the first and provisional calculations on the data collected in the annual survey that the Authority carries out on the state of the electricity and gas markets in the previous year. As far as the gas sales sector is concerned, the survey was aimed at the 682 companies accredited with the Operators Registry that have declared that they carry out wholesale or end-market gas sales in 2018 (also for a limited period of the year). Of these, 529 companies (78%) responded to the annual survey on regulated sectors, 87 of which declared to be affiliated to a natural gas distribution company and 11 to a transport company.

Among the 529 companies that participated in the survey 47 stated that they remained inactive during the year. Of the remaining 482 active companies, 70 sold gas exclusively to the wholesale market and were

classified as pure wholesalers, 299 only sold gas to end customers and were classified as pure suppliers. The remaining 113, which operated both on the wholesale and on the end market, were classified as mixed operators.

Table 4.4 Wholesale market sales and prices in 2018

M(m^3); c€/m^3

Operators	Number	Sales	Price
Pure wholesalers	70	104,318	23.64
Mixed operators	113	110,945	24.43
Total	183	215,263	24.05

Source: ARERA. Annual survey on regulated sectors.

The wholesale market, which handled a total of 215.3 G(m^3), was supplied for 48% by pure wholesalers and for the remaining 52% by mixed operators. As in 2017, in 2018 there was no increase in the number of companies that operated in the wholesale market, whereas the overall volume of gas they traded increased. In fact, 183 suppliers, four fewer than 2017, sold a total of 4.4 G(m^3) more than 2017. Thanks to these trends (broader market and fewer suppliers) the average unit volume grew again by 4.3%, going from 1,128 to 1,176 M(m^3) on the market as a whole.

In the period between the beginning of 2018 and the first quarter of 2019: 20 companies have started wholesale natural gas sales, 6 companies have ceased operation and 2 have dissolved, while 4 companies have changed corporate group.

There were several incorporations between companies that already belonged to the same corporate group: Engie Italia incorporated Engie Energy Management; Acel Energie incorporated Acel Service and AEVV Energie; Edison Energia incorporated Edison Energie (i.e. Gas Natural Vendita Italia which since February 2018 had joined the Edison group, taking on the new name of Edison Energie) and A2A Energia incorporated Linea Più.

After years of continuous decline, in 2018 the concentration of this market increased slightly: the share of the biggest three companies (Eni, Engie Global Markets and Eni Trading & Shipping) rose to 34.3% from the 31.3% calculated in 2017. Likewise, the combined market share of the top five companies (the three already cited plus Enel Global Trading and Edison) rose to 50.3% from the 45.8% of the previous year. Obviously the Herfindahl-Hirschmann Index, calculated only on the wholesale market, also grew from 507 to 633, thus remaining below the 1,500 considered as the first symptom of concentration.

In 2018, the average price in the wholesale market was 24.05 €c/m^3, slightly higher than the 25.41 €c/m^3 of the Virtual Trading Point (VTP; Platts data) and an increase (17.8%) compared to the 20.42 €c/m^3 recorded in 2017.

The price charged by mixed operators was 23.64 €c/m^3, or 0.8 Euro cents higher than that charged by pure wholesalers (equal to 24.43 €c/m^3).

Virtual Trading Point

The main trading platform in the wholesale market in Italy is the Virtual Trading Point (VTP), handled by the transmission network operator, Snam Rete Gas. The transfers that can be recorded are both those carried out through bilateral contracts, and those realised within the regulated markets managed by the Gestore dei Mercati Energetici (GME - Energy markets operator). From September 2015 it is also possible to register the

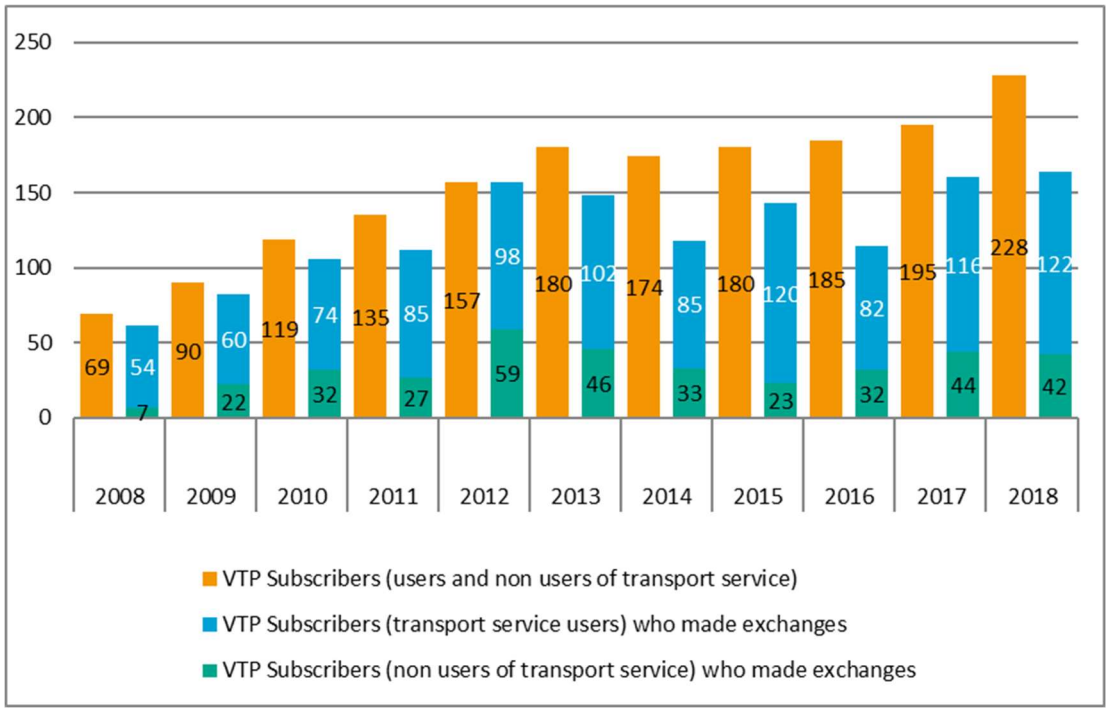
contracts managed by Third Party[209] Exchanges at the VTP, thus widening the offer of forward products with physical delivery of the gas to the VTP.

In 2018, 164 entities, performed the trade, sale and acquisition of gas on the VTP. Only 42 of these were pure traders, as they were not users of the transport system. Despite the negative trend in the demand for natural gas, the number of VTP subscribers rose to 228 units, peaking once again. The number of those, who have carried out transactions (4.8) among the subscribers, grew by four units (2.5%) compared to 2017, while a reduction (-4.5%) occurred in the number of pure traders (that is, subscribers who are not users of the transport system) having dropped to 42 units, against 44 in 2017.

Figure 4.9 shows the development of the trading registered at the VTP. The graph shows the redelivery to VTP and, with the indication "VTP-GME", the totality of trading recorded at the VTP deriving from trading on the markets managed by GME, i.e. those that occurred on the gas balancing platform (PB -GAS) until September 2016, but also those in the M-GAS and, finally, those managed as clearing house.

The VTP has grown considerably over time, in terms of both the number of transactions and the volumes traded thanks to the increase in the available purchase methods described. Starting from autumn 2015, in particular, the transactions registered with the VTP, which acts as a clearing house, have been increasing considerably. As will be seen in more detail in the next paragraph, this new growth was also driven by the launch of the new balancing market (fourth quarter of 2016), which led to a net increase in trades on the various M-GAS platforms.

Figure 4.8 VTP subscribers since 2008

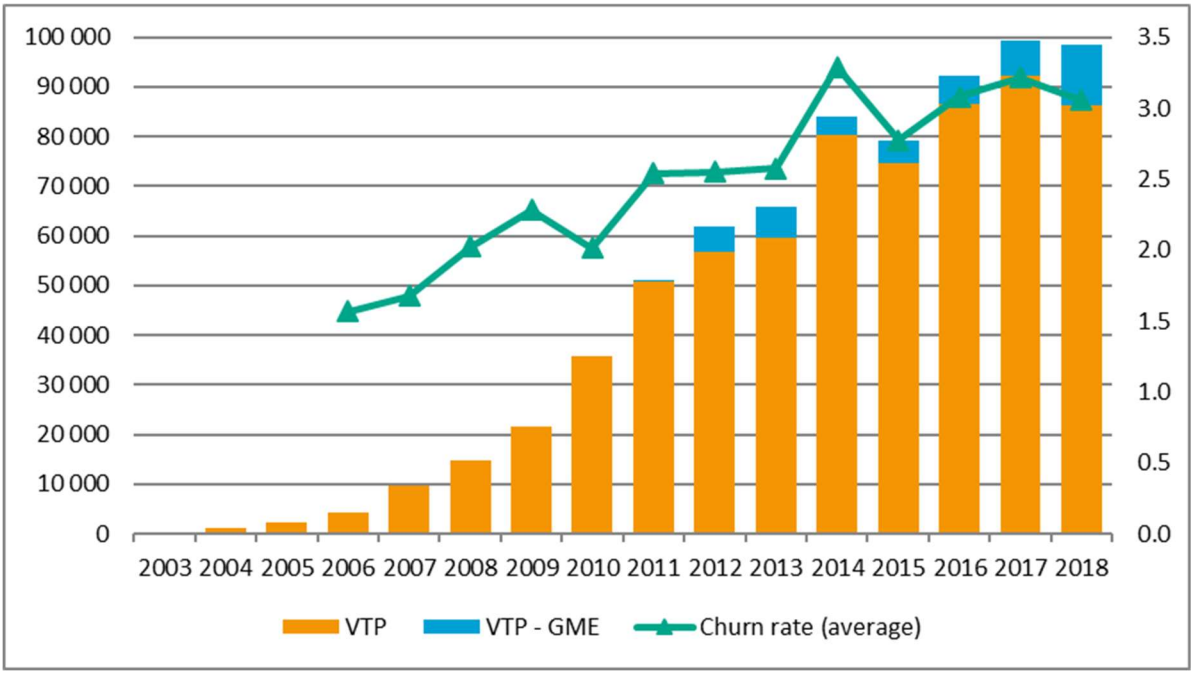


Source: ARERA. Annual survey on regulated sectors.

[209] 'Third Party Exchange' refers to: the manager of a foreign regulated market in which derivative financial instruments are traded which entail physical delivery and whose activities of compensation and guarantee of the transactions completed on said market are regulated through a clearing house (namely the third party who assumes the risk of the counterpart), or it is the same clearing house that, directly or through the same companies controlled or owned by the clearing house itself, is responsible for the compliance for the physical delivery of the products offered.

Figure 4.9 VTP transaction volumes and churn rate

Standard M(m^3) from 38.1 MJ



Source: ARERA processing on Snam Rete Gas data.

However, also due to the reduction in the overall gas consumption demand, in 2018 the OTC volumes traded at the VTP recorded a 7% decrease. There was still very strong growth of 77% in the VTP-GME, which follows the substantial growth of 18% in 2016 and 26% in 2017. The volumes managed through the Exchange almost doubled, rising to 12.3 from the 6.9 G(m^3) of the previous year.

The churn rate is a synthetic indicator that measures the average number of times that the commodity (gas) is exchanged between the time of the initial sale and that of its registration for physical delivery. The indicator can be calculated in different ways. The one illustrated in figure 3.12 is obtained by comparing the total volumes traded on the VTP to the value of the registrations that result in physical delivery. The more the market is liquid, the more this value increases. This rate grew considerably between 2006 and 2014. In the last three years it seems to have stabilised at around 3.1, so it is still far below 10 which is the threshold value of the churn rate often used in literature to judge the liquidity and maturity of a market.

Gas Exchange

The creation of a gas exchange in Italy started in 2007 with the obligation for holders of natural gas cultivation concessions to cede the rates of gas produced in Italy to the State and, for importers, to offer a portion of the gas imported into the regulated capacity market. In 2009, the economic management of the gas market was entrusted exclusively to the GME, which exclusively manages the purchase and sale offers (and all related services) according to economic merit criteria.

The first nucleus of the exchange was created in March 2010 with the establishment of the Trading Platform for the exchange of imported gas quotas, called P-GAS. With the creation of M-GAS, in October 2010, the spot market for natural gas was launched, in which the GME acts as a central counterparty. The operators authorised to carry out transactions on the VTP can buy and sell volumes of natural gas on this spot market. It is divided into:

- MGP-GAS (day-ahead gas market), in which bargaining takes place with sale and purchase offers relating to the next gas-day. The trading method is continuous with a closing auction;
- MI-GAS (Intra-day gas market), in which bargaining relating to the gas-day itself takes place. The trading method is continuous.

PB-GAS, operating since the end of 2011 until September 2016, has replaced the "storage" balancing system with a "market" balancing system, where the price is no longer established by the Authority, but determined by the intersection of supply and demand relating to stored gas. Those in possession of storage capacity were required to participate in this mechanism. Compulsory participation, together with the presence of Snam Rete Gas in the role of Balancing Manager (BM), has allowed a much higher gas movement in this market than the others managed by the GME.
PB-GAS consisted of two divisions:

- Division G-1, a real day-ahead market where, on a voluntary basis, various flexible resources could be called to respond to the offers of Snam Rete Gas for coverage of the system's forecasted imbalance;

Division G + 1, a day-after market, where operators offered their available daily storage resources for purchase and sale. Similarly, Snam Rete Gas offered for sale or purchase a quantity of gas corresponding to the overall system imbalance, in order to supply the resources necessary to keep the system balanced.

Following the approval of the European Balancing Regulation[210], starting from 1 October 2016, a balancing system was launched in place of the G-1 and G + 1 divisions, which puts all the available flexible resources such as storage, import or regassification of LNG in competition during the day. In this system, users and Snam Rete Gas have access to the same spot product markets to procure the resources necessary to balance, respectively, the individual position and the aggregate system position. This reform also introduces imbalance prices that make individual users responsible for balancing their positions, so that the network as a whole is balanced. In this context, the system operator Snam Rete Gas provides users with real-time information on the state of the network so that users can efficiently balance the system, limiting, on the other hand, their purchase and sale actions on the market to what is strictly necessary to provide "price signals".

In addition to the existing MGP-GAS and MI-GAS, the following spot product markets have been activated since 1 October 2016, useful for balancing purposes:

the Gas Storage Market (MGS) allows all users to exchange ownership of gas held in storage through a single auction session at marginal price; Snam Rete Gas can access this market both for the safe management of any overall network variances and for other operations;

the Locational Product Market (MPL) takes place according to auction trading methods and only at the request of Snam Rete Gas. On this market, Snam Rete Gas is supplied by authorised users for the quantities of gas necessary to manage physical needs located within the balancing area or any expected deviations between total network inputs and withdrawals.

The trading of both the aforementioned divisions, organised temporarily in the framework of the Balancing Platform (PB-GAS), starting from April 2017 fall within the organisation of the Gas Market (MGAS).

Since 2015, operators can also extend registration to the VTP for transactions concluded on exchanges managed by entities other than the GME[211]. In particular, the GME has been appointed to record the transactions made on the platforms managed by ICE Endex and Powernext (PEGAS platform of the EEX group) at the VTP, which already in April 2015 had launched futures products with delivery to the VTP.

[210] Regulation (EU) 312/2014 approved by the European Commission on 26 March 2014.
[211] Resolutions 12 June 2015, 282/2015/R/gas, and 10 September 2015, 436/2015/R/gas.

Finally, from 2 September 2013, the forward market managed by GME (MT-GAS) was launched. This market, which has been placed side by side with the existing spot markets, is carried out according to continuous trading methods with different trading books, each for each type of product that can be traded and referring to different delivery periods, where gas purchase and sale offers are selected.

Finally, between January and February 2018, a number of measures were introduced to promote the development of liquidity on the natural gas markets and, in particular, the spot market. Of particular interest is the provision of market making positions, that is entities (liquidity providers) that undertake, for an economic advantage, to keep sales and purchase offers contained within a predefined price differential on the market at the same time; liquidity providers operate in day-ahead product trading. For liquidity providers that have carried out market making activities in compliance with the set terms, methods and conditions for a calendar month, GME recognises a fixed fee of € 160 for each useful session and a fee of €0.01/MWh for each MWh traded on the MGP-GAS for the G+1 daily product.

Another measure introduced in 2018 is the integration of the markets managed by the GME within the Trayport platform, where the main foreign markets are already present; it is a much awaited evolution by users because it allows them to optimise trading activities through contemporary operations on multiple markets from a single trading platform.

Prices and Volumes

Within the scope of the gas markets operated by the GME (Table 4.5), in 2018, an overall 57.4 TWh of volumes were traded, registering an increase of 27.7% compared to the volumes traded in 2017. Also for 2018 - which is the second year of full operation of the gas markets in the new regulatory framework (see the previous paragraph) - it is noted that the volumes traded are spread across all the different market platforms. In particular, table 3.28 shows how the volumes that were almost completely divided between the balancing platforms G+1 and G-1 in the years 2012-2016, are traded within the different divisions of M-GAS starting from the last quarter of 2016. The highest liquidity can be seen on the Intra-day Market (27.9 TWh; + 17%), the same preferentially used by Snam Rete Gas[212] in its role as Balancing Manager, which represent 18% of the volumes traded (-8% compared to 2017). Also on the Storage Gas Market (13.5 TWh; -19%) the main operator is the Balancing Manager (46%; +10 percentage points compared to 2017), whose greater stakeholding is sustained above all by both sales and purchases for Neutrality and other purposes. The volumes traded on the Day-Ahead Market (13.0 TWh) rose sharply, aided by the launch of the market making mechanism (MM) in February (see previous paragraph). During 2018 there was no trading for the Locational Products Market, while the resumption of auction trading on the P-GAS royalties division was confirmed, with 2.4 TWh traded during the year for a total of 2.5 TWh delivered in the same year. Trading on the Forward Gas Market also increased, with 231 combinations for a total of 0.79 TWh, traded mainly on monthly products (70%). Trading on the new Regassification Capacity Assignment Platform (PAR) has also been recorded for a total of 12 slots for the product “Capacity no longer available for auction”, which amounts to 1.4 M(m^3) liquefied.

[212] According to the provisions of Regulation (EU) 312/2014 regarding the hierarchy between market resources for balancing purposes.

Table 4.5 Annual volumes for each of the gas markets managed by the GME

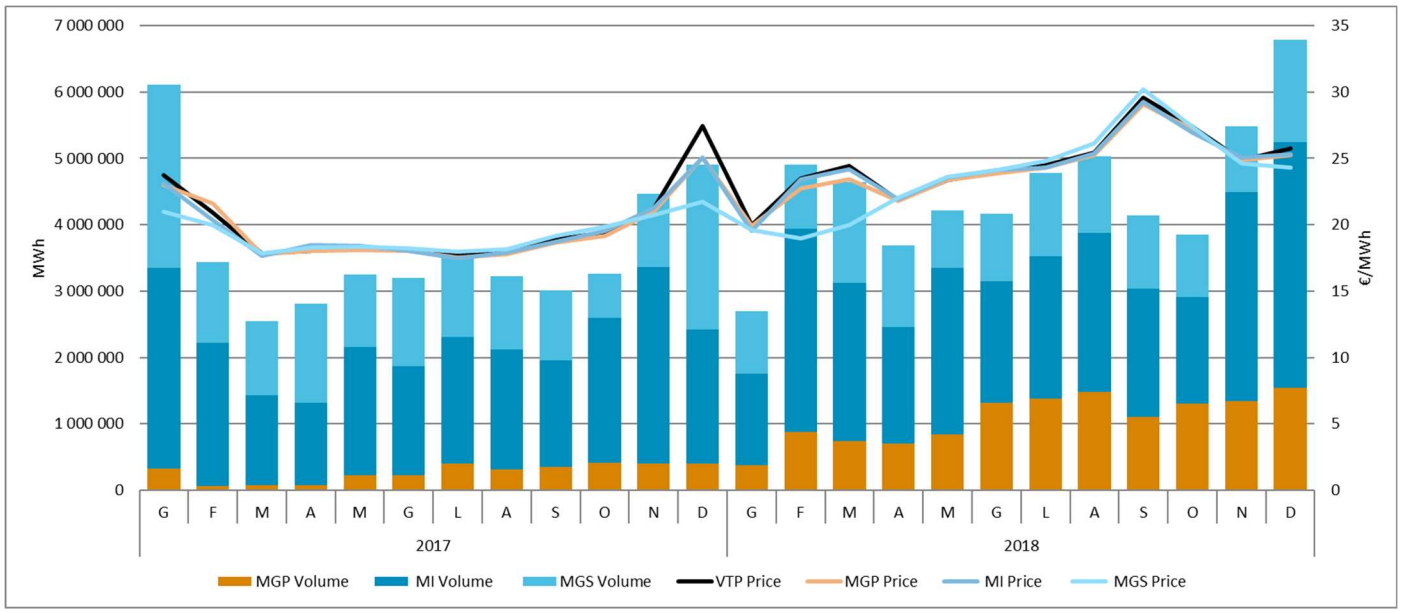
GWh

MARKETS		2010	2011	2012	2013	2014	2015	2016	2017	2018
P-GAS	Import	0.4	-	-	-	-	-	-	-	-
	Royalties	-	2,870	2,708	1,801	-	-	-	1,057	2,471
	Decree Law no. 130/10	-	-	-	-	-	-	-	-	-
M-GAS	MI-GAS	-	13	36	4	102	1,009	7,090	23,826	27,862
	MGP-GAS	-	149	136	13	-	-	335	3,280	13,006
	MT-GAS	-	-	-	-	-	-	-	171	602
	MGS	-	-	-	-	-	-	3,269	16,633	13,502
	MPL	-	-	-	-	-	-	-	-	-
PB-GAS	PB-GAS (G+1)	-	1,712	34,925	40,833	38,584	40,833	30,568	-	-
	PB-GAS (G-1)	-	-	-	48	2,940	7,326	6,218	-	-
TOTAL		0.4	4,743	37,805	42,699	41,627	49,199	47,480	44,967	57,443

Source: GME.

Figure 4.10 Monthly price and volume trends in the markets useful for gas balancing

€/MWh; MWh



Source: GME, Thomson Reuters for the VTP.

With regard to the prices found on the various platforms (Figure 4.10), they can all be approximated to an annual average of 24 €/MWh, in line with the average annual listing on the OTC markets at the VTP (24.55 €/MWh[213]). In particular, the average prices of the two divisions of M-GAS - respectively 24.28 €/MWh for MGP-GAS and 24.43 €/MWh for MI-GAS - showed an infra-annual trend that reflects that of the price at the VTP, recording an average differential between the latter and the System average price (SAP)[214] of -20 €c/MWh. Timely price increases were observed in February and March 2018 in correspondence with a significant increase in consumption, while the historical maximum of almost € 30/MWh was recorded in

[213] Source: Thomson-Reuters.

[214] The SAP is the average of the prices recorded on the MGP-GAS and on the MI-GAS weighted for the quantities traded respectively.

September 2018. On the other hand, the correlation between the VTP price and the price of the MGS division is lower, which records lower levels in the first months of the year, in correspondence with the final phase of withdrawal from storage, and higher levels in the summer months, during inputs, with an average differential with the VTP price of -71 €c/MWh.

4.2.1.2 Monitoring of the level of transparency, including compliance with the obligations on transparency, and on the degree and efficiency of market opening and competition

Monitoring of the wholesale market

In an advanced phase of regulation, monitoring the wholesale markets is the main tool available to the Authority to assess the structure of the markets and their correct functioning, as well as the behaviour of the operators and the adequacy of the system. Monitoring the wholesale markets also plays an important proactive and supportive role in the development of effective regulation in line with the degree of evolution of the regulated markets, through the identification of any anomalies in their outcomes, critical issues in the reference regulatory framework and its necessary additions.

As regards the natural gas market, until 2017 the Authority's monitoring was carried out through the provision of specific information obligations for the gas companies and aimed at identifying suitable indicators for monitoring the progress of the wholesale gas market. In light of the evolution of the reference context, as well as the allocated monitoring tasks, in May 2017 the Authority[215] adopted provisions to strengthen its role in monitoring the wholesale natural gas market, identifying Snam Rete Gas as the entity responsible for carrying out activities instrumental to monitoring the capacities and flows, and the GME as the entity in charge of carrying out activities instrumental to monitoring the competitive structure, integrity and transparency of the markets.

More precisely, in May 2017, the Authority laid the foundations for the introduction of a consolidated text for monitoring the gas market (similar to the TIMM[216] for the electricity market) which, starting from streamlining of the existing market and allowed for the availability of more automated analysis, signalling and reporting tools. The conclusion of the aforementioned streamlining process, made necessary to adapt the tools available to the Authority for exercising its function of monitoring the wholesale natural gas market to market developments, was reached at the end of 2018 when the Authority adopted[217] the Integrated Text for monitoring the wholesale natural gas market (TIMMIG). The TIMMG provisions echo and extend those already adopted in May 2017 and, in particular, identify:

- the macro-areas (dimensions) of the monitoring, i.e. the structural dimension (which concerns the phenomena related to the functioning of the gas system and which are the basis of the market dynamics) entrusted to Snam Rete Gas and the competitive dimension (which concerns the phenomena relating to the competitive structure, the integrity and transparency of the market, as well as the behaviour and conduct of the gas system market operators) entrusted to the GME (Gestore dei Mercati Energetici – Energy markets operator);
- the areas of relevance covered by the monitoring function, namely the functioning of system balancing, the adequacy of the system and the supply, the flexibility margins of the supply sources, the activity of wholesale trading, to identify irregular pipelines of market operators and activities based on privileged and/or configurable information such as market manipulation pursuant to Regulation (EU) 1227/2011 on the integrity and transparency of wholesale energy markets (REMIT), the competitive level of the market;
- the instrumental elements for carrying out monitoring, i.e. the data (identified in Annex 1 of the TIMMIG) which must be transmitted by the gas companies, the indices (identified in Annex 2 of the TIMMIG) which

[215] With resolution 5 May 2017, 308/2017/R/gas.
[216] See note 104 on page 66.
[217] With resolution 05 December 2018, 631/2018/R/gas.

are calculated by the GME and Snam Rete Gas on the basis of the aforementioned data with the objective of measuring the phenomena subject to observation and highlighting any irregular trends, the reports (identified in Annex 3 of the TIMMIG), prepared by the GME and Snam Rete Gas, in order to provide a description/Gantt chart of the identified data and indices;

- the organisational procedures of the monitoring offices set up for the purpose at the GME and Snam Rete Gas (in particular, their impartiality with the other activities of the company to which they belong), as well as the criteria for covering the costs of the aforementioned offices (drawing from the fund for coverage of the charges connected with the gas system balancing system);
- the methods of collecting data functional to the monitoring activity through the database of fundamental data (managed by Snam Rete Gas) and the competitive database (managed by the GME);
- the means of cooperation between GME and Snam Rete Gas through the stipulation of a special agreement approved by the Authority.

In addition to the outlined framework, the Authority then approved[218] the proposed agreement between the GME and Snam Rete Gas that governs the application procedures with which GME accesses and records transactions with delivery to the VTP concluded on the markets it manages and at the third-party exchanges, as well as the procedures for managing the related information flows.

4.2.2 Retail markets

From the provisional results of the annual survey, on which the comments of these pages are traditionally based, it emerges that in 2018 56.7 G(m^3) were sold to the end market, to which are added the 183 M(m^3) supplied through last resort and default services[219]. Overall, therefore, the final sales amounted to almost 57 G(m^3), a decrease of 2 G(m^3) compared to 2017.

In order to obtain data that can be compared with the final gas consumption data published by the Ministry of Economic Development mentioned above, we must however consider the volumes related to self-consumption, amounting to 14.5 G(m^3), that bring the value of overall consumption given by the Annual Survey to 71.4 G(m^3), i.e. to a value comparable to the 70.3 G(m^3) reported by the Ministry. As usual, the two sources classify the volumes of gas handled over the year in different ways.

In the annual survey data, the level of overall consumption in 2018 therefore fell by 5.1% compared to that of 2017, moving away again from pre-crisis values, which were around 85 G(m^3). Unlike in more recent years, self-consumption also showed a fairly substantial reduction in 2018, equal to 3.7% in terms of volumes, which occurred to a much greater extent in terms of withdrawal points, down to around 1,500 units from 1,900 of the previous year. This item has very strong influence on electricity generation (87.5% of self-consumption is recorded in this sector).

As we will see later in this paragraph, the drop in end consumption, which emerges both in the data of the annual survey (-5.1%), as well as in the ministerial data, albeit to a more restricted extent (-3.2%), appears to be linked to a more substantial downsizing of the productive sectors (and more precisely thermoelectric), compared to that of civil consumption.

[218] With resolution 11 December 2018, 646/2018/R/gas.

[219] The request for data relating to last resort and default supplies is present in the annual survey in a very simplified manner. Therefore, for this type of supply the details (consumption sector, type of connection etc.) with which the end sales are usually analysed are not available. Therefore, in the rest of the paragraph all the detailed analyses are carried out net of this market component.

Table 4.6 End consumption of natural gas in 2017 and 2018

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

	VOLUMES			WITHDRAWAL POINTS		
	2017	2018	VARIATION	2017	2018	VARIATION
End sales	59,816	56,744	-5.1%	21,177	21,611	2.0%
Last resort and default supplies	154	183	18.6%	108	120	11.4%
MARKET TOTAL	59,970	56,927	-5.1%	21,285	21,731	2.1%
Self-consumption	15,025	14,473	-3.7%	1.9	1.5	-19.9%
END CONSUMPTION	74,995	71,400	-4.8%	21,287	21,732	2.1%

Source: ARERA. Annual survey on regulated sectors.

Of the 56.7 G(m^3) of gas sold to the end market, 11.9 G(m^3) were sold by pure suppliers while the remaining 44.8 G(m^3) were intermediated by suppliers who also operate in the wholesale market (Table 4.7). The average price charged to end customers, amounts to 39.96 €c/m^3 increased by 5.68 €c, i.e. 16.6% compared to the 2017 value. As usual, this price is higher than that applied to the end market by wholesale suppliers (pure and mixed), which amounted to 37.53 €c/m^3. The reason for the positive difference, amounting to 2.44 €c, lies mainly in the type of customers served and the related characteristics. In fact, the companies that operate mainly on the end market mostly target civil customers who are connected to the distribution networks and who, although numerous, are characterised by low consumption. Conversely, the customers served by wholesale suppliers are mainly those of large consumers, especially industrial ones, which thanks to high levels of consumption are certainly able to get more favourable prices. Furthermore, industrial customers are often connected directly to the transport network and, therefore, do not pay the distribution cost.

Table 4.7 Sales and prices on the end market in 2018

M(m^3); c€/m^3

Operators	Number	Sales	Price
Pure suppliers	299	11,924	49.12
Mixed operators	113	44,820	37.35
Total	412	56,744	39.96

Source: ARERA. Annual survey on regulated sectors.

The price differential observed in the wholesale market is, on the other hand, decidedly more restricted. Against an average price of 24.05 €c/m^3 applied by wholesale suppliers, suppliers (i.e. companies that operate mainly on the end market) have requested an average of 24.43 €c/m^3 for the gas they sold to other retailers, i.e. 0.38 cents more. The price charged to other retailers has also increased compared to 2017 (17.1%). In 2018 the price differentials narrowed: last year the price set by wholesale suppliers for end market customers was 2.86 €c/m^3, while that on the price charged to the other intermediaries was 0.45 €c.

For the first time, in 2018 the data collected by the survey show that the drop in sales was also accompanied by a drop in the number of suppliers active in this segment of the supply chain, which fell by 8 units compared to 2017[220]. The continual growth in the number of companies that declare sales activity in the Registry, however, suggests that it is probable that this decline is influenced by the level of participation in the survey

[220] As we have seen in the paragraph dedicated to the wholesale market, in fact, this year 529 companies out of the 682 companies that, in the Authority's Operators Registry, declared that they carry out the wholesale or retail activity of selling gas 2018 (even if only for a limited period of the year) responded. Apart from the 47 companies that declared that they remained inactive, out of the remaining 482 there are 70 who sold gas exclusively on the wholesale market. Therefore, the entities that operated in the retail market were 412.

by the suppliers, which has actually decreased compared to past years. Also for this reason it is necessary to remember what has already been written in other previous pages, that the survey data, at the time of drafting the Annual Report, are provisional. Since the drop in sales was greater than that of the number of suppliers, the average sales unit volume was reduced by 5 M(m^3) compared to 2017, falling to 138 M(m^3). Before the financial crisis, in 2009 the average amount sold was almost double, equal to 230 M(m^3). Also in 2018 there were numerous movements between companies: 66 companies started selling to end customers; 11 companies in total have ceased operations, 8 companies have acquired or sold the sales activity on the free market alone and 6 on both the free market and in the service under standard conditions; 11 companies have changed corporate group; there were 11 incorporation operations, almost all within the same corporate group.

Of the 412 suppliers in operation that responded to the Annual Survey, 12.6% (i.e. 52 entities) supply customers throughout the country, i.e. in all 19 Italian regions supplied with methane[221]; 166 companies (40.3%) sold electricity to between 6 and 18 regions; the remaining 194 companies (47.1%) operated in between 1 and 5 regions. The number of companies that operate all over the country has grown continuously (7% in 2014, 11.7% in 2017). The corporate breakdown of the share capital of gas suppliers, limiting the analysis to direct stakeholders, displayed poor foreign presence: only 28 companies (of around 398 that provided this data) have a non-Italian majority shareholder. The direct foreign shareholders are mostly Luxembourg or Swiss companies, but there are also German, British, Spanish and Austrian companies.

Table 4.8 Top twenty groups for end market sales in 2018

Volumes in M(m^3)

GROUP	VOLUME	SHARE	POSITION IN 2017
Eni	10,942	19.3%	1st
Edison	7,512	13.2%	2nd
Enel	6,247	11.0%	3rd
Iren	2,532	4.5%	5th
Hera	2,116	3.7%	6th
A2A	1,899	3.3%	7th
Energeticky A Prumyslovy Holding, A.S.	1,890	3.3%	4th
Sorgenia	1,274	2.2%	8th
Engie	1,149	2.0%	10th
Axpo Group	1,009	1.8%	9th
E.On	949	1.7%	11th
Estra Spa	928	1.6%	13th
Royal Dutch Shell Plc	826	1.5%	12th
British Petroleum	800	1.4%	32nd
Ascopiave	794	1.4%	14th
Unogas	715	1.3%	16th
Solvay Energy Services Italia	688	1.2%	19th
Eg Holding Spa	651	1.1%	17th
Dolomiti Energia	492	0.9%	21st
Metaenergia Spa	446	0.8%	18th
Others	12,885	22.7%	-
TOTAL	56,744	100.0%	-

Source: ARERA. Annual survey on regulated sectors.

[221] There is no gas service in Sardinia.

No variation emerges in the top three positions of the end market: Eni, Edison and Enel are, as always, the groups in the top three positions. The importance of the Eni group (19.3% this year) was reduced by one and a half percentage points compared to 2017, while those of the Enel and Edison groups remained virtually unchanged. Therefore, the distance between Eni and Edison has shortened (from 7.4% to 6%), while that between Edison and Enel has stabilised at just over two percentage points. The Czech group Energeticky a Prumyslovy Holding (which includes the company EP Commodities) slipped to a noteworthy seventh place from fourth place last year and, on the contrary, the British Petroleum group rose this year to fourteenth place from the thirty-second of 2017; end market sales of this group, traditionally important in the most upstream phases (wholesale sales exceed two billion cubic meters) have tripled this year, having reached 800 M(m^3) from the 254 M(m^3) achieved in 2017.

Table 4.9 shows the summary of the data regarding the end users market for the sale of natural gas by type of market and consumption sector over the last two years, based on data collected through the annual survey which, it should be remembered, are provisional for 2018. Net of last resort and default supplies, 71.2 G(m^3) - of which 14.5 destined for self-consumption and 56.7 for sale - were sold in 2017 to 21.6 million customers (redelivery points).

Overall, the sales of gas decreased compared to 2017 in almost all sectors, with the exception of those to households. Self-consumption, which is mostly in the thermoelectric sector, fell by 0.3%, while the quantities of gas sold on the free market showed a loss of 4.3%, less significant than that recorded on the market with a reference price, on which sales fell by 10.1%. The values of the market with a reference price illustrated in the table do not include the quantities supplied in the default and last resort services as they cannot be divided into the various sectors. These were found to be 154 M(m^3) in 2017 and 183 M(m^3) in 2018. If we also consider default and last resort services, the gas sold on the market with a reference price rises to 8.3 G(m^3), and the decrease compared to 2017 is slightly reduced to -9.6%.

Table 4.9 End users market by consumer sector

Customers in thousands and volumes in M(m^3)

CONSUMER SECTOR	2017				2018			
	MARKET WITH A REFERENCE PRICE	FREE MARKET	SELF-CONSUMPTION	TOTAL	MARKET WITH A REFERENCE PRICE	FREE MARKET	SELF-CONSUMPTION	TOTAL
VOLUMES								
Domestic	8,356	6,880	0	15,236	7,542	7,736	0	15,278
Central heating	598	1,888	9	2,495	528	1,919	7	2,454
Commerce and services	15	7,400	49	7,464	-	7,385	24	7,409
Industry	3	19,838	1,529	21,370	-	18,930	1,781	20,711
Electricity generation	0	13,494	13,438	26,932	-	11,506	12,661	24,167
Public service activities	2	1,343	0	1,345	-	1,198	0	1,198
TOTAL VOLUMES	8,973	50,843	15,025	74,841	8,070	48,674	14,473	71,217
REDELIVERY POINTS								
Domestic	10,861	8,810	0	19,671	10,040	10,070	0	20,111
Central heating	80	117	0	198	72	127	0	200
Commerce and services	9	1,052	1	1,062	-	1,060	1	1,061
Industry	2	180	0	182	-	180	0	180
Electricity generation	0	1	0	1	-	1	0	1
Public service activities	0	65	0	65	-	59	0	59
TOTAL POINTS	10,952	10,225	2	21,179	10,113	11,498	2	21,612

Source: ARERA. Annual survey on regulated sectors.

Customers who bought gas for self-consumption fell sharply (-19.9%), likewise there was a reduction of 7.7% for customers served on the market with a reference price (taking into account the default and last resort services, the fall was reduced to 7.5%); conversely, free market customers increased overall by 12.5%.

In 2018, the Italian economy slowed, remaining however up by 0.9%; the industrial sector remained in recovery, but the more gas intensive sectors showed modest or negative results. Furthermore, the weather was warm. On the basis of these elements we can understand the containment of gas consumption which was more significant (-7.1%) for the productive sectors compared to that recorded in the civil sector (-0.8%), which in addition to the domestic sector includes multi-occupancy buildings, the tertiary sector and public service activities. The rate of growth of the civil sector improves significantly if we exclusively consider sales on the free market, which grew by 4.2% compared to 2017. In fact, the volumes of gas sold on the free market to households were 12.5% higher than in 2017, those for multi-occupancy buildings grew by 1.6%, those in commerce remained substantially stable (-0.2%) while those of public service activities fell sharply (-10.8%).

In 2018 the customers of the gas market as a whole increased by 433,000 redelivery points. The decrease in sales, therefore, is not due to a narrowing of the range of contracts, but to a genuine drop in consumption. However, for several years customers have shifted towards the free market, partly due to the gradual expulsion from the standard offer, ope legis, of all categories of non-domestic[222] customers and, as regards households, partly due to the end of the standard offer regime planned for July 1, 2020.

In 2018, in fact, a total of 839,000 customers left the market with a reference price, while the free market recorded 1 million and 273 thousand more. In particular, we highlight the exit of 821,000 families from the standard offer service, while in the free market there are 1,261,000 more domestic customers than in 2017. Even in the case of central heating, the balance is positive: compared to 8,000 points that left the standard offer, there are 9,000 more in the free market. Commerce and services customers grew (+1,000 points served in the free market) and, both those in the industrial sector (+130 points in the free market), and those in electricity generation (+156 redelivery points) rose slightly, while customers in the public service activities sector declined noticeably (-5,000 points in the free market).

As a result of what has been said so far, it can be seen that in 2018 the average unit consumption decreased for all sectors: compared to 2017, the average consumption for domestic customers went from 775 to 760 m^3, for central heating from 12,590 to 12,299 m^3, for commerce from 7,025 to 6,980 m^3, for industry from 117.6 to 114.8 thousand m^3, for electricity generation from 41 to 30 M(m^3) and, lastly, for public service activities from 20,675 to 20,206 m^3. On the free market, average consumption is higher than that found on the market with a reference price: in the case of households, the average consumption is 768 m^3, in the case of multi-occupancy buildings it is 15,125 m^3.

The proportion of volumes purchased on average on the free market was 68.3%, that of the market with a reference price was 11.3%, while self-consumption accounted for 20.3%. If we consider sales in its strict sense and therefore exclude self-consumption, 85.8% of the gas was purchased on the free market and the remaining 14.2% on the market with a reference price. In terms of customers, 53.2% turned to the market with a reference price, while 46.8% bought on the free market.

[222] As you will remember, based on the decree of 21 June 2013, no. 69, from the second half of 2013 the obligation to offer the standard economic terms concerns only domestic end customers and no longer users with different uses and limited consumption or those relating to public service activities. Prior to this rule, the redelivery points owned by customers were entitled to the standard offer service: domestic users, central heating with annual consumption of less than 200,000 m^3/year, non-domestic consumption of less than 50,000 m^3/year, public service activities. Therefore, starting from the second half of 2013, non-domestic customers gradually left the standard offer boundary.

Table 4.10 End users market by type and size of customers in 2018

M(m^3)

SECTOR	CUSTOMERS GROUPED 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	
MARKET WITH A REFERENCE PRICE	7,474	547	47	2	0	0	8,070
Domestic	7,401	139	0	2	0	0	7,542
Central heating	73	408	46	0	0	0	528
FREE MARKET	9,071	4,876	2,540	5,463	9,180	17,545	48,674
Domestic	7,511	179	14	6	27	0	7,736
Central heating	90	1,363	387	71	8	0	1,919
Commerce and services	56	316	200	308	198	120	1,198
Industry	1,245	2,312	1,219	1,691	791	126	7,385
Electricity generation	169	705	709	3,252	7,156	6,940	18,930
Public service activities	0	1	11	135	1,000	10,359	11,506
TOTAL	7,474	547	47	2	0	0	8,070

Source: ARERA. Annual survey on regulated sectors.

Focusing only on the **domestic sector**, it can be seen that the share of volumes purchased on the free market in 2018 reached 50.6% for households and 78.4% for multi-occupancy buildings (both shares, strictly speaking, are calculated on total sales, i.e. net of self-consumption). In 2017 the values were, respectively, 45.2% and 76%. In terms of withdrawal points, in 2018 the share of households that bought gas on the market with a reference price fell below half for the first time, more precisely to 49.9%.

As already mentioned in Chapter 3 (see paragraph 3.2), this year too, the annual survey on regulated sectors has asked electricity and natural gas suppliers some questions aimed at assessing the **quantity, types and offer methods that companies make available to customers who have chosen to be supplied from the free market**. The range of commercial offers available on the free market is a very complex and varied reality, this year enriched by the presence of free price offers under uniform contractual conditions (PLACET)[223]. The data reported below on the types of offers available and actually chosen by customers, however, do not include a separate category for PLACET offers as their application was started in the middle of the year. Here too, as in the electricity sector, we reiterate that the objective of the questions on the quantity and quality of commercial offers is aimed at classifying the numerous offers on the market, although not fully exhaustive. Therefore, the usual warning that the results shown on these pages may be illustrative holds true. Furthermore, since the supply to non-domestic customers has traditionally much more varied and complex needs than households, the presentation of the results collected practically only concentrates on the latter[224].

The average number of commercial offers that sales companies are able to make to their potential customers was 13.5 for domestic customers, 7.8 for central heating use and 24.9 for non-domestic customers. The latter, of course, enjoys a greater possibility of choice as the customer is generally more important in terms of volumes consumed and certainly with more differentiated needs than those of a domestic customer. The supplier is certainly able to provide personalised services and more individualised contracts for this customer. Over time, the number of offers available for domestic customers grew (they were 8 in 2016 and 13 in 2017), as did the number available for multi-occupancy buildings (7 in 2016 and 7.6 in 2017), probably because suppliers are preparing for the end of the standard offer service. The number of offers available to non-domestic customers, on the other hand, fell sharply compared to 2017, when it was 76.6. This decline could

[223] For a description of these offers, see the paragraph on the free electricity market, in Chapter 2 of this Volume.
[224] The only result presented for non-domestic customers concerns the number of offers available because the specific question in the questionnaire for suppliers has achieved a good response rate.

be due, at least in part, to the fact that the free market for non-domestic customers is certainly more mature than that for households and could therefore be in a phase of streamlining of the offers created for these customers. Part of the decline, however, could also be explained by the better categorisation of offers by suppliers, this being the third edition of the Survey that asks for data on commercial offers. Figure 3.16 shows, however, that 17% of suppliers only offer domestic customers one contractual method, 31% make up to three available, and the remaining 52% of suppliers offer their customers a range that includes upwards of four offers. Compared to 2017, the number of suppliers offering only one or two contractual methods has decreased, while those offering four to ten contracts have increased.

Of the 13.5 offers made available on average to the domestic customer, 6.6 can only be purchased online, that is, only through the Internet, which constitutes an important sales channel through which the company can clarify its sales conditions with all the necessary details but saving on management costs (4.1 in 2017). However, 18.4% of sellers do not even offer an online offer. In 1.6% of cases, the number of online offers is equal to the number of overall offers that are offered to customers. Therefore, in the vast majority of cases the number of online offers was lower than the total offers.

Households do not currently appear to be particularly interested in online offers, as it turned out that only 2.6% of customers signed a contract offered through this method. The result is lower than in 2017, when 4.1% of households had chosen to subscribe to an electricity offer through the internet.

As concerns the preferred type of price, it was found that 70.4% of domestic customers has subscribed to a price-lock contract on the free market (i.e. with the price that does not change for at least one year from the time of the subscription), while 29.6% chose a variable price contract, i.e. with the price that changes according to the times and methods established by the contract itself. Also in this case, the figures are slightly down compared to the previous year, when the variable price was chosen by 31.4% of domestic customers.

There are various types of indexing methods for variable price contracts. 47.8% (45.7% in 2017) of customers who signed a variable price contract signed a contract that provides for a fixed discount on one of the components established by the Authority for the economic supply conditions of the standard offer service; 18.8% (19.8% in 2017) of customers chose a contract that provides for indexation to the Brent trend and 20.4% (18.5% in 2017) of customers chose a contract that provides for a form of indexation linked to FTT prices. A small proportion of customers (0.7%, was 0.8% in 2017) chose to index the price of gas to the price trend on the VTP or on the markets managed by the GME (0.3%, was 0.2% in 2017). The remaining 11.9% (15.3% in 2017) of the contracts provide for alternative indexing forms, often with a combination of those just mentioned.

As regards the duration, 2.8% of domestic customers served on the free market signed a contract that provides for a minimum contractual duration clause, in the sense that for the application of the established price it is envisaged that the customer does not change supplier for a minimum time established by the contract itself. The percentage is higher in the case of fixed-price contracts where the clause applies to 3.4% of customers, while it is 2.8% in the case of price-lock contracts. However, not all suppliers on the free market apply a contract that includes a minimum contractual duration clause, and even those that envisage this possibility offer their customers alternative contracts that do not include this constraint. There are a total of 14 suppliers that apply contracts with a minimum duration clause, and overall they serve just under one million customers. The share of the customers of these suppliers who have purchased a contract with a minimum duration clause is 28.7% (8.1% with variable price and 45.5% with locked price). All the values are slightly down compared to last year: in 2017 16 suppliers that proposed a contractual clause and the share of their customers that appeared to have subscribed to it was 33.8%.

39.6% of domestic customers have signed a contract that provides for a rebate or a discount of one or more free periods or a fixed amount in cash or volume, which can be one-off or permanent, and possibly provided upon the occurrence of a specific condition (e.g. discount for contracts entered into by friends of the customer, discount for direct debit of the bill, etc.). More in detail, it appears that, on average, the discount is applied to 40% of customers who have chosen a fixed-price contract and to 38% of customers who have chosen the variable price. The share of contracts purchased that provide for a rebate or a discount has grown

considerably compared to 2017, when it was 26.5%. In an expanding market that embraces new and inexperienced customers, it therefore seems that households prefer simple, easily understandable and immediately comparable contractual arrangements.

The presence of additional services (Table 4.11) in the contracts signed by households is more widespread in fixed-price contracts than in variable-price ones: 55% of customers who have chosen a fixed-price offer sign a contract that also includes an additional service, while this percentage drops drastically to 17% in variable price contracts. Fixed-price contracts that provide for an additional service show a clear preference (46.1%) for those contracts that involve participation in a points programme and a certain satisfaction (6%) for contracts that offer an optional energy service. These preferences are fairly stable over time.

Table 4.11 Percentage of customers who have signed a contract for the supply of natural gas with additional services

ADDITIONAL SERVICES	FIXED PRICE CONTRACTS			VARIABLE PRICE CONTRACTS		
	2016	2017	2018	2016	2017	2018
Offers signed with respect to the total	68.5%	68.6%	70.4%	31.5%	31.4%	29.6%
ADDITIONAL SERVICES						
No additional service	85.3%	38.3%	45.0%	68.4%	86.5%	82.7%
Points collection programme (own or others)	72.0%	51.4%	46.1%	13.3%	2.0%	1.8%
Optional energy services (e.g. digital and collaborative tools to control energy consumption and costs, tools to increase energy efficiency, professional services such as telephone assistance, plant maintenance, insurance, etc.)	23.0%	7.1%	6.1%	20.9%	7.0%	6.6%
Benefits in purchasing other goods or services (e.g. petrol discounts, magazine subscriptions, etc.)	5.0%	1.4%	0.9%	1.5%	0.4%	0.4%
Free gifts or gadgets	not available	0.2%	0.2%	not available	0.3%	0.4%
Personalised telephone services	not available	0.0%	0.0%	not available	0.0%	0.0%
Other not included in the above	1.0%	1.6%	1.8%	64.3%	3.7%	8.2%
TOTAL	100.0%	100%	100%	100.0%	100%	100%

Source: ARERA. Annual survey on regulated sectors.

4.2.2.1 Monitoring of the price level of the retail market, the level of transparency and the degree and efficiency of market opening and competition

In terms of natural gas sales prices on the retail market, the Authority has two surveys:

- that of the average supply conditions for natural gas, carried out pursuant to resolution 28 May 2009, ARG/gas 64/09, in which the monthly data relating to the prices invoiced by suppliers to domestic and non-domestic customers are recorded on a quarterly basis, separated into consumption classes and sectors;
- that carried out in the context of the annual survey on regulated sectors, in which relevant data are collected for the previous year and separated according to various detail categories (type of market, sector and consumption classes, type of connection).

As already mentioned in Chapter 3 (see paragraph 3.2.2.1), the Authority has also defined the monitoring system for retail markets for both electricity and natural gas (TIMR). The TIMR requires retailers selling

electricity and natural gas (with more than 50,000 withdrawal points served) to report to the Authority on a quarterly basis the average monthly prices for natural gas charged on the end market, together with multiple other indicators (TIMR results are shown in the next paragraph). In fact, starting from January 2012 and limited to the suppliers obliged by the TIMR, the average prices collected by the Authority pursuant to the resolution ARG/gas 64/09 are included in the retail monitoring. By virtue of an institutional agreement, however, all the data collected pursuant to resolution ARG/gas 64/09 are provided on a six-monthly basis to the Ministry of Economic Development which sends them to Eurostat to fulfil the obligations on the end electricity and natural gas price statistics. These obligations were amended in 2016, with the adoption of Regulation (EU) 2016/1952 concerning European statistics on natural gas and electricity prices which repealed Directive 2008/92/EC. The Authority has therefore renewed[225] its systems for recording the prices charged by electricity and natural gas suppliers to end customers to adapt them to the requirements of the new European Regulation. The new price measuring systems will be applied starting from the price announcement for the first half of 2019, as Italy has obtained an extension for the application of the 2016/1952 Regulation.

The annual survey data are instead used for the statistical analyses carried out by the Authority, especially those laid out in the annual reports to the national and European authorities.

The interim analysis of data gathered in the survey conducted by the Authority for 2018 shows that, last year, the average price of gas (weighted by the quantities sold), after taxes, set by the sales companies operating on the end market, was 40 €c/m^3 (Table 4.12). This price was 34.3 €c/m^3 in 2017. Therefore, the overall average end price of gas in Italy increased by 5.7 €c/m^3 or 16.6%.

All the annual consumption classes show increases, albeit differentiated. The highest increase, both in absolute (7.5 €c/m^3) and relative terms (20.7%) concerns the intermediate class (between 50,000 and 200,000 m^3), while the smaller increases concern: in absolute terms, the large customers (between 2 and 20 million m^3), +3.5 €/m^3, + 15.3%; proportionately, the smallest customers (less than 5,000 m^3), +6.2 €c/m^3, + 11.9%.

During the five-year period the price gap between smaller and larger customers shows very slight fluctuations around an average value of 28.5 €c/m^3. This gap stems from the fact that where there is higher consumption, fixed costs are spread over larger quantities. In particular, the incidence of distribution tariffs is much higher on small consumption, while for larger customers, who are directly connected to the transport network, this component is not even present. Furthermore, it can be considered that the ability to obtain more convenient supply conditions is directly proportional to the size of the customer, in relation to the greater knowledge of the market and to the greater attention to the contractual conditions.

On the other hand, as already highlighted in the electricity sector, it must be considered that with the development of the free market, the range of offers by sellers to end customers has increased considerably, who can then choose between very different packages. Some of these include optional services (assistance, maintenance, insurance, etc.), for which the price of the gas offered can take into account additional elements in relation to the cost of the gas itself. Other offers include discounts on the raw material, others, instead, benefits on the purchase of different goods or services (discounts at the supermarket, on fuel, on telephone services, etc.). Many suppliers also offer fixed-price formulas, whose mechanisms for updating the fees are not influenced by the economic dynamics of energy prices, but depend significantly on the date the contracts are signed (and in particular on the expectations of that moment on the future trend in fuel prices), as well as the duration of the contracts themselves (the longer it is, the more the agreed price must take into account the risks of market changes). Still, other offers are linked to compliance with certain consumption thresholds, beyond which additional price components are triggered.

[225] With resolution 29 March 2018, 168/2018/R/com which also repealed Resolution ARG/elt 167/08.

Table 4.12 Average sales prices on the end market net of taxes

€c/m^3; annual consumption classes expressed in m^3

ANNUAL CONSUMPTION CLASS	2014	2015	2016	2017	2018
Less than 5,000	58.8	55.7	51.7	52.1	58.3
Between 5,000 and 50,000	46.9	46.0	42.1	43.1	48.4
Between 50,000 and 200,000	41.4	41.0	37.0	36.2	43.7
Between 200,000 and 2,000,000	35.0	32.5	28.3	26.8	31.4
Between 2,000,000 and 20,000,000	34.0	28.0	24.2	23.0	26.5
More than 20,000,000	32.2	26.5	21.8	24.3	29.2
TOTAL	42.3	38.9	33.8	34.3	40.0

Source: ARERA. Annual survey on regulated sectors.

Table 4.13 shows the cross-section of average prices by consumption class and sector. The consumption class with the highest price is the small one, for the reasons explained above, while the one with the lowest price concerns customers with consumption from 2 to 20 million m^3, which, as already highlighted, are those that have had the smallest increase over the previous year. With regard to the different sectors, the overall average of each (the last column on the right) depends on the distribution of the volumes sold among the size classes. As mentioned above, the households, characterised by the prevalence of the lowest unit consumption, have a higher average total price, while conversely, industry and electricity generation have lower overall prices. Multi-occupancy buildings, public service activities and commercial activities are in an intermediate state.

Table 4.13 Retail prices to the end market by consumption sector and customer size in 2018

€c/m^3; annual consumption classes expressed in m^3

SECTOR	CUSTOMERS GROUPED 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	
Domestic	58.2	47.1	46.6	44.7	-	-	57.9
Central heating	54.0	50.5	47.9	38.9	31.1	-	49.9
Public service activities	56.8	45.3	40.0	34.2	27.0	27.2	37.3
Commerce and services	59.8	47.9	45.0	34.1	27.7	29.4	43.8
Industry	61.4	46.8	40.1	29.5	26.3	26.6	28.6
Electricity generation	59.5	40.9	33.8	30.6	27.2	31.0	30.7
TOTAL	58.3	48.4	43.7	31.4	26.5	29.2	40.0

Source: ARERA. Annual survey on regulated sectors.

Monitoring of the level of transparency including compliance with the obligations on transparency and the degree and efficiency of market opening and competition.

The retail market monitoring system (already extensively described in Chapter 3), is aimed at allowing the Authority to regularly and systematically observe retail operating conditions, including the degree of

openness, competitiveness and transparency of the market, as well as the level of participation of end customers and their degree of satisfaction.

Please refer to paragraph 3.2.2.1 which illustrates Report 596/2018/I/com which highlights the main results of the monitoring activity, describing, where possible, the evolution of the significant phenomena in the first six years of monitoring (2012- 2017).

Switching

For the first time the analysis of switching activity in the natural gas sector this year includes data collected from transport operators through the annual survey on regulated sectors and data from the Integrated Information System (IIS), managed by the Single Buyer.

Based on data provided by transport operators and data from the IIS, the percentage of switching, i.e. the total number of customers[226] who switched over to another supplier during the calendar year 2018, was 7%, or 27.1% when measured according to the consumption of customers who made the switch (Table 4.14).

Table 4.14 Switching rates of end customers

CUSTOMERS BY SECTOR AND ANNUAL CONSUMPTION CLASS	2017 CUSTOMERS	2017 VOLUMES	2018 CUSTOMERS	2018 VOLUMES
Domestic	5.2	5.8	6.6	7.7
Central heating	8.4	11.4	9.5	13.2
Public service activities	17.2	25.4	17.1	30.4
Other uses	11.9	31.5	11.5	33.5
TOTAL	5.6	25.3	7.0	27.1

Source: ARERA. Annual survey on regulated sectors.

Compared to 2017, the percentages are increasing or stable. The increase in the exchange rates of the domestic sector and multi-occupancy buildings may have been affected by the imminence of the end of the standard offer regime (although the date of the end of the regime has undergone a further postponement). It could however be partially due to the change in data source[227].

Domestic consumer supplier switches in 2018, which were not required by law, rose by more than one percentage point, returning to a slight vivacity that had diminished somewhat in recent years. Last year, in fact, there was at least one change of supplier by just under one and a half million customers, equivalent to a share of 6.6% (and corresponding to a 7.7% portion of volumes). The portion of central heating that turned to another supplier was higher and equal to 9.5%, for volumes corresponding to 13.2% of the relative consumption sector. 17.1% (equivalent to 30.4% in terms of volumes) of the entities managing a public service activity chose to turn to a new supplier; it is a high rate, but this is one of the "hybrid" categories which includes very different realities: not only small municipal offices (which have similar consumption values to commercial establishments) but also large hospital complexes, which have a very significant yearly consumption and which, consequently, can greatly increase the volumes involved in switching. Finally, the "other uses" that changed their supplier were 11.5% of the total in terms of customers, as well as 33.5% in terms of volumes.

[226] For convenience, the text speaks of customers generically. It should be noted, however, that this is the number of redelivery points in the case of transport users and the number of metering units in the case of distribution users.
[227] In fact, since November 2008, the switching procedures have been entirely performed by the IIS and this has led to a reduction in waste in the procedures.

Table 4.15 Switching rates by area and type of customer in 2018

Percentage values

REGION	DOMESTIC		CENTRAL HEATING		OTHER USES		PUBLIC SERVICE ACTIVITIES		TOTAL	
	CUSTOMERS	VOLUMES	CUSTOMERS	VOLUMES	CUSTOMERS	VOLUMES	CUSTOMERS	VOLUMES	CUSTOMERS	VOLUMES
NORTH	6.2	7.2	9.3	13.3	11.7	58.5	19.5	29.5	6.8	49.3
CENTRE	7.4	8.8	9.9	12.7	11.9	62.8	14.6	33.2	7.7	51.4
SOUTH AND ISLANDS	6.6	8.2	10.0	15.4	10.8	57.3	12.8	30.1	6.8	50.5
ITALY	6.6	7.7	9.5	13.2	11.7	59.0	17.1	30.4	7.0	49.8

Source: ARERA. Annual survey on regulated sectors.

Taking into account the regional fragmentation of the gas market, the switching levels on a regional level with details by type of customer are shown in table 4.15. In 2018 domestic customers located in the Centre show a greater liveliness than the rest of Italy, with switching rates that are on average higher than the national average, especially if we consider the rates calculated on customers. In general, however, regional values maintain a fairly good territorial uniformity, especially in the areas of the Centre-North and in sectors with lower consumption intensity, while the South shows, on the whole, lower switching rates.

In the case of domestic consumption, the percentages of the Centre are on average equal to 7.4% in terms of customers and 8.8% in terms of volumes, against a national average of 6.6% (customers) and 7.7% (volumes). Similar data also emerges on the central heating switch, which is also higher than the national average in the Centre. In public service activities, rates in the North are the highest in terms of customers (19.5% compared to the national average of 17.1%), but in terms of volumes in 2018 the Centre recorded a higher value (33.2% against 30.4%); in the “other uses” the North and the Centre show relatively uniform values and greater percentages on volumes than those in the South.

Complaints related to the commercial quality of the natural gas sales service and compensation

The rules for the protection of end customers and the commercial quality indicators that all electricity and natural gas sales companies are required to comply with and which are monitored by the Authority, are established by the Integrated text regulating the service quality of sales of electricity and natural gas (TIQV) as described in paragraph 3.2.2.1.

Also in relation to the sale of natural gas, if the supplier does not comply with specific standards, the customer automatically receives a compensation with the next invoice. The basic automatic compensation (25 euros) doubles if the compensated service is provided more than twice later than the standard time and triples if the service is performed more than three times later than the standard or beyond.

Overall, sales companies serving the reference price and free natural gas market received 194,074 written complaints in 2018, 62.5% of which related to the free market, 30.5% to the reference price market and 7% to multi-site customers. There was a decrease in complaints relating to both the free market which went from 126,538 to 121,257 (-4.2%), and to the reference price market, -22.4% (from 76,243 to 59,135). Comparing the data referring to information requests with those of 2017, for the gas sector there was an overall decline of 12.7% in 2018; requests for information went from 99,300 to 86,728 in total. Particularly significant is the decrease in billing adjustments, which was 53.4% compared to 2017, similar to that in the electricity sector (-51.2%). Finally, with reference to the double billing adjustments, similar to what has already occurred for the electricity sector, they are residual and decreasing compared to 2017 (-17.4%) (Table 4.16).

Table 4.16 Complaints, information requests and billing adjustments in 2018

	2017	2018	CHANGE
Number of complaints	216,704	194,074	-10.4%
Number of information requests	99,300	86,728	-12.7%
Number of billing adjustments	44,217	20,587	-53.4%
Number of double billing adjustments	2377,221	2319,389	-17.4%

Source: ARERA processing of data from the Help desk for the energy consumer.

In 2018, there were 21,368 cases of non-compliance with the standards, which determined the right for customers to obtain overall compensation for failure to comply with the standards set for the services related to the commercial quality of the sale. In the same year, compensation was paid for a total of 1,005,764 Euros. Free market customers are the recipients of 55.5% of the total compensation.

With regard to the complaints topics, in the gas sector the top three in importance concerned: in 47.5% of the cases problems related to billing and everything related to consumption and the billed fees, self-reading, billing frequency, including the closing bill, making payments and refunds; for 11.5%, contractual issues, such as withdrawal, change of holder, transfer and takeover (completion and costs of transfer and takeover); in 9% of the cases metering (complaints relating to the operation and changing of the meter or failure to take readings, including the malfunction of remote reading, the timing and method of checking the meter, the reconstruction of consumption due to malfunction).

Complaints to the natural gas consumers' help desk

The management of complaints managed by the help desk for energy consumers in the gas sector is common to that of the electricity sector and has been commented on in Chapter 3.

4.2.2.2 Recommendations on final sale prices, surveys, inspections and measures to promote competition

Measures for the promotion of competition and recommendations on the final sale prices

The activities performed by the Authority in terms of analysis and recommendations on the final sale prices are common to the electricity and gas sectors and are already described in paragraph 3.2.2.2 (to which reference is made).

Surveys, inspections and measures for the effective promotion of competition

With reference to the activities carried out in 2018, refer to paragraph 3.2.2.2.

4.3 Security of supply

Legislative Decree No. 93/11, in implementing the Third energy package, attributes the functions and competences referring to this paragraph of the annual Report to the EC (i.e. to monitor the balance between energy supply and demand, to foresee the future demand and the available supply, the additional capacity and the measures in order to cover peak demand or supply drops) exclusively to the Ministry for Economic Development.

5 CONSUMER PROTECTION AND DISPUTE SETTLEMENT IN ELECTRICITY AND GAS

5.1 Consumer protection

Compliance with Annex 1 of the 2009/72/EC Directive

Articles 37, para. 1, letter n), and Art. 41, para. 1, letter o), of the 2009/72/EC and 2009/73/EC Directives request that the regulator, also in collaboration with other Authorities, guarantees that the consumer protection measures, including those of Annex 1, be effective and applied.

These measures are by now fully applied in Italy, also by virtue of the most recent provisions on billing.

Guaranteeing access to consumption data

A first guarantee of access to consumption data is provided by the billing regulation. In particular Bill 2.0, which came into force on 1 January 2016 (see Annual Report 2015) must contain annual consumption data and its division into bands. Further elements are also available online in the detailed bill. Through complaints and requests, the customer can request the data from the supplier, who will request it from the distributor.

Considering the great distribution of smart meters in the electricity sector, the end customer has the current consumption data in terms of power and energy available, as well as the consumption values divided by hours of peak/off-peak/mid-level used for the last bill through the electronic display.

The right of end customers to be provided with their own historical consumption data was however explained by Legislative Decree 4 July 2014, no. 102, transposing Directive 2012/27/EU. In December 2017, the Authority presented[228] its guidelines on the subject, supplementing what was previously proposed[229] in order to take into account the developments that have taken place and, in particular, the digital transformation that also affects the electricity sector. In this sense the Authority stated its objective of making the data of their historical withdrawals concerning their energy footprint accessible to the end customer. This can happen in the perspective of developing innovative services for energy efficiency and active demand management, thanks in particular to the new type of data and tools made available by second-generation electronic metering systems in the electricity sector. The Authority has also provided that the withdrawal data (understood as historical billing data and historical data of the withdrawal time profile) are made accessible through the Integrated Information System (IIS), which is already the depository of such information pursuant to Law 24 March 2012, no. 27, and that the digital data is made available through a web portal (Consumption portal), prepared by the IIS operator and accessible by the end customer by means of authentication through the public digital identity system (SPID). The use of the SPID, established by the Agency for Digital Italy for access to public utility services, prevents the end customer from having to enter their personal data in the IIS to log in.

Subsequent to the consultation, the provisions of the 2018 budget law were introduced, which specified the terms and deadlines within which the process needs completing: the operator of the Integrated Information System should therefore make the necessary adjustments to allow final customers to access, through the System itself, the data regarding their own consumption, without additional charges for the customers, by 1 July 2019 and according to the implementing provisions defined by the Authority, to be issued in compliance with the rules on the protection of personal data and hearing the opinion of the Italian Data Protection

[228] Consultation document 14 December 2017, 865/2017/R/efr.
[229] Consultation document 23 April 2015, 186/2015/R/eel.

Authority. The Authority has consequently initiated and intensified interactions with the Single Buyer (which manages the IIS) and the Data Protection Authority. In June 2019, the Authority then defined[230] the ways in which end customers can access their consumption data from 1 July 2019 through the dedicated Consumption Portal on the Authority's website[231].

Public service requirements

The requirements related to the public service contained in Legislative Decree no. 93/11 (Art. 35, para. 2 and 35, para. 3), except those illustrated below and related to vulnerable customers, refer to:

- the right to switching within 3 weeks from the request;
- the access to transparent information related to the tariff and economic conditions and the minimal contractual conditions;
- the measures needed to guarantee the distribution of the check-list for end customers prepared by the European Commission for consumers, containing practical information about their rights;
- the definition by the Regulatory Authority, for the purposes of promoting energy efficiency, of criteria geared to promote the optimisation of the use of electricity by the electricity companies, also by supplying streamlined energy management services, developing innovative offer formulas and introducing metering systems and smart grids.

A Help Desk for the energy consumer was provided by the Single Buyer in 2008, for the information to end customers through call-centres.

With reference to domestic customers, the Authority has introduced tools to:

- improve knowledge and understanding of the market and its rules (such as the Atlas of Energy Consumer Rights[232]);
- facilitate the assessment and choice of the offers in the free market. The provision of the *Trova Offerte* (Offer Finder) and the imposition of an obligation, for the supplier, to provide the expenditure comparability card to the end customer before the end of the contract, are listed among these initiatives.

Preliminary agreements with consumer associations have also been activated, to promote consumer information.

The Code of business conduct for sales of electricity and gas to end customers[233], regulates (implementing what is prescribed in the third energy package) the right of access to transparent information related to tariff and economic conditions and to minimal contractual conditions for end customers.

Legislative Decree no. 21 of 21 February 2014, transposed Directive 2011/83/EU on consumer rights into Italian legislation, which integrates and modifies some rules of the Consumer Code, with regards to the conclusive phase of the contracts between suppliers and consumers, in case these contracts are concluded remotely or outside commercial premises.

The Authority has adapted[234] the provisions of the **Code of business conduct** to the changes in the Consumer Code, regarding pre-contractual compliance by suppliers and the ways of exercising the right to reconsider

[230] Resolution 25 June 2019, 270/2019/R/com.
[231] https://www.consumienergia.it/portaleConsumi/
[232] https://www.arera.it/atlante/it/elettricita/capitolo_1/elenco_domande_paragrafo_1.htm
[233] Annex A to Resolution 8 July 2010, ARG/com 104/10, and subsequent amendments and additions.
[234] With Resolution 4 June 2015, 269/2015/R/com.

by the domestic end customer. In these circumstances, it has been decided that the aforesaid changes are applied only to contracts stipulated remotely or outside commercial premises, and that the forecasts concerning the indication of the price, net of taxes (without prejudice to the possibility of indicating the price including the taxes according to the offer structure) and to the price communication criteria.

The application of the **right to reconsider** has been provided for all the subscriptions to a new contract by domestic customers, in which the stipulation occurred by means of remote communication techniques or outside commercial premises. **Informative requirements for the supplier** have subsequently been introduced, for the benefit of the end customer, as well as provisions on reasonable and proportional costs for the supplier, in case of exercising the right to reconsider, should the implementation of the contract have already been requested by the customer.

The code of business conduct was amended in 2016[235] in the part that concerns the supplier's information obligations. In particular, it was agreed that customers should be informed of the possibility of accessing free conciliation procedures and, for domestic purposes only, the list of authorised bodies should be indicated to them. This information must be contained in the contracts, the supplier's website or its responses to complaints. Responses to complaints must also indicate the possible automatic compensation for the customer.

The **switching procedures** were reinforced by the Authority in 2011, particularly concerning the information flows between distributor and supplier, related to the passage of data and its timing, so that the supplier may use them for billing according to specific timing, and has facilitated the flows themselves with communication standards. Still in 2011, the three-week deadline for the switching procedures provided by Directives 72/2009/EC and 73/2009/EC was introduced for the electricity sector. The same deadline was introduced in the natural gas sector in 2015.

In 2015, the Authority established[236], for the electricity sector, that from 1 June 2016, all the operations needed to switch to a new supplier be carried out in a centralised way through the **Integrated Information System (IIS)**, the national data bank created to make the exchange of information between sector operators more transparent and efficient. Since then, the supplier cannot address the single distributors but only the IIS, through which it can carry out the operations faster and with greater simplicity. In April 2016 the Authority adopted further provisions[237]for the implementation of this reform in the electricity sector and for the reduction of switching delays in the gas sector.

Definition of vulnerable customers - Electricity sector

Legislative Decree no. 93/11 does not provide a specific definition of vulnerable customer concerning the electricity sector (as it does with natural gas, see below).

In any case, article 35 on **Public Service obligations and consumer protection** establishes that all domestic consumers and small companies (with less than 50 employees and sales below 190 million Euro) that do not choose their supplier on the free market are supplied in the context of standard offer service (Art. 1, para. 2 of 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 evolution of competitive conditions on the retail market, the Ministry for Economic Development, as a result of the monitoring carried out at least every 2 years, can adapt the forms of provision of the **standard offer service**, in particular with reference to industrial customers. The service fees are

[235] Resolution 21 July 2016, 413/2016.
[236] With Resolution 14 October 2015, 487/2015/R/eel.
[237] Resolution 28 April 2016, 208/2016.

updated quarterly, referring to market conditions relating to the liberalised phases of the supply chain (procurement and marketing costs).

In 2015, the Authority launched[238] a procedure for the definition of a reform path (the so-called Roadmap) with the general objective of developing an efficient electricity retail sales market, through the consolidation of free market supply, such as ordinary supply mode also for small customers (domestic customers and small companies).

This intervention is geared to support the awareness of small customers, facilitating the access of these customers to the market, through an evolution of protection mechanisms "guided and supervised" by the Authority, with the phasing out of the current alternation between the standard offer service and the free market; two initiatives go in this direction:

- the introduction of a supply which is similar to the free market supplies, the *Tutela SIMILE*[239],
- The introduction of free price offers with comparable protection conditions, the PLACET[240] offers,

refer to paragraph 3.2.2.2 for the description of this offer.

In May 2017, the Authority launched[241] a new procedure for the promotion of new tools for the information and empowerment of domestic consumers and small companies in the retail markets for electricity and natural gas, believing that targeted information for these customers allows them to overcome the mistrust resulting from the limited knowledge of the market, on the one hand, and enables customers to exercise informed self-protection on the market, on the other.

Subsequently, Law no. 124/2017, dated 4 August 2017, "Annual law for the market and competition" came into force, which, inter alia, established that, from 1 July 2020[242], price regulation must be definitively phased out (as described in Chapter 2). It provides that:

- from 1 January 2018, the electricity consumers supplied in standard offer must receive adequate information from their supplier in relation to overcoming the price regulations, according to the modes defined by the Authority;
- the Authority guarantees the publication and distribution of information concerning overcoming the price regulations and the conditions for providing services to the benefit of the customers, also taking advantage of the Single Buyer.

In November 2017, the Authority, in implementation of article 1, par. 69 of Law 124/17, provided[243] further initiatives for the empowerment of small consumers and, pursuant to Article 1, par. 72 of the same law, the creation of a project to publish and distribute the information. In particular, the provisions include the following:

- that the standard offer operators and suppliers on the regulated gas market, from 1 January 2018 to June 2019, must send their customers, as part of the summarised bill, an appropriate information notice regarding the removal of standard offer prices, with content defined by the Authority in order to ensure its independence, neutrality and impartiality;
- that the content of this information notice must be of a dynamic nature. The first notice must be included in two bills issued in the first half of 2018;
- with effect from 1 January 2018, suppliers must publish on the homepage of their websites the link to the "Retail market developments" section of the Authority's website, devoted to the phasing out of price

[238] With Resolution 4 June 2015, 271/2015/R/com.
[239] Resolution 11 July 2016, 369/2016/R/eel.
[240] Resolution 27 July 2017, 555/2017/R/com.
[241] Resolution 25 May 2017, 375/2017/R/com.
[242] The initial deadline was 1 July 2019, but it was postponed to 1 July 2020 by the Decree Law of 25 July 2018, no. 91, as described in Chapter 1.
[243] Resolution 10 November 2017, 746/2017/R/com.

protection, and must redirect end customers, when they request information by telephone on their contracts in relation to the phasing out of price protection, to the Authority website and to the Help-desk call centre;

- a multimedia communication project must be implemented to publicise and distribute information on the phasing out of the standard offer, the conditions of service provision and the tools to reinforce end customer empowerment, including requesting the availability of space on public television to convey specific messages on the evolution of the retail market.

The content of the information to be shown in the bill regarding phasing out price protection has been defined by the Authority and communicated to suppliers in 2018. The communications included in the bills issued in the first and second half of 2018 informed the end customer of phasing out price protections, initially planned for 1 July 2019 and subsequently extended to 1 July 2020, inviting them to inform themselves about free market opportunities in good time. The text to be included in the bills issued in the first half of 2019 contains, on the one hand, an indication of how changing the contract or supplier is simple and free, with the guarantee of service continuity and, on the other, the elements that should urge the end customer to use the Authority's tools to make an informed and aware choice, such as the light and gas offer Portal and the PLACET offers.

Since January 2009, a protection mechanism is in place for the electricity supplies, specifically aimed at domestic customers who find themselves with economic difficulties or in serious health conditions, who receive a **bonus or discount on the electricity supplies**.

In 2012, modifications were introduced to the electricity bonus regulation for customers with serious health conditions (electricity bonus for physical limitation). The bonus for physical limitation is split into three bands, in order to consider the type of equipment used, the average hourly consumption of each type of equipment and the average hours of daily use. Based on these elements, certified by the ASL (Local Health Authority), the customer is assigned to one of the three compensation bands envisaged. The three bands are then further differentiated in order to consider the power involved (up to 3 kW and from 4.5 kW)[244].

The fees connected to the distribution of the electricity bonus for economic and physical limitations are included among the components of the general charges pertinent to the electricity system and are covered by a specific tariff component, which is paid by all the customers who do not benefit from the electricity bonus.

There were 771,566 families who obtained the bonus for economic hardship active in 2018, an increase of 9.1% compared to the previous year; to which the 23,600 beneficiaries of the bonus distributed to owners of purchase cards[245] are added, which decreased by 7.4% compared to 2017. There were 33,282 beneficiaries of the bonus for physical limitation on 31/12/2018, an increase of 2% compared to 12 months before.

Definition of vulnerable customers - Gas sector

Legislative Decree no. 93/11 has defined the following as "vulnerable": domestic customers, non-domestic customers with consumption below 50,000 S(m^3)/year and end customers that own utilities related to public service activities, i.e. utilities owned by a public or private structure that carries out a recognised assistance activity.

[244] See the Annual Report 2013 for details of the bonus functions.

[245] For citizens who apply for it and who possess the legal requisites (Legislative Decree no. 112 of 2008), a Purchase Card is available for support towards food and health expenditure and the payment of electricity and gas bills. The Purchase Card is worth 40 Euro a month and is topped up every two months with 80 Euro based on the amounts that become available.

This provision was subsequently amended by Decree law no. 69 of 21 June 2013, that provided that the Authority continue to update the standard offer service "only for domestic customers", in the context of public service requirements. As a result of this amendment, the Authority intervened to clarify that the following still have the right to be served at standard conditions:

- consumption points of a domestic customer;
- consumption points related to central heating, with a consumption that is not over 200,000 S(m^3)/year.

Decree law no. 69/13 was converted with law no.98 of 9 August 2013, confirming the end of the standard offer service for non-domestic consumers. The Authority has therefore intervened to adapt the provisions of the Integrated Text on Gas Sales (TIVG) to the legislation.

Meanwhile the Authority's provisions of the aimed to reduce the dependency of the standard offer service updates on long-term import contracts (so called "**gas reform**"). In particular, the reform provided that for the updating of the raw material component, the reference to the changes of the price of oil, as a result of long-term contracts, would be progressively replaced by the changes of the prices in the spot gas markets. The procedure was completed in the fourth quarter of 2013. The reference to long-term contracts has been completely eliminated and fully replaced by the price that is found in the spot market. Pending the Italian futures market becoming fully operative, as provided by legislative Decree 93/11, the reference to the quotes that can be found on the Dutch TTF market has been maintained.

As already highlighted for the electricity sector, in 2015 the Authority launched a procedure[246]for the reform of the standard services, while the law has established the abolition of price protection for natural gas small consumers, from 1 July 2020.

Legislative Decree no. 93/11 establishes that the criteria and methods for natural gas supply in the context of the **last resort service** (FUI) be characterised and updated for all the vulnerable customers who remain without a supplier for reasons beyond their will.

Concerning the perimeter of the concerned customers, the following categories are entitled to obtain last resort[247] supply services: disconnectable end customers, that is domestic customers, including multi-occupancy buildings with consumption that is not over 200,000 S(m^3) per year, and other customers with consumptions below 50,000 S(m^3) per year, who have no supplier, for reasons that are beyond their will; the non-disconnectable end customers, or the utilities related to public service activities that, for whatever reason, do not have a supplier. The last resort services distribution conditions are defined by the Integrated text on retail sales of natural gas and gases other than natural gas distributed by means of urban networks (TIVG). In particular, this text regulates the activation and termination of the service and the economic conditions that the entities are required to apply to the end customers served.

The entity providing the last resort service is identified through a public procedure, managed by the Single Buyer based on the rules approved by the Authority in August 2016[248], which also implemented the provisions of the Decree 22 July 2016 of the Minister for Economic Development.

In the gas sector, the **default service** is also present, which has the purpose of guaranteeing the balancing of the distribution network and is destined to customers who are not entitled to benefit from the FUI service, since they do not fall within the types of customers mentioned above. The default service was fully launched in the thermal years 2013-2014.

Since 2009, a social protection mechanism specifically aimed at domestic customers who find themselves in situations of economic hardship, is active for natural gas supplies, similar to that in the electricity sector: the **gas bonus**. To cover the fees deriving from the application of the gas bonus, the Authority has created the

[246] With Resolution 4 June 2015, 271/2015/R/com.
[247] Provisions of Legislative Decree no. 93/11 (art. 7, para. 7) and Ministerial decree of August 7th, 2013.
[248] Resolution 4 August 2016, 465/2016/R/gas

GS component for non-domestic customers, within the compulsory tariff for the distribution services and natural gas metering. The value of the component is defined at the same time as the tariff update. The funds from the State Budget are added to the funds collected from the customers.

519,375 customers had benefited from the gas bonus through economic hardship at 31 December 2018, with an increase of 3.9% compared to the previous year; after all the controls related to the eligibility requirements by the Municipalities, their requests for the subsidy were accepted after verification by the gas distribution companies. Over 1.7 million families benefited from the subsidy, at least once, since the activation of the mechanism.

Actions common to the electricity and gas sectors

The phenomenon of **unsolicited contracts** refers to the cases in which consumers are induced to conclude electricity and/or natural gas supply contracts, actually non-intentional, due to unfair commercial conducts, practised by the suppliers with the objective of acquiring these contracts through the activation of switching procedures, to the detriment of the customer and of the previous supplier, who would have been entitled to continue the supply. Due to the increasing number of notifications received in the past years from consumers and their associations, the Authority has acted in order to check this phenomenon, also due to its negative impacts on the development of competition in the retail sales market. At the end of a fact-finding activity and of a complicated consultation procedure, the regulation in this matter was defined in April 2012 and is described in detail in the 2013 Annual Report.

In April 2017 the Authority approved[249] the Integrated Text for the adoption of preparatory measures to confirm the contract for the supply of electricity and/or natural gas and voluntary recovery procedure (TIRV). The TIRV applies to distance contracts or those negotiated outside the supplier's business premises; the text provides for mandatory documentary duties for all sellers to prove the successful confirmation of a contract (preventive measures for confirmation of the contract), identified based on the type of end customer who submitted a complaint (domestic and non-domestic) and includes a special resolution procedure, voluntarily accepted by both the end customer and the supplier, if the preventive measures were not respected during the contract confirmation phase. This special procedure, in compliance with the previously applicable regulations, provides, where possible, for the return to the previous supplier and the payment of a maximum amount that the supplier is entitled to request from the customer as compensation for the period in which the disputed supply took place.

In December 2018 the Authority adapted[250] the provisions of the TIRV:

- to the new regulation on **withdrawal**, common both to the electricity sector and to the natural gas sector, introduced[251] in November 2017, with particular reference to the provision that sending the switching request also constitutes exercising withdrawal for change of supplier;
- to the new **regulation of the switching process in the natural gas sector**, approved[252] in February 2018.

In 2016, the Authority completed the process started with regard to **billing** consumption to the end customers of the retail electricity and natural gas market, approving the Integrated Text of the Authority's provisions for the billing of the retail sales service for electricity and natural gas customers (TIF)[253].

Through the TIF, the Authority intended to define a single text containing all the provisions related to the billing of retail sales, that the suppliers are required to comply with in the context of contracts with their own

[249] Resolution 6 April 2017, 228/2017/R/com, entered into force on 1 May 2017.
[250] Resolution 4 August 2016, 684/2018/R/com.
[251] Resolution 23 November 783/2017/R/com.
[252] Resolution 8 February 2018 77/2018/R/com.
[253] Annex A to Resolution 463/2016/R/com.

end customers. The suppliers must include a contract with clauses related to billing equal to those of the standard offer regimes, in their range of offers on the free market, while for the other offers they are free to ignore the aforesaid clauses according to what is indicated in the TIF; in these cases, however, informational requirements have been provided for the benefit of the end customer.

Together with the TIF, the Authority has introduced[254]specific requirements in matters of **metering** and **instalment payments**, in particular:

- in matters of metering, for both sectors, the obligation to record the causes (appropriately codified) of the failed reading attempts and the obligation for distributors to pay out automatic indemnities to the supplier have been introduced, in the event of delays in the provision of the metering data;
- the obligation of instalments for the billed amounts has been introduced to those exercising standard offer regimes, in the cases in which anomalous amounts were billed and for non-compliance with the invoicing frequency provided in the TIF; this obligation is also fixed for the free market suppliers, who can also offer ameliorative instalment methods.

The aforesaid obligation and the TIF entered into force on 1 January 2017, except for some provisions for which a different deadline[255] was provided.

[254] With the same Resolution 463/2016.

[255] In particular, the obligations inherent to the self-readings by the electricity customers with remote metering devices and the acquisition of self-readings through complaints or telephone, became effective in April 2017.

5.2 Dispute settlement

Authority conciliation service

The **energy customers' conciliation service** to manage disputes has been active since 2012, established by the Authority in implementing Art. 44, para. 4, of Legislative Decree no. 93/11; it is managed by the Single Buyer and it has been operative, in a trial phase, since 1 April 2013, and up and running since 1 January 2016.

The Conciliation Service is a voluntary procedure for alternative dispute resolution that can be activated by electricity and natural gas consumers for any problems arising (which do not concern fiscal and taxation profiles) with the energy operators (suppliers and distributors), in case of lack of or unsatisfactory answers to the complaints. The procedure is carried out on-line and with the presence of an impartial third-party conciliator, expert in mediation and, by virtue of specific training and updating meetings periodically organised by the Authority, in collaboration with the Single Buyer. The eventual final agreement has settlement effectiveness between the parties, according to Art. 1965 of the Civil Code.

Due to its characteristics, the Conciliation Service is already in line with the EU regulations in matters of Alternative Dispute Resolution (ADR), most recently with the 2013/11/EU Directive of the European Parliament and the Council of 21 May 2013 on the alternative resolution of consumer disputes, that amends Regulation (EC) 2006/2004 and Directive 2009/22/EC.

With the approval of the new Art. 141, para. 6, letter c), of the Consumer Code – that amended Art. 2, para. 24, letter b), of law no. 481/95, attributing the Authority the power to regulate, with its own provisions, the ways of implementing the out-of-court dispute resolution procedure – the attempt at conciliation becomes a condition for the admissibility of the action proposed before the judicial authority for the disputes occurring in regulated[256] sectors.

The Authority implemented the aforementioned regulation with the approval[257] of an comprehensive survey text of the applicable provisions, grouped in the **Integrated Text on Conciliation** (TICO)[258], that introduced a procedure for undertaking the mandatory attempt at mediation at the Conciliation Service and defined the available alternative procedures.

TICO, that has been operating since 1 January 2017 for the electricity and gas sectors, applies to disputes between operators (suppliers and distributors and, to a lesser degree, prosumers, and Energy Services Operator) and end customers both of low and/or medium voltage electricity and of natural gas or other gas distributed through low pressure networks.

Excluded from the sphere of application of the TICO are: the disputes that are exclusively related to fiscal or taxation profiles; those that the customer could not eventually bring to court because the time limit had expired; those for which injunctions have not yet been produced, class actions and other actions to protect the collective interests of the consumers and users promoted by consumer associations according to the Consumer Code; those that are subject to special settlement procedures, unless the consumer also requests compensation for damage.

Implementing the mandatory mediation attempt does not preclude, in any case, the concession of urgent and precautionary judicial proceedings.

The Authority has also extended[259]the obligation, for all operators, to participate in the conciliation attempt (except for last resort suppliers - FUI). Any non-fulfilment of this obligation is punishable by the Authority

[256] Legislative Decree no. 130/15 implementing Directive 2013/11/EU of the European Parliament and the Council of 21 May 2013, concerning the ADR for consumers, that amends Regulation (EC) 2006/2004 and Directive 2009/22/EC (Directive on the ADR for consumers).

[257] Resolution 5 May 2016, 209/2016/E/com.

[258] Annex A to resolution 209/2016/E/com.

[259] Pursuant to art. 2, para. 12, letter h), of Law no. 481/95.

according to the regulations in force. However, the summoned operator can provide justified reasons for the lack of participation, within a term of five days before the date of the first meeting, provided that these reasons refer to one of the causes of inadmissibility of the conciliation attempt and object of self-declaration by the end customer; these justified reasons, if proven, are communicated to the end customer and entail the archiving of the request. The condition for the prosecution of judicial action is considered fulfilled if the first meeting at the conciliation service ends without an agreement, including cases where the counterparty does not appear.

In June 2018 the Authority reviewed[260] the TICO, in order to acknowledge the evidence emerged in the first year of operation and to provide application clarifications for the benefit of the stakeholders, taking into account the comments received in the consultation phase, started[261] in April 2018. In implementing Article 141-sexies of the Consumer Code, the Authority has provided for information obligations for energy suppliers regarding out-of-court dispute resolution procedures, with reference to: the websites of these operators, the general contractual conditions and responses to complaints in the event that it is not possible to settle the problem reported by the end customer. As a result of the fact-finding investigation ended in March 2018, in April 2018 the Authority ordered[262] 34 operators to comply with the information obligations in question on the websites. In July 2018, it was found[263] that all the operators involved had fulfilled the aforementioned obligations.

The TICO review led to an **update of the conciliation service website** (conciliazione.arera.it) and of the information pages on the Service itself on the Authority's website. In particular, the FAQs (frequently asked questions and answers) on the conciliation procedure have been updated. The **2018 Annual Report of the Conciliation Service** was also published on the dedicated page of the Authority's website, as an ADR body pursuant to the Consumer Code, registered on the European Commission's[264] ODR Platform. This Report, translated into English, was also published on the website of NEON, the network of Ombudsmen and ADR entities operating in EU countries in the energy sectors, of which the Authority is member since 2016 as owner of the Conciliation service.

In 2018, the second year of operation of the TICO, the number of applications submitted to the Authority's conciliation service is substantially in line with that of 2017 (10,705 applications, + 1%).

In 2018 there was an increase in the percentage of applications submitted personally by customers (36%, compared to 25% in 2017), compared to a decrease in those submitted through the consumer associations registered with the National Council of Consumers and Service Users (CNCU) (29%, compared to 32% in 2017) and, above all, of the requests presented by delegates not belonging to these associations (35%, compared to 43% in 2017).

73% of the requests received by the Service concerned a domestic end customer (a slight decrease compared to 76% in 2017). Regarding the subject of the disputes, the prevalence of billing is confirmed (52%), although down compared to 2017 (58%). Contracts and damages follow at a great distance and paired, each with 12% and both up by 2 points compared to the previous year.

As regards the value of the dispute, 82% of the applications have an estimated value of less than 5,000 Euros[265].

With regard to the response to applications received by the Service, 80% were admitted to the proceedings (a slight increase compared to 76% in 2017). 66% of procedures concluded with an agreement between the parties, a slight decrease compared to the previous year (68%).

[260] Resolution 28 June 2018 355/2018/R/com.
[261] Consultation document 5 April 2018, 199/2018/R/com.
[262] Resolution 11 April 2018, 230/2018/E/com.
[263] Resolution 26 July 2018, no. 395/2018/E/com.
[264] For disputes between businesses and consumers arising from contracts for goods and services entered into online.
[265] Threshold of small claims pursuant to Regulation (EC) no. 861/2007 of July 11th, 2007 and subsequent amendments and additions.

The average duration of the completed proceedings is 53 calendar days, 8 more than in 2017. The proceedings with agreement lasted 55 days on average, 9 more than in 2017.

Other conciliation services

As an alternative to the Authority's Service, the end customer can undertake the mandatory reconciliation attempt for judicial purposes also using other proceedings indicated in article 14 of the TICO. These are, in the first place, conciliation proceedings at the Chambers of Commerce, as provided by Art. 2, para. 24, letter b), of Law no. 481/95, that support the convention undersigned by the Authority and by Unioncamere on 28 December 2016. On March 31, 2019, Unioncamere announced the adhesion of 49 Chambers of Commerce, five more than the previous year.

In second place, there are proceedings with the Organisations registered in the ADR directory created by the Authority, just for domestic end customers. In December 2017, in implementing article 141-decies of the Consumer Code, the Authority instituted[266] the Directory of ADR Organisations to manage ADR proceedings according to Title II-bis of Part V of the Consumer Code, regulating[267] the procedure for the registration in the Directory and the ways of carrying out the activities related to the management, maintenance and supervision of the Directory (for further details, see Annual Report 2017).

On 31 March 2019, 16 Organisations were registered in the Authority's ADR Directory, (including the Authority's Conciliation Service[268]), of which 7 of joint mediation, based on specific memoranda of understanding stipulated between consumer associations and sales companies. For the ADR joint mediation organisations, article 141-ter of the Consumer Code establishes further requirements of impartiality and independence for registration in the Directory. The other registered Organisations are mediation organisations themselves (therefore also registered in the ADR Organisations Registry held by the Ministry of Justice according to Legislative Decree no. 28 of 4 March 2010, and of Ministerial Decree no. 180 of 18 October 2010), which have attested the possession of the specialist training in one or more sectors of competence of the Authority, for at least one conciliator.

According to Article 141-decies, para. 2, each competent authority supervises the Directory and single ADR Organisations. The supervisory activity of the Authority on the ADR Directory and on the registered Organisations assesses possible conduct, adopted by the Organisation in the Directory, contrary to the normative and regulatory system in matters of ADR (and to the approved procedural regulations) in cases in which the Organisation has not upheld the requirements provided for the registration and/or in case it did not fulfil the obligation of accounting for the activities carried out and/or training and updating of their own conciliators.

[266] Resolution 17 December 2015, no. 620/2015/E/com.
[267] Annex A to Resolution 620/2015/E/com.
[268] Resolution no. 620/2015/E/com.