



Report 344/2021/I

ANNUAL REPORT TO THE
INTERNATIONAL AGENCY FOR THE COOPERATION OF
ENERGY REGULATORS AND THE EUROPEAN COMMISSION
ON THE REGULATORY ACTIVITIES AND FULFILMENT
OF DUTIES OF THE ITALIAN REGULATORY AUTHORITY FOR
ENERGY, NETWORKS AND
ENVIRONMENT

31 July 2021

TABLE OF CONTENTS

1	Foreword	4
2	Main developments in the electricity and natural gas markets	5
2.1.1	Evaluation of market development and regulation.....	5
2.1.2	Report on the implementation of the Clean Energy Package.....	27
3	The electricity market	29
3.1	Infrastructure regulation	29
3.1.1	<i>Unbundling</i>	29
3.1.2	Network expansion and optimisation.....	29
3.1.3	Investments in new transmission infrastructures	30
3.1.4	Network tariffs for connection and access	36
3.1.5	Regulation of network security and reliability.....	39
3.1.6	Monitoring balance of electricity supply and demand	40
3.1.7	Monitoring of investments in generation and storage capacity from a security of supply perspective	40
3.1.8	Implementation of Network Codes and guidelines	41
3.2	Competition and market functioning	48
3.2.1	Wholesale markets.....	48
3.2.1.1	Monitoring the price levels of the wholesale market	55
3.2.1.2	Monitoring the level of transparency, including compliance with transparency obligations, and the level and effectiveness of market opening and competition.....	58
3.2.2	Retail market	60
3.2.2.1	Monitoring of the retail market price level, the level of transparency, the level and effectiveness of market opening and competition.....	77
3.2.2.2	Recommendations on final sales prices, investigations, inspections and measures to promote effective competition.....	84

4	The gas market	89
4.1	Infrastructure regulation	89
4.1.1	LNG infrastructure and network connection and access tariffs	89
4.1.2	Balancing	100
4.1.3	Cross-border issues	103
4.1.4	Implementation of network codes and guidelines.....	105
4.2	Competition and market functioning	107
4.2.1	Wholesale markets.....	107
4.2.1.1	Monitoring the price levels of the wholesale market.....	112
4.2.1.2	Monitoring the level of transparency, including compliance with transparency obligations, and the level and effectiveness of market opening and competition.....	119
4.2.2	Retail market	121
4.2.2.1	Monitoring of the retail market price level, the level of transparency, the level and effectiveness of market opening and competition.....	132
4.2.2.2	Recommendations on final sales prices, investigations, inspections and measures to promote effective competition.....	137
4.3	Security of supply.....	137
5	Consumer protection and dispute resolution	138
5.1.1	The protection system: the handling of final customer complaints (basic level).....	138
5.1.2	The protection system: out-of-court dispute resolution (second level).....	139
5.1.3	Protection of vulnerable domestic consumers and energy poverty.....	142
5.1.4	Guarantees for the effective protection of the gas consumer: compliance with article 41, paragraph 1, letter o) of EC Directive 2009/73/EC	145
5.1.5	Interventions in pricing for vulnerable customers	146
5.1.6	Access to consumption data.....	148
5.1.7	Availability of price comparison tools	149

1 FOREWORD

This document was written by the Italian Regulatory Authority for Energy, Networks and Environment, and contains a report on the accomplished activities and performances of the regulating tasks pursuant to articles 59.1.i) and 41.1.e) of the 2019/944/CE and 162 guidelines respectively, to be submitted to the Agency for Cooperation between Energy Regulators (ACER) and the European Commission yearly.

The consolidated structure of the report was submitted to the ACER and the DG Energy of the European Commission, so that the Italian situation illustrated in this document can be easily compared with the similar reports of the other Member States.

The energy system is facing the challenges of decarbonisation in a context of increasing harmonisation of energy policies across Europe, where individual National Integrated Energy and Climate Plans (PNIEC) will be an important tool for achieving European objectives.

The Regulatory Authorities are called upon to step up their cooperation in their new areas of competence, which extend from wholesale markets to distribution, and with a particular focus on end-consumer protection, in a broader context made even more complex by COVID-19.

The regulation of cross-border infrastructures (both regulated and exempt) also increasingly requires supranational regulatory regimes, defined, as appropriate, in agreement with (regulatory?) foreign authorities, ACER and the European Commission. With particular reference to the natural gas sector, this coordination could also include decisions concerning the decommissioning of certain infrastructures of cross-border interest.

The main elements of structural evolution of the two Italian markets, electricity and natural gas, are analysed below, concerning their regulated activities and competition state. The report also includes the description of the recent legislation and regulatory evolution of the energy market and the activities carried out, both for consumer protection and security of supplies, the latter for the aspects within the competence of the national regulator.

Milan, 03 August 2021

THE CHAIRMAN

Stefano Besseghini

2 MAIN DEVELOPMENTS IN THE ELECTRICITY AND NATURAL GAS MARKETS

2.1.1 Evaluation of market development and regulation

Main changes in Italian legislation

The year 2020 was characterised by increased **legislative activity, not least to address the epidemiological emergency caused by COVID-19**. The main measures relating to the Authority's areas of competence are described below in chronological order.

The year began with **Decree-Law No 162 of 30 December 2019** on "Urgent provisions on the extension of legislative deadlines, the organisation of public administrations and technological innovation", which provided:

- the postponement of the previous deadline of 1 July 2020 for phasing out the standard offer service, understood as phasing out so-called price protection, to 1 January 2021 for small companies, other than micro-companies, and to 1 January 2022 for micro-companies and domestic customers, respectively;
- that the Authority adopt provisions to ensure a gradual standard offer service for end customers without an electricity supplier, as well as specific measures to prevent unjustified price increases and changes in supply conditions to protect those customers. The Authority is also required to establish, for the micro-companies referred to in Article 2(6) of Directive 2019/944/EU, and for domestic customers, the level of contractually committed power as an identification criterion in addition to those already identified by the same Directive;
- that the Minister for Economic Development, having consulted ARERA and the Italian Competition Authority (AGCM), define the procedures and criteria for end customers' informed entry into the free market, also taking into account the need to ensure competition and the plurality of suppliers and offers. The Minister for Economic Development, acting on a proposal from the Authority and having consulted the AGCM, is required to lay down the conditions, criteria, methods and technical, financial and integrity requirements for the registration, continuance and exclusion of persons registered in the List of entities authorised to sell electricity to end customers (the so-called List of electricity suppliers);
- the extension for 2020 of the incentives foreseen by Law no. 145 of 30 December 2018 (Budget Law for the year 2019) for electricity production plants fuelled by biogas;
- the possibility of activating collective self-consumption from renewable sources, i.e. the creation of renewable energy communities, pending the full transposition of Directive 2018/2001/EU of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources.

The subsequent **Decree-Law No 18 of 17 March 2020**, on "Measures to strengthen the National Health Service and provide economic support for families, workers and businesses linked to the epidemiological emergency caused by COVID-19. Extension of the terms for the adoption of legislative decrees" (so-called **DL Cura Italia**)¹ stipulated that the Authority extend until 30 April 2020 the deadlines for payment of bills for the supply of electricity, gas, water and urban waste

¹ Converted, with amendments, into Law No. 27 of 24 April 2020.

management in some municipalities² particularly affected by the epidemic. In addition, it assigned the Authority the task of regulating the procedures for the payment in instalments of invoices and payment notices whose payment terms had been extended, also identifying the procedures for their coverage within tariff components, without new or additional charges to the national budget.

Subsequently, **Decree Law No. 23 of 8 April 2020**, setting forth "Urgent measures on access to credit and tax requirements for companies, special powers in strategic sectors, as well as measures on health and labour, and extension of administrative and procedural deadlines"³, extended the possibility of exercising government prerogatives (golden power) to other sectors than those already considered strategic, including energy and water, as well as to investments in land and buildings that are essential for the use of such infrastructure. The term 'golden power' defines a set of special powers that may be exercised by the Government in order to safeguard the ownership structures of companies operating in areas considered strategic and of public and national interest. In the event of a "potential threat of serious harm" to public interests, the Government, taking into account the principles of proportionality and reasonableness, may therefore take action by: opposing the acquisition of shareholdings; vetoing the adoption of company resolutions; imposing specific requirements and conditions. The aim is to counter possible speculative operations at particularly difficult times for Italian public and private companies, while respecting European regulations to protect competition.

In addition, the new rule extends the notification requirement to cover acquisitions of shareholdings by foreign non-EU entities that allocate a share of voting rights or capital of at least 25% (a higher threshold than the previous 10%) for transactions exceeding €1 million, taking into account the shares or stock already directly or indirectly held. The notification requirement extends to all acquisitions of shareholdings of any kind by entities of a foreign state - including, on a transitional basis until 31 December 2020, those belonging to the EU - of such significance as to result in the acquirer's permanent establishment, by reason of the acquisition of control of the company whose shareholding is being acquired.

Decree-Law No 34 of 19 May 2020 on "Urgent measures concerning health, support for work and the economy, and social policies linked to the epidemiological emergency caused by COVID-19" (**so-called DL rilancio**)⁴, in order to cope with the negative economic and social effects caused by the pandemic, has provided, for the months of May, June and July 2020, that the Authority arrange for a reduction in the expenditure incurred by customers for the supply of low-voltage electricity other than for domestic use, with specific reference to the items of the bill identified as 'transmission and meter management' and 'general system charges', up to a maximum of 600 million euros for the year 2020. The Authority was therefore assigned the task of redetermining the electricity distribution and metering tariffs, as well as the components covering the general system charges, so as to achieve savings based on the value of the fixed tariff components applied per delivery point in force in the first quarter of the year. Decree-Law No 34/2020 also introduced some urgent measures to support the white certificate mechanism. In particular, it stipulated that, when identifying interventions and measures for the technological and industrial development of renewable energy sources and energy efficiency, account should be taken not only of national targets for energy production from renewable sources, but also of the targets set out in the integrated national energy and climate plan

² Identified in Annex 1 to the Decree of the President of the Council of Ministers of 1 March 2020, which contained further provisions implementing Decree-Law No. 6 of 23 February 2020 (as converted by Law No. 13 of 5 March 2020) on urgent measures for the containment and management of the epidemiological emergency caused by COVID-19.

³ Converted, with amendments, into Law No.40 of 5 June 2020.

⁴ Converted into Law No 77 of 17 July 2020.

for the years 2021-2030. In addition, the Decree-Law provided for automatic recognition of the efficiency, for the purposes of analysing the costs and benefits to consumers, of extensions and upgrades of existing networks and plants in municipalities already covered by the methane network and of new networks and plants constructed in municipalities to be covered by the methane network belonging to a given area⁵, as well as in municipalities which had submitted an application for a contribution to the completion of the Southern Italy methanisation programme within the prescribed time limits. In this regard, the Authority is required to admit the related investments to full tariff recognition. In this regard, the Authority has highlighted to the Parliament and the Government the critical issues arising from the above-mentioned provision in its report 406/2020/l/gas of 27 October 2020. Finally, the measure introduced some incentives in the areas of energy efficiency, earthquake bonus, photovoltaics and electric charging stations.

It is also worth mentioning **Decree-Law No 76 of 16 July 2020** on "Urgent measures for simplification and digital innovation"⁶, which defines "electric vehicle charging infrastructure" as the set of structures, works and facilities required to create parking areas equipped with one or more charging points for electric vehicles. The construction of these infrastructures can take place: i) within public and private areas and buildings; ii) on private roads not open to public use; iii) along public and private roads open to public use; iv) within public and private parking and service areas open to public use. It is clearly reiterated that, when implemented within public and private areas and buildings or on private roads not open to public use, the recharging of the electric vehicle is a service and not a supply of electricity. The Authority is assigned the task of defining the tariffs for the supply of electric energy for vehicle recharging applicable to the delivery points in private areas and to the operators of the recharging service in public areas in such a way as to encourage the use of electrically-powered vehicles and to ensure that the cost of energy does not exceed that for resident domestic customers. The measure in question introduced a number of provisions regarding statistical transfers of electricity produced from renewable sources from other EU Member States to Italy and vice versa (in order to meet Italy's 2020 and 2030 targets in this regard). The coverage of costs for such transfers from EU countries to Italy is ensured by the electricity and natural gas tariffs, according to the procedures set by the Authority. In the case of statistical transfers from Italy to other countries or regions of the Union, the transfer is carried out by the Ministry of Economic Development, by evaluating the expressions of interest, also taking into account the criterion of the best economic advantage achievable; the proceeds from this transfer are attributed directly to the *Cassa per i Servizi Energetici e Ambientali* (Energy and Environmental Services Fund - CSEA) and allocated, according to the procedures established by the Authority, to reducing the general system charges for supporting renewable sources and electricity system research, or to other purposes related to the Italian objectives for 2020 and 2030 that may be agreed with the countries receiving the transfer. Lastly, Decree-Law 76/2020 made some changes to the on-the-spot trading mechanism for small municipalities, and simplified the authorisation procedures relating to the national energy network infrastructure, the electricity distribution network and the procedures for upgrading energy production and storage plants, respectively.

Mention should also be made of **Decree-Law No 137 of 28 October 2020** on "Further urgent measures on health protection, support for workers and businesses, justice and security, linked to the epidemiological emergency caused by COVID-19" (**so-called DL ristori**)⁷, which provided for the

⁵ Belonging to climate zone F provided for in Article 2 of the regulation laid down in Presidential Decree No 412 of 26 August 1993 and classified as mountain territories under Law No 1102 of 3 December 1971.

⁶ Converted by Law No 120 of 11 September 2020.

⁷ Converted by Law No 176 of 18 December 2020.

reduction of charges on electricity bills. Specifically, it set up a fund with an endowment of €180 million to reduce the expenses incurred in 2021 by the owners of electric utilities for other uses who, as of 25 October 2020, had an active VAT number and declared that they carried out as their main activity one of those referred to in the Ateco codes listed in the annexes to the measure in question. The reduction concerns the bill items identified as "transmission and meter management" and "general system charges", entrusting the Authority with the task of redetermining, on a transitional basis, the electricity distribution and metering tariffs, as well as the components covering the general system charges, defining the time period for redetermining the tariffs and components and the related implementation methods.

The decree under review extended the exercise of special powers in sectors of strategic importance for six months, i.e. until 30 June 2021. In particular, the scope of the obligation to notify acquisitions of shareholdings and of the related powers exercisable by the Government (imposition of commitments and conditions and opposition to acquisitions) has been extended both with reference to strategic assets in the energy, transport and communications sectors, and with reference to transactions involving the acquisition of shareholdings, including those that result in the acquisition of control by any foreign entity, including EU entities, as well as those that attribute a share of the voting rights or capital (equal to at least 10%, 15%, 20%, 25% and 50%) by foreign entities not belonging to the EU, irrespective of the acquisition of corporate control.

Law No 178 of 30 December 2020, setting forth the "State budget for the financial year 2021 and the multi-year budget for the three-year period 2021-2023", has provided for certain amendments to the regulations on incentives for energy efficiency, earthquake bonuses, photovoltaic systems and electric vehicle recharging stations contained in Article 119 of the aforementioned Decree-Law No 34/2020 and has extended the application of the 110% deduction (the so-called super bonus) for energy efficiency and anti-seismic measures. Finally, it is foreseen that the part of the proceeds from the auctioning of greenhouse gas emission allowances allocated to the Industrial Energy Transition Fund will not go entirely to finance decarbonisation and energy efficiency measures in the industrial sector, but will be distributed as follows: €10 million for decarbonisation and energy efficiency measures in the industrial sector; a share of €20 million for the years 2020 to 2024 to the Fund for employment conversion in the territories where coal-fired power plants are located; the remainder for financial measures in favour of sectors considered to be exposed to a high risk of carbon emissions.

During 2020, Parliament also turned its attention to the customary analysis of the draft law on "Delegation to the Government for the transposition of European directives and the implementation of other acts of the European Union - European Delegation Law 2019", finally approved and published as Law No. 53/2021 with the final change to the title to "**European Delegation Law 2019-2020**". With regard to the Authority's areas of competence, the measure dictated the principles and guidelines for the implementation of Directive 2018/2001/EU, on the promotion of the use of energy from renewable sources; it identified the principles and guidelines for the implementation of Directive 2019/944/EU, on common rules for the internal market for electricity and amending Directive 2012/27/EU (recast); finally, it set out the principles and criteria for adapting national legislation to the provisions of Regulation (EU) 943/2019, on the internal market for electricity (recast), and Regulation (EU) 941/2019, on risk-preparedness in the electricity sector and repealing Directive 2005/89/EC.

Developments in the electricity market

Main changes to regulation

In Italy, **electricity transmission** takes place through about 73,600 km of electricity lines and around 900 sorting stations. The operator of the Transmission System Operator (TSO) is the company Terna, 29.85% controlled by CDP Reti, in addition to which there is only Lazard Asset Management LLC, an American financial institution, with 5.122%. The remaining 65.03% of the capital belongs to the market. In 2020, the number of companies that own assets of the National Transmission Grid (NTG) stayed at 11, as in the previous year. Considering the assets of all the companies belonging to the corporate group, in 2020 the Terna Group owned 73,351 km of cables, i.e. 99.7% of the national power lines.

In December 2020, the Authority issued its **assessment of the draft National Transmission Grid Development Plans for the years 2019 and 2020**.

In particular, the Authority expressed a favourable opinion on interventions for which in-depth studies had been envisaged or reservations expressed in the Authority's opinions on previous draft plans, i.e. on the 220 kV Italy-Austria interconnection; on the HVDC Centre South-Centre North power line (requesting that the date of entry into operation, currently envisaged as 2030, be brought forward in the next Development Plans) and on the HVDC Sicily-Sardinia intervention.

The Authority also requested that the development of the second hub within the Italy-Montenegro interconnection, as well as the HVDC interconnection project between Italy and Slovenia, be placed "under evaluation", i.e. without implementing projects within the ten-year plan horizon.

In addition, the Authority granted authorisation for the approval of the 2019 and 2020 draft plans by the Minister for Economic Development, with the exclusion of the two projects mentioned above and subject to further conditions (on the SA.CO.I 3 Sardinia-Corsica-Mainland Italy intervention, on the Italy-Tunisia interconnection and on the Sicily-Mainland HVDC development).

Lastly, the Authority made a negative assessment of the methodology used to calculate some of the indicators used in the plan, and once again pointed out the importance of defining coherent development scenarios of a cross-sectoral nature for future development plans in the electricity transmission and natural gas transmission sectors and for the coordinated analysis of the interventions proposed therein.

At 31 December 2020, 126 **electricity distribution** companies were registered in the Authority's Registry of Operators, of which only 10 serve more than 100,000 customers. There are four companies with more than 500,000 delivery points: e-distribuzione (Enel group), Unareti (A2A group), Areti (Acea group) and Ireti (Iren group): all of them changed their names in 2016 to comply with the provisions on functional unbundling, which obliged distribution companies belonging to a vertically integrated corporate group, also engaged in marketing activities, to distinguish themselves from other group companies in terms of identity, brand and communication policies. Overall, in Italy, electricity distribution takes place through 1,276,000 km of networks, most of which (69%) are low voltage. The company e-distribuzione (Enel group) is the leading operator, with the dominant share of 85.3% of the energy distributed.

In terms of distribution quality, 2020 shows a marked improvement in the duration and number of outages compared to the three-year period 2017-2019; in terms of service continuity, 2020 shows similarities with 2016, a year in which the impact of exceptional weather events did not contribute significantly to the increase in the duration and number of outages. The duration of unannounced

outages is 41 minutes nationally and the number of long and short unannounced outages (between one second and three minutes) is 2.06 outages per low voltage customer nationally.

In 2020, Terna and e-distribuzione received a total of 1,655 **requests to connect high-voltage or extra-high-voltage** power plants, corresponding to a total capacity of 109.1 GW. In relation to the requests received, 793 quotes were provided (corresponding to a total capacity of 42.5 GW). During the course of the year, 509 quotes were accepted out of the total number provided, corresponding to a total capacity of 26.7 GW; for two of these, corresponding to a capacity of 41 MW, a request to provide the Minimum Technical Requirements (MTR) was submitted. For one of these two applications, the MTR was provided and accepted by the applicant, but as of 31 December 2020, the corresponding connection had not yet been made or activated. With regard to requests for active connection to medium- and low-voltage grids, in 2020 the distribution companies received just over 72,600 connection requests for electricity production plants to be connected to the low- and medium-voltage grids, corresponding to a total power of approximately 9.4 GW, in relation to which they provided just over 67,400 quotes, for a total power of about 6.6 GW. In relation to requests received in 2020, slightly more than 41,600 connections were made in the year, corresponding to just under 0.4 GW, with average connection times, net of permitted interruptions, of: 19 working days in the case of simple works and 56 working days in the case of complex works, while the average connection activation time, net of permitted interruptions, was 8 working days. Regarding passive user connections, the data collected show that 182,600 connections were made to distribution networks in 2020, almost all of them low voltage. For 71% of them, the supply was activated during the year. The average time to connect customers is 8.1 work days.

In June 2020, the Authority outlined its proposals for fine-tuning the **regulation of losses on electricity distribution networks**. As of 2016, this regulation introduced geographical differentiation of the factors to be applied to commercial losses - losses not caused by network problems but by other factors such as fraudulent theft of electricity, metering and data management errors, etc. - and provided for a process to contain such losses, according to different rates of improvement by macro-area (North, Centre and South). As a result of the consultation process, changes to the current framework were defined in November 2020. The conventional percentage factors relating to commercial losses to be applied to electricity for equalisation purposes for the years 2019-2021 were established, providing for a reduction in the base level of these factors due to the improvement rates in the years 2016-2018. Consequently, the standard loss factors to be applied to electricity withdrawn at delivery points on low-voltage grids were also revised, with effect from 1 January 2021, bringing the conventional loss factor recognised for withdrawals to 10.2%.

In November 2020, the Authority introduced the first provisions to **reimburse electricity distributors for charges resulting from the failure to collect network tariffs**. This is a mechanism to cover possible charges related to exceptional situations of arrears, which involves assessing the uncollectable receivables of distribution companies accrued since 1 January 2016, the date of first application of the Standard Network Code on guarantees and service billing. The mechanism can be activated upon application by the distributor and concerns receivables relating to the application of tariff fees for electricity metering, distribution and transmission services, fees for the withdrawal of reactive energy, tariff components covering equalisation and quality of service promotion mechanisms, and contributions for specific services. A 10% deductible will be applied to the total amount of uncollectable receivables for network services; applications to participate in the mechanism must be accompanied by a report from a statutory auditing firm, which will express an opinion on the conformity and consistency of the amounts declared. Applications may cover amounts accrued in the four-year period 2016-2019. For the years after 2019, a new procedure to be applied annually will be defined, ensuring full coordination with the provisions launched in 2018 for

uncollectible receivables related to general system charges.

The charges on the A₃ account pertaining to 2020, in relation to the **incentivisation of assimilated and renewable sources**, increased significantly (+4.7%) compared to 2019, from €11,426 million to €11,964 million, largely caused by the reduction in the Single National Price (PUN) recorded in the first few months of the year in relation to the COVID-19 emergency. The reduction in the PUN has, in fact, an opposite effect on the charges on the A₃ account due to the mechanism for updating the incentives that replaced the green certificates (for which the charge each a year is affected by the average PUN recorded in the previous year).

During 2020, the implementation of market codes saw the adoption of different methodologies under the Forward Capacity Allocation Guideline and the Electricity Balancing Guideline; on the Capacity Allocation and Congestion Management Guideline side, instead, existing methodologies were monitored and improved.

In addition, the main **methodologies forming the basis of the European balancing market** were finalised and approved in 2020, with the establishment of platforms for the exchange, pricing and settlement of balancing energy. In processes relating to pan-European decisions, the Authority has been actively involved, together with other national regulators, in discussions with ACER and the TSOs, in order to achieve maximum consensus in the Board of Regulators and to encourage completion and adoption of methodologies in line with the principles of European regulation, while safeguarding the particular features of national regulation.

With regard to **European regulations on network management**, in 2020, the Authority approved methodologies for actions to contain frequency deviations and criteria for sizing the secondary reserve; in addition, the regional methodologies for coordinating grid safety analyses for the Italy North and Greece-Italy regions were also approved, with the appointment of the respective Regional Security Coordinator (RSC), namely Coreso and TSCNET in rotation for the Italy North region and SEleNe CC for the Greece-Italy region (Terna is a direct shareholder of Coreso and SEleNe CC).

Wholesale and retail markets

According to provisional data released by Terna, electricity demand in 2020 (284 TWh) decreased by 5.6% due to the exceptional situation caused by the pandemic, which significantly reduced consumption in the industrial and tertiary sectors, partially offset by the increase in consumption in the domestic sector (+2%). 90.2% of domestic electricity demand was met by net domestic production (down 4.2% compared to 2019) and the remainder by the foreign balance.

Gross **domestic production** fell to 281.5 TWh from 293.9 TWh in 2019 (-4.2%). The decrease particularly affected thermoelectric production, which fell from 176,171 to 163,541 GWh (-7.2%), while production from renewable sources increased slightly overall, although wind power production fell by 7.4% (compared to a 14% increase in the previous year) and geothermal production fell by 0.8%. Solar energy production, in particular, increased by 5.3% compared to 2019, when production from this type of source amounted to 8.1% of total gross production. The contribution of the two sources to the total is 58.1% for thermoelectric production and 41.2% for renewable production (42% including pumped storage hydroelectricity). Production from renewable energy sources (renewable hydroelectric, wind, photovoltaic, geothermal and biomass) reached 116,054 GWh (+1.3% compared to the previous year). The share of gross generation of the top three corporate groups (Enel, Eni and Edison), C3, declined slightly (31.7% compared to 33.4% in 2019), as did that of A2A, which is the fourth group, while the share of EPH, which is the fifth largest group in Italian electricity generation, increased slightly (from 5.1% to 5.3%). In 2020 the total net power was 116.4 GW (provisional figure), which is divided between 48% renewable and 52% thermoelectric. Peak demand occurred on 30 July,

when power demand at peak reached 55.2 GW (down 6.4% from the previous year's peak). Even the summer peak of 2020 remained far from the absolute peak for the Italian electricity system, recorded in the summer of 2015 (equal to 60.5 GW). There are five groups with a net installed capacity share of more than 5%: Enel (15,6%), Eni (9%), Edison (7,1%), A2A (6%) and EPH (5,3%); in 2019 it was the same five.

The amount of incentivised electricity in 2020 was slightly more than 62 TWh (preliminary figure), which is about 1 TWh less than the amount incentivised in 2019; in total, the costs of incentivising renewable energy sources are estimated to be around €11.5 billion.

Consistent with the reduction in demand, the **foreign balance** also decreased by 15.6%, with net imports falling from 38.2 TWh in 2019 to 32.2 TWh. As a result, the share of domestic demand covered by the foreign balance fell from 11.9% to 10.6%, the lowest level in 20 years. The decrease in the foreign balance is due to the reduction in imports (-9.5%) and the simultaneous increase in exports (+30%). The drop in imports is probably due to the increased use of renewable generation. The increase in exports was partly driven by the high competitiveness of Italian solar thermal and wind power production.

In the context of a year affected by the pandemic and the restrictions adopted to contain it, there was a sharp drop in the quantity of electricity traded in the Italian System in 2020, amounting to 280.2 TWh (-5.3% compared to 2019); in particular, there were significant reductions in volumes traded in the period between March and July (with a variability of between -7% and -17% compared to the corresponding months of 2019). The increase in exports had only a minimal moderating effect. By contrast, the volumes supplied remained broadly stable at the 2019 level (453.3 TWh, -0.9%). The share of volumes traded directly on the exchange, equal to 209.8 TWh (equivalent to 75% of total exchanges on the Day-Ahead Market [MGP]), was up by 2.8% compared to 2019; this greater liquidity was sustained in sales by exports (+26%) and in purchases by non-institutional operators (+2%); in percentage terms, the Acquirente Unico's (Single Buyer) volumes remained stable, equal to 15% of total purchases and sourced entirely on the exchange. As a result, the share of programmes deriving from Energy Accounts Platform (PCE) registrations of bilateral over-the-counter trade decreased (70.3 TWh, -15%).

The **average national energy purchase price (PUN)** in 2020 stood at an all-time low of €38.92/MWh, down sharply from 2019 (-25.6%), albeit in line with prices on the main European power exchanges. This decrease mainly reflects the significant reduction in demand and lower costs of raw gas (€10.55/MWh; -35%). The dynamics were homogeneous for all groups of hours, with an average annual value of 45.11 €/MWh (-24%) in peak hours, 37.68 €/MWh (-25%) in off-peak hours on working days and 33.22 €/MWh (-29%) on public holidays.

On the **forward market**, for standardised products with physical delivery, a total of 0.8 TWh was traded in 2020, down sharply from 2019 (-53%). Prices of the generally more liquid forward product, i.e., the monthly baseload expiring in the month immediately following (M+1), fluctuated between €21/MWh (May) and €54/MWh (December). This trend is in line with the trend recorded during the year by the underlying PUN, the largest gap having occurred in the first four months of the year, corresponding to the first months of the pandemic. The total volumes traded in the **Intraday Market** in 2020 (24.9 TWh) were down on the previous year (-1.5 TWh, -6%); prices remained strongly correlated to the values observed in the Day-Ahead Market, although compared to the latter there was a progressive increase in volatility as real time approached.

The European market also saw a sharp fall in electricity prices, leading to price convergence between countries, facilitated by coupling mechanisms. The area consisting of France, Germany and Italy was

aligned in 29% of the hours (+21% compared to 2019) while the Scandinavian area stood out. Italy recorded a differential with the rest of the European continent of around +5/7 €/MWh, which is a historically low value. The Italian price was also more competitive along the borders, compared to 2019, in a high number of hours; it was lower than the French price in 40% of hours (15% in 2019), the Austrian price in 38% of hours (13% in 2019) and the Slovenian price in 78% of hours (56% in 2019). These price opportunities led to a sharp drop in imports (41.9 TWh, -7%) in favour of an all-time high increase in exports (8.6 TWh, +26%), particularly on the northern coupling borders (France: 9%, +6%; Austria: 13%, +9%; Slovenia: 43%, +10%).

The results of the Annual Survey (provisional) show that in 2020 **241 TWh were sold in the retail market to around 37 million customers**, of which 29.8 million domestic and 7.1 million non-domestic. Compared to 2019, total electricity consumption decreased by almost 6%, while consumers increased by 0.4%. The fall in consumption was entirely borne by the non-domestic sector due to the contraction of industry and, even more so, of the tertiary sector due to pandemic restrictions, while consumption in the domestic sector, due to the forced stay at home and largely remote work, grew significantly. The same was true for delivery points: the number in the domestic sector increased, while it decreased in the non-domestic sector. More precisely, households purchased a total of 59.8 TWh compared to 58 TWh in 2019, an increase, therefore, of 3.1%, while the energy purchased by the non-domestic sector decreased by 8.6% (practically the same decline as GDP, which, according to Istat, fell by 8.9% compared to 2019), having fallen to 181 TWh from the previous 198 TWh.

In 2020 there were 29.8 million **domestic customers**, of which 13.6 served under standard offer and 16.2 million in the free market. Against a backdrop of overall growth (+290,000 domestic delivery points compared to 2019), the free market fully phased out the standard offer service. Domestic points served on the free market increased to 54.3% compared to 49.3% in 2019. Looking at volumes, it is even clearer that the free market is overtaking: in 2020, the energy purchased by the domestic sector in this market rose to 57%, while in 2019 it was just over half, at 51.7%. 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: 1,886 kWh/year, compared to 2,109 kWh/year, but the values still show that the electricity consumption of Italian households is rather low.

The total volumes sold under the standard offer regime in 2020 (equal to 35.5 TWh) also include sales to non-domestic low-voltage customers, for whom the possibility of purchasing electricity under this service ended on 1 January 2021. If we add domestic sector consumption to that of non-domestic low voltage delivery points, the share of electricity sold in the standard offer service is still very small, only 14.7% of the volumes of the entire Italian electricity market (corresponding to 43% of total delivery points). With 202.4 TWh sold, in 2020 the share of electricity brokered by the free market rose to 84% (56.8% of the delivery points), partly because the share of electricity purchased in the standard offer service narrowed further to 1.3% (0.2% of the delivery points).

Switching by household customers remained very high in 2020, as in 2019, whether measured in terms of delivery points or in terms of volumes; 13.1% of household customers - just under 3.9 million delivery points - switched supplier at least once during the year. The volumes corresponding to this portion of customers are about 14.2% of the total energy purchased by the domestic sector, while the volumes corresponding to the 12.9% of domestic customers that changed supplier in 2019 reached 15.2% of the energy delivered. Non-domestic low voltage switching activity in 2020 slowed down but remained at considerable levels: 15.9% in terms of delivery points and 17.1% in terms of volumes, achieved in a year when the pandemic severely reduced electricity consumption by non-domestic customers. During 2020, however, other non-domestic customers also maintained a fair

rate of switching (16.2% of customers connected to medium voltage and 16.1% of customers connected to high or very high voltage). Overall, around 1.1 million non-domestic consumption points (15.9%) changed supplier in 2020. In terms of underlying volumes, about 31.6 TWh, corresponding to 16.7% of the volumes purchased by non-households.

On the supply side, **the number of suppliers on the retail market grew sharply again in 2020**, confirming a growing trend that has continued unabated since liberalisation in 2007. Regardless of the electricity consumption trend, every year there is an increase in the number of companies with sales of less than 1 TWh, but whose overall market share has been at a standstill at around 15% for years.

The average number of **commercial offers** that sales companies can make to their potential customers was 17.6 for domestic customers and 25.8 for non-domestic customers. Of the 17.6 offers made available on average to domestic customers, 4.5 can only be purchased online; their success among households remains very limited, but it is growing: in 2020, 7.4% of customers (4.4% in 2019) signed a contract offered through this method. With regard to the type of price preferred, it was found that 84% of domestic customers signed a fixed price contract in the free market (i.e. with the price not changing for at least one year from the moment of signing), while only 16% chose a variable price contract, i.e. with the price changing at a time and in a manner determined by the contract itself. There are different types of indexing modes for variable price contracts: 31.9% of customers signed a contract that provides a fixed discount on one of the components established by the Authority for the standard offer regime; 65.1% of the customers chose a contract that provides the indexing to the PUN and 1.8% of the customers have chosen one indexed with Brent. Finally, only 1.1% of the customers chose a contract that provides a different form of indexing from the ones mentioned above. About 22% of domestic customers have signed a contract providing for a rebate or discount of one or more free periods or a fixed sum in money or volume. In the *Annual Survey on regulated sectors carried out by the Authority in 2020 (hereafter: Annual Survey)* further detail was obtained on the presence of additional services compared to the previous year. The results showed that in fixed-price contracts, as in the past, there was a clear customer preference for both the guarantee to buy electricity produced from renewable sources (39.4%) and participation in a points collection programme (31.1%). The provision of ancillary energy services is also of interest (3.3%), as well as the guarantee to buy electricity produced in Italy (2.3%). 20% of the fixed-price contracts purchased did not include any additional services; however, the proportion of customers who took out a variable-price contract without any additional services increased to 53.2%. Even among these customers there is a high interest in the guarantee of purchasing electricity produced from renewable sources (25.7% of cases). The second preference goes to the possibility of obtaining accessory energy services alongside electricity (12.2%).

Using the concentration measures calculated on the energy sold, it can be seen that in 2020 the level of **concentration in the retail market** remained largely unchanged. The C3, that is the share of the first three operators (corporate groups) went up to 46.9% of the total sales, while it was at 46.3% in 2019. The HHI index fell to 1,446, from 1,464 recorded in 2019. However, the number of corporate groups with a share of more than 5% has risen from 2 to 4: the Enel group (this year with a share of 35.6%, which in 2019 was 36%) and the Edison group (with a share of 5.9%) have also been joined by the A2A group (5.5%) and Hera (5.1%). However, the concentration of the Italian electricity market has two opposing sides: in the household segment it is high, albeit decreasing constantly, while in that of non-domestic customers it is very low and stable. Using the indicators calculated on delivery points, the concentration values show a reduction in almost all market segments and especially in that of non-domestic customers connected to low voltage.

In 2020, the **average price of electricity** (weighted with quantities sold), net of taxes, charged by sales companies to domestic customers was 18.99 c€/kWh in the standard offer service and 23.47 c€/kWh in the free market. The free market was therefore 23.6% more expensive on average. Compared to 2019, there has been a general increase in the differentials between the two markets, which stems from their different evolution. The free market has values that are almost the same as the previous year, while the standard offer service underwent an average decrease of 20%, ranging from -6% in the smallest class (up to 1,000 kWh/year) to -29% in the largest class (consumption over 15,000 kWh/year); these reductions reflect the sharp drop in prices in the wholesale markets that occurred in 2020, also as a result of the spread of the pandemic. On the other hand, the free market, where contracts at a fixed price for a predetermined period predominate, has passed on these reductions to customers to a very small extent.

Overall, in 2020, there were 30,004 cases of non-compliance with the **commercial quality standards of the sales service** that led to claims for compensation in the electricity sector, 95% of which related to failure to meet response times to written complaints. Domestic customers account for 64.5% of the compensation, 39.5% in the free market and 25% in the standard offer market. A similar situation to that relating to accrued compensation can be seen for the compensation actually paid, which is more concentrated in the free market: in 2020, in fact, 58.4% of the total compensation paid, amounting to almost €1.3 million, was to free market customers.

As part of the **measures to promote effective competition**, following the consultation, the Authority has adopted the regulation of the **gradual standard offer service**, aimed at small companies and micro-companies with at least one delivery point with contractually committed power greater than 15 kW and which, as of 1 January 2021, do not have a contract under free market conditions. This is because Italian law stipulated that from the same date these companies could no longer be supplied by the standard offer service. The regulation of the service for the remaining micro-companies and domestic customers will be the subject of subsequent regulatory interventions. The gradual standard offer service is provided by operators selected through specific tenders; however, due to the time required to organise these tenders, a period of interim provision of the service was set up, from 1 January 2021 to 30 June 2021, during which the supply was provided by standard offer operators under economic conditions defined by the Authority which provide, among other things, for the application of an electricity price equal to the actual wholesale market prices. As of 1 July 2021, the gradual standard offer service is delivered by the assignees of the service following tenders. In 2020, the Authority adopted the measures necessary to carry out these tenders, identifying nine territorial areas for the assignment of the service, the duration of which is three years (from 1 July 2021 to 30 June 2024). In addition, the Authority has defined the contractual conditions (similar to those of the PLACET offers - free price contracts under equivalent protection conditions) and economic conditions applicable to service customers: i.e. an electricity price equal to the actual wholesale market prices, plus the application of a nation-wide standard price, defined on the basis of the tender results.

Still as part of the measures to promote effective competition, in February 2019 the Authority adopted Voluntary Guidelines for the promotion of electricity and natural gas offers in favour of purchasing groups aimed at domestic end customers and small companies assimilated to domestic end customers, i.e. companies connected at low voltage and those with annual consumption of up to 200,000 S(m³). Purchasing groups are associative entities established with the aim of selecting one or more suppliers for the supply of electricity and/or natural gas to the final customers included in the group. The Authority publishes the list of purchasing groups that undertake to comply with the Guidelines (so-called accredited purchasing groups) on its website. At **31 December 2020, 12 purchasing groups** were accredited for the promotion of commercial electricity and gas offers for

small customers.

Developments in the gas market

Main changes to regulation

In November 2019, the Authority approved the *Tariff Adjustment Criteria for the liquefied natural gas regasification service (RTRG) for the fifth regulatory period 2020-2023 (5PR LNG)*. In June 2020, following the review of the tariff proposals submitted by the regasification companies pursuant to RTRG 5PR LNG, the Authority approved the reference revenues and determined the tariff fees for the LNG regasification service for 2021.

With regard to **access to LNG infrastructures**, in March 2020 the Authority amended its regulation to bring forward the deadline by which multi-year capacity products can be defined for efficient use of and access to regasification terminals. At the same time, the Authority launched a procedure aimed at: extending the period of capacity offerings for multi-year periods exceeding 15 years, introducing a regasification capacity product (with an option to release or a right of withdrawal and with the relative allocation modalities); revising the provisions concerning the non-use of capacity and, finally, updating the reserve price for capacity offerings for multi-year periods. In May, the Authority put its guidelines on this matter out for consultation, and in December 2020 it introduced **changes to the rules on access to the regasification service for periods longer than the thermal year**, with particular reference to the duration of allocations and the provisions on the issuance of capacity. At the same time, it adopted provisions on the **allocation of the non-exempt capacity of regasification terminals**.

In October 2019, the Authority also defined the *tariff regulation criteria for the natural gas storage service (RTSG) for the fifth regulatory period (5PRS) 2020-2025*. In July 2020, the Authority, following the review of the tariff proposals submitted by storage companies pursuant to RTSG 2020-2025, approved the corporate revenues for the storage service for the year 2021. However, the tariffs are now applied on a residual basis, as they only cover the operational balancing services of transmission companies and the mineral storage of domestic production companies that absorb less than 2% of the total storage capacity. More than 70% of the storage capacity, intended for seasonal and multi-year modulation services, is allocated and remunerated on the basis of competitive procedures, governed by the regulation for access to and provision of storage services (RAST), as defined by the Authority in February 2019. The service charges for this capacity shall be determined by the market following appropriate auctions, which shall be open to participation by natural gas market participants. 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. In March 2020, a number of **corrections were made to the formulae used by the storage companies to calculate the reserve prices for the auction procedures for allocating storage capacity**. In particular, the relative weight of forward prices for products listed on the VTP (Virtual Trading Point) was increased, compared to that of products listed on the TTF (Title Transfer Facility), because they were more representative.

In March 2019, the Authority also defined the *tariff regulation criteria for the natural gas transmission and metering service (RTTG) for the fifth regulatory period (5PRT)*. In May 2020, following the verification of the tariff proposals submitted by transmission companies pursuant to RTTG 2020-2023, the Authority approved the reference revenues and determined the tariff fees for the natural gas transmission and metering service for the year 2021. In the following month of December, the Authority amended the RTTG regarding the criteria for determining and applying the fees for the

metering service. In July 2020, the Authority ordered a partial recognition of the higher **charges incurred by the largest transmission company for the procurement of unaccounted for gas (UAG)** for the years 2018 and 2019. At the same time, a process was launched to revise the UAG recognition criteria for the period 2020-2023, which, after consultation, was concluded in December 2020, introducing a partial adjustment mechanism for deviations between the recognised and actual quantities of UAG recorded in a given year.

In December 2019, the new version of the Gas Distribution and Metering Tariffs Regulation for the 2020-2025 regulatory period (RTDG), in force for the three-year period 2020-2022, was approved. In December 2020, the compulsory tariffs for natural gas distribution and metering services were approved for 2021. At the same time, the **maximum amount of recognition of the higher charges resulting from the presence of concession fees** to be paid to local authorities was set.

In relation to issues concerning the **recognition of the costs of gas distribution and metering services**, two consultations were launched in 2020: in October 2020, the Authority presented its final guidelines concerning the criteria for incentivising aggregations between natural gas distribution companies; in December 2020, the Authority presented its guidelines concerning the criteria for decommissioning traditional meters of classes up to G6, replaced in accordance with the relevant European directives, also with a view to standardising the decommissioning criteria between meters of different size classes.

On the subject of **gas infrastructures**, in Italy there are nine companies that manage the national (10,286 km) and regional (24,817 km) gas transmission networks: three for the national network and eight for the regional network. The largest gas transmission company is Snam Rete Gas. The Snam group owns 92.8% of the networks. At the end of 2020, the Trans Adriatic Pipeline (TAP) became operational, transporting gas from Azerbaijan to Europe via Turkey and Greece. The TAP is the European section of the Southern Gas Corridor, it is approximately 900 km long, has a capacity of about 10 G(m³) per year and transports gas produced in the Azerbaijani Shah Deniz II field. In Italy, the receiving terminal is located, as mentioned, in the Apulian town of Melendugno, in the province of Lecce. It is operated by Tap AG, whose shareholders are BP, Socar and Snam with 20% each, Fluxys with 19%, Enagás with 16% and Axpo with 5%.

Liquefied natural gas is input into the Italian national transmission network through the interconnection with the three terminals in operation in Panigaglia (in Liguria), Cavarzere (in Veneto) and Livorno (in Tuscany). The Panigaglia plant, owned by the company GNL Italia which belongs to the Snam group, has a maximum regasification capacity of 13 M(m³)/day and the maximum annual quantity of gas that it can input into the transmission network is 3.5 G(m³). The Cavarzere terminal is an off-shore structure located in the Adriatic Sea off the coast of Rovigo with an annual regasification capacity of 8 G (m³) and approximately 26.4 M (m³)/day. 80% of the maximum regasification capacity, i.e. 21 M(m³)/g, is reserved for the terminal operator, Terminale GNL Adriatico, which has been granted exemption from third party access for 25 years, i.e. until the thermal year 2032-2033; the remaining 20%, together with any unused capacity, is offered on the market through capacity booking procedures. The Livorno terminal owned by the company OLT Offshore LNG Toscana arose from the conversion of an LNG vessel into a floating regasification terminal anchored about 22 km off the coast between Livorno and Pisa. Its maximum daily regasification capacity is 15 M(m³)/day, while the annual capacity is 3.75 G(m³).

Natural gas storage is carried out on the basis of 15 concessions owned by five companies: Stogit, Edison Stoccaggio, Ital Gas Storage, Geogastock, Blugas Infrastrutture. All active storage sites are built on exhausted gas fields. Stogit, which belongs to the Snam group, is the main storage company which owns 10 of the 15 concessions. The Italian gas storage system has important dimensions: in

the thermal year 2019-2020, which ended on 31 March 2020, the system offered a total assignment availability in terms of total space for active reserve (so-called working gas) equal to 18.05 G(m³), of which 4.6 G (m³) is destined for strategic storage. The peak nominal delivery reached in the year was 258.4 million standard cubic meters/day.

In Italy, natural gas is distributed through 265,920 km of network. In 2020, there were 194 gas distribution companies (three fewer than in 2019) of which 6 were very large (with over 500,000 customers), 41 with between 50,000 and 500,000 customers, and 147 with less than 5,000 customers. The number of companies with more than 100,000 redelivery points has fallen in recent years (28 from 33 in 2013), but their share has not decreased in terms of gas distributed, which has remained stable at around 82% and has risen by two points in the last two years. Overall, the 194 operators active in 2020 distributed 30 G(m³), 1,251 million m³ less than the previous year, to 24 million consumers. The service was managed through 6,568 concessions in 7,249 municipalities.

The regulation of the quality of gas distribution and metering services 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 distributed gas. For 2020 there was an increase compared to 2019 and yet the percentage of network inspected reached 75%. Network inspections are generally aimed at intercepting leaks and thus improving the safety of citizens. Regarding emergency response obligations, the historical series of the arrival time on site after a phone call, updated to 2020, shows a national average value of about 36 minutes, slightly lower than in 2019. With regard to the number of leaks detected in the networks as a result of third-party reports per thousand customers (for distribution plants subject to penalty-premium regulation), there has been a decrease both in leaks detected in the underground network, which are usually the most dangerous, and in those detected in the overhead network.

Data on connections are distinguished according to whether they are connections to transmission pipelines or to distribution networks. In 2020, 101 **connections were made to transmission networks**, 89 of which to high pressure pipelines and 12 to medium pressure pipelines. On average, a wait of 77 working days was recorded for high pressure pipelines and 40.1 days for medium pressure pipelines. The increase in time is not particularly great in view of the health emergency, which required several measures restricting people's mobility. Half of the 101 connections made overall activated the supply during the year (more precisely, 45 out of 89 high pressure connections and 5 out of 12 medium pressure connections). In the case of **local distribution networks, a slight decrease in the number of connections** was observed: 106,996 in 2020, compared to 117,045 in 2019. As usual, most of the connections were to low pressure pipelines (95.9%) and the remaining to medium pressure pipelines. There was a slight increase in waiting times, both for connections to medium pressure networks (from 7.4 to 8.1 working days) and for connections to low pressure networks (from 17.3 to 18.5 working days).

During 2020, measures were taken to implement the new **settlement rules** approved in 2018 and which came into force on 1 January 2020. Among other things, in May 2020 the Authority, in light of the degree of functioning of the balancing sessions, planned a number of urgent interventions, at the same time planning the definition, by means of a subsequent provision, of additions to the settlement provisions aimed at regulating, as part of the ordinary activities under the responsibility of the Integrated Information System Operator, the communication of anomalies detected in withdrawals to distribution companies, Distribution Users (UdD) and Balancing Users (UdB) in order to correct them.

In September 2020, additions were approved to the regulation on access to the transmission service, on the subject of deviation fees, with the aim of preventing them from being excessively expensive

in the event of repeated deviations. The additions were made in response to reports received on the critical issues arising from the increase in the value of the aforementioned fees following the application of the new regulation of transmission tariffs as well as uncertainties in estimating the need for transmission capacity for various reasons, starting with the possible effects of the Covid-19 pandemic. In particular, it was established that the maximum amount of the deviation fees applied to a user at a redelivery point, with reference to the entire thermal year, may not exceed 1.1 times the annual amount of the unit capacity fee at the redelivery point itself, multiplied by the maximum deviation recorded at that point during the thermal year. This provision was not subject to prior consultation for reasons of urgency, but all stakeholders were given the opportunity to submit comments by 25 September 2020.

The regulations governing access to and supply of natural gas transmission, storage and regasification services, contained in Legislative Decree no. 164 of 23 May 2000, provide that the companies providing these services must define their own service codes in accordance with the criteria established by the Authority, which approves them once it has verified their consistency with these criteria. During 2020, a number of **codes for transmission, storage and regasification services were approved and/or updated** in order to implement new regulatory provisions, Authority provisions or management methods to improve service provision.

Wholesale and retail markets

On the basis of the provisional results issued by the Ministry of Economic Development, in 2020, gross natural gas consumption dropped by 3.2 G(m³), reaching 71.3 G(m³) from 74.5 G(m³) in 2019. In percentage terms, consumption recorded a 4.3% decline. Consistent with the downturn in economic activity caused by the Covid-19 pandemic, consumption from productive use fell significantly in 2020, as did consumption in the domestic sector, which was curbed by unfavourable weather patterns for heating. More in detail, industrial sector consumption fell by 2.2% and thermoelectric generation consumption by 3.1%. Trade and services is the sector that has suffered most from the various lockdown measures that have been adopted to slow down the spread of the virus, especially the sectors related to tourism (accommodation and catering services) and recreational services, which have been effectively shut down for many months of the year; it is therefore not surprising that it has recorded a real drop of 12.1% compared to 2019. For the same reasons, gas consumption linked to transport also showed a substantial drop, equal to -15.7%, while consumption in the domestic sector fell by -2.8%.

In the face of lower consumption, **net imports** consistently showed a decrease of 6.6%. The volumes of gas imported from abroad decreased by 4.7 G(m³) compared to 2019, reaching 66.4 G(m³); exports fell by 9 M(m³). Another significant reduction was seen in **domestic production** (-15.4%), the greatest in the last ten years. On the other hand, unlike in the last two years, volumes in storage at the end of the year were 1.1 G(m³) less than at the beginning of the year, so part of the consumption was covered by storage. The level of **foreign dependence**, measured as the ratio of gross imports to the gross value of domestic consumption, fell to 93.2%, after having reached the record value of 95.4% in the previous year. Taking system consumption and network losses into account, net consumption in 2020 was 68.5 G(m³), 4.2% lower than in 2019.

The reduction in imports in 2020 did not have a similar impact in all the countries from which Italy purchases gas; in fact, gas volumes from Algeria, Norway and Qatar increased, while those from Russia, Libya, the Netherlands and the rest of the world decreased. In 2020, therefore, the weight of Russia among the countries exporting to Italy fell to 42.9% (it was 46% in 2019), while Algeria's share

rose from 18.8% to 22.8%. The third most important country is Qatar where 10.5% of the total gas imported to Italy (9.2% in 2019) comes from, followed by Norway with a share of 10.4% and Libya with a share of 6.7%. In 2020, 5.3% of Italian imports came from all the other countries together. The corporate groups that hold a share of more than 5% of the overall gas supplied (i.e. produced or imported) are Eni, Edison and Enel, as in 2019, now also joined by Royal Dutch Shell. Together they imported 51.2 of the 62.4 G(m³) of natural gas entering the Italian market. Considering the quantities produced within the national boundaries, these four groups account for 82.4% of all the natural gas supplied. The four groups are also the only groups that each hold a share of more than 5% of the available gas (which includes stored gas, as well as imports and production), with an overall share for all four (82.3%) that is substantially the same as that of gas supplied. An analysis of import contracts (annual and multi-annual) active in 2020 in terms of **residual life** shows that 56.8% will expire within the next ten years (this was 59.1% in 2019) and 39.8% will expire within the next five years. 35.9% of the contracts in force today have a residual life of more than 15 years. This share, which had been increasing since 2014, declined slightly to 34.3% in 2019, and returned to a slight increase in 2020.

In 2020, 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 16.9%, reaching 385 G(m³) (Table 4.3). Overall, the gas sold in the total sales market (wholesale and end market) reached 368.4 G(m³), an increase of 17.4% compared with the same figure in 2019. The **wholesale market** handled 313.1 G(m³), a 22.3% increase compared to 2019; the retail market handled 55.3 G(m³), recording a decrease of 4.7% compared to 2019, while self-consumption totalled 16.6 G(m³), also with an increase (6.3%). 5 industrial groups served a share of more than 5% of the total demand in 2020, one more than in 2019. More precisely, the industrial groups and their respective shares, indicated between parenthesis, are: Eni (21.2%), Engie (13.2%), Alpiq (7.7%), Edison (7.1%) and Enel (6.9%). In 2019 this set did not include Alpiq. The top three groups cover altogether 42.1% of the total demand, a lower share than last year (which was 46.8%). In 2020, the number of companies operating in the wholesale market increased, although the volume of gas sold grew more than proportionally. In fact, 199 suppliers (two more than in 2019) sold a total of 57.1 G(m³) more than in 2019; thus, the average unit volume increased from 1,300 to 1,574 M(m³) in the market as a whole, marking further significant growth, +21.1%, following the already remarkable +10.6% achieved in 2019. In 2020, the market concentration level further decreased: in fact, the share of the top three companies (Eni, Eni Trading & Shipping and Engie Global Markets) was 29.8%, more than four percentage points below the 34.3% calculated in 2019.

The main trading platform in the wholesale market in Italy is the **Virtual Trading Point (VTP)**, operated by the leading transmission 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 2020, the number of VTP subscribers increased slightly to 231 compared to 226 in 2019. The number of subscribers who carried out transactions remained unchanged at 137, as in the previous year, but the number of pure traders (i.e., subscribers who are not users of the transmission system) rose by 6 (15%), from 47 to 53. Over-the-counter volumes traded at the VTP increased by 7% from around 98 G(m³) to almost 105 G(m³). If we add volumes with forced delivery to the VTP, the growth of gas traded in 2020 compared to 2019 can be estimated at 8.8%, considering that the annual quantities increase from around 100 to 108.5 G(m³). Volumes from trading in the markets increased significantly, +58%. Volumes traded on the exchange reached 22 G(m³) from 13.9 G(m³) a year earlier, thanks to a large increase in volumes handled in centralised markets, which was also accompanied by robust growth in energy traded through clearing houses. The churn rate increased further and reached 3.7 (from 3.3 in 2019).

In the context of the **markets organised and managed by the Energy Markets Operator (GME)**,

it should be noted that from 1 January 2020 a **new sector of the M-GAS** was activated for the Balancing Manager (RdB) to procure the resources needed to operate the system. This sector, **called AGS**, is divided into two auctions for products with delivery on each gas-day, to be held on gas-day D-1, after an initial assessment of the quantities to be supplied, and on day D, without suspension of the continuous trading market, during the auction. Participation in the auctions is open to all operators admitted to trade on the M-GAS with bids of the opposite sign to those of the RdB. The activation of this new market is responsible for the significant increase (+36%) in volumes traded on the gas markets managed by the GME in 2020, which reached a total of 114 TWh. The greatest liquidity was again observed on the MI-GAS (intraday market) (46.7 TWh; +14%), thanks mainly to exchanges between operators other than the RdB. In the first year of operation of the AGS sector, trades totalling 4.4 TWh were recorded, mostly attributable to sales by Snam Rete Gas (57% of volumes). **Volumes traded on the MGP-GAS** (day-ahead market) also increased (30.1 TWh; +22%), concentrated in the session on the day before delivery. This growth was also supported by the presence of the market making service and the introduction of the weekend product. Also on this market, in the first year of operation of the AGS sector, a total of 25.7 TWh was traded, mostly attributable to purchases by Snam Rete Gas (69% of volumes). In 2020, Snam Rete Gas did not hold any sessions on the **MPL** (market for locational products), while there were trades on the **Regasification Capacity Allocation Platform** (PAR), for a total of 173 slots, referring to multiple products corresponding to 22.0 M(m³) liquefied. With regard to **products traded forward on the MT-GAS** (forward market), a decrease in trading was observed with 122 matches, totalling 0.6 TWh with delivery in 2020. On an annual basis, **spot prices** recorded on the various trading platforms can be approximated to an average value of 10.8 €/MWh, in line with the annual average spot price quotation on OTC markets with delivery to the VTP (10.55 €/MWh). In particular, the average prices of the two sectors of M-GAS - respectively € 10.41/MWh for MGP-GAS and € 10.57/MWh for MI-GAS - showed an intra-annual trend that faithfully reflects that of the day-ahead product at the VTP, confirming an average differential between the latter and the System Average Price (SAP) of -16 c€/MWh since 2019. In 2020, compared to 2019, price divergences in the MGS sector are more limited compared to other markets, tending upwards in the summer months and downwards in the winter months.

The provisional results of the Annual Survey showed that, in 2020, **55.3 G(m³) were sold on the retail market**, in addition to the 190 M(m³) supplied through last resort and default services. Overall, the end sales therefore amounted to almost 55.5 G(m³), with a decline of 2.8 G(m³) compared to 2019. To have a comparable figure with the final gas consumption data published (although provisional) by the Ministry of Economic Development, we must however consider the volumes related to self-consumption, more than 16.6 G(m³), that bring the value of overall consumption given by the Annual Survey to 72.1 G(m³), i.e. to a value comparable to the 68.5 G(m³) reported by the Ministry. The two sources classify the volumes of gas handled over the year in different ways. The decline in final consumption that emerges in both the Annual Survey data (-2.4%) and the ministerial data, albeit to a greater extent (-4.2%), is linked to a drastic drop in the productive sectors. In 2020, the number of active suppliers on the retail market rose again and substantially (+20 active units). As the gas sold decreased and the number of suppliers increased, the average unit sales volume decreased by more than 11 M(m³) on average compared to 2019, falling from 129.6 to 118.2 M(m³). Ten years ago, before the economic crisis, average sales were almost twice as high at 237 M(m³). 6.2% of companies active in the final market, i.e. 29 out of 468, sold more than 300 M(m³) in 2020. Overall, the 29 companies that sold more than 300 M(m³) account for 82.2% of all gas sold in the retail market. The analysis of the sales performance of corporate groups, instead of those achieved by individual companies, allows a more correct assessment of market shares and the **level of**

concentration in the retail market. There was no change in the top five positions of the end market, where Eni, Edison, Enel, Hera and Iren remain strong. Compared to 2019, the groups' shares have all increased slightly, with the exception of Eni and Iren. In fact, Eni's share decreased by one percentage point compared to 2019, from 19.4% to 18.4%, as the group's sales dropped by more than one billion cubic meters (-9.5%). The share of the Iren group also dropped from 4.7% to 4.6% due to a significant reduction in sales, equal to almost -220 M(m³) (-7.9%). The shares of the Edison, Enel and Hera groups, on the other hand, increased slightly, thanks to a less negative sales result: in fact, compared to 2019, the changes in the quantities that these groups placed on the retail market were respectively equal to -2.6%, -4.3% and -1.7%. Therefore, both the gap between Eni and Edison, and the gap between Edison and Enel narrowed slightly compared to 2019. In particular, the gap between the Eni and Edison groups fell below 5% In 2020, the concentration level of the retail market therefore generally decreased. Using the measures calculated on volumes sold, the number of groups with a total market share above 5% remained unchanged at 4. Nevertheless, in 2020 the top three groups controlled 43.7%, while in 2019 the share was 44.3%. The Herfindahl-Hirshman Index (HHI) calculated on the sales market was 787, slightly lower than the 809 of 2019. When measured in terms of the customers served, concentration tends to increase in almost all sectors: the only exceptions are industrial and public service activities, as well as the non-domestic sector as a whole.

As mentioned, net of the last resort and default supplies, 71.9 G(m³) were sold in 2020 - of which 16.6 were for self-consumption and 55.3 for sales - to 21.9 million redelivery points. The COVID-19 pandemic has had a marked negative effect on the Italian economy, especially in the trade and services sectors, many of which have remained largely static for most of 2020. The industrial sector also suffered a major slowdown in the spring months of the first lockdown, only to recover just as vigorously in the autumn. In addition, the weather in 2020 was not favourable for gas consumption, given the mild temperatures in the winter months. Based on these factors, it can be seen that the reduction of 2.4% observed in gas consumption was very uneven between sectors. In fact, consumption in the domestic and central heating sector remained broadly stable at around 17 G(m³), even showing a slight increase of 0.2% compared to 2019. Consumption in the production sectors (industry and thermoelectric generation) fell from 48.4 to 47.2 G (m³), thus recording an overall decline of 2.4%. On the other hand, consumption in the tertiary sector (trade and services together with public service activities) decreased by 8.2%, from 8.2 to 7.5 G(m³).

If we consider sales in its strict sense and therefore exclude self-consumption, 89% of the gas was purchased on the free market and the remaining 11% on the standard offer market. In terms of customers, 37.2% turned to the standard offer market, while 62.8% bought on the free market. Considering only the **domestic sector**, we can see that the share of volumes purchased on the free market in 2020 reached 60.9% for households and 84% 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 2019 these values were 56% and 81.3%, respectively. In terms of delivery points, in 2020, the share of households purchasing gas in the standard offer service fell to 39.6%; in 2019 this share was 44.1%, after falling below half (49.9%) for the first time in 2018. A breakdown of sales to the end market (net of self-consumption) by consumer sector and customer size shows that 98.1% of the volumes sold to the domestic sector are purchased by households with an annual consumption below 5,000 m³: in fact, this share is 98.4% for households that purchase in the standard offer market and 98% for those that purchase in the free market.

Again, in the gas sector, as already described for electricity, the Annual Survey asked 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 average number of **commercial offers** that each gas supplier was able to offer their potential customers was 10.8 for domestic customers, 6.8 for

central heating and 15.1 for non-domestic customers. Of the 10.8 offers made available to domestic customers on average, 4.6 can only be purchased online; households' interest in these offers grew in 2020, but remains, for now, a fairly niche phenomenon, as it turned out that only 7.9% of customers signed a contract offered through this method. Concerning the preferred type of price, it was found that 73.9% of households signed up to a fixed price contract on the free market (i.e. with the price that doesn't change for at least one year from the time of signing), while only 26.1% chose a variable price contract, with the price that changes according to the timing and methods established by the contract itself. There are various types of indexation for variable-price contracts, thus concerning just over a quarter of domestic customers, the two most important of which concern 47.3% of customers who have signed a contract that provides for a fixed discount on one of the components established by the Authority for the economic conditions of supply of the standard offer service and 33.6% who have chosen a contract that provides for a form of indexation linked to the prices of the TTF (Title Transfer Facility). A minimum number of customers have chosen contracts with other forms of indexation linked to VTP prices, to the Brent trend or to that of the markets managed by the GME. 4.5% of domestic customers served in the free market have signed a contract that includes a minimum contractual duration clause, meaning that the customer must not change supplier for a minimum period specified in the contract in order for the price set to apply. 32.9% of domestic customers signed a contract with a rebate or discount.

Questions in the Annual Survey on the presence of additional services in natural gas sales contracts were streamlined and further explored with the addition of two new items (other products or services offered together with natural gas; a combination of additional services). In addition, the item 'Personalised telephone services', which had basically never been answered, was removed. As the questionnaire asked for details of the combination of additional services included in the contracts chosen by customers, it was possible to reallocate the delivery points pro rata to the individual additional services. In fixed-price contracts that provide an additional service (62%), there is a clear preference (35.2%) for those contracts that provide for participation in a points programme and a certain appreciation (14%) for contracts that offer an accessory energy service. In contrast, only 24.4% of customers with a variable price contract choose a contract that includes an additional service, with the most popular options being additional energy services (13.1%) and participation in a points programme (6.1%).

Based on data provided by transmission operators and data from the SII, the **switching** percentage, i.e. the number of redelivery points that changed supplier in the calendar year 2020, was 10.2% overall, or 20.4% if evaluated on the basis of the consumption of the customers who made the change. Compared to 2019, the percentages are increasing for domestic customers. The increase in domestic and switching rates may have been affected by the imminent end of the standard offer regime (although the date for the removal of price protection has been postponed several times). Non-domestic users (excluding public service activities) who switched their supplier in 2020 accounted for 12.5% of the total in terms of redelivery points and 23.8% in terms of volume, showing less dynamism than in previous years.

The analysis of data gathered in the *Annual Survey* shows that, last year, the **average price of gas** (weighted by the quantities sold), net of sales taxes, set by the sales companies operating on the end market, was of 33.9 c€/m³. This price was 39.2 c€/m³ in 2019. Overall, therefore, the average final price of gas in Italy in the last year showed a decrease of 5.3 c€/m³. The decrease of 13.5% reflects the sharp drops in the cost of raw materials in wholesale markets following the COVID-19 pandemic and affects all consumption classes by a fairly similar amount, meaning that the price differential between smaller and larger customers remains at the same level as in 2019 (41 c€/m³). This difference is because the fixed costs are shared over greater amounts, in the presence of higher consumption.

In particular, the effect of the distribution tariffs is much higher on smaller consumption, while, for larger customers that are directly connected to the transmission network, this component is not even present. We can state that the ability to obtain more convenient supply conditions is directly proportioned to the size of the customer, in relation to the greater knowledge of the market and higher attention to contract conditions. Domestic customers, characterised by the prevalence of lower unit consumption, have a higher average total price (57.9 c€/m³), while for the opposite reason industry and electricity generation have lower overall prices (respectively 22.6 and 17.4 c€/m³). Central heating, public service and commercial activities have an intermediate price.

Price trends since 2011 for domestic customers (households and central heating), broken down according to the main contractual conditions under which supply can take place, i.e. the standard offer service and the free market, show that for smaller customers (with consumption up to 5,000 m³/year, mainly single households), the free market has had higher prices than the standard offer service in all years of the decade. In 2020, the gap widened significantly compared to the previous year, rising to 22%, as a result of the different evolution of the two markets: while in the standard offer service there was a drop in price of 16%, in the free market the decrease was limited to 5%; this is easily attributable to the fact that, as the free market features mainly fixed price contracts for a predetermined period, it transferred the sharp drop in prices in the wholesale markets to a lesser extent to end customers. It is worth noting that the class of household customers consuming up to 5,000 m³/year is the most representative, as it accounts for 85% of the total consumption of households and central heating.

From the analysis based on the data reported by the 367 suppliers for the gas sector, the **actual average time taken to respond to complaints and billing corrections** made stood at 14.82 and 27.24 calendar days respectively, well below the minimum standards set by the Authority (30 and 60 days respectively). The **actual average times to respond to requests for information** are also well below the general standard, i.e. overall, 7.79 calendar days. On the other hand, with regard to **double billing corrections**, compared to the standard set at 20 calendar days, the actual average correction time is 32.1 calendar days, but the number of billing corrections is extremely low and decreasing compared to previous years. Overall, for 2020, sales companies serving the standard offer and free natural gas markets received 172,004 written complaints, 121,054 information requests, 16,487 billing corrections and 849 double billing corrections. In 2020, there were 17,027 cases of non-compliance with the standards set for services relating to the commercial quality of sales in the gas sector, resulting in customers being entitled to compensation, of which 89% were attributable to responses to customer complaints. During the year, compensation for gas customers was paid out for a total amount of more than €760,000.

Consumer protection and dispute settlement in the gas sector are common to those in the electricity sector in the sense that they are regulated in a unified way. On this point, therefore, reference is made to what has already been said about the system of safeguards in the context of developments in the electricity sector.

Consumer protection and dispute resolution

The consumer protection system in the sectors regulated by the Authority consists of two macro-areas: the first concerns information and assistance to customers (basic level); the second concerns the solution of problems and disputes that may arise between customer and service provider (second level). The activities related to the basic level are carried out on a national scale by the Acquirente Unico (Single Buyer), on behalf of the Authority, through the **Energy and Environment Consumer Help Desk** which responds to calls to the call centre, written requests for information, requests for

activation of special information procedures and second level complaints.

Calls received by the Help Desk call centre during service hours amounted to 480,475 in 2020 (a value that also includes calls relating to the water sector), a slight decrease (-0.5%) compared to 2019; of these, 443,146 were handled and 37,329 were dropped by customers without waiting for the operator to respond. Compared to 2019, both the average waiting time (174 seconds versus 149) and the average conversation time (227 seconds versus 200) increased slightly. 91% of calls handled by the call centre concerned the electricity and gas sectors. With regard to **requests for written information**, in 2020 the Help Desk received 13,486 requests, more than half of which can be traced back to just two topics: " billing" (30%), for which the majority of requests concern "incorrect estimated consumption", and the "market" (22%). The **special information procedures** make it possible to provide information without the need to speak to the Help Desk staff. They have been operational since 1 January 2017 only for some specific issues in the energy sectors; in 2020 requests for activation of special information procedures increased by 12%, for a total of 32,271 cases. Finally, the Help Desk also received 2,464 **second-level complaints** (i.e. those for which the dispute was not resolved with the first complaint), for which it informed the client about the conciliation tools that could be used to resolve the dispute, i.e. the Authority's Conciliation Service or other conciliation bodies.

The activities related to the second level of the protection system concern the **resolution of problems and disputes** arising in the relationship between the customer and the provider of the regulated service. They can be settled through the Help Desk's special resolution procedures or conciliation procedures. The latter may be carried out using the Authority's Conciliation Service or ADR entities on the Authority's special list.

As in the case of special information procedures, the Help Desk has access to codified information in centralised databases for **special resolution procedures**. In contrast to the information procedures, the special resolution procedures make it possible to determine the outcome of the dispute and involve a discussion with the Help Desk staff if further information is required to consult the databases or to verify the correct fulfilment of the regulations following the resolution of the dispute. In 2020, the Help Desk received 9,265 requests to activate resolution procedures, a slight increase compared to 2019 (+1%).

The **Authority's Conciliation Service** is a dispute resolution procedure, which can be activated by final customers of electricity and natural gas for problems arising with energy operators (suppliers and distributors), in the event of failure to respond or an unsatisfactory response to the complaint. The procedure is undertaken entirely online and in the presence of a third-party, impartial conciliator, expert in mediation. The eventual final agreement is effective as a settlement between the parties, according to Art. 1965 of the Civil code. Moreover, with the approval of Article 141, paragraph 6, letter c) of the Consumer Code, an attempt at conciliation has become a condition for bringing an action before the judiciary for disputes arising in the areas regulated by the Authority (with the exception of tax or fiscal issues), unless urgent and precautionary judicial measures are taken. In 2020, customers and end users of the energy sectors submitted 16,270 requests to the Conciliation Service, 1,805 more than the previous year. The sectoral breakdown of requests received by the Service in 2020 confirms the prevalence of electricity, with a 54% share of requests submitted (10,054 requests, around 1,900 more than in 2019); followed by the gas sector, with 26% (4,794 requests). The percentage of dual fuel customers also increased (1,330 requests, 7%), while prosumers fell (95 requests, 0.5%). With regard to the procedures concluded by agreement, in 2020 the value of the dispute was declared by the activator in 53% of cases; of these, 54% were in the range from 0 to 1,000 euros, while 87% did not exceed 5,000 euros (threshold of small claims). Net of the waived

procedures (about 1.5% of the admitted requests), the agreement rate on procedures activated and conclude in 2020 is 71% of the total, up 2% compared to 2019. The parties took an average of 62 days to close a procedure. 72% of the procedures ended in one or two meetings. The agreements signed before the Conciliation Service, relating to procedures initiated and concluded 2020, produced around 12.9 million euros in compensation.

As an alternative to the Conciliation Service of Authority, final customers can also fulfil the obligation to attempt conciliation for judicial purposes by turning to other bodies. The Authority, in implementation of the rules, established the **List of Organisations authorised to handle ADR (Alternative Dispute Resolution) procedures** in December 2015. At 31 December 2020, 25 ADR bodies were registered in the Authority's List. Of these, 7 are sectoral joint conciliation bodies - based on specific memoranda of understanding between consumer associations and businesses - and 18 are cross-cutting bodies, which also operate in sectors other than those for which the Authority is responsible. The information sent by the ADR bodies shows a decrease in the number of conciliation requests related to the energy sectors, which fell from 1,412 in 2019 to 1,084 in 2020; this figure is also affected by the fact that 4 bodies did not receive any requests, 2 of which due to pandemic-related issues, 2 others because they were recently enrolled on the Authority's list. Over half of the requests were submitted by the customer through a consumer association.

Since 2009, a protection mechanism has been in place for domestic customers who find themselves in situations of economic difficulties or have serious health conditions, that receive a **bonus, i.e. a discount on the electricity and/or gas supply**. In March 2020, the Authority adopted urgent provisions on the electricity bonus, gas bonus and water bonus in relation to the urgent measures implemented in the country for the epidemiological emergency caused by COVID-19. In particular, deadlines related to the management of bonuses have been deferred.

In the meantime, in order to bridge the gap between potential beneficiaries and actual bonus recipients, which has always remained quite large, Decree-Law No. 124 of 26 October 2019 updated the regulatory framework by providing, inter alia, that as of 1 January 2021, bonuses must be recognised automatically to those eligible (which are persons whose valid ISEE⁸ is within the limits provided for by the legislation) and, therefore, without the need for them to submit a special application to the municipalities and/or tax assistance centres.

Therefore, in January 2020 the Authority initiated proceedings and in June 2020 outlined its guidelines on how the automatic bonus recognition system could be applied. In November 2020, the outline for implementing the automated system was sent to the Italian Data Protection Authority, together with a legal and technical explanatory note, for the purpose of obtaining the opinion required by Decree 124/19. Following further clarifications from the Authority at the request of the offices of the Data Protection Authority, the latter issued its opinion on 17 December 2020. In February 2021, the Authority therefore approved the implementing procedures for the **system of automatic recognition of social bonuses for electricity, gas and water for economic hardship**, entirely replacing the regulation of the previous "on demand" system. On the other hand, the social electricity bonus for physical hardship does not fall within the scope of the measure, which remains "on demand" and continues to be managed through a separate system. The new regulation takes effect, in terms of granting benefits to those entitled to them, as of 1 January 2021, in line with the provisions of Decree-Law 124/19. Taking into account the time required to develop the related IT systems, the mechanism became operational as of 1 June 2021, and therefore the procedures for

⁸ Equivalent Economic Status Indicator: this tool measures the economic status of households in Italy. It is an indicator that takes into account the income, assets and characteristics of a household unit (by number and type).

recognising any portion of the 2021 bonus accrued prior to this date were defined.

In 2020, the number of citizens who applied for and obtained the **social bonus for electricity supplies** was distributed as follows: 854,900 families had access to the electricity social bonus, of which 805,303 for economic hardship and 41,046 for physical hardship. The total amount of bonuses paid for the electricity sector (for economic and physical hardship) was approximately 135.5 million euros. The number of households with an active bonus for the use of electrical equipment for life support (hardship bonus) as at 31 December 2020 was broadly the same as in the previous year. The fees connected to the distribution of the electricity bonus for economic and physical limitations are part of the components of the general fees afferent to the electricity system and are covered by a specific tariff component paid by all the customers who do not benefit from the electricity bonus.

At 31 December 2020, 543,963 households benefited from the **social bonus for gas supplies** due to economic hardship, with a 2.6% decline (around 15,000 households) compared to 2019. In total, more than 2 million households have benefited from the subsidy at least once since its entry into force. The total amount of bonuses paid for the gas sector was approximately 76.2 million euros in 2020. In order to cover the costs resulting from the application of the gas bonus, the Authority has set up specific components within the compulsory tariff for natural gas distribution and metering services, to be paid by non-domestic customers. The funds from the State Budget are added to the funds collected from customers. As in the electricity sector, the amount of bonuses is defined annually, at the same time as the tariff update.

Finally, in 2020, the Authority launched a number of measures aimed at increasing the technological adequacy and usability of both the **Portale dei Consumi**, where consumers can find data on their historical consumption in a simple, secure and free manner, in the form of summary documents, numerical tables and graphs, as well as the main technical and contractual information, and the **Portale Offerte**.

As of 31 December 2020, there were a total of 5,015 offers in the *Portale Offerte (Offers Portal)* database, of which 2,938 were free market offers and 2,077 PLACET offers (free price contracts under equivalent protection conditions). A total of 2,696 offers were available for the electricity sector and 2,245 for the natural gas sector; there were 74 dual fuel offers. For the electricity sector, 62.9% of offers to domestic customers are fixed price, while for non-domestic customers this percentage is 55.2%; for the natural gas sector there is a prevalence of fixed price offers both for domestic customers, at 57.5%, and for non-domestic customers, at 50.5%.

2.1.2 Report on the implementation of the Clean Energy Package

On 29 October 2020, the Senate approved the draft law "Delegation to the Government for the transposition of European directives and the implementation of other acts of the European Union - European Delegation Law 2019", which, at the end of the parliamentary process, was published as **Law No. 53 of 22 April 2021 (European Delegation Law 2019- 2020)**; see also further on in the text). As far as the energy sector is concerned, the measure defines the principles and criteria for the delegation of powers to the Government to implement the rules of the Clean Energy Package under Italian law, with particular reference:

- to Directive 2018/2001/EU, on the promotion of the use of energy from renewable sources (Art.5);
- to Directive 2019/944/EU, on common rules for the internal market for electricity and amending Directive 2012/27/EU (recast) (Art.12);
- to the adaptation of national legislation to the provisions of Regulation (EU) 943/2019 on the

internal market for electricity (recast) and Regulation (EU) 941/2019 on risk preparedness in the electricity sector and repealing Directive 2005/89/EC (Art. 19).

The deadline for transposition of the Renewables Directive is 30 June 2021, the deadline for transposition of the Electricity Directive is 1 January 2021, while the Electricity Regulation, whose rules have already been in force since 1 January 2020, requires certain aspects of national legislation to be adapted.

On 21 January 2020, the **Integrated National Energy and Climate Plan (PNIEC)** was published and sent to the European Commission by the Ministry of Economic Development in agreement with the Ministry of the Environment and Protection of Land and Sea and the Ministry of Infrastructure and Transport, pursuant to the so-called governance regulation (Regulation (EU) 1999/2018). The Plan, described in detail in last year's Annual Report (to which reference should be made), contains the objectives, policies and measures that Italy intends to adopt in the coming years to achieve the European energy and climate targets for 2030. The Italian government is now working on its implementation.

To achieve the objectives of the PNIEC and in the context of the future development of the hydrogen sector at European level, in December 2020 the Italian government presented the **Preliminary Guidelines of the National Hydrogen Strategy**. This strategy aims to promote the production of hydrogen from renewable sources, in particular through electrolyzers, bringing benefits throughout the supply chain and positive effects on economic growth. The first phase of the strategy has set clear targets for 2030 and focuses on areas where hydrogen can be produced and used locally, starting with existing facilities. There are also plans to facilitate the use of hydrogen in new applications, particularly in rail transport, by replacing diesel trains on non-electrifiable routes.

3 THE ELECTRICITY MARKET

3.1 Infrastructure regulation

3.1.1 Unbundling

In 2015 the Authority renewed⁹ the specifications in matters of functional unbundling for the electricity and natural gas sectors, approving the *Integrated text on functional unbundling* (TIUF) in compliance with the provisions of the Legislative Decree of June 1st, 2011, n. 93, and of the Directives 2009/72/CE and 2009/73/CE. The TIUF, effective since January 1st, 2016, introduced new unbundling requirements in relation to communication and brand policies for all electricity and natural gas distributors, independently from their size or corporate form, imposing a complete separation, without any risk of confusion, between the electricity and natural gas sales and distribution activities.

In October 2020 the Authority ordered¹⁰ a number of companies operating in the electricity and gas sectors to send the mandatory communications required by the TIUF, to be shouldered by undertakings subject to functional unbundling obligations. In detail, the Authority requested the listed companies to submit the data and information, relating to 2019, required by the functional unbundling surveys and, in particular, the "Compliance Programme" which reports on the measures adopted to ensure the company's compliance with the principles of functional unbundling.

3.1.2 Network expansion and optimisation

In Italy, **electricity transmission** takes place through about 73,600 km of electricity lines and circuits and around 900 sorting stations. The National Transmission System Operator (TSO) is the company Terna. Terna's 29.85% controlling interest is held by CDP Reti, a company controlled by Cassa Depositi e Prestiti¹¹, in addition to which there is only Lazard Asset Management LLC, a US financial institution, with 5.122%. The remaining 65.03% of the capital belongs to the market.

In 2020, the companies that own assets on the National Transmission Grid (NTG) stayed at 11, as in the previous year. Until 2018, in addition to Terna - Rete elettrica nazionale e Rete, the Terna Group company into which the infrastructure acquired from Ferrovie dello Stato Italiano was merged, the following companies were present in electricity transmission: Megareti (formerly Agsm Distribuzione, which incorporated Agsm Trasmissione) of the Agsm Verona group, Edyna Transmission, which is part of the Edyna group operating in South Tyrol, Arvedi Trasmissione, which operates in the Cremona area, Seasm of the A2A group, El.It.E., Nord Energia and Eneco Valcanale¹², the company that built a high-voltage trunk line connecting to the Austrian Power Grid (APG).

⁹ Resolution of 22 June 2015, 296/2015/R/com which replaced the previous resolution of 18 January 2007, no. 11.

¹⁰ Resolution of 27 October 2020, 416/2020/E/com.

¹¹ CDP Reti SpA is an investment vehicle, set up in October 2020, and is 59.1% owned by Cassa Depositi e Prestiti, 35.0% by State Grid Europe Limited, a subsidiary of State Grid Corporation of China, and 5.9% by other Italian institutional investors.

¹² Eneco Valcanale, which owns 6.6 km of lines ≤ 150 kV, is considered one of the grid operators, despite the fact that it has not yet requested Terna to include the Austria merchant line in the NTG, as provided for in Exemption Decree No. 290/ML/3/2010.

Since 2019 two more companies have been added: Terna Crna Gora and Monita Interconnector. Both companies are wholly owned subsidiaries of Terna and were established for the construction of the Italy-Montenegro power line, which entered into operation on 28 December 2019 and for which the Ministry of Economic Development has granted¹³ exemption from third-party access on part of the capacity that is reserved for energy users under the interconnector mechanism. More precisely, the exemption was requested and granted for 200 MW to Monita Interconnector. Then, at the end of the exemption period, ownership of the portion of the grid subject to exemption and falling within Italian territory will be transferred to Terna.

Therefore, considering the assets of all the companies belonging to the corporate group, in 2020 the Terna group owned 73,351 km of cables, i.e. 99.7% of the national power lines, as well as 99.3% of the 903 electricity stations that are part of the NTG.

As at 31 December 2020, 126 **electricity distribution** companies (one fewer than in 2019) were registered in the Authority's Registry of Operators, of which only 10 serve more than 100,000 customers. There are four companies with more than 500,000 delivery points: e-distribuzione (Enel group), Unareti (A2A group), Areti (Acea group) and Ireti (Iren group): all of them changed their names in 2016 to comply with the provisions on functional unbundling, which obliged distribution companies belonging to a vertically integrated corporate group, also engaged in marketing activities, to distinguish themselves from other group companies in terms of identity, brand and communication policies.

Overall, in Italy, electricity distribution takes place through 1,276,000 km of networks, most of which (69%) are low voltage. In 2020, electricity distribution networks expanded by approximately 3,000 km, equally divided between low-voltage and medium-voltage networks, while high-voltage and extra-high-voltage networks remained unchanged. The company e-distribuzione (Enel group) is the leading operator, with the dominant share of 85.3% of the energy distributed. These are followed, in the same order as in 2019, by: Unareti (A2A group) with 3.9%, Areti (Acea group) with 3.6%, Ireti (Iren group) with 1.3%, and Edyna (Alperia group) with 1%. All other distributors have a share of distributed volumes of less than 1%.

3.1.3 Investments in new transmission infrastructures

Consultation on the draft National Transmission Grid Development Plan 2020

On the basis of the provisions in force¹⁴, the Authority held the consultation on the draft National Transmission Grid Development Plan¹⁵ in May-July 2020. At the same time as the consultation was launched, the contents of the Plan were published (main Plan document, annexes with project progress sheets from previous plans accompanied by cost-benefit analyses, summary table, methodological annex, scenario description document and scenario data, information provided by merchant line promoters) and the format for sending comments. Given the constraints imposed by the provisions to limit the spread of COVID-19, the Authority sought to ensure maximum participation during the consultation process and to provide an opportunity for discussion between

¹³ With Departmental Decree No. 290/ML/7/2019 of 5 September 2019.

¹⁴ Legislative Decree No. 93 of 1 June 2011 and Resolution 627/2016/R/eel of 4 November 2016.

¹⁵ Consultation launched by Authority notice of 7 May and concluded on 7 July 2020.

the grid operator and stakeholders, requesting Terna to prepare an additional presentation on the main contents of the Plan.

As usual, stakeholders were given the opportunity to send Terna specific questions on the outline of the 10-year plan. On 15 June, Terna held a public webinar on the 2020 Development Plan, in which it provided answers to the questions submitted.

Assessment of the 2019 and 2020 draft National Transmission Grid Development Plans

In December 2020, the Authority issued¹⁶ its assessment of the draft National Transmission Grid Development Plans for the years 2019 and 2020.

In particular, the Authority expressed a favourable opinion on interventions for which further study had been required or reservations expressed in the Authority's opinions on previous draft plans:

- 220 kV Italy-Austria interconnection intervention (code 204-P);
- Centre South-Centre North HVDC intervention (code 436-P), requesting that the date of entry into operation, currently scheduled for 2030, be brought forward in the next development plans;
- Sicily-Sardinia HVDC intervention, part of the project code 723-P.

The Authority also requested that:

- the development intervention related to the second pole within the Italy-Montenegro interconnection, code 401-P, be separated from the first pole and placed "under evaluation", i.e. with no implementation activities in the ten-year plan horizon;
- the HVDC interconnection project between Italy and Slovenia, part of the intervention code 200-I, be placed "under evaluation", i.e. with no implementation activities in the ten-year plan horizon.

In addition, the Authority granted authorisation for the approval of the 2019 and 2020 draft plans by the Minister for Economic Development, with the exclusion of the two projects mentioned above and subject to the further condition that:

- for the SA.CO.I. 3 Sardinia - Corsica - Mainland Italy code 301-P, the French contribution, as envisaged by Terna, as well as the possible European contributions, which seem desirable in relation to the positive spill-overs of the intervention in terms of security of supply for the island electricity systems of Corsica and Sardinia and innovation for the European system, are adequately valued as a reduction of charges for the national electricity system;
- the construction of the Italy-Tunisia interconnection, code 601-I, is subject to significant funding from the European Commission, to be quantified, as specified in Terna's request for cross-border cost allocation, as at least 50% of the investment costs;
- the Sicily-Mainland HVDC development intervention, which is part of project code 723-P, is separated from the Sicily-Sardinia HVDC development intervention and is subject to in-depth studies, following an analysis to be carried out by Terna by April 30, 2021, with no impact on the initiation or continuation of the envisaged authorisation procedures, also by virtue of the simplifications introduced by Law no. 120 of September 11, 2020¹⁷.

Finally, again in December 2020, the Authority:

- expressed a negative opinion on the methodology for calculating benefit B13 (resilience), as

¹⁶ Opinion 22 December 2020, 574/2020/R/eel.

¹⁷ Conversion of Decree-Law No. 76 of 16 July 2020.

proposed in the methodological appendix to the 2019 draft plan, and on the methodologies for calculating benefits B20 (advance payment of benefits) and B21 (preserved/restored visual amenity), as proposed in the methodological appendix to the 2020 draft plan, and decided to ask Terna to update or remove these benefit categories in future development plans;

- once again pointed out the importance of defining coherent cross-sectoral development scenarios for future development plans in the electricity transmission and natural gas transmission sectors and for the coordinated analysis of the interventions proposed therein;
- required Snam Rete Gas and Terna to publish the update of the joint document describing the scenarios, to be applied in the 2021 Development Plans for the natural gas transmission grid and the development of the national transmission grid, by 31 January 2021.

Unification and expansion of the national transmission grid

In relation to the December 2019 provisions¹⁸ on premiums for the full unification of the national transmission grid, in September 2020 the Authority set out¹⁹ its final guidelines on updating the remuneration of network-related costs for owners of portions of the national transmission grid in order to ensure full consistency with the efficient cost of the underlying infrastructure. Terna's methodological proposal for identifying the parameters used to calculate the (updated) remuneration of third-party holders was presented in the consultation. In December 2020, the Authority gave²⁰ the Minister for Economic Development its favourable opinion on the inclusion of the 150 kV Tirano (IT) - Campocologno (CH) merchant line in the national transmission grid.

Quality of electricity distribution: duration and number of outages

In 2020 there was a marked improvement in the duration and number of outages compared to the three-year period 2017-2019; in terms of service continuity, 2020 shows similarities with 2016, a year in which the impact of exceptional weather events did not contribute significantly to the increase in the duration and number of outages.

Analysing the indicators in detail, the duration of unannounced outages is 41 minutes nationally (Figure 3.1) and the number of long and short unannounced outages (between one second and three minutes) is 2.06 interruptions per low voltage customer nationally (Figure 3.2). The following are excluded from the calculation of these values:

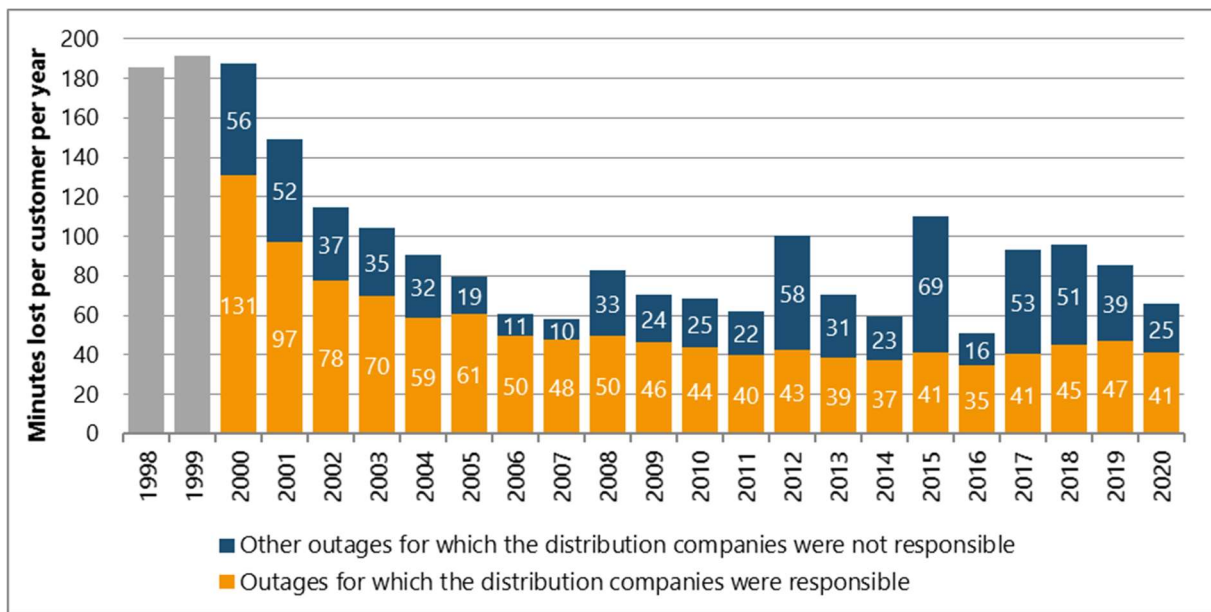
- the outages that originated on the NTG and on the high voltage grid;
- exceptional outages, which occurred in periods of disrupted conditions (identified on the basis of a statistical method);
- Outages due to exceptional events, acts of public authority and thefts.

¹⁸ Resolution 27 December 2019, 567/2019/R/eel.

¹⁹ Document for consultation 336/2020/R/eel of 15 September 2020.

²⁰ Opinion 22 December 2020, 575/2020/R/eel.

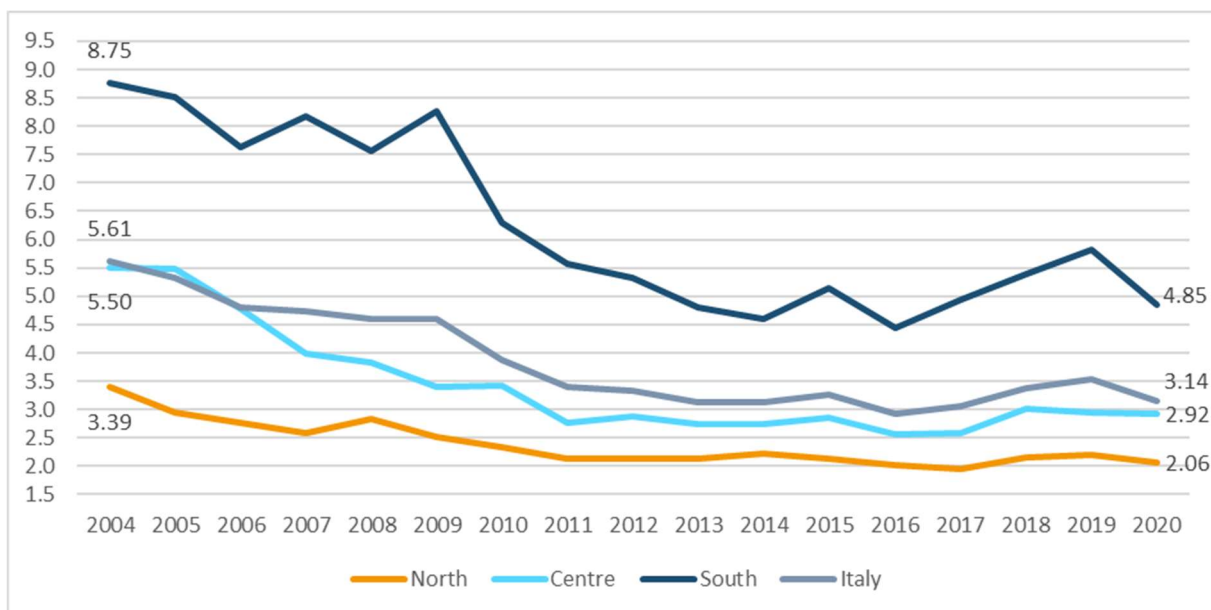
Figure 3.1 Duration of outages per low voltage customer^(A)



(A) Referring to e-distribuzione and other distributors (excluding major incidents on the NTG, defense system interventions and outages due to theft). The values for the 2020 are still subject to verification by the Authority.

Source ARERA. Processing of operators' declarations.

Figure 3.2 Average annual number of long and short unannounced outages per low voltage customer for which distributors were responsible^(A)



(A) Referring to e-distribuzione and other distributors. The values for the 2020 are still subject to verification by the Authority.

Source: ARERA. Processing of operators' declarations.

Network connection times

The Integrated Text of the output-based regulation for the distribution and metering services (TIQE)²¹ currently in effect for the regulation period 2016-2023, establishes specific standards for connections with the MV and LV electricity distribution networks. The regulations provide:

- a maximum estimated time for the execution of works on the LV network equal to 20 working days and on MV network equal to 40 working days;
- a maximum time for the execution of simple works equal to 15 working days for the LV network and 30 working days for the MV network;
- a maximum supply activation time equal to 5 working days;
- a maximum supply deactivation time, upon request of the final customer, equal to 5 working days for the LV network and 7 working days for the MV network;
- a maximum supply reactivation time after a suspension due to non-payment equal to 1 week day.

The data on the connection of active users with the transmission grid shown on these pages refer to activities carried out by Terna, while the data on the connection of active users with the distribution grids refer exclusively to activities carried out by distribution companies with more than 100,000 customers²². Finally, the values relating to the connections of passive users were collected by Terna and the distribution companies as part of the Authority's annual survey of regulated sectors.

In relation to requests for connection to high or very high voltage networks, in 2020 Terna received 1,420 connection requests for electricity generation plants, corresponding to a total power of approximately 57.8 GWe and, in the same year, Terna provided 657 quotes for these requests, corresponding to a total power of approximately 39.4 GW, with average delays for the availability of the quotes (net of the allowed interruptions) equal to 105 working days. During the year, 426 quotes were accepted out of the total provided, corresponding to a total power of 24.6 GW. For only one of these, corresponding to a capacity of 28 MW, the request to provide the Minimum Technical Requirement (MTR) was submitted and accepted by the applicant, but by 31 December 2020 the corresponding connection had not yet been made or activated.

With regard to connection requests for electricity production plants to be connected to the high-voltage grids, last year the only distributor to receive such requests was e-distribuzione. More specifically, e-distribuzione received a total of 235 connection requests, corresponding to a total power of just under 4.7 GW; in the same year, the company provided 136 quotes, corresponding to a total power of just over 3.1 GW, with an average time for providing the quote, net of permitted interruptions, of 50 working days. Of the quotes provided, 83 were accepted during the year, corresponding to a capacity of just over 2.1 GW; for just one of these, corresponding to a capacity of 13 MW, the MTR request was submitted, but it was not made available by 31 December 2020. Therefore, in 2020 distributors did not make any high-voltage connections to electricity generation plants that applied for a connection in the year.

With regard to requests for active connection to medium- and low-voltage grids, in 2020 the

²¹ Approved with the Resolution 646/2015/R/eel of 22 December 2015.

²² All the distribution companies with over 100,000 customers, (AcegasApsAmga, Areti, Deval, e-distribuzione, Edyna, Inrete, Ireti, Megareti, SET Distribuzione and Unareti), sent the Authority the information concerning 2020, relative to the connection of electricity producing plants.

distribution companies²³ received just over 72,600 connection requests for electricity production plants to be connected to the low- and medium-voltage grids, corresponding to a total power of approximately 9.4 GW, in relation to which they provided just over 67,400 quotes, for a total power of about 6.6 GW, with average times for providing the quote, net of permitted interruptions, equal to:

- 16 working days, for input power requests up to 100 kW;
- 30 working days, for input power requests higher than 100kW and up to 1,000 kW;
- 55 working days, for input power requests higher than 1,000 kW;

Just over 62,400 of the total number of quotes provided were accepted during the year, for a total capacity of just under 3.2 GW.

In relation to the requests received in 2020, just over 41,600 connections were made, corresponding to a little under 0.4 GW, with average connection times, net of the permitted interruptions, equal to:

- 19 working days, for simple jobs²⁴,
- 56 working days, for complex jobs²⁵,

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

With regard to passive user connections (Table 3.1), the data collected show that 182,600 connections were made to distribution networks in 2020, almost all of them low voltage. For 71% of them, the supply was activated during the year. The average time to connect customers is 8.1 working days. In particular, the average time for making low voltage connections is 5.6 working days. The average time to obtain a medium voltage connection is slightly longer, equal to 16.3 working days.

Table 3.1 Passive connections to distribution networks

VOLTAGE LEVEL	NUMBER OF CONNECTIONS		AVERAGE TIME (WORKING DAYS) ^(A)	
	2019	2020	2019	2020
Low voltage	231,597	181,423	6.6	5.6
Medium voltage	1,409	1,159	12.3	16.3
TOTAL	233,006	182,582	7.9	8.1

(A) Value calculated net of operators that did not make connections, excluding the time needed to obtain the eventual authorisations and the time needed for any obligations required from the final customer.

Source: ARERA. Annual survey on regulated sectors

Again, as one would expect, the figures show a much lower number of requests than in 2019 (at that time 21.6% more) and also a worsening of connection times on the medium voltage network: in 2019 it took an average of 12.37 working days to obtain a passive connection on this network, while in 2020 it took 16.3 working days, 32% longer. These trends are largely explained by the events related to the COVID-19 pandemic, which reduced the level of economic activity and hindered travel for many months. As ever, it is important to specify that the number of indicated days doesn't include the time

²³ With reference to the connection of electricity production plants to the distribution networks, it should be noted that the data reported below refer exclusively to the activities carried out by distributors with more than 100,000 customers.

²⁴ Simple works consist of the professional construction, modification or replacement of the grid operator's installation, with work limited to the socket and possibly the metering unit.

²⁵ Complex jobs consist of the professional construction, modification or replacement of the network operator's system in all cases not covered by the definition of simple jobs.

to obtain the eventual authorisations and the time needed for obligations required from the consumer.

Each distributor carried out an average of 1,449 connections during 2020. If we exclude the operators that didn't carry out any connections (44 parties) from the calculation, the average number of connections carried out by each distributor during the year is equal to 2,277. In 2020 Terna connected no new passive clients in high and very high voltage.

3.1.4 Network tariffs for connection and access

Tariffs for the transmission, distribution and metering services

In December 2019, the Authority approved²⁶ the regulation of tariffs and quality of electricity transmission, distribution and metering services, for the years 2020-2023 (NPR2²⁷). As before, the NPR2 continues to provide for the decoupling of the single tariff applied to end customers (so-called "compulsory tariff") and the reference tariffs defined to set revenue constraints for each distribution company. In December 2020, the tariffs for distribution and metering services applied to end customers ("compulsory tariffs") for the year 2021 were determined²⁸.

Completion of the tariff reform for domestic customers

In December 2019, the Authority found²⁹ that there were no further impediments to the completion of the reform of the tariff charges covering general system charges for domestic customers, which had started³⁰ on 1 January 2017, and therefore ordered that a single rate be applied from 1 January 2020 for all consumption levels, in relation to all elements of the A_{SOS} and A_{RIM} ³¹ tariff components.

Regulation of commercial network losses

In June 2020, the Authority outlined³² its proposals for fine-tuning the regulation of losses on electricity distribution networks. As of 2016, this regulation³³ introduced geographical differentiation of the factors to be applied to commercial losses - losses not caused by network problems but by other factors such as fraudulent theft of electricity, metering and data management errors, etc. - and provided for a process to contain such losses, according to different rates of improvement by macro-area (North, Centre and South), while at the same time establishing the possibility of mitigating this containment process in certain circumstances.

²⁶ Resolution 27 December 2019, 568/2019/R/eel.

²⁷ NPR2 indicates the regulatory period 1 January 2020 - 31 December 2023.

²⁸ Resolution 22 December 2020, 564/2020/R/eel.

²⁹ Resolution 27 December 2019, 572/2019/R/com.

³⁰ Resolution 22 December 2016, 782/2016/R/eel.

³¹ A_{SOS} is the tariff component necessary to cover the general charges to support renewable energy and cogeneration, A_{RIM} is the tariff component intended to cover the remaining general charges.

³² Document for consultation 209/2020/R/eel of 9 June 2020,

³³ Resolution 23 July 2015, 377/2015/R/eel.

Based on an analysis of the results of the four-year period 2015-2018, which showed a progressive reduction in losses over the years, but also the persistence of considerable geographical variability in these results, the Authority proposed to:

- revise the conventional percentage factors for commercial losses to take account of the application of improvement rates over the three-year period 2016-2018;
- confirm the process of containing commercial losses for the 2019-2021 period;
- simplify the mechanism for mitigating the above-mentioned containment process, providing for mitigation to be recognised in cases where the application of the commercial loss reduction trajectory was, for reasons beyond the distributor's control, particularly detrimental.

In light of the significance of fraudulent withdrawals in certain geographic areas, the Authority has also proposed to introduce a mechanism to ascertain and compensate distributors who request it for the amount of "non-recoverable" fraudulent withdrawals, i.e. those illicit withdrawals for which it is physically impossible for the distributor to identify the persons responsible and/or to stop the illicit conduct. This mechanism would therefore be limited to fraudulent withdrawals in the following cases:

- cases for which the interruption of the supply may disrupt public order or endanger persons on site, or in which the safety of the operators tasked with disconnecting the supply would be at risk, and for which there is a formal complaint by the distributor to the competent authorities;
- cases of utilities relating to squatted buildings for which there are deeds from public authorities preventing the disconnection of the supply.

As a result of the consultation process, changes to the framework were defined³⁴ in November 2020. The measure establishes the conventional percentage factors relating to commercial losses to be applied to electricity for equalisation purposes for the years 2019-2021, providing for a reduction in the base level of these factors due to the improvement rates in the years 2016-2018. Consequently, the standard loss factors³⁵ to be applied to electricity withdrawn at delivery points on low-voltage grids were also revised, with effect from 1 January 2021, bringing the conventional loss factor recognised for withdrawals to 10.2%. Contrary to what was initially envisaged, no plans were made to further limit the commercial losses incurred by distributors, in view of the findings of the consultation process and the critical nature of the COVID-19 pandemic; consequently, it was not necessary to introduce the mitigation measures envisaged.

On the other hand, the new rules also change the method of calculating the annual equalisation amount recognised to each distributor pursuant to the Integrated Text on Sales (TIV), in order to offset some of the distorting effects that emerged in the three-year period 2016-2018 and which were caused by the breakdown by time bands of the price used to determine this amount. The equalisation amount, starting in 2019, is therefore calculated as the lesser of:

- the difference (in kWh) between the actual losses and the conventionally recognised losses, valued at the selling price of electricity charged by the Acquirente Unico (single buyer) to operators in the standard offer regime (differentiated by band and month); and
- the difference (between actual and recognised losses) valued at the average annual selling price of electricity charged by the Acquirente Unico (single buyer) to operators in the standard offer regime.

Finally, the new rules maintain the possibility for distributors to obtain, as part of individual proceedings covering the entire three-year period from 2019 to 2021, compensation for "non-

³⁴ Resolution 10 November 2020, 449/2020/R/eel.

³⁵ Table 4 of the Integrated text on settlement (TIS).

recoverable" fraudulent withdrawals, but only in the event that they occur on an exceptional scale compared with the conventionally recognised levels in the macro-zone or set of macro-zones in which the territory of the requesting distributor is located.

Reimbursement of charges for non-payment of network tariffs

In November 2020, the Authority introduced³⁶ the first provisions to reimburse electricity distributors for charges resulting from the failure to collect network tariffs. This is a mechanism to cover possible charges related to exceptional situations of arrears, which involves assessing the uncollectable receivables of distribution companies accrued since 1 January 2016, the date of first application of the Standard Network Code³⁷ on guarantees and service billing.

This mechanism can be activated upon application by the distributor and concerns receivables relating to the application of tariff fees for electricity metering, distribution and transmission services, fees for the withdrawal of reactive energy, tariff components covering equalisation and quality of service promotion mechanisms, and contributions for specific services.

It was also provided that:

- a deductible of 10% of the total amount of uncollectible receivables for network services should be applied;
- applications to participate in the mechanism should be accompanied by a report from a statutory auditing firm, expressing an opinion on the conformity of the amounts declared with the values shown in the company's accounts and consistency with the data in the separate annual accounts drawn up in accordance with the Integrated Text on Accounting Unbundling (TIUC);
- applications may cover amounts accrued in the four-year period 2016-2019.

For the years after 2019, a new procedure to be applied annually will be defined, ensuring full coordination with the provisions³⁸ launched in 2018 for uncollectible receivables related to general system charges.

State of incentives for renewable and assimilated energy sources

The charges on the A₃ account pertaining to the year 2020, in relation to the incentivisation of assimilated and renewable sources, have significantly increased compared to the previous year, as shown in Table 3.2.

This increase is largely due to the effects of the significant reduction in the Single National Price (PUN) recorded in the early months of the year in relation to the COVID-19 emergency in Italy. The reduction in the PUN has, in fact, an opposite effect on the charges on the A₃ account pertaining both to the same year and, in perspective, to the following year, in relation to the mechanism for updating the incentives that replaced the green certificates, for which the charge to be sustained in one year is affected by the average PUN recorded in the previous year.

³⁶ Resolution 17 November 2020, 461/2020/R/eel.

³⁷ Resolution 04 June 2015, 268/2015/R/eel.

³⁸ Resolution 50/2018/R/eel of 1 February 2018.

Table 3.2 Detail of charges charged to the A₃ account

Millions of euros

CHARGES	2019		2020	
	VALUE	SHARE	VALUE	SHARE
Purchase and sale of renewable electricity CIP6 ^(A)	21	0.18%	0	0.00%
Withdrawal of green certifications	6	0.05%	6	0.05%
Conversion of GCs into incentives	2,614	22.88%	2,613	21.84%
Photovoltaic	5,924	51.85%	6,145	51.36%
Dedicated withdrawal	28	0.25%	72	0.61%
All-inclusive rate	1,908	16.70%	2,065	17.26%
On-site exchange	136	1.19%	164	1.37%
ERF administered incentives	561	4.91%	677	5.65%
Other	4	0.03%	3	0.03%
TOTAL RENEWABLES	11,202	98.04%	11,745	98.17%
Purchase and sale of assimilated electricity CIP6	168	1.47%	144	1.20%
Assimilated CO ₂ costs	49	0.43%	75	0.63%
Coverage of assimilated green certificates	7	0.06%	0	0.00%
CIP6 resolution	0	0.00%	0	0.00%
TOTAL ASSIMILATED	224	1.96%	219	1.83%
TOTAL COSTS A₃	11,426	100.00%	11,964	100.00%

(A) Energy produced from the non-biodegradable portion of waste is also included.

Source: ARERA. ARERA processing on ESO data.

In addition to the increase in the need for charges, there was also the effect of worsening cash inflows from the A₃ account, due to the reduction in electricity withdrawals. For most of the year 2020, therefore, the Authority did not change the level of the A_{SOS} tariff component (and, overall, the general system charges of the electricity sector). Only in the tariff update for the fourth quarter of 2020 did the Authority make³⁹ an initial upward adjustment to the A_{SOS} tariff component, offset, however, by an equivalent reduction in the A_{4RIM} element of the A_{RIM} tariff component.

3.1.5 Regulation of network security and reliability

Pilot projects launched to open up the dispatching service market (MSD) to electricity demand, production from renewable sources by non-qualified units and storage systems

Pending the comprehensive reform of the regulation of the dispatching service, which must be defined in accordance with European legislation, the pilot projects launched⁴⁰ in 2017 aimed at collecting useful elements for the reform itself and at immediately providing new dispatching resources from renewable sources generated by non-qualified production units, are continuing, without prejudice to the principle of technological neutrality.

These projects include the UVAM (*Unità virtuali abilitate miste* - Mixed Qualified Virtual Units) pilot project, which was approved⁴¹ in August 2018 and started in November of the same year. It allows production units (including storage systems) and/or consumption units which were not previously qualified to participate in the Dispatching Services Market (MSD), even on an aggregated basis, for

³⁹ Resolution 29 September 2020, 349/2020/R/com.

⁴⁰ Resolution 05 May 2017, 300/2017/R/eel.

⁴¹ Resolution 02 August 2018, 422/2018/R/eel.

the purpose of providing resources (upstream and/or downstream) for scheduled congestion resolution, rotating tertiary reserve and balancing. More specifically, UVAMs must have a modulation capacity of at least 1 MW and can be of two types:

- UVAM-A, characterised by the presence of both non-significant production units and/or significant production units not already mandatorily qualified that share the grid connection point with one or more consumption units (provided that the power fed into the connection point does not exceed 10 MVA), and consumption units;
- UVAM-B, characterised by the presence of significant production units that are not already mandatorily qualified, with power input at the connection point exceeding 10 MVA and consumption units sharing the same grid connection point.

The services rendered by UVAM are remunerated, alternatively:

- through the normal remuneration resulting from the MSD, i.e. on the basis of a variable fee equal to the price (pay as bid) offered by the Balance Service Provider (BSP) applied only in case of activation of the resources on the MSD and limited to the quantities accepted on said market;
- through the forward provision of resources, limited to the trial phase. In this case, UVAM holders have stricter constraints in terms of commitments to offer on the MSD and receive two fees:
 - a fixed fee defined as a result of a pay-as-bid unique bid auction against a maximum value varying from 15,000 €/MW/year (for 2 hours of daily availability) to 30,000 €/MW/year (for 4 hours of daily availability), paid with reference to the days on which the bidding obligations were met;
 - a variable fee equal to the price offered by the UVAM holder in the MSD (with a strike price initially defined as 400 €/MWh), paid only in the event of activation of resources on the MSD and limited to the quantities accepted.

In May 2020, the Authority approved⁴² amendments to the UVAM regulation, prepared by Terna and designed to allow production and/or consumption units underlying points not processed on an hourly basis for settlement purposes (points with available input and/or withdrawal power not exceeding 55 kW for which the processing of metering data on an hourly basis for settlement purposes has not yet been activated) to participate in the MSD, as long as they are fitted with metering equipment that allows the competent distributor to collect the hourly metering data (even if not validated and not used for settlement purposes).

3.1.6 Monitoring balance of electricity supply and demand

The monitoring balance of electricity supply and demand is not part of the Authority's competences: according to Art. 1 of the legislative Decree n. 93/11 this competence was attributed to the Ministry for Economic Development (MSE).

3.1.7 Monitoring of investments in generation and storage capacity from a security of supply perspective

According to the Legislative Decree n. 93/11, the following functions in matters of monitoring of the

⁴² Resolution 05 May 2020, 153/2020/R/eel.

capacity investments have been attributed to the MSE:

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

3.1.8 Implementation of Network Codes and guidelines

Integration of wholesale electricity markets and implementation of European regulations

European regulations relating to the electricity market are technical regulatory measures functional to the completion of the internal energy market. Informally, the regulations can be grouped into three main families: market, connection and network management. The complete list is reported in Table 3.3.

Table 3.3 Table 3.8 Network Codes and guidelines provided by the Regulation (EC) 714/2019

CODE	REGULATION	ABBREVIATION (ACRONYM)	ENTRY INTO FORCE
Market codes	(EU) 2015/1222	Capacity allocation and congestion management guideline (CACM GL)	15 August 2015
	(EU) 2016/1719	Forward capacity allocation guideline (FCA GL)	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 management 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

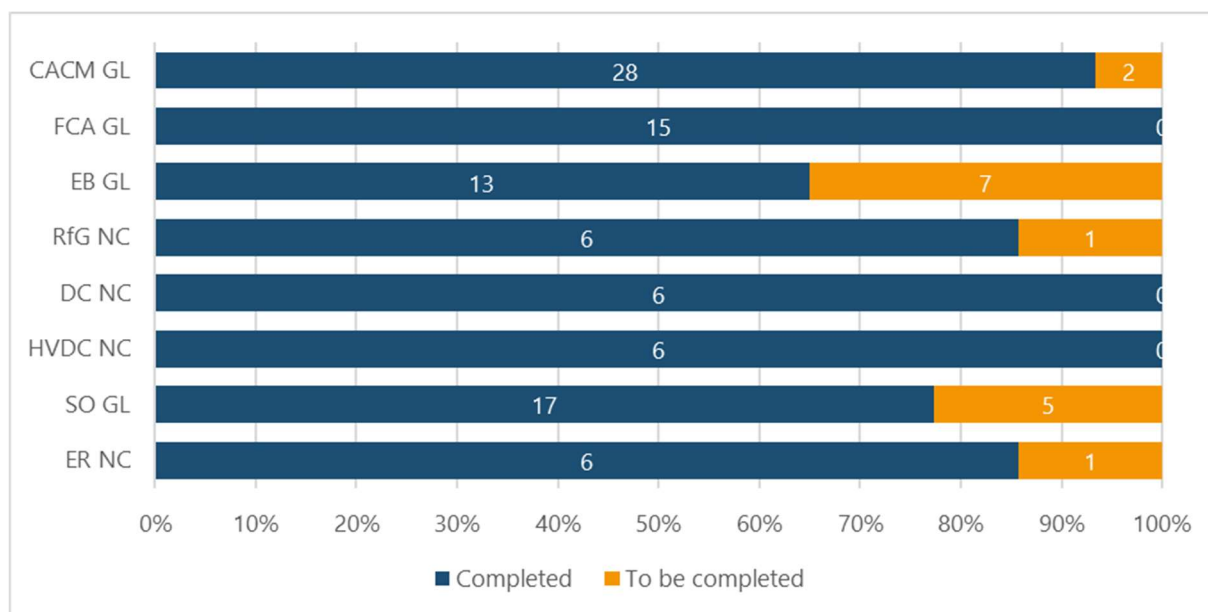
Source: ARERA.

The regulations are divided into Network Codes (NC) and Guidelines (GL): the former primarily identify rules that can be directly implemented at a national level while the latter focus on general indications on the basis of which implementing provisions, called Terms and Conditions or Methodologies, must be prepared. It follows that the publication of the regulations does not end the development and publication of secondary legislation; on the contrary, each regulation in the form of a guideline foresees, within it, the preparation of specific rules (the methodologies, precisely) by the network operators (Transmission System Operator - TSO) and/or the designated market operators (Nominated Electricity Market Operator - NEMO) that the regulatory authorities of each Member State of the European Union are required to assess and approve; the development of methodologies is also envisaged within the network codes, albeit to a lesser extent and limited to detailed aspects or the specification of certain parameters at national level.

The methodology development process was started in 2015 with reference to the CACM GL regulation, and then extended between 2016 and 2017 to all other guidelines and network codes.

Figure 3.3 summarises the implementation status at the end of 2020. It is clear that the state of implementation is substantially different for the various regulations. On the market side, most of the work concerns the EB GL Regulation, which entered into force in December 2017, for which only two methodologies were approved at the end of 2019 and 35 remain pending, three of which were however approved by ACER in early 2020. On the network management side, the pathway of the SO GL regulation is about halfway through, while the pathway of the ER NC regulation is almost complete. On the side of the connection codes, the implementation is almost finished: in fact, only the methodology with the criteria of the cost/benefit analysis for the retrofitting of existing plants is missing, which will be developed only when the Authority actually intends to evaluate measures in this sense. The main activities still to be completed concern the EB GL market regulation (with seven methodologies still to be approved) and the SO GL grid management regulation (with five methodologies still to be approved, one of which will be finalised in early 2021). For the other codes, the implementation process is now almost complete: what is missing, in fact, are two market methodologies relating to the CACM GL regulation, the methodology with the cost-benefit analysis criteria for the retrofitting of existing generation plants under the RfG NC code (which will only be developed when the Authority actually intends to evaluate measures in this direction) and the methodology for carrying out tests with reference to the Network Code under the ER NC regulation (for which Terna is awaiting an update of the provisions of the Network Code).

Figure 3.3 State of implementation of the forecasts of network codes and guidelines in Italy



Source: ARERA.

The geographical scope for adopting the methodologies is quite varied: some documents are pan-European, while others affect a narrow or national scope only. The European methodologies are approved directly by ACER, subject to a positive opinion of the BoR (Board of Regulators) with a two-thirds qualified majority: it is therefore possible to adopt methodologies even if a small group of regulators is against them.

Methodologies with regional relevance are approved directly by the competent regulatory authorities. In this respect, the CACM GL and FCA GL regulations refer to so-called Capacity Calculation Regions (CCR), each representing a set of boundaries between market zones for which transport capacity should be calculated in a coordinated manner. Italy is part of CCR Italy North,

which includes the borders with France, Slovenia and Austria, and CCR Greece-Italy, which includes the border with Greece and the borders between the areas within the national territory. Italy is also following the development of methodologies concerning the CCR Core (which includes Central Europe from France to Romania) since, in the long term, the CACM GL regulation foresees the merger of the CCR Italy North with the CCR Core. With reference to the CCRs under Italian competence, regional cooperation platforms (respectively INERRF - Italy North Energy Regulators' Regional Forum - and GIERRF - Greece-Italy Energy Regulators' Regional Forum) have been active since 2017, within which decisions on methodologies under the competence of these regions are taken. The SO GL Regulation foresees some methodologies referring to the CCRs (which are then evaluated in the INERRF and GIERRF regional forums), while other methodologies are specific to each synchronous area, i.e. the portion of the European network sharing the same frequency. In this regard, Italy is included in the synchronous area Continental Europe: for this perimeter there is no ad hoc cooperation platform, but specific forms of coordination between the regulatory authorities are put in place from time to time. Finally, the EB GL regulations operate with highly variable geometry depending on the involved methods: it goes from perimeters that include only the Member States that are meant to use balancing produced data, to perimeters coinciding with the CCRs, to perimeters that consider the agreements for the exchange of specific resources, to perimeters coinciding with the synchronous areas. Here too, the method of cooperation (apart from the CCRs for which regional forums are used) is defined on a case-by-case basis by the regulatory authorities involved without using any specific cooperation platform.

At regional level, unanimity of the parties involved is required. Possible decisions are to approve the proposal as sent by the TSOs or NEMOs, to have it amended directly by the regulators, or to send a request for amendments to the TSOs and NEMOs. In the first two cases, each national regulatory authority transposes the proposal into its national legislation (possibly with the modifications agreed at regional level with the other authorities involved), while in the third case it instructs the respective TSO and/or NEMO (Terna and GME respectively in the Italian case) accordingly. Where there is no unanimity, the methodology proposal is transferred to ACER, which adopts a decision by a two-thirds qualified majority: this allows any deadlocks or vetoes by certain regulatory authorities at regional level to be overridden at Agency level.

In terms of duration, based on careful reading of the regulations, the overall process could take up to a maximum of sixteen months (six months for the initial assessment by the regulators, two months for the TSOs and NEMOs to accommodate any amendments, two months for the authorities to assess these amendments, six months for the possible decision by ACER in the event of non-unanimity), extendable by a further six months at the request of the regulators.

Integration of wholesale electricity markets: market codes

During 2020, the implementation of market codes saw the adoption of different methodologies under the FCA GL and the EB GL; on the CACM GL side, instead, existing methodologies were monitored and improved.

Forward capacity allocation (FCA)

The FCA GL regulation describes the requirements and criteria for the issue and allocation of long-term transmission rights (with a time horizon of at most annually) between market areas within the European Union. For Italy, the Regulation in question applies on the borders with France, Austria, Slovenia and Greece; similar provisions to those in the FCA GL Regulation are also in force on the

border with Switzerland as a result of bilateral agreements, while for areas within the national territory the Authority continues to rely on the coverage products in force to date (CCC and CCP), in line with what was decided in 2017. In 2020, the Authority approved the regional methodologies for calculating long-term capacity (annual and monthly) on each border between market zones and for allocating this capacity between products with annual and monthly allocations. For the Greece-Italy region, the process was concluded⁴³ in April 2020, while for the Italy North region, the decision was reached at regional level at the end of December⁴⁴. Finally, 2020 saw ACER adopt⁴⁵ the methodology for allocating the costs associated with the remuneration of long-term transmission rights.

By adopting the above-mentioned methodologies, the implementation of the FCA GL regulation has been completed: the Authority's task is now to monitor the effective application of the methodologies and to update them periodically.

Capacity allocation and congestion management (CACM GL)

The CACM GL regulation defines the methods for implementing market coupling at European level over the daily (with capacity allocation through implicit auctions within so-called Single Day Ahead Coupling - SDAC) and intraday time horizons (with capacity allocation through continuous trading in so-called Single Intra Day Coupling - SIDC, accompanied by specific capacity enhancement mechanisms and voluntary regional implicit auctions).

Italy has been participating in SDAC since February 2015, as part of a project for the early implementation of market coupling on the borders with France, Austria and Slovenia (in the latter case, voluntary coupling has been active since 2011). Since December 2020, coupling with Greece has been active, the last step towards the complete integration of the national electricity system into the European day ahead system: in this regard, in December 2020, the Authority approved⁴⁶ the relevant draft contracts. Italy is expected to join the SIDC during 2021.

With regard to the approval of the methodologies envisaged by the CACM GL regulation, 2020 has not seen any significant steps: In fact, the methodology for the harmonisation of capacity calculation (initially planned for the end of 2020, but postponed as the implementation of the regional calculation methodologies is taking longer than originally envisaged when the regulation was approved) and the proposal for the allocation of the costs of corrective actions for the Italy North region (for which, following the failure of the TSOs to send it, the European Commission intervened in May 2019, instructing the regulatory authorities of the region to do their utmost to find a compromise and proceed with the adoption of the methodology; the process is ongoing and expected to be concluded in 2021).

On the other hand, the past year has been particularly valuable in clarifying certain aspects of the implementation of the SIDC, especially with regard to the transfer of net positions (shipping) between central counterparties. The shipping model adopted by the parties to the project foresees that CCPs not operating in neighbouring areas must use the intermediation of CCPs operating in transit areas in order to settle economic items. As the parties to the project did not reach an agreement on how to regulate the service provided by the intermediary (transit shipping agent), in February 2020 they informed the European regulators, asking them to take a decision in accordance with Article 68(6) of

⁴³ Resolutions 114/2020/r/eel and 115/2020/R/eel of 1 April 2020.

⁴⁴ The Authority endorsed the adoption of the methodologies at the beginning of 2021 with Resolutions 4/2021/R/eel and 5/2021/R/eel of 14 January 2021.

⁴⁵ Decision No 25-2020 of 23 October 2020.

⁴⁶ Resolution 514/2020/R/eel of 1 December 2020.

the CACM. After an arduous process, in which the Authority played a coordinating role, the regulators reached a unanimous agreement, which the Authority approved⁴⁷ in October 2020, requesting the parties to the SIDC project to temporarily extend the adoption of the transit shipping mechanism until the regulators find a fully-fledged solution, based on a joint proposal from the parties to the project.

With regard to the SDAC, progress has been made on the necessary elements to complete integration at European level: in December 2020, as mentioned, coupling between Italy and Greece was initiated, in preparation for the implementation of coupling on the Greece-Bulgaria border scheduled for May 2021. The coupling between the 4M MC projects (including the borders between Romania, Hungary, the Czech Republic and Slovakia) and the MRC projects (including the other European borders and involving Italy) has yet to be completed, for which a new timeline was adopted in 2020 with the go-live scheduled for June.

In 2020, the methodologies for calculating the capacity for the Italy North⁴⁸ and Greece-Italy⁴⁹ regions were also revised, in order to implement in both regions the provisions relating to compliance with the minimum level of capacity to be offered on each border (so-called 70% rule) pursuant to Article 16(8) of Regulation (EU) 243/2019.

Finally, the process of reviewing the zonal configuration at European level launched under Article 14 of Regulation (EU) 243/2019 continued in 2020. By Decision No 29-2020 of 26 November 2020, ACER approved the criteria for the evaluation of market zones and instructed the TSOs to conduct preliminary analyses on nodal prices in preparation for the Agency's definition of alternative zonal configurations to be evaluated. The process involves Italy limited to the North zone only, while the other zones are exempt, as the Authority and Terna conducted a review process in 2018 that resulted in the zonal configuration approved by the Authority in March 2019 and entered into operation on 1 January 2021.

Balancing (BAL GL)

Regulation (EU) 2195/2017 establishes the modalities for the implementation of the European balancing market, with regard to trade in balancing capacity and balancing energy, as well as criteria for the harmonisation of settlement mechanisms between TSOs and the criteria for calculating the value of imbalances.

The main methodologies forming the basis of the European balancing market were finalised and approved in 2020, with the establishment of platforms for the exchange, pricing and settlement of balancing energy. In particular, in January ACER approved⁵⁰ the methodologies for the implementation frameworks for platforms for trading balancing energy from automatic Frequency Restoration Reserve (aFRR) and manual Frequency Restoration Reserve (mFRR), respectively. These trading platforms are expected to be officially launched within 36 months after the approval of the respective methodologies, based on the PICASSO⁵¹ and MARI⁵² reference projects, which have been under development by the TSOs for several years. In June, ACER also approved⁵³ the methodology

⁴⁷ Resolution 13 October 2020, 382/2020/R/eel.

⁴⁸ Resolution 04 August 2020, 323/2020/R/eel.

⁴⁹ Resolution 22 December 2020, 587/2020/R/eel.

⁵⁰ Decisions Nos 2-2020 and 3-2020 of 24 January 2020.

⁵¹ See the link www.entsoe.eu/network_codes/eb/picasso.

⁵² See the link www.entsoe.eu/network_codes/eb/mari.

⁵³ Decision No 13-2020 of 24 June 2020.

for the implementation framework of a platform for imbalance netting. This methodology complements the implementation frameworks of the four balancing energy trading platforms under the Balancing Regulation.

In January 2020, ACER also approved⁵⁴ the methodology, common to all platforms, that establishes the criteria for pricing the balancing energy traded on these platforms, while in July it approved⁵⁵ the methodology for classifying the activation purposes of balancing energy bids and the methodology for settling intentional energy trades between TSOs.

Again with reference to pan-European methodologies, ACER also approved the list of standard products for the trading of balancing capacity⁵⁶, the methodology for the co-optimised allocation of cross-zonal trading capacity⁵⁷ and the methodology for the harmonisation of criteria for imbalance settlement⁵⁸.

In processes relating to pan-European decisions, the Authority has been actively involved, together with other national regulators, in discussions with ACER and the TSOs, in order to achieve maximum consensus in the Board of Regulators and to encourage completion and adoption of methodologies in line with the principles of European regulation, while safeguarding the particular features of national regulation.

In the regional sphere, the Authority cooperated with all the regulators of the synchronous area of continental Europe to approve the methodologies for the settlement of unintended exchanges of energy, volumes exchanged in the frequency containment process and ramping periods, as referred to in Articles 50(3) and 51(1) of the Balancing⁵⁹ Regulation, as well as with the regulators of CCRs Italy North and Greece-Italy, with regard to the methodologies for the allocation of cross-zonal capacity for the exchange of balancing capacity or for the sharing of reserves. This involved formulating and sending two consecutive amendment requests for each methodology under discussion. With two proposals for methodology per region under consideration by the regulators, the regulators have formalised a total of eight requests for amendments (four per region), which have been ratified at Italian level through measures by the Authority⁶⁰.

On the national front, the Authority finally approved⁶¹ the request for a derogation from the deadline for applying a 15-minute imbalance settlement period, sent by Terna pursuant to art. 62 of the Balancing Regulation. This derogation shifts the deadline for the application of the 15-minute imbalance settlement period to 1 January 2025.

Network operation codes

The regulations on network operation, which came into force in the second half of 2017, establish

⁵⁴ Decision No 1-2020 of 24 January 2020.

⁵⁵ Decisions Nos 16-2020 and 17-2020 of 15 July 2020.

⁵⁶ Decision No 11-2020.

⁵⁷ Decision No 12-2020.

⁵⁸ Decision No 18-2020.

⁵⁹ Resolution 09 June 2020, 210/2020/R/eel.

⁶⁰ Resolutions 262/2020/R/eel and 263/2020/R/eel of 7 July 2020; 588/2020/R/eel of 22 December 2020; 24/2021/R/eel of 26 January 2021. Although the latter resolution is dated January 2021, the unanimous decision with the region's regulators took place in December 2020.

⁶¹ Resolution 17 November 2020, 474/2020/R/eel.

provisions on the operation of the transmission network, both in normal and alert states (SO GL) and in emergency and recovery conditions (ER NC).

With regard to the SO GL regulation, in 2020, the Authority approved the methodologies relating to the LFC block Italy concerning actions to contain frequency deviations and the criteria for sizing the secondary reserve⁶², and Terna's proposal for the exchange of data between grid users, TSOs and distributors⁶³. Work also continued adopting additional properties for frequency regulation in the Continental Europe synchronous area.

Finally, the regional methodologies for coordinating grid security analyses for the Italy North⁶⁴ and Greece-Italy⁶⁵ regions were approved, with the appointment of the relative Regional Security Coordinator (RSC), namely Coreso and TSCNET in rotation for the Italy North region and SEleNe CC for the Greece-Italy region (Terna is a direct shareholder of Coreso and SEleNe CC).

The ER NC regulation, as a network code, makes limited use of terms, conditions and methodologies subject to scrutiny by regulatory authorities. The regulator's intervention is, in fact, limited only to national implementation, put in place in Italy through the amendments to Terna's Network Code that the Authority approved at the end of 2019. The year 2020, on the other hand, was dedicated to clarifying a number of outstanding aspects of the Network Code: in particular, a bonus mechanism was introduced⁶⁶ to promote the timely upgrading of generation plants included in the restart service, and the criteria for determining settlement prices for the dispatching service in suspended market conditions were defined⁶⁷. At the end of 2020, a bonus mechanism for the timely upgrading of generation plants with regard to the installation of PSS (Power System Stabiliser) devices of relevance to the electricity system defence plan was also put out for consultation⁶⁸.

Connection codes

The connection codes define the requirements to be met by the various users connected to the electrical system, from generators (RfG NC), to demand response service providers (DCC NC), to operators operating direct current connections (HVDC NC). These codes are implemented at national level without the need for any form of coordination at European level, under the relevant regulations issued by the European Union in 2016.

However, in order for the three regulations to be fully implemented in Italy, it was necessary to update the existing regulation, with particular reference to the technical conditions for connection, which are the key issue they address. At the end of 2019, the Authority approved⁶⁹ the amendments to the Network Code proposed by Terna, stipulating that they would apply from 1 January 2020 to new plants or units or systems, as well as to existing plants or units or systems, if they are subject to significant modifications or partial refurbishment.

⁶² Resolution 03 June 2020, 202/2020/R/eel.

⁶³ Resolution 11 February 2020, 36/2020/R/eel.

⁶⁴ Resolution 04 August 2020, 322/2020/R/eel.

⁶⁵ Resolution 14 July 2020, 271/2020/R/eel.

⁶⁶ Resolution 04 August 2020, 324/2020/R/eel.

⁶⁷ Resolution 03 November 2020, 446/2020/R/eel.

⁶⁸ Document for consultation 475/2020/R/eel of 17 November 2020.

⁶⁹ Resolution 17 December 2019, 539/2019/R/eel.

Assessment of coherence between the Ten-Year National Transmission Grid Development Plan and the Community-wide TYNDP Development Plan

The Authority has assessed the coherence between the Ten-Year National Transmission Grid Development Plan and the Community Ten Year Network Development Plan (TYNDP) in its contributions to several ACER opinions in 2019. There were no new activities in this regard in 2020.

3.2 Competition and market functioning

3.2.1 Wholesale markets

Table 3.4 shows the balance for electricity in Italy in 2020 compared with the previous year; the data are from Terna sources and are provisional for 2020.

Table 3.4 Terna's balance of electricity in Italy

AVAILABILITY AND USES (GWh)	2019	2020 ^(A)	VARIATION
Gross production	293,853	281,487	-4.2%
Auxiliary services	9,903	9,377	-5.3%
Net production	283,950	272,110	-4.2%
Received from foreign suppliers	43,975	39,787	-9.5%
Sold to foreign customers	5,834	7,587	30.1%
Destined to pumping	2,469	2,557	3.6%
Availability for consumption	319,622	301,753	-5.6%
Network losses	17,818	17,702	-0.6%
Consumption net of losses	301,804	284,051	-5.9%

(A) Provisional data.

Source: ARERA processing on Terna data.

In 2020, demand for electricity was down sharply (-5.6%) compared to the previous year, due to the drop in consumption caused by the extraordinary pandemic situation that occurred during the year. The downturn affected all consumer sectors, especially the service and industrial sectors, with the exception of domestic where consumption increased by 2%.

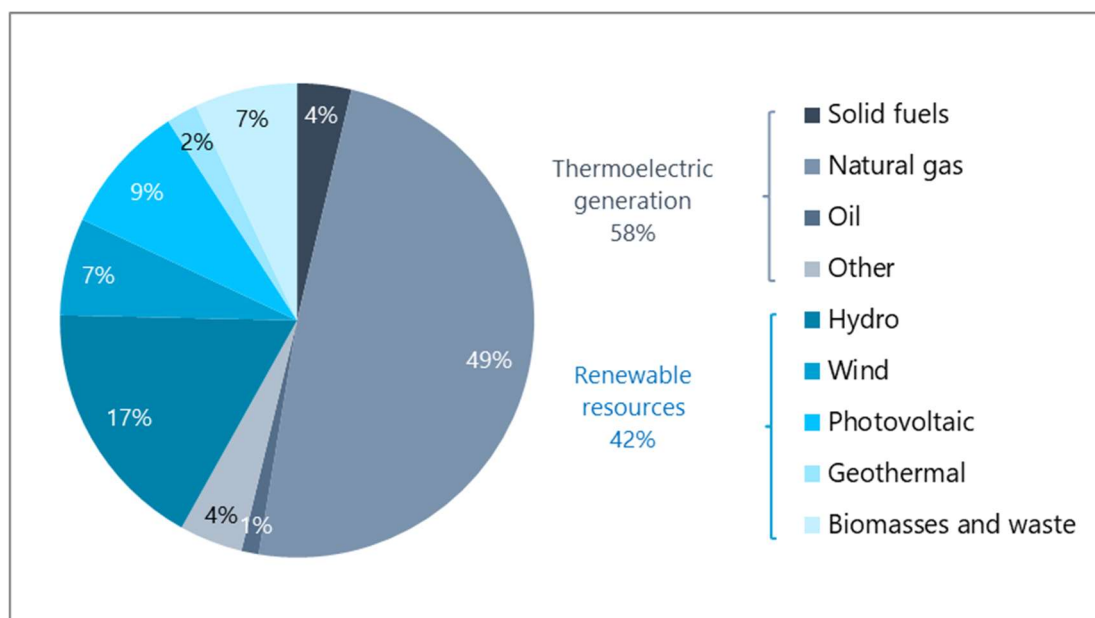
The national demand for electricity was met for 90.2% by net national production (down 4.2% compared to 2019), with the remainder coming from the balance of energy exchanged with foreign countries; imported energy decreased again (-9.5%), while exported energy increased again in 2020 (30.1%), with the balance of energy exchanged with foreign countries decreasing by 15.6%.

Gross national electricity production in Italy fell to 281.5 TWh in 2020 from 293.9 TWh in 2019. The extraordinary pandemic in 2020 led to a 4.2% drop in production compared to the previous year. The decrease particularly affected thermoelectric production, which fell from 176,171 to 163,541 GWh (-7.2%), while production from renewable sources increased slightly overall, although wind power production fell by 7.4% (compared to a 14% increase in the previous year) and geothermal production fell by 0.8%. Solar energy production, in particular, increased by 5.3% compared to 2019 when production from this source was 8.1%.

The contribution of the two sources to the total was 58.1% for thermoelectric production and 41.2% for renewable production (renewable hydroelectric, wind, photovoltaic, geothermal and biomass), with a value of 116,054 GWh (+1.3% compared to the previous year). The share of renewables rises to 42% if pumped storage hydroelectricity is included (Figure 3.4).

Table 3.5 shows, for thermoelectric, renewable and mixed sources, the number of producers, available power and related production in 2020, using data collected by the Annual Survey on Regulated Sectors carried out by the Authority, which this year covers 94% of the generation indicated by Terna. The table shows that mixed operators, with both thermoelectric and renewable generation, account for almost half of the total capacity, i.e. 49,543 MW, and represent, as usual, around 2% of energy producers (363 out of 14,709). While the number of these operators grows over time, their available power decreases, albeit slightly, and to a greater extent their contribution to overall generation decreases, currently at around 37% of gross generation (97.6 GWh out of 263.4 GWh), compared to around 38% in 2019. It is also interesting to note that among mixed producers, more than half of the power (51%) is held by 105 operators, for whom renewable energy accounts for between 30% and 60% of gross power.

Figure 3.4 Gross production by source in 2020



Source: Terna, provisional data.

Table 3.5 Electricity producers, plants and generation in 2020

PRODUCERS, PLANTS AND GENERATION BY SOURCE	THERMOELECTRIC	RENEWABLE	MIXED	TOTAL
Number of producers	470	13,876	363	14,709
Gross power (MW)	19,660	35,777	49,543	104,980
Gross generation (TWh)	77.2	88.6	97.6	263.4

Source: ARERA. Annual Survey on Regulated Sectors.

The share of gross generation of the top three corporate groups (Enel, Eni and Edison), C3, declined slightly (31.7% compared to 33.4% in 2019), as did that of A2A, which is the fourth group, while the share of EPH, which is the fifth largest group in Italian electricity generation, increased slightly (from 5.1% to 5.3%). The differences from one year to the next are in any case marginal, less than 1%, for

all corporate groups with a share of more than 1.5% compared to Terna's total. Overall, the changes offset each other, as they are attributable to a slight redistribution of market shares. In fact, the concentration indices in gross electricity generation are decreasing: C5 dropped from 44.8% to 43.1%, and the Herfindahl-Hirschman Index (HHI) in 2020 dropped to 493 from 538 in 2019.

Table 3.6 Development of the wholesale market

YEAR	REQUIREMENT ^(A) (TWh)	PEAK DEMAND (GW)	NET INSTALLED CAPACITY (GW)	CORPORATE GROUPS WITH >5% SHARE IN NET GENERATION	SHARE% OF THE FIRST 3 GROUPS IN NET GENERATION
2001	304.8	52.0	76.2	4	70.7
2002	310.7	52.6	76.6	3	66.7
2003	320.7	53.4	78.2	4	65.9
2004	325.4	53.6	81.5	5	64.4
2005	330.4	55.0	85.5	5	59.4
2006	337.5	55.6	89.8	5	57.1
2007	339.9	56.8	93.6	5	54.7
2008	339.5	55.3	98.6	5	52.0
2009	320.3	51.9	101.4	5	50.6
2010	326.2	56.4	106.9	5	48.2
2011	332.3	56.5	118.4	4	43.6
2012	325.5	54.1	124.2	3	41.2
2013	316.0	53.9	124.7	3	39.1
2014	308.2	51.6	121.8	3	41.2
2015	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	319.1	57.6	115.2	4	35.4
2019	317.2	58.8	116.4	5	33.3
2020 ^(B)	300.2	55.2	116.4	5	31.7

(A) Net of the energy destined to pumping and gross of network losses.

(B) Provisional data.

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

In 2020 the total net power was 116.4 GW (Table 3.6; provisional figure), which is divided between 48% renewable and 52% thermoelectric. Peak demand occurred on 30 July, when power demand at peak reached 55.2 GW (down 6.4% from the previous year's peak, 58.8 GW recorded on 25 July 2019). Even the summer peak of 2020 remained far from the absolute peak for the Italian electricity system, recorded in the summer of 2015 (equal to 60.5 GW).

There are five groups with a net installed capacity share of more than 5%: Enel (15,6%), Eni (9%), Edison (7,1%), A2A (6%) and EPH (5,3%); in 2019 it was the same five. The percentage of capacity reached by the first three groups is 31.7%, lower than the 33.3% in 2019. The HHI index related to the installed net capacity also saw a slight decrease in the market concentration; the value for 2020 is 490, when it was 530 in the previous year.

In Italy there are many incentive mechanisms for power generation plants powered by renewable

sources, ranging from all-inclusive incentivising feed-in tariffs⁷⁰ to incentivising premium feed-in tariffs⁷¹. All in all, in 2020, incentive instruments enabled an amount of electricity equal to just over 62 TWh (preliminary figure) to be incentivised, around 1TWh less than the amount incentivised in 2019. In 2019, 33% of the 63.2 TWh of incentivised renewable energy was produced by photovoltaic plants, 27% by wind farms, 26% by biomass, 13% by water plants and, finally, 2% by geothermal energy. According to preliminary data, these shares changed substantially in 2020: 34% come from solar, 25% from wind and 26% from biomass, 13% from water and 3% from geothermal.

With the abolition (in 2016) of the green certificate mechanism, the costs deriving from the incentive of renewable sources is generally covered with the A_{SOS} tariff component. Overall, for the year 2020, the costs arising from the incentivisation of renewable sources are estimated at around 11.5 billion euros. The A_{SOS} tariff component, in addition to the costs mentioned above, also enables the provision of special commercial regimes (guaranteed minimum prices and on-site exchange) and the provision of the incentive instruments envisaged for cogeneration pursuant to CIP 6/92 and for cogeneration plants combined with district heating fuelled by non-renewable sources (limited to the incentives that replace green certificates)⁷².

Consistent with the reduction in overall electricity demand in 2020, the foreign balance also decreased by 15.6%, with net imports falling from 38.2 TWh in 2019 to 32.2 TWh. As a result, the share of domestic demand covered by the foreign balance fell from 11.9% to 10.6%, the lowest level in 20 years. The decrease in the foreign balance is due to the reduction in imports (-9.5%) and the simultaneous increase in exports (+30%). The lower reliance on imports is likely due to lower demand for electricity from the thermoelectric sector and greater reliance on generation from non-programmable renewable generation sources. One of the reasons for the increase in electricity exports is the high level of competitiveness of Italian solar thermal and wind power production. As ever, Switzerland is the country from which the greater part of our foreign balance (53%) arrived. Another 39% of the net imported electricity came from France, and 11% from Slovenia. Market coupling has been operative towards Slovenia, France and Austria for a long time.

The structure of the electricity market

The Energy Markets Operator (GME) works to manage the electricity markets, divided into Spot Energy Market (MPE) – articulated in the Day Ahead Market (MGP), the Intra-day Market (MI) and in the Daily Products Market (MPEG) – and the Forward Electricity Market (MTE) which requires the mandatory physical delivery of the electricity. Finally, the GME collects bids on the Dispatching Services Market (MSD) managed by Terna.

The Day Ahead Market (MGP) is concerned with energy trading with reference to the 24 hours of the delivery day, which is managed through hourly auctions at equilibrium price (system marginal price). The MGP is a zonal market: the territory is divided into zones representing portions of the transmission network with limited exchange capacity between them. If flows exceed the maximum

⁷⁰ Feed-in tariff means that the incentive recognised for the electrical energy input in the network includes the sale of electricity that is therefore no longer available for the producer. The electricity input into the network is withdrawn at a price that includes the incentive.

⁷¹ Feed-in premium means that the incentive recognised for the electricity produced doesn't include the sale of electricity, which is still available for the producer.

⁷² A_{SOS} is the tariff component paid by electricity customers necessary to cover the general charges to support renewable energy and cogeneration, while A_{RIM} is the tariff component intended to cover the remaining general charges.

transit limit allowed by interconnections between zones, the price is recalculated in each zone as if each zone were a separate market from the others (market splitting). While bids for sale are valued every hour at the relevant zonal price, bids for purchase are valued every hour at a Single National Price (PUN) for purchase, defined as the average of the zonal prices weighted by the value of purchases in each zone, net of pumping and foreign zone purchases. In this market, the GME acts as a central counterparty for operators. As of 1 January 2019, the map of geographical exchange zones has been simplified. In addition, as of 28 December 2019, the new interconnection between Italy and Montenegro entered into operation with explicit allocation of transmission capacity.

The intraday market (MI) is also a zonal market, divided into seven separate sessions (i.e. not continuous trading), two of which are managed in coordination with the two corresponding intraday market sessions in Slovenia, as part of the intraday market coupling project, which has enabled efficient allocation of cross-border capacity on the Slovenian border. In April 2019, a similar mechanism for the coordinated conduct of two additional sessions with corresponding Swiss intraday market sessions became operational.

In February 2015 the Multi-Regional Coupling (MRC) was launched on the northern Italian border with France, Austria and Slovenia. The MRC is a market coupling process that introduces implicit auction models to replace the daily explicit auctions, coordinating the allocation of the capacity and the sale of the energy, therefore facilitating the integration of several markets thanks to an excellent exploitation of the interconnection capacity (Net Transfer Capacity – NTC) and the cancellation of uneconomical flows⁷³.

As a result of the integration of the spot markets (MGP and MI) into the European coupling projects, it became necessary to reduce payment deadlines from two months to one week. In view of the need reported by many operators to be able to continue trading daily products, maintaining payment in the second month following the month of trading, the Daily Products Market (MPEG) was established in 2016, where all operators in the electricity market can trade daily contracts of different profiles (baseload and peakload) on a continuous basis. On this market operators can offer volumes with prices expressed only as differentials with respect to the effective average PUN for the delivery date of the product being traded.

The Market for Dispatching Services (MSD) is aimed at supplying Terna with the resources necessary for the safe management of the system through the resolution of congestion between areas, the creation of reserve capacity and real-time balancing; unlike other markets, in this case Terna acts as the central counterparty of the authorised operators.

The Forward Electricity Market (MTE) managed by the GME was established to allow operators to manage their energy portfolio more flexibly. It consists of trading forward contracts with obligation to deliver and take back energy. Trading is conducted on a continuous basis and concerns two types of contracts, baseload and peakload, tradable with monthly (three products listed at the same time), quarterly (four products listed at the same time) and annual (one product) delivery periods. At the end of the trading phase, contracts with a monthly delivery period are recorded in corresponding transactions on the Energy Account Platform (PCE), subject to adequacy checks provided for in the platform's regulations. The "cascade" mechanism is provided for contracts with a delivery period

⁷³ Hours in which the flow goes from the more expensive zone to the least expensive one, in the opposite direction to the one that the price differential would suggest.

equal to the quarter and year⁷⁴.

The operators can sell and buy energy not only through the market organised by the GME, but also by stipulating sales/purchase contracts concluded outside the supply system. Starting from May 2007 the PCE came into operation, introducing high flexibility for the operators in the optimisation of their own contract portfolio in the medium-long term. Quantities underlying bilateral forward contracts (mostly traded on brokerage platforms) are recorded on the PCE.

Lastly, in July 2019, the Authority issued a favourable opinion⁷⁵ on the proposals for amendments to the Consolidated Law on the Electricity Market (TIDME) and the MGAS Regulations, which were prepared by the GME, considering them functional to the introduction of a single guarantee to cover the operator's net exposure to these markets in the MGP, MI and MP GAS natural gas markets.

To date, there are 286 operators admitted to participate in the electricity market.

Stock exchange negotiation and bilateral negotiation

In the context of a year affected by the pandemic and the restrictions adopted to contain it, there was a sharp drop in the quantity of electricity traded in the Italian System in 2020, amounting to 280.2 TWh (-5.3% compared to 2019) (Table 3.7); in particular, there were significant reductions in volumes traded in the period between March and July (with a variability of between -7% and -17% compared to the corresponding months of 2019). Reductions of this magnitude were only seen in 2009, the year of the previous economic crisis. The decrease is attributable to lower purchases in all national zones (271.6 TWh, -6.0%) and, in particular, in the North (150.8 TWh, -7.0%) and Centre-North (28.9 TWh, -6.6%) zones. The increase in exports (8.6 TWh, +26.6%) had only a minimal moderating effect. In contrast, volumes supplied remained broadly stable at the 2019 level (453.3 TWh, -0.9%), registering a decline in the Centre-South zone (-12%) and an increase in the North zone (+3%).

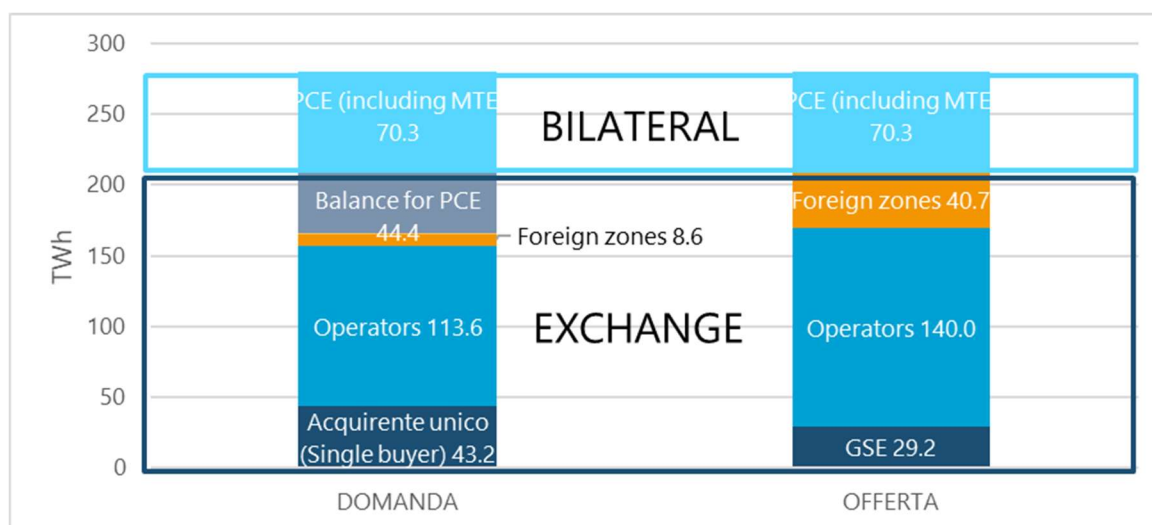
⁷⁴ Procedure whereby quarterly and annual forward contracts (futures, forwards and contracts for differences) at maturity are replaced by an equivalent number of contracts with shorter durations. New positions are opened at a price equal to the final settlement price of the original contracts.

⁷⁵ With Resolution 16 July 2019, 309/2019/l/com.

Table 3.7 Electricity market

YEAR	NEGOTIATIONS ON THE MGP (TWh)		
	Total	of which stock exchange	of which 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
2019	295.8	213.3	82.6
2020	280.2	209.8	70.3

Source: ARERA processing on GME data.

Figure 3.5 Composition of electricity supply and demand in 2020

Source: ARERA processing on GME data.

Table 3.8 Bilateral contracts purchased

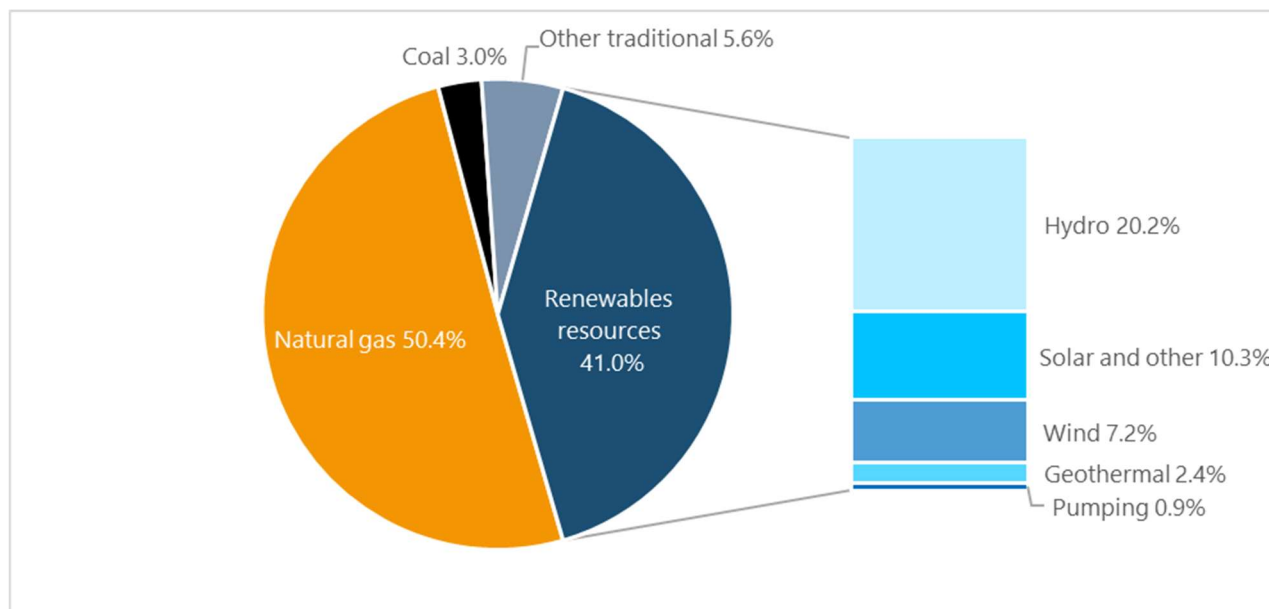
CONTRACTS (GWh)	2015	2016	2017	2018	2019	2020
National	143,510	134,862	125,750	136,867	129,368	114,745
Acquirente Unico (single buyer)	29,092	17,594	3,714	2,459	-	-
other operators	114,418	117,267	122,037	134,408	129,368	114,745
Foreign	89	34	69	0	-	4
Final balance for PCE programmes	-51,062	-48,019	-44,540	-54,233	-46,804	-44,403
Bilateral contracts	92,537	86,876	81,279	82,635	82,564	70,346

Source: ARERA processing on GME data.

The share of volumes traded directly on the exchange, equal to 209.8 TWh (equivalent to 75% of total exchanges on the MGP), was up by 2.8% compared to 2019 (Table 3.7 and Figure 3.5); this greater liquidity was sustained in sales by exports (+26%) and in purchases by non-institutional operators (+2%); in percentage terms, the Acquirente Unico's (single buyer) volumes remained stable, equal to 15% of total purchases and sourced entirely on the exchange. As a result, the share of programmes deriving from registrations on the PCE of bilateral over-the-counter trade decreased (70.3 TWh, -15%) (Table 3.8).

With regard to the composition of trade by technology (Figure 3.6), the reduction in purchases was not evenly reflected among the sources of the technology park. For thermal plants, which account for approximately 60% of sales (-2% compared to 2019), declines ranged from -51% for coal-fired plants (5.1 TWh; 3.7% of thermal sales) to -32% for fuel oil-fired plants (2.2 TWh; 1.6% of thermal sales) to -5% for natural gas-fired plants (118.5 TWh; 84.4% of thermal sales). On the other hand, the percentage share sold by renewable plants increased (40%, +2% compared to the year 2019), showing reductions in all zones, particularly in Sicily (-12% compared to 2019), but with a significant increase in the North zone (+7%).

Figure 3.6 Electricity sales on the MGP in 2020 by source



Source: ARERA processing on GME data.

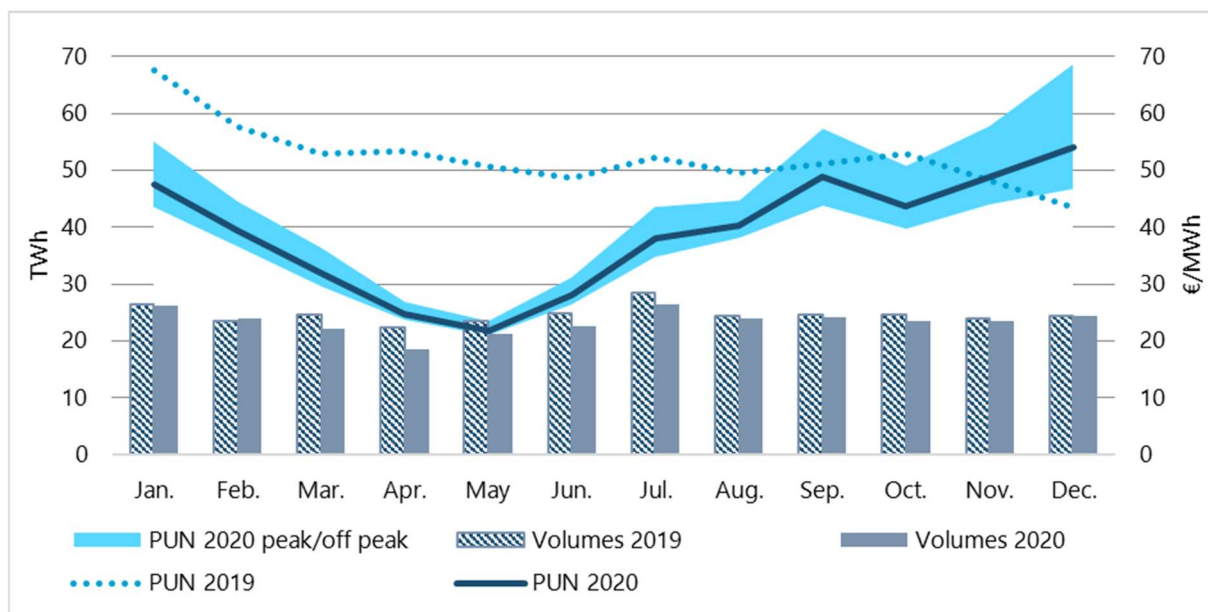
3.2.1.1 Monitoring the price levels of the wholesale market

The day ahead market

The average national energy purchase price (PUN) in 2020 (Figure 3.7) stood at an all-time low of 38.92 €/MWh, down sharply from 2019 (-25.6%), albeit in line with prices on the main European power exchanges. This decrease mainly reflects the significant reduction in demand and lower costs of raw gas (10.55 €/MWh; -35%). The dynamics were homogeneous for all groups of hours, with an average annual value of 45.11 €/MWh (-24%) in peak hours, 37.68 €/MWh (-25%) in off-peak hours on working days and 33.22 €/MWh (-29%) on public holidays. Looking at the daily profile, there was a slight increase in the ratio between peak and off-peak hours (1.27; +6%), sustained by an increase

in the differential in central hours (+0.8%) and an increase in the differential in the evening hours (+1.5%) only partially offset by a reduction in the differential in the morning hours (-2%).

Figure 3.7 Monthly trend of the PUN and the total traded volumes for the Italian System



Source: GME.

In its fourth year of full operation, the Daily Products Market (MPEG) recorded 1,138 transactions (+9% compared to 2019), for a total of 722 GWh traded (+3%), solely on a baseload basis. Trading was concentrated in the second and fourth quarters of the year. The average price of daily products increased to 0.24 €/MWh (+14 c€/MWh), with no particular changes between years.

Forward electricity market

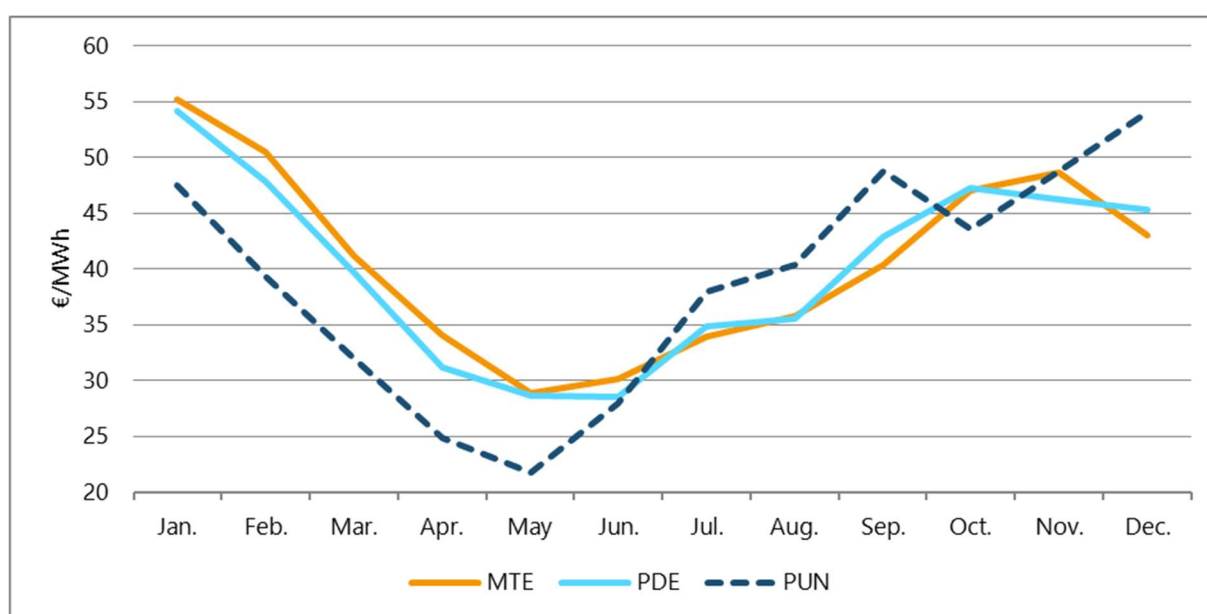
On the forward market managed by the GME, for standardised products with physical delivery, a total of 0.8 TWh was traded in 2020, down sharply from 2019 (-53%) (Table 3.9). Considering the type of products traded, a preference for the baseload format was confirmed (95%; +1%), whilst the duration of contracts was distributed almost equally between monthly (35%), quarterly (30%) and annual (35%) maturities. On average, there were five matches per month, which were more concentrated in the first two months of the year. For the sixth consecutive year, no bilateral transaction was recorded for clearing purpose only.

Looking at the trend in the prices of the generally more liquid forward product, i.e., the monthly baseload expiring in the month immediately following (M+1), operators indicated prices ranging between 21 €/MWh (May) and 54 €/MWh (December) for 2020. This trend is in line with the trend recorded during the year by the underlying PUN, the largest gap having occurred in the first four months of the year, corresponding to the first months of the pandemic (Figure 3.8).

Table 3.9 Volumes traded on the MTE

DURATION	2013	2014	2015	2016	2017	2018	2019	2020	VARIATION 2020/2019	SHARE
CONTRATCTS (MW)	2,171	2,944	1,004	411	518	391	596	213	-64%	100%
Baseload	679	2,829	899	323	449	357	561	174	-69%	82%
Peakload	1,492	115	105	88	69	34	35	39	11%	18%
VOLUMES (GWh)	7,996	18,402	5,087	1,069	1,356	1,191	1,641	771	-53%	100%
Baseload	3,618	18,356	5,007	1002	1,335	1,155	1,602	730	-54%	95%
Peakload	4,379	46	79	67	21	36	38	41	8%	5%

Source: ARERA processing on GME data.

Figure 3.8 Average prices of the monthly baseload product in 2020, with maturity in the subsequent month

Source: ARERA processing on data from different sources.

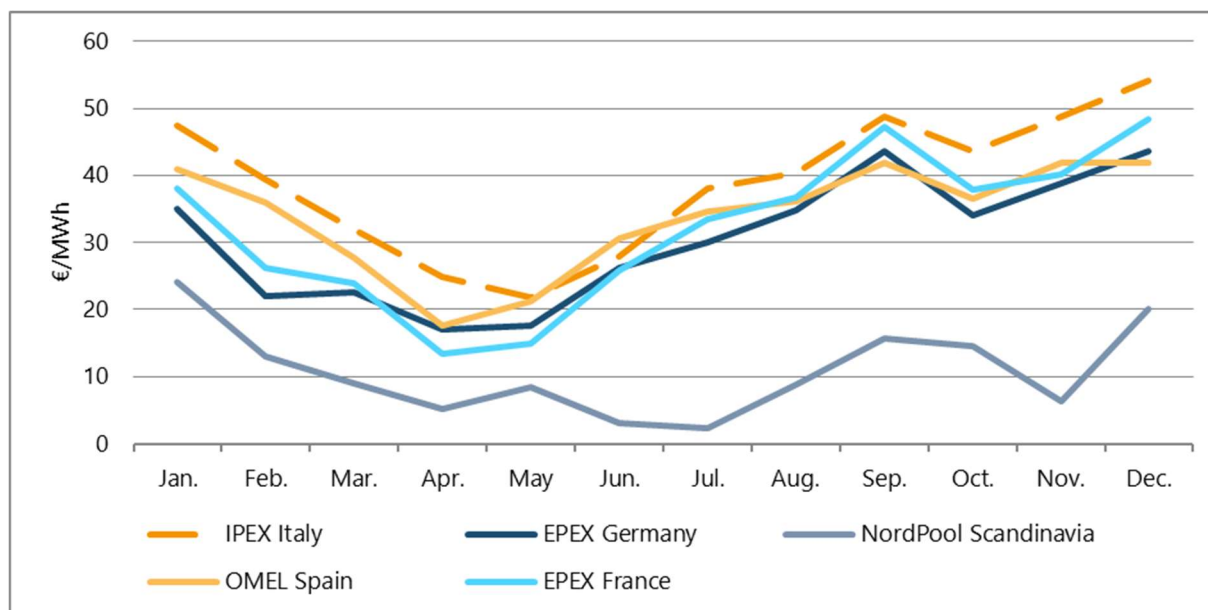
Intraday market

Total volumes traded on the intraday market in 2020 (24.9 TWh) were down compared with the previous year (-1.5 TWh, -6%). This decline occurred primarily in the first two market sessions (16 TWh, -1.2 TWh) rather than in subsequent sessions (8.3 TWh, -0.3 TWh), confirming operators' preference, already seen in 2019, to trade close to real time. The prices recorded remained strongly correlated to the values observed in the Day Ahead Market, although with respect to the latter a gradual increase in volatility can be observed as real time approaches. However, the differential between the various sessions narrowed: the average prices of the first 3 sessions were less than 4% apart, while the MI6 and MI7 sessions recorded average differentials of up to 18%, with peaks of up to 59% in April. Over the course of the year, average monthly prices showed progressive declines to a low of 24.2€/MWh in May, before rising again to 56.9€/MWh in December. Prices also reflected the dynamics of the MGP on a zonal basis, recording the lowest average value in the North zone (39.3€/MWh) and the highest in Sicily (52.2€/MWh).

The integration of the Italian market in the European context

The European market also saw a sharp fall in electricity prices, leading to price convergence between countries, facilitated by coupling mechanisms. The area consisting of France, Germany and Italy was aligned in 29% of the hours (+21% compared to 2019) while the Scandinavian area stood out, whose average price fell to 11€/MWh, aligning with France and Germany in only 2% of hours (-9% compared to 2019).

Figure 3.9 Average monthly price trend in the main European Stock Exchanges in 2020



Source: ARERA processing on European power exchanges data.

Italy recorded a differential with the rest of the European continent of around +5/7 €/MWh, which is a historically low value. The Italian price was also more competitive along the borders, compared to 2019, in a high number of hours; it was lower than the French price in 40% of hours (15% in 2019), the Austrian price in 38% of hours (13% in 2019) and the Slovenian price in 78% of hours (56% in 2019). These price opportunities led to a sharp drop in imports (41.9 TWh, -7%) in favour of an all-time high increase in exports (8.6 TWh, +26%), particularly on the northern coupling borders (France: 9%, +6%; Austria: 13%, +9%; Slovenia: 43%, +10%).

3.2.1.2 Monitoring the level of transparency, including compliance with transparency obligations, and the level and effectiveness of market opening and competition

Monitoring of the wholesale market

At an advanced stage of regulation, the wholesale market monitoring function is the main tool the Authority has to assess the structure of the markets and their proper functioning, as well as the behaviour of operators and the adequacy of the system. In the electricity sector, the Authority has therefore adopted⁷⁶, since 2008, the Integrated Text on the monitoring of the wholesale electricity market and the dispatching service market (TIMM), in order to strengthen its monitoring function in

⁷⁶ With Resolution of 5 August 2008, ARG/elt 115/11 and subsequent amendments.

the sector.

The importance of the monitoring function performed by the regulatory authorities at the national level - and already envisaged for ARERA by the law establishing it - has also been recognised at the European level: in addition to the directives on energy markets and Regulation (EU) 1227/2011 on wholesale energy market integrity and transparency (REMIT), in fact, the monitoring powers of the national regulatory authorities have been strengthened and expanded. In particular, the monitoring function envisaged by REMIT is aimed at increasing overall market transparency and promoting a more level playing field between operators by intercepting abusive conduct relating to market manipulation and insider dealing, including cross-border and cross-product practices (spot and futures products, physical and financial); this important function is therefore coordinated at European level by the Agency for the Cooperation of Energy Regulators (ACER).

In 2020 the analyses on the historical data input to the resolution algorithm of the planning phase of the Dispatching Services Market (ex ante MSD) continued, with particular reference to defining the intact and non-intact grid constraints, aimed at securing the resources to meet the reactive power reserve requirements for voltage regulation. The results of the analyses are illustrated in the *Report of the Regulatory Authority for Energy, Networks and Environment on market monitoring for the dispatching service: voltage regulation segment*⁷⁷.

In the national electricity system, a portion of voltage regulation resources are procured within the ex ante MSD⁷⁸. However, recent developments in European legislation and, in particular, Regulation (EU) 943/2019, effective as of January 1, 2020, allow for an exception to the market criterion (applying cost-based regulation instead) where there is no effective competition. The above-mentioned *Report* provides a tool for assessing the structure and competitive framework of this market segment and is, therefore, functional to the possible application of the above-mentioned exemption. The report investigates the existence of market power through appropriate pivotality tests and analyses its magnitude and frequency, also highlighting the technological and size symmetry that characterises certain groups of dispatch users and which, other things being equal, favours their cooperation within the ex ante MSD. The analysis covers a period of nine years: from 2011 to 2019.

Analysing the evolution of pivotality over time, it has emerged that the competitive structure in the provisioning of reactive power for voltage regulation is structurally critical in some areas of Southern Italy, at least since 2011. In addition, a growing trend in the implicit demand for reactive power has been identified in some areas. If appropriate countermeasures are not taken, the structural issues highlighted would seem destined to worsen over time. However, it should be noted that voltage regulation can also be provided by Terna's grid devices (reactors, capacitors, synchronous compensators, etc.). Therefore, by means of its grid devices, Terna can replace generators and limit or eliminate the pivotality of dispatching users or groups of dispatching users in the supply of reactive power. It is therefore essential that the gross reactive power requirement is always "provisioned" at the lowest cost, with transparent planning procedures and on appropriate time horizons for "make or buy" decisions. The interventions carried out so far on this front do not seem to have significantly mitigated the critical issues highlighted, with reference to the market structure, over the time horizon of the pivotality tests (2011-2019).

The monitoring analyses also showed how Terna's operational management of voltage constraints does not always translate into a transparent, traceable and replicable representation, and how this

⁷⁷ This is the Report attached to Resolution 282/2020/E/eel of 21 July 2020 (<https://www.arera.it/allegati/docs/20/282-20all.pdf>); An [Executive Summary](#) in English is also available on the Authority's website.

⁷⁸ Other resources are provided by devices and functions directly available to Terna.

affects the usability of market operating data for the purposes of the Authority's monitoring activities. Accordingly, the Authority has ordered⁷⁹ Terna to take prompt action to make all the necessary procedural changes to the market system to ensure transparency, traceability and replicability of the process of defining and managing voltage constraints.

Lastly, the same resolution ordered an in-depth examination of the behaviour of dispatching users who own production units eligible for reactive reserve services and located in areas of southern Italy with voltage constraints. This provision also has the aim of identifying any violations of REMIT.

Implementation of REMIT

As usual, coordination with the Agency for the Cooperation of Energy Regulators (ACER) in monitoring wholesale electricity markets continued in 2020, in accordance with the REMIT regulation.

In particular, preliminary investigations were conducted into reports of potentially abusive orders and/or abnormal transactions in the wholesale electricity and natural gas markets. In one case, at the end of the investigation phase, the first two sanctioning procedures were initiated due to the existence of the prerequisites under Article 2(2) of REMIT, which defines 'market manipulation'. More specifically, the two operators were charged with violating the prohibition on market manipulation by engaging in transactions in wholesale energy products that provide or are likely to provide false or misleading indications as to the supply of, demand for, or price of wholesale energy products. The two traders have submitted commitment proposals which are currently being examined by the Authority.

The Authority also confirmed its proactive contribution to the working groups both within ACER and the Council of European Energy Regulators (CEER), in order to promote a coordinated approach in the implementation of REMIT, by contributing to:

- the updating of ACER's General Guidance on the application of REMIT, with particular reference to the notion of 'inside information', as well as the restructuring of the entire document;
- in the sharing of tools, methods and means for the surveillance of the wholesale market and of the issues related to the coordination of the potential violations in the cross-border market;
- in the monitoring of the evolution of the financial regulations and the contribution to the training for the CEER-ACER positions in the relevant contexts for the correct functioning of the energy markets.

3.2.2 Retail market

According to the provisional data published by Terna, in 2020 total consumption (net of losses) was approximately 284 TWh, with a decrease of 5.9% compared to 2019. The downturn affected all consumer sectors, especially the service and industrial sectors, except for domestic where consumption increased by 2% (Table 3.10).

⁷⁹ With the same Resolution 282/2020/E/eel.

Table 3.10 Distribution of national electricity consumption per final sector

PRODUCTION SECTOR (TWh)	2015	2016	2017	2018	2019	2020 ^(A)	VARIATION 2019/20
Domestic	66.2	64.3	65.5	65.1	65.6	67.1	2.3%
Agriculture	5.7	5.6	6.0	5.8	6.1	5.9	-2.0%
Industry	122.4	122.7	125.5	126.4	128.9	119.9	-7.0%
Tertiary	102.9	102.9	104.9	106.0	101.2	91.1	-10.0%
TOTAL	297.2	295.5	301.9	303.4	301.8	284.1	-5.9%

(A) Provisional data.

Source: Terna.

In the context of the Authority's Operators Registry, 119 parties in the standard offer market, 3 in safeguarded category market and 739 in the free market, declared they had sold electricity in 2020 (also for a limited period of the year).

A total of 577 free market companies responded to the survey (i.e. 78% of those in the market), of which 58 reported that they had been inactive during the year. Taking into account the fact that 47 operators sell energy both in the free market and in the standard offer market, as well as the fact that the three companies that offer the safeguard service also sell in the free market and/or in the standard offer service (and are therefore already counted in those segments), the total number of companies active and operating in the end market for electricity sales is 649 (i.e. 707 respondents minus the 58 inactive companies).

In 2019 there were 123 suppliers in the standard offer market, 3 in the safeguarded category market and 723 in the free market. The number of parties exercising the standard offer regime has therefore decreased by four compared to 2019, as a result of corporate transactions involving the sale of the business. On the contrary - and as usual - the number of companies selling electricity in the free market has again decidedly increased (by 16 units). The trend of supplier additions has continued almost uninterrupted since 2008 (see also Figure 3.10).

Table 3.11 shows the distribution of the end sales of electricity (net of self-consumption and network losses) together with the total number of customers⁸⁰ per market type, determined on the basis of the Authority's annual survey data supplied by the electricity operators: producers, those exercising the standard offer services, wholesalers and free market suppliers. The sales data collected by the Authority (considered with the self-consumption data) is representative of a population that reflects 92%⁸¹ of the final consumption estimated by Terna, the Electricity Transmission Grid Operator.

The results of the Annual Survey (as usual, to be considered provisional for 2020) show how the epidemic crisis caused by the spread of COVID-19 has heavily influenced electricity consumption: according to the data collected, 241 TWh were sold to the end market last year to around 37 million customers. Compared to 2019, total electricity consumption decreased by almost 6%, while consumers increased by 0.4%.

The fall in consumption was entirely borne by the non-domestic sector due to the contraction of industry and, even more so, of the tertiary sector due to pandemic restrictions, while consumption in the domestic sector, due to the forced stay at home and largely remote work, grew significantly.

⁸⁰ Approximated by the number of delivery points counted using the pro die criteria (counted using the fractions of year for which they were supplied).

⁸¹ In order to obtain the percentage shown, the data collected in the Survey for self-consumption and grid losses must be added to the final consumption shown in Table 3.11.

The same was true for delivery points: the number in the domestic sector increased, while it decreased in the non-domestic sector.

Table 3.11 Final electricity sales market

Net of self-consumption and losses

	VOLUMES (GWh)			DELIVERY POINTS (thousands)		
	2019	2020	VARIATION	2019	2020	VARIATION
Standard offer service	40,648	35,459	-12.8%	17,607	15,923	-9.6%
Domestic	27,982	25,684	-8.2%	14,969	13,622	-9.0%
Non-domestic	12,666	9,774	-22.8%	2,638	2,300	-12.8%
Safeguarded category market	3,643	3,065	-15.9%	76	70	-8.0%
Free market	211,838	202,436	-4.4%	19,183	21,020	9.6%
Domestic	29,984	34,107	13.7%	14,536	16,173	11.3%
Non-domestic	181,854	168,329	-7.4%	4,646	4,846	4.3%
END MARKET	256,129	240,960	-5.9%	36,865	37,012	0.4%

Source: ARERA. Annual Survey on Regulated Sectors.

More precisely, Italian households purchased a total of 59.8 TWh compared to 58 TWh in 2019, an increase, therefore, of 3.1%, while the energy purchased by the non-domestic sector decreased by 8.6% (practically the same decline as GDP, which, according to Istat, fell by 8.9% compared to 2019), having fallen to 181 TWh from the previous 198 TWh.

In 2020 there were 29.8 million domestic customers, of which 13.6 served under standard offer and 16.2 million in the free market. Against a backdrop of overall growth (+290,000 domestic delivery points compared to 2019), the free market fully phased out the standard offer service. Domestic points served on the free market increased to 54.3% compared to 49.3% in 2019. Looking at volumes, it is even clearer that the free market is overtaking: in 2020, the energy purchased by the domestic sector in this market rose to 57%, while in 2019 it was just over half, at 51.7%.

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: 1,886 kWh/year versus 2,109 kWh/year. This differential tends to diminish over time, because in the early stages of market opening the first domestic consumers to move to the free market were those with high consumption, while households with lower consumption also moved to the free market as the transition to the free market was completed. In 2020, however, this gap widened slightly to 223 kWh from 193 kWh in the previous year, due to an increase in the average unit consumption of delivery points under the standard offer regime (0.9%) that was lower than that of delivery points in the free market (2.2%).

The total volumes sold under the standard offer regime in 2020 (35.5 TWh) also include sales to non-domestic low-voltage customers, for whom the possibility of purchasing electricity under this service ended on 1 January 2021. If we add domestic sector consumption to that of non-domestic low voltage delivery points, the share of electricity sold in the standard offer service is still very small, only 14.7% of the volumes of the entire Italian electricity market (corresponding to 43% of total delivery points).

With 202.4 TWh sold, in 2020 the share of electricity brokered by the free market rose to 84% (56.8% of the delivery points), partly because the share of electricity purchased in the standard offer service narrowed further to 1.3% (0.2% of the delivery points). In an end market that shrunk overall by 15.2 TWh compared to 2019, the sales volumes of the standard offer market fell by 5.2 TWh (-12.8%), while the free market lost 9.4 TWh compared to the previous year (-4.4%) and sales fell by 0.6 TWh (-15.9%) in the safeguard regime.

The total number of consumers increased by 147,000 to 37.1 million in 2020: the standard offer regime lost around 1.7 million points, the number of safeguarded service customers decreased by another 6,000 units, while in the free market customers increased by 2 million and 235,000 delivery points compared to 2019.

Switching

On the basis of data provided by distributors in the annual survey and - for the second time - data from the SII⁸², it can be observed that in 2020 household switching remained dynamic as in 2019⁸³, whether calculated in terms of delivery points or in terms of volumes (Table 3.12).

13.1% of domestic customers - just under 3.9 million delivery points - switched suppliers at least once during the year. The volumes corresponding to this portion of customers are about 14.2% of the total energy purchased by the domestic sector, while the volumes corresponding to the 12.9% of domestic customers that changed supplier in 2019 reached 15.2% of the energy delivered. In 2019, the increase in household switching activity, compared to a more modest trend shown in previous years, may have been spurred by expectations about the removal of price protection, which, until December 2019, was expected on 1 July 2020, but was then postponed to 1 January 2023 for household customers. In 2020, however, domestic customer switching levels remained high. There is no doubt that, in recent years, there have been a number of announcements and postponements regarding the end of the standard offer service, but it is likely that this has generated a buzz and curiosity about the free market, even among domestic customers who are not strictly obliged to leave the standard offer service.

Table 3.12 Switching rates of electricity customers

TYPE OF CUSTOMER	2019		2020	
	VOLUMES	DELIVERY POINTS	VOLUMES	DELIVERY POINTS
Domestic	15.2%	12.9%	14.2%	13.1%
Non-domestic	25.7%	20.0%	16.7%	15.9%
<i>of which:</i>				
- low voltage	29.6%	20.0%	17.1%	15.9%
- medium voltage	27.5%	22.3%	18.6%	16.2%
- high and very high voltage	14.2%	20.1%	11.1%	16.1%
TOTAL	23.4%	14.3%	16.1%	13.7%

Source: ARERA. Annual Survey on Regulated Sectors.

The exclusion of small non-domestic customers connected to the low-voltage grid from the standard

⁸² Integrated Information System (SII): an information system established with the Acquirente Unico (single buyer) with the Law n. 129/10, of August 13th, 2010, with the goal of managing the information flows between the subjects (mainly distributors and suppliers) that participate in the electricity and natural gas markets, according to the rules and procedures established by the Authority. It is based on a data bank that contains the whole list of the national delivery points and the fundamental data needed to manage the related processes called the Central Official Registry or RCU.

⁸³ The figures for 2019 have been revised compared to those published in the 2020 Annual Report, following further analysis and better specification of supplier switches considered in last year's calculations. For comparison, the value of household customer switching indicated last year was about one percentage point higher than that indicated in Table 3.12.

offer service took effect on 1 January 2021. From this date, small companies⁸⁴ and some micro-companies⁸⁵ have to buy their electricity on the free market. In order to guarantee continuity of supply and give customers time to choose the most suitable offer for their needs, the Authority has introduced the gradual standard offer service (described in detail in paragraph 3.2.2). Thus, non-domestic low-voltage switching also showed a rather high pace in 2019 (20% in terms of customers and almost 30% in terms of volumes). In 2020, however, switching activity slowed down, but remained at considerable levels: 15.9% in terms of delivery points and 17.1% in terms of volumes, achieved in a year when the pandemic severely reduced electricity consumption by non-domestic customers.

During 2020, however, other non-domestic customers also maintained a fair rate of switching: in fact, 16.2% of customers connected to medium voltage (for a total of 18.6% of energy consumed) and 16.1% of customers connected to high or very high voltage, for a volume of approximately 11%, changed supplier. Overall, around 1.1 million non-domestic consumption points (15.9%) changed supplier in 2020. In terms of underlying volumes, about 31.6 TWh, corresponding to 16.7% of the volumes purchased by non-households.

Standard offer service

2020 Low-voltage connected households and small companies⁸⁶ that had not yet entered into a free market sales and purchase contract used the market with standard conditions or standard offer service. Service is guaranteed by appropriate sales companies or distribution companies with less than 100,000 customers connected to their own network, on the basis of the financial conditions and commercial quality indicated by the Authority.

More precisely, under the standard offer regime, a Single Buyer (the company "Acquirente Unico") is responsible for the supply of electricity on the wholesale market which sells it to standard offer operators at a price that reflects the costs sustained, including those for energy. The standard offer prices are established by the Authority on the basis of the wholesale market prices in order to cover the supply costs incurred by the companies appointed to provide this service. As regards the component covering marketing costs, the criterion used by the Authority reflects the costs incurred by a hypothetical new entrant to access the market segment of 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 under the standard offer regime without distinction according to location.

As mentioned above, however, the standard offer service ended on 1 January 2021 for small companies and some micro-companies, as defined above. From 2021, these customers must be supplied on the free electricity market. In order to guarantee continuity of supply and give these customers time to choose the offer best suited to their needs, the Authority has introduced the

⁸⁴ Companies connected to the low voltage grid with between 10 and 50 employees and/or an annual turnover of between 2 and 10 million euros.

⁸⁵ Companies with fewer than 10 employees, an annual turnover of no more than 2 million euros and at least one delivery point with a contractually agreed power of more than 15 kW.

⁸⁶ According to the Decree-Law of June 18th, 2007, n. 73, amended by Law n.125 of August 3rd, 2007, "small companies" are final customers different from domestic clients with less than 50 employees and an annual turnover or a balance sheet no higher than 10 million Euro.

gradual standard offer service⁸⁷. According to the law⁸⁸, the standard offer service will end for all customers, including households, on 1 January 2023.

The first results of the Annual Survey show that in 2020, 35.5 TWh will be sold, under standard offer conditions, to around 15.9 million delivery points (calculated with the "pro die" criterion). In 2019 consumption dropped to 5.1 TWh (-12.8%), while the delivery points supplied points decreased by 1.7 million units (-9.6%).

While for domestic customers there are similar reductions in the number of points served (-9%) and in consumption (-8.2%), for non-domestic customers the reduction in quantities sold (23%) is much more pronounced than that of points served (13%): this figure shows a clear reduction in per capita consumption linked to the contraction of economic activity following the outbreak of the pandemic. There were smaller changes in public lighting, with a 1.4% decrease in the number of points served and a 13.8% decrease in energy sold, but this is a fairly marginal consumption sector. As a result of the above, the shares of the various categories in total consumption have changed significantly compared to 2019. 72.4% of the volumes (25.7 TWh) were purchased by domestic customers (68.8% in 2019), who, in terms of numbers (13.6 million delivery points), account for 85.6% of the total.

In the context of **domestic customers** (Table 3.13), residents represent 78.3% of the delivery points and 89.3% of consumption. 91.2% of residents have a contract with power up to 3 kW.

Table 3.13 Domestic customers with standard condition service per type and consumption class in 2020

TYPE OF CUSTOMER AND ANNUAL CONSUMPTION CLASS	VOLUMES (GWh)	SHARE OF VOLUMES	DELIVERY POINTS (thousands)	SHARE OF CUSTOMERS	AVERAGE CONSUMPTION (kWh)
0-1,000 kWh	1,734	6.8%	4,207	30.9%	412
1,000-1,800 kWh	4,433	17.3%	3,168	23.3%	1,399
1,800-2,500 kWh	5,246	20.4%	2,466	18.1%	2,128
2,500-3,500 kWh	6,353	24.7%	2,169	15.9%	2,929
3,500-5,000 kWh	4,681	18.2%	1,151	8.5%	4,066
5,000-15,000 kWh	2,933	11.4%	448	3.3%	6,541
> 15,000 kWh	304	1.2%	12	0.1%	25,203
TOTAL DOMESTIC	25,684	100.0%	13,622	100.0%	1,886
OF WHICH:					
Domestic residents up to 3kW	19,253	75.0%	9,729	71.4%	1,979
Domestic residents over 3kW	3,686	14.4%	943	6.9%	3,908
Domestic non-residents	2,745	10.7%	2,950	21.7%	930

Source: ARERA. Annual Survey on Regulated Sectors.

In 2020 the average unit consumption of domestic customers was 1,886 kWh/year, slightly higher than the 1,869 kWh recorded in 2019. Although power up to 3 kW remains the most common type of contract among resident domestic customers (71.4%), there was a slight decrease compared to the previous year (71.9%), due to a greater need for power in relation to new domestic use, at least in part linked to lockdown periods; as further proof, the average consumption of this category of customers rose to 1,979 kWh/year, 14 kWh higher than that observed in 2019. The average

⁸⁷The gradual standard offer service started on 1 July 2021. See below (paragraph 3.2.2.2).

⁸⁸ Article 1, paragraph 60 of Law no. 124 of 4 August 2017.

consumption of residents with a connected power of more than 3 kW is much higher, at 3,908 kWh, and even higher, at 3,850 kWh the previous year, and the share of this category is also increasing, at 6.9% of domestic delivery points (previously 6.5%). The share of non-residents has remained essentially the same, while their average unit consumption has fallen from 950 kWh in 2019 to 930 kWh in 2020. Almost all (88.2%) households served under standard conditions, however, consume less than 3,500 kWh per year.

The most prevalent contract conditions in the standard offer regime are, as usual, the mandatory two-tier tariff and time-of-use tariff that concern 97.5% of delivery points. Nearly all domestic customers (97.4%) pay the mandatory two-tier tariff, an economic condition that varies at hourly bands during the day and that, since July 1st, 2010, is automatically applied to the customers equipped with a re-programmed smart meter; only 1.7% of the customers pays the voluntary time-of-use tariff, that is the one explicitly requested by the customers even before July 1st, 2010; the old non time-of-use tariffs is applied to the remaining 0.9% of domestic delivery points.

Table 3.14 highlights the consistency by consumption class of the delivery points (2.3 million) and volumes (9.8 TWh) relating to **non-domestic uses** served under standard conditions, by consumption class. As in 2019, just over one fifth (22%) of energy was sold to customers of the first consumption class (<5 MWh/year) that makes up 82.6% of the entire range of non-domestic consumers. The second class of customers with an annual consumption between 5 MWh and 10 MWh, includes 8.1% of the delivery points and absorbs 13.3% of the electricity sales. Therefore 90.6% of the non-domestic customers who purchase electricity in the standard offer service have annual consumptions that do not exceed 10 MWh.

Table 3.14 Non-domestic customers with standard condition service per type and consumption class in 2020

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

TYPE OF CUSTOMER AND ANNUAL CONSUMPTION CLASS	VOLUMES (GWh)	SHARE OF VOLUMES	DELIVERY POINTS (thousands)	SHARE OF CUSTOMERS	AVERAGE CONSUMPTION (kWh)
0-5 MWh	2,153	22.0%	1,900	82.6%	1,134
5-10 MWh	1,303	13.3%	186	8.1%	7,018
10-15 MWh	897	9.2%	73	3.2%	12,228
15-20 MWh	709	7.3%	41	1.8%	17,276
20-50 MWh	2,259	23.1%	75	3.3%	30,212
50-100 MWh	1,300	13.3%	19	0.8%	67,419
100-500 MWh	1,060	10.8%	7	0.3%	157,745
500-2,000 MWh	83	0.8%	0	0.0%	704,974
2,000-20,000 MWh	10	0.1%	0	0.0%	3,160,444
20,000-50,000 MWh	0.5	0.0%	0	0.0%	25,064,950
TOTAL NON DOMESTIC	9,774	100.0%	2,300	100.0%	4,249
OF WHICH:					
Public lighting	309	3.2%	18	0.8%	17,300
Non-domestic other uses up to 16.5 kW	4,974	50.9%	2,119	92.1%	2,347
Non-domestic other uses over 16.5 kW	4,491	45.9%	164	7.1%	27,459

Source: ARERA. Annual Survey on Regulated Sectors.

The delivery points with power lower than 16.5 kW represent 92% of the non-domestic consumers supplied in standard offer and 51% of the consumption. The delivery points with power greater than

16.5 kW, although representing only 7% of these consumers, absorb 46% of sales, as they are characterised by higher annual consumption: half of their delivery points fall in the classes with consumption between 20 and 500 MWh. Finally, delivery points with public lighting use account for 0.8% of customers and consume 309 GWh, 3.2% of the electricity purchased by non-domestic customers under standard conditions. Among non-domestic consumers (other uses) the most prevalent economic condition is time-of-use, as well: it is, in fact, applied to 98.5% of the delivery points and 98.7% of the volumes sold. The alternative is the non time-of-use tariff, which concerns 1.3% of delivery points and 1.1% of energy. Even more marginal are the shares of the two-tier tariff, with which 0.2% of customers and the energy purchased are billed.

Safeguarded category market

The safeguarded category market is composed of the non-domestic customers who have no sales and purchase contract in the free market, even only temporarily, but who are not qualified to access the standard offer market. These consumers are admitted to the safeguard service when they remain in arrears.

Since 2008 this service has been provided by suppliers selected by auction⁸⁹, obtaining the right to provide the service for two consecutive years. The auction for the safeguard service for the 2019-2020 two-year period ended at the end of 2018 with the service being awarded to three vendors: A2A Energia, Enel Energia and Hera Comm, the same companies that were also awarded the service for 2021-2022 in November 2020.

According to the data received from the three safeguard service operators, in 2020, and for the third consecutive year, the service was further restricted. More precisely, 69,914 delivery points were supplied under this regime last year (calculated with the "pro die" criterion, meaning they were counted for the fractions of year for which they were supplied), compared to the 75,988 points in 2019 (80,457 in 2018 and 91,345 in 2017). Overall, 3,065 GWh were withdrawn compared to 3,643 in 2019. Therefore, the safeguard market shrunk by approximately 8% in terms of delivery points and 16% in terms of consumed energy, compared to 2019 (Table 3.15).

Table 3.15 Safeguard service by type of customer

TYPE OF CUSTOMER	VOLUMES (GWh)			DELIVERY POINTS (thousands)		
	2019	2020	VARIATION	2019	2020	VARIATION
Public lighting	454	377	-16.8%	17.4	15.1	-13.3%
Other uses	3,190	2,688	-15.7%	58.6	54.8	-6.4%
TOTAL SAFEGUARD	454	377	-15.9%	76.0	69.9	-8.0%

Source: ARERA. Annual Survey on Regulated Sectors.

Overall, the number of delivery points with public lighting use served under the safeguard service decreased by about 2,300, while points for other uses decreased by about 3,700. Consumption for street lighting decreased by 16.8%, and consumption for other uses decreased by 15.7%, from 3,190 to 2,688 GWh.

Enel Energia's share of the safeguard market (which had drastically decreased in 2019, as the

⁸⁹ Organised by the Acquirente Unico (single buyer) according to the directives established by the Authority, as set out in the Decree of the Ministry of Economic Development of 23 November 2007.

company won the auction for the service by six regions less than in 2018) remained unchanged at 22.1%, Hera Comm's share decreased slightly from 72.1% to 71.3%, while A2A Energia's share increased from 5.8% to 6.6%.

Free market

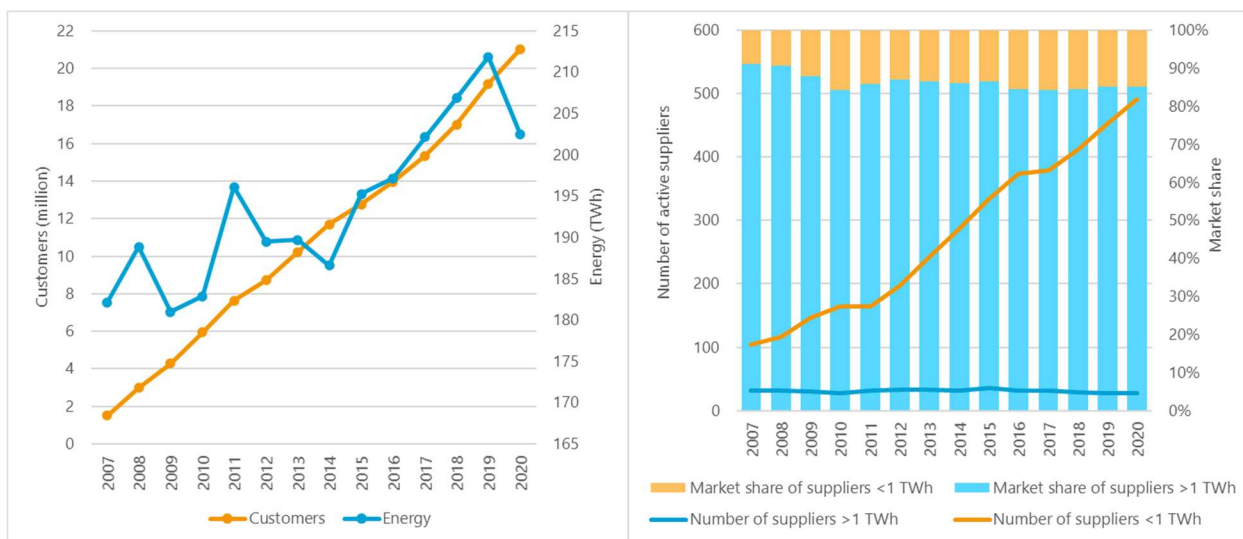
As seen in the previous pages, according to the (provisional) data collected in the annual surveys on the regulated sectors, 202.4 TWh were sold in the free electricity market in 2020, 9.4 TWh less than in 2019, to 21 million customers, with an increase of 9.6% compared to 2019.

Since its opening in 2007, the number of free market customers has increased steadily and markedly. In terms of energy sold, the free market has expanded considerably over the same period: from an initial 182 TWh, the market is now 11% larger, although this expansion has not taken place at a rapid pace and has even experienced some setbacks over the thirteen years of its existence. 2020, a year in which the pandemic led to an unprecedented production crisis, is precisely a case in which, despite a considerable fall in electricity sales, the number of customers served grew significantly, thanks mainly to the shift of customers from the standard offer service.

Regardless of the trend in quantities sold, however, the number of suppliers active on this market has been growing continuously since 2007, or rather, every year there is an increase in the number of companies with sales of less than 1 TWh, despite their market share being more or less stable at around 15% (Figure 3.10). In 2020, in fact, the growth in the number of operators proved to be dynamic: according to the responses obtained from the annual survey on regulated sectors, there were 38 new active companies (+7.9%). Since the market has shrunk in the meantime, and not just slightly, the average unit sales volume of companies operating on the market has fallen again, something which has also continued over time.

In 2020, the average unit sales volume of companies operating on the free market was 390 GWh, i.e. 11.4% lower than the 440 GWh in 2019, and thus reached a new low point in the historical series. Compared to the value observed in 2007 (1,349 GWh), i.e. in the year when the market was fully opened up, the current value is in fact 3.5 times lower.

Figure 3.10 Evolution of the free electricity market



Source: ARERA. Annual Survey on Regulated Sectors.

The corporate composition of the share capital of companies operating in the sale to free end-customers as at 31 December 2020, limited to direct first level holdings, shows a low foreign presence, with only 4.7% of the total capital shares held by persons of foreign origin. Only 30 companies (out of the 510 that provided this data) have a non-Italian majority shareholder (in 2019, however, there were 21 out of 455). Foreign direct shareholders are mostly German, Spanish, Chinese or Luxembourg companies, but there are also majority shareholders from other countries (Austria, Belgium, Ireland, the Netherlands, Portugal, the United Kingdom, Romania, Slovenia, the United States of America and Switzerland).

Of the 519 active suppliers in the free market that responded to the annual survey, 30% sell energy in 1 to 5 regions; 175 companies, or 34%, sell electricity almost all over Italy, i.e. in at least 18 regions; the remaining 190 companies (37%) operate in 6 to 17 regions.

The details of the customers per type and voltage (Table 3.16) shows an increase of nearly 1.8 million supplied points. This result is due almost exclusively to low-voltage customers, and in particular to domestic customers, although a significant increase in numbers was also recorded at the delivery points of other low-voltage connected users. Domestic delivery points served in the free market increased by 1,637,000, or 11.3%, compared to 2019; 150,000 new delivery points purchased electricity in the free market for other low-voltage uses (+3.5%), while medium-voltage points increased by 43,000 units (+42.1%). The number of high and very high voltage delivery points also increased (3.7%) to over 1,000.

Despite the growth in the number of points served, energy sales have fallen sharply, although concentrated almost exclusively in 'other uses'. In fact, sales to domestic customers rose by 13.7% compared to 2019, partly due to the arrival of customers from the standard offer service, and partly due to the boost caused by the pandemic and measures restricting travel. The expansion of domestic consumption limited the decline in the low-voltage segment, where purchases by other types of customer (public lighting and other uses), on the other hand, recorded significant declines of 4.1% and 9.4% respectively.

Table 3.16 Free market by type of customer

TYPE OF CUSTOMER	VOLUMES (GWh)			DELIVERY POINTS (thousands)		
	2019	2020	VARIATION	2019	2020	VARIATION
Low voltage	88,960	87,752	-1.4%	19,079.00	20,873.00	9.4%
Domestic	29,984	34,107	13.7%	14,536.00	16,173.00	11.3%
Public lighting	3,904	3,745	-4.1%	229.00	236.00	3.1%
Other uses	55,072	49,900	-9.4%	4,314.00	4,463.00	3.5%
Medium voltage	96,492	90,075	-6.7%	102.00	146.00	42.1%
Public lighting	255	257	1.1%	0.76	0.81	6.2%
Other uses	96,238	89,818	-6.7%	102.00	145.00	42.4%
High and very high voltage	26,385	24,609	-6.7%	1.00	1.04	3.7%
Other uses	26,385	24,609	-6.7%	1.00	1.04	3.7%
TOTAL	211,838	202,436	-4.4%	19,183.00	21,020.00	9.6%

Source: ARERA. Annual Survey on Regulated Sectors.

As always, among **domestic customers**, the most important class in terms of delivery points is the one with consumption between 1,000 and 1,800 kWh, just under one quarter of customers. However, the neighbouring classes also have a similar weight. If we consider the purchase volumes, the most

important class is the one with consumption between 2,500 and 3,500 kWh/year, in which 25% of all the energy purchased by the domestic sector in the free market is sold. In fact, 86.1% of delivery points have a consumption level that does not exceed 3,500 kWh/year (Table 3.17).

In 2020 just over one million households will have signed up to a dual fuel contract⁹⁰. The number of customers with this type of contract has fallen sharply, considering that in 2019 it was around twice as high (1,950,000 points); the respective share of the total number of customers served in the free market has therefore fallen to 6.5% from 13.4%, after maintaining a fairly constant trend over time. The total consumption of customers with a supply contract for electricity and gas is 2.5 TWh, 6.9% of all energy sold to domestic customers on the free market. The average consumption of dual-fuel customers in the various classes is slightly higher (about 6% on average) than that of customers with electricity-only contracts.

Table 3.17 Domestic free market in 2020 by consumption class

CONSUMPTION CLASS	VOLUMES (GWh)	SHARE OF VOLUMES	DELIVERY POINTS (thousands)	SHARE OF DELIVERY POINTS	AVERAGE CONSUMPTION (kWh)
< 1,000 kWh	1,793	6.0%	3,536	24.2%	507
1,000-1,800 kWh	5,156	17.1%	3,664	25.1%	1,407
1,800-2,500 kWh	6,259	20.8%	2,930	20.1%	2,136
2,500-3,500 kWh	7,561	25.1%	2,576	17.7%	2,935
3,500-5,000 kWh	5,442	18.1%	1,335	9.2%	4,076
5,000-15,000 kWh	3,515	11.7%	532	3.6%	6,605
> 15,000 kWh	375	1.2%	15	0.1%	24,455
TOTAL DOMESTIC	30,102	100.0%	14,590	100.0%	2,063
<i>of which with dual fuel contract</i>					
< 1,000 kWh	212	5.3%	411	21.0%	517
1,000-1,800 kWh	745	18.7%	528	27.1%	1,410
1,800-2,500 kWh	920	23.1%	431	22.1%	2,135
2,500-3,500 kWh	1,057	26.5%	361	18.5%	2,930
3,500-5,000 kWh	670	16.8%	165	8.5%	4,059
5,000-15,000 kWh	349	8.8%	54	2.7%	6,517
> 15,000 kWh	34	0.8%	1	0.1%	24,194
TOTAL WITH DUAL FUEL CONTRACT	3,987	100.0%	1,950	100.0%	2,044

Source: ARERA. Annual Survey on Regulated Sectors.

In contrast with what happens in the standard offer service, where the two-tier tariffs are predominant as they became compulsory from a certain date onwards, the unbundling of the customers by applied tariff in the free market shows a constant substantial preference for the non time-of-use price, which has been chosen by 62.1% of all customers (equivalent to 60.7% of volumes). 29.5% of customers chose two-tier tariffs and only 8.4% chose time-of-use tariffs, the latter down from 9.2% in 2019. The elements that make the non time-of-use price more attractive are probably linked to how simple it is to calculate and check bill costs, as well as the absence of a constraint on consumption times.

Concerning **non-domestic** customers, the sales in terms of volumes are fairly concentrated in the

⁹⁰ Dual fuel customers are the ones who receive one bill for both electricity and natural gas supplies; customers who have a contract with the same supplier for electricity and natural gas services, but receive two bills for the supplies, are excluded from this.

consumption classes that range from 100 to 20,000 MWh/year, which together include 57.9% of the energy purchased by the non-domestic sector altogether. However, 64.5% of customers belong to the first class, meaning that they consume less than 5 MWh per year. Overall, the average consumption of all non-domestic customers purchasing electricity on the free market stood at 34,733 kWh in 2020, 11.3% lower than the figures for 2019 (39,139 kWh). Dual fuel contracts have not spread widely among the non-domestic customers in 2019: the delivery points that preferred this type of supply are around 68.000 on the approximately 4.8 million total (1.4%) and almost all connected at low voltage; the purchased energy is equal to 1.3% of the total.

Available offers in the free electricity market

The *Annual Survey on Regulated Sectors* once again this year asked electricity and natural gas suppliers a number of questions aimed at assessing the number of offers that companies make available to customers who choose to be supplied on the free market and, above all, the distribution of their customers between the different types of contract that they have actually chosen.

The panorama of commercial offers available on the free market is a very complex and varied reality, enriched for several years by the presence of the PLACET (free price under equivalent protection conditions) offers. In fact, each free market supplier is obliged to include in its commercial offer menu, for the benefit of small customers⁹¹, two PLACET offer formulas - 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 the supplier is free to define (in accordance with a predefined fee structure). The data discussed below on the types of contracts chosen by customers in 2020 also include PLACET offers, but do not distinguish them⁹².

The objective of the questions asked to suppliers on the quantity and quality of commercial offers actually chosen by customers was, as in previous years, aimed at classifying the numerous offers on the market, although not completely exhaustive of reality. Therefore, please accept with caution the results presented in these pages. In addition, since the supply of non-domestic customers traditionally has much more varied and complex needs than that of households, the reporting of the results collected focuses practically only on the latter.

The average number of commercial offers that each supplier is able to make to its potential customers was 17.6 for domestic customers and 25.8 for non-domestic customers, who obviously have a greater choice and for whom the supplier is certainly able to provide more personalised services and individualised contracts. The number of offers available to non-domestic customers increased slightly compared to 2019, when it stood at 24.2: in a year of sharply reduced consumption by production uses, the slight increase in the number of offers available could be a sign of an effort by suppliers to better meet customer demands in an attempt to contain losses. By contrast, the number of offers for domestic customers, which - as seen on the previous pages - expanded moderately in 2020, remained largely unchanged (at 17.4). Indeed, the proportion of suppliers

⁹¹ PLACET offers are intended to increase the ability of small customers, identified, for the electricity sector, as all customers (domestic and non-domestic) connected to the low-voltage network and, for the natural gas sector, as end customers (domestic, central heating and other uses) holding points with annual consumption of less than 200,000 m³, to assess commercial offers. They have offer structures that are easy to understand, comparable between suppliers (differing only in price level) and must be distinct from any additional service offerings from the same supplier.

⁹² For more information on the uptake of PLACET offers, see the Retail Market Monitoring Report published on the Authority's website (www.arera.it/it/operatori/Monitoraggio_retail2.htm).

offering a relatively low number of offers (one or up to three) rose from 49% in 2019 to 56%. Compared to 2019, the number of suppliers offering 4 to 8 offers also decreased, while the share of those offering 9 to 10 different types of contracts increased somewhat.

Of the 17.6 offers made available on average to domestic customers, 4.5 can only be purchased online (5.1 in 2019 and 5.9 in 2018), i.e. only through the internet, a rather counterintuitive result in a year when much of business had to take place remotely due to travel restrictions. The share of suppliers with at least one online offer has, however, increased from 20.8% to 22.4%. In 23.1% of cases the number of online offers was equal to the number of total offers to customers, in the remaining 76.1% of cases the number of online offers was lower than the total offers. The success of online offers among households remains limited, but is growing: in 2020, 7.4% of customers (corresponding to 7.8% of electricity purchased in the free market) signed a contract offered through this method. This result is higher than in 2019, when 4.4% of households chose to sign up to an electricity offer via the internet.

With regard to the type of price preferred, it was found that 84% of domestic customers signed a fixed price contract in the free market (i.e. with the price not changing for at least one year from the moment of signing), while only 16% chose a variable price contract, i.e. with the price changing at a time and in a manner determined by the contract itself. The figures are quite similar to those recorded in 2019, but the preference for variable pricing has increased slightly, as the previous year it was chosen by 15.2% of household customers. In addition, 3.2% of customers have signed a contract that includes a minimum contractual duration clause, meaning that the customer must not switch supplier for a minimum amount of time set in the contract in order for the price set to apply. The percentage is higher with variable price contracts where the minimal contractual duration is applied to 12.6% of customers, while this figure is 1.3% in the case of fixed price contracts.

There are different types of indexing modes for variable price contracts. 31.9% 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 (they were 32.5% in 2019); 65.1% of customers chose a contract that provides for indexation to the trend of the PUN and 1.8% of customers chose one that is indexed to the trend of Brent (the previous year the values were: 57.7% for contracts indexed to the PUN and 6.4% for those indexed to Brent). Finally, 1.1% of customers chose a contract with a form of indexation other than those mentioned above (in 2019, the percentage was 3.4%).

Approximately 22% 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 may be one-off or permanent, possibly subject to the occurrence of a specific circumstance (for example, a discount for contracts signed by friends of the customer, a discount for direct automatic bank payments, etc.). More in detail, it turns out that the discount is applied to an average of 18% of the customers who chose a fixed price contract and to 42% of the customers who chose the variable price contract. The share of contracts purchased that provide for a rebate or discount remained stable compared to 2019, when it was 21%.

In the *Annual Survey 2020* further detail was obtained on the presence of additional services compared to the previous year. In particular, the following have been added to the usual types of

additional services offered in previous years⁹³:

- guarantee of energy produced in Italy;
- other products or services offered in conjunction with electricity (for example, internet, telephone subscription, television subscription, insurance/financial product, etc.);
- a combination of additional services (where it is necessary to specify which additional services are covered by the contract, choosing between those already listed or others).

The introduction in the questionnaire of the option to indicate a combination of additional services may have made the responses less homogeneous than those collected in previous years, when the exclusion of this option may have led suppliers to include contracts with more than one additional service under a single heading: the service understood as most relevant.

The new options for identifying additional services in the contracts signed by domestic customers have had a moderate impact both on responses on fixed price contracts, where the presence of an additional service is "historically" high (Table 3.18), this year amounting to just under 80%, and on responses on variable price contracts, although in this case about half of the contracts signed include additional services. In particular, with regard to domestic customers who chose a fixed-price contract, suppliers indicated the option "a combination of additional services" with an incidence in terms of delivery points of 8%. However, the questionnaire asked them to specify the combination of additional services included in the contracts chosen by their customers. Therefore, it was possible to reallocate the delivery points pro rata to the individual additional services.

The results showed that, as in the past, there was a clear customer preference for both the guarantee to buy electricity produced from renewable sources (39.4%) and participation in a points collection programme (31.1%). The provision of ancillary energy services is also of interest (3.3%), as is the guarantee to buy electricity produced in Italy (2.3%). This is followed by benefits on the purchase of other goods or services (0.9%) and receiving a gift. Services other than those indicated received a residual preference of 2.1%.

In 2020, however, the proportion of customers with a variable-price contract who chose one without additional services rose further to 53.2%. Among these customers, 8.8% of customers had contracts that included a combination of additional services, which were also reallocated on a pro rata basis.

Similarly, among customers purchasing variable price contracts that include additional services, the greatest interest is in the guarantee of purchasing electricity produced from renewable sources (25.7% of cases). The second preference goes to the possibility of obtaining accessory energy services alongside electricity (12.2%). Collecting points, getting gifts or gadgets and receiving benefits on the purchase of other goods or services received smaller shares of preference, 2.8%, 1.8% and 1.5% respectively. The guarantee of purchasing energy produced in Italy has not attracted preference

⁹³ The additional services that were historically suggested in last years' questionnaires were the following:

- guarantee of energy from renewable sources (total or percentage green offer);
- points collection programme (own or others);
- ancillary energy services (for example, digital and collaborative tools to control energy consumption and costs, tools to increase energy efficiency, professional services such as telephone assistance, plant maintenance, insurance on energy plants, etc.);
- gifts or gadgets;
- advantages over the purchase of other goods or services (for example, discounts on petrol, magazine subscriptions, etc.);
- others not included in the above items.

among variable price customers.

Table 3.18 Contracts for the supply of electricity by type of price and by type of additional services

Percentage of customers who signed the indicated contracts

CONTRACTS	2016	2017	2018	2019	2020
Fixed price	84.6%	83.9%	85.9%	84.7%	84.0%
Variable price	15.4%	16.1%	14.1%	15.3%	16.0%
Additional services of fixed price contracts					
No additional services	n.a.	n.a.	12.2%	12.4%	20.4%
Guarantee of energy from renewable sources	49.6%	45.7%	39.1%	44.3%	39.4%
Guarantee of energy produced in Italy	n.a.	n.a.	n.a.	n.a.	2.3%
Points collection programme (own or others)	42.2%	45.0%	36.0%	38.2%	31.1%
Accessory energy services	3.9%	5.7%	7.4%	2.6%	3.3%
Gifts or gadgets	n.a.	1.4%	0.2%	0.4%	0.4%
Advantages on buying other goods or services	2.6%	0.5%	0.3%	0.7%	0.9%
Other products or services offered in conjunction with electricity	n.a.	n.a.	n.a.	n.a.	0.02%
Other	1.8%	1.7%	4.7%	1.5%	2.1%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%
Additional services of variable price contracts					
No additional services	n.a.	n.a.	53.0%	52.3%	53.2%
Guarantee of energy from renewable sources	60.9%	48.9%	27.5%	28.0%	25.7%
Guarantee of energy produced in Italy	n.a.	n.a.	n.a.	n.a.	0.0%
Points collection programme (own or others)	5.8%	6.9%	2.5%	3.4%	2.8%
Accessory energy services	22.0%	16.1%	8.5%	10.5%	12.2%
Gifts or gadgets	n.a.	23.1%	3.1%	1.3%	1.5%
Advantages on buying other goods or services	4.1%	3.6%	1.4%	2.4%	1.8%
Other products or services offered in conjunction with electricity	n.a.	n.a.	n.a.	n.a.	1.3%
Other	7.2%	1.4%	4.1%	2.1%	1.5%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%

Source: ARERA, Annual Survey on Regulated Sectors.

Concentration in the retail electricity market

The classification (provisional, given the preliminary nature of the collected data) of the first twenty groups for total sales to the end market in 2020 (Table 3.19) has changed due to a shuffle in suppliers from the third position upwards.

As always, the Enel group remains the dominant operator in the entire Italian electricity market, albeit with a share that has been declining slightly for the past few years: in 2020, it fell to 35.6% (it was 36% in 2019), due to an overall reduction in sales (by a total of 7.1%), particularly significant in the case of non-domestic low-voltage (-14%) and medium-voltage (-6.5%) customers, while in the domestic segment the loss was 2.7%. However, the Enel Group remains far ahead of the Edison Group, which has also been firmly in second place for years. Indeed, the Edison group is in second place in the ranking with an overall share of 5.9%, up from 5.4% in 2019, thanks to moderate sales growth in all segments (2.9% in total), except in the low voltage non-domestic customer segment, where Edison's sales also fell by 4.9% compared to 2019.

Table 3.19 Top twenty groups for sales on the end market in 2020

GROUP	SALES (GWh)				TOTAL	POSITION IN 2019
	DOMESTIC CUSTOMERS	NON-DOMESTIC CUSTOMERS LV	MV	HV/VHV		
Enel	37,886	23,736	19,482	4,619	85,723	1st
Edison	1,181	2,230	6,886	3,868	14,165	2nd
A2A	1,911	3,372	7,079	848	13,211	4th
Hera	1,961	3,544	6,398	399	12,302	3rd
Axpo Group	117	1,723	5,731	3,415	10,984	5th
Eni	4,322	992	4,123	825	10,263	6th
Acea	1,970	1,705	2,423	502	6,599	10th
E.ON	573	2,218	3,418	315	6,524	8th
Duferco	108	791	1,238	3,039	5,176	11th
Alperia	350	1,009	3,413	260	5,031	12th
Engie	413	147	1,822	2,500	4,883	16th
Iren	1,494	1,199	1,648	240	4,581	9th
Green Network	305	1,071	2,244	876	4,495	7th
Egea	119	1,170	2,972	204	4,465	13th
RepowerAG	0	1,874	1,798	51	3,723	15th
Dolomiti Energia	704	1,318	1,422	35	3,478	17th
Sorgenia	374	1,174	1,095	33	2,676	18th
Nova AEG - Nova Coop	23	647	1,561	33	2,263	20th
CVA	124	768	1,248	6	2,146	14th
Agsm Verona	323	811	917	93	2,144	19th
Other operators	5,535	13,057	14,890	2,649	36,130	-
TOTAL OPERATORS	59,791	64,556	91,806	24,807	240,960	-

Source: ARERA. Annual Survey on Regulated Sectors.

The Hera Group and A2A took third and fourth place in the ranking. A2A's sales grew considerably in 2020 (+16.1%), especially those to domestic customers (+23.5%) and to non-domestic medium voltage customers (+23.1%), but the group recorded an increase in all segments of the electricity market. Conversely, the Hera group's sales, which were 12.6 TWh in 2019, were 12.3 TWh in 2020, down 2%. The loss occurred among non-domestic low-voltage customers (-6.1%) and medium-voltage customers (-4.7%), but was partially offset by the growth in quantities distributed to domestic customers, which rose by 197 GWh (+11.2%).

The Axpo and Eni groups remained in fifth and sixth position, although the latter's decline (-1.9%) was slightly higher than that of Axpo (-0.7%). Again, in the case of both these groups, the reduction in sales was cushioned by the increase in energy sold to domestic customers, where Eni's share rose to 7.2% (from 6.4% in 2019), while the Axpo group doubled its sales (from 72 to 117 GWh).

The Acea, Duferco, Alperia and Engie groups also climbed, while Iren (from ninth to twelfth place), Green Network (from seventh to thirteenth place) and CVA (from fourteenth to nineteenth place) fell.

Table 3.20 highlights the detail of the concentration measures, also distinguished by voltage levels. In the first part of the table, the measures are calculated from the volumes sold by corporate groups in the retail market, while in the second part of the table, the measures are calculated on the basis of the customers (delivery points) served by the corporate groups themselves.

Table 3.20 Concentration measures in the retail electricity market

Measures calculated on corporate groups

VOLTAGE LEVEL	2019			2020		
	GROUPS >5%	C3	HHI	GROUPS >5%	C3	HHI
MEASURES CALCULATED BASED ON THE ENERGY SOLD BY THE CORPORATE GROUPS						
Domestic customers	2	76.9%	4,599	2	73.9%	4,115
Non-domestic customers	5	39.1%	955	5	39.8%	937
Low voltage	2	47.5%	1,559	3	47.5%	1,492
Medium voltage	5	34.7%	717	5	36.4%	756
High and very high voltage	6	46.8%	1,093	5	48.0%	1,092
TOTAL MARKET	2	46.3%	1,464	4	46.9%	1,446
MEASURES CALCULATED BASED ON THE CUSTOMERS SUPPLIED BY THE CORPORATE GROUPS						
Domestic customers	2	77.6%	4,761	2	75.2%	4,325
Non-domestic customers	1	62.5%	3,130	1	61.0%	2,929
Low voltage	1	62.9%	3,173	1	61.3%	2,976
Medium voltage	2	42.7%	1,063	3	43.6%	1,033
High and very high voltage	4	40.9%	761	5	37.4%	668
TOTAL MARKET	2	74.1%	4,402	2	72.0%	4,028

Source: ARERA. Annual Survey on Regulated Sectors.

Using the concentration measures calculated on the energy sold, it can be seen that in 2020 the level of concentration in the market overall remained largely unchanged. The C3, that is the share of the first three operators (corporate groups) went up to 46.9% of the total sales, while it was at 46.3% in 2019. The HHI index fell to 1,446, from 1,464 recorded in 2019, remaining below the first warning threshold of 1,500. An 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). However, the number of corporate groups with a share of more than 5% has risen from 2 to 4: the Enel group (this year with a share of 35.6%, which in 2019 was 36%) and the Edison group (with a share of 5.9%) have also been joined by the A2A group (5.5%) and Hera (5.1%). However, the concentration of the Italian electricity market has two opposing sides: in the household segment it is high, albeit decreasing constantly, while in that of non-domestic customers it is very low and stable.

Using the indicators calculated on the delivery points, the concentration values are higher than those indicated by the volumes of energy sold, except - obviously - those relating to non-domestic customers served at high and very high voltage. However, in comparison with 2019, the data show a reduction in concentration in almost all market segments and especially in that of low-voltage connected non-domestic customers.

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

Monitoring of the retail market price level

The Authority collected two sets of data for the sales prices in the retail electricity market:

- that of *Average prices applied in the electricity and natural gas market* carried out according to the Resolution of 29 March 2018, 168/2018/R/com, in which the quarterly data relative to the charges billed⁹⁴ by the suppliers to the domestic and non-domestic customers is recorded at half-yearly intervals, divided into consumption classes and market types;
- the other carried out within the context of the Annual Survey on Regulated Sectors, in which the data for the previous year is recorded and divided according to several retail categories (type of market, sector and consumption classes, type of contract).

The prices collected on the basis of Resolution 168/2018/R/ com are also included in the monitoring of the retail market carried out by the Authority pursuant to the *Integrated text of the monitoring of the retail markets for electricity and natural gas* (TIMR)⁹⁵, which, in addition to prices, carries out the analysis of a number of indicators relating to operators making final sales of electricity with more than 50,000 delivery points served (see below). Based on an institutional agreement, all the data collected according to the Resolution 168/2018/R/com are sent on a half-yearly basis to the Ministry of Economic Development, who sends them to Eurostat, in order to fulfil the obligation on statistics of the end prices of electricity and natural gas. These obligations were amended in 2016, with the adoption of *Regulation (EU) 2016/1952 on European statistics on natural gas and electricity prices and repealing Directive 2008/92/EC*. The Authority therefore updated⁹⁶ its systems for recording prices charged by electricity and natural gas suppliers to final customers to adapt them to the requirements of the new European Regulation. Since Italy has obtained an extension for the application of Regulation 2016/1952, these new price reporting systems have been applied starting from the price communication referring to the first half of 2019. The *Annual Survey* data are more detailed for annual reporting to national and European authorities.

Within the Annual survey on the regulated sectors, the sales operators have been requested to transmit the data relative to the end price practised to their customers, net of taxes, for the part connected to the single supply costs, which are obtained from the sum of the components relative to the energy, the dispatching, the network losses, the imbalance and the marketing costs of the sale.

The first (provisional) results of the analysis of the data submitted by operators, both for the supply cost component alone and for final prices net of taxes, show a high variability in customers' unit expenditure. As we can see in Table 3.21, which shows the averages of the prices applied to domestic customers divided by consumption classes, the values are between 136 €/MWh, for the larger customers (over 15,000 kWh/year) and 555 €/MWh, relative to the smaller class (0-1,000 kWh).

The price constantly drops as the size of the customers increases. This is due to the implementation of the reform of network tariffs and system charges, aimed at gradually phasing out the existing progressive tariff structure. As always, the supply cost also decreases steadily as consumption

⁹⁴ More precisely, these are average unit costs obtained from the relation between the payments received and the quantity of energy invoiced in the reference quarter period.

⁹⁵ Approved with Resolution 3 November 2011, ARG/com 151/11.

⁹⁶ Precisely with Resolution 168/2018/R/com which also repealed the previous Resolution of 20 November 2008, ARG/elt167/08, relating to the same collection of prices.

increases, from 191 €/MWh in the smallest class to 78 €/MWh in the largest. Compared to the previous year, there were decreases of about 6% for all domestic customers (both in the total price and in the supply component), but here too the results are linked to the size of consumption: while the values for customers in the smallest class (up to 1,000 kWh/year) were essentially the same as the previous year, for the largest ones (over 15,000 kWh/year) there were decreases of 11% in the supply component.

Table 3.21 Average prices to domestic customers in 2020

CONSUMPTION CLASS (kWh/year)	QUANTITY OF ENERGY (GWh)	DELIVERY POINTS (thousands)	PRICE NET OF TAXES (€/MWh)	OF WHICH: SUPPLY COSTS (€/MWh)
< 1,000 kWh	3,620	8,065	553.6	192.4
1,000-1,800 kWh	10,047	7,137	242.9	119.2
1,800-2,500 kWh	12,101	5,665	203.8	107.5
2,500-3,500 kWh	14,890	5,071	185.7	101.2
3,500-5,000 kWh	11,100	2,727	172.9	95.9
5,000-15,000 kWh	7,207	1,100	162.8	90.4
> 15,000 kWh	827	31	136.4	78.0
TOTAL DOMESTIC CUSTOMERS	59,791	29,795	215.4	108.4

Source: ARERA. Annual Survey on Regulated Sectors.

Table 3.22 shows the breakdown of prices between the free market and the standard offer service: the value of the component relating to supply costs presents lower values in all classes in the standard offer service than in the free market, which is on average 57% more expensive. In terms of average final price (after tax) the difference drops to 23.6%.

Compared to the previous year, there was a generalised increase in the differentials between the two markets, stemming from their differing development. The free market has values that are almost the same as the previous year (only the largest and smallest classes show significant variations, just over 5% and opposite to each other), while the standard offer service underwent an average decrease of 20%, ranging from -6% in the smallest class (up to 1,000 kWh/year) to -29% in the largest class (consumption over 15,000 kWh/year); these reductions reflect the sharp drop in prices in the wholesale markets that occurred in 2020, also as a result of the spread of the pandemic. On the other hand, the free market, where contracts at a fixed price for a predetermined period predominate, has passed on these reductions to customers to a very small extent. Similar results to those described above can be seen when comparing the two markets in terms of final price (net of taxes), except for a lower percentage incidence of differentials, averaging 24%, and the countertrend behaviour of the first consumer class, for which the free market presents a slightly lower price level, which can be attributed to a different incidence of resident customers, who are less burdened by system charges. In order to analyse the above-mentioned differentials, in addition to what has been said about the wide use of fixed price contracts, it is also necessary to consider what has already been highlighted in the paragraph on the free market, in particular the presence of commercial offers featuring the joint purchase of the energy supply and other goods or services of various kinds (assistance services, maintenance, insurance policies, telephone services, discounts in supermarkets or on fuel, etc.).

Table 3.22 Average prices to domestic customers in 2020 by consumption class and market type

CONSUMPTION CLASS (kWh/year)	AVERAGE PRICE NET OF TAXES (€/MWh)			OF WHICH: SUPPLY COSTS (€/MWh)		
	STANDARD OFFER	FREE MARKET	DIFFERENCE	STANDARD OFFER	FREE MARKET	DIFFERENCE
< 1,000 kWh	559.5	548.2	-2.0%	175.0	208.4	19.1%
1,000-1,800 kWh	210.2	268.7	27.9%	90.8	141.7	56.0%
1,800-2,500 kWh	171.9	228.2	32.7%	78.8	129.4	64.2%
2,500-3,500 kWh	154.1	209.2	35.7%	72.4	122.7	69.3%
3,500-5,000 kWh	142.3	195.3	37.2%	67.8	116.4	71.8%
5,000-15,000 kWh	133.5	183.0	37.1%	63.2	109.0	72.4%
> 15,000 kWh	120.9	145.4	20.3%	56.9	90.4	58.9%
TOTAL DOMESTIC CUSTOMERS	189.9	234.7	23.6%	81.7	128.5	57.2%

Source: ARERA. Annual Survey on Regulated Sectors.

With regard to non-domestic customers, data on quantities and average costs of supply, broken down by voltage level, are shown in Table 3.23. The amount of the unit fees shows, as usual, an inverse relationship with the voltage level.

Table 3.23 Supply costs for non-domestic customers in 2020

VOLTAGE LEVEL	QUANTITY OF ENERGY (GWh)	DELIVERY POINTS (thousands)	SUPPLY COSTS (€/MWh)
Low voltage	64,556	7,065	91.5
Medium voltage	91,806	150	69.7
High and very high voltage	24,807	1	57.4
TOTAL NON-DOMESTIC CUSTOMERS	181,169	7,217	75.8

Source: ARERA. Annual Survey on Regulated Sectors.

Table 3.24 shows the breakdown of low voltage non-domestic customers by type of market. Unlike in previous years, the lowest charge is found in the standard offer service, while the free market, which now almost covers all energy sold, has the highest charge. What has been pointed out above for domestic customers may apply to this finding, in particular to the effects of fixed-price contractual formulas in periods of strong variations in wholesale prices.

Table 3.24 Supply costs for low voltage non-domestic customers in 2020, by type of market

MARKET TYPE	QUANTITY OF ENERGY (GWh)	DELIVERY POINTS (thousands)	SUPPLY COSTS (€/MWh)
Standard offer	9,774	2,300	83.7
Safeguarded	1,136	65	89.0
Free market	53,645	4,700	93.0
LOW VOLTAGE NON-DOMESTIC CUSTOMERS	64,556	7,065	91.5

Source: ARERA. Annual Survey on Regulated Sectors.

Table 3.25 Supply costs in 2020 by type of hourly tariff

HOURLY TARIFF	QUANTITY OF ENERGY (GWh)	DELIVERY POINTS (thousands)	SUPPLY COSTS (€/MWh)
Non time-of-use	20,919	10,159	133.8
Two-tier	35,857	18,272	93.2
Time-of-use	3,016	1,364	113.4
Domestic customers	59,791	29,795	108.4
Non time-of-use	27,915	1,474	80.0
Two-tier	43,179	966	75.8
Time-of-use	107,009	4,707	74.5
Non-domestic customers^(A)	178,103	7,147	75.7

(A) In the standard offer service and in the free market. Safeguarded customers for whom the tariff type is not available are excluded.

Source: ARERA. Annual Survey on Regulated Sectors.

Table 3.26 Supply costs in the free market applied for domestic customers with dual fuel contracts in 2020

CONSUMPTION CLASS (kWh/year)	QUANTITY OF ENERGY (GWh)	DELIVERY POINTS (thousands)	SUPPLY COSTS (€/MWh)
Domestic customers			
< 1,000 kWh	105	172	199.0
1,000-1,800 kWh	402	279	136.7
1,800-2,500 kWh	523	241	122.0
2,500-3,500 kWh	639	216	113.5
3,500-5,000 kWh	432	106	106.3
5,000-15,000 kWh	227	36	98.5
> 15,000 kWh	25	1	83.2
TOTAL DOMESTIC CUSTOMERS	2,353	1,051	120.1
Low voltage	1,054	68	86.7
Medium voltage	1,152	1	75.8
High and very high voltage	17	0	56.4
TOTAL NON-DOMESTIC CUSTOMERS	2,222	69	80.8

Source: ARERA. Annual Survey on Regulated Sectors.

Table 3.25 shows the value of supply costs, breaking down electricity customers by type of hourly tariff and excluding the safeguard market, while the following table shows the electricity prices paid by free market customers who have signed a dual fuel contract. For domestic customers, the electricity prices that emerge from dual fuel contracts are always more expensive compared to purchasing electricity with a specific contract. The tables show the reduced consistency of the number of these customers and the energy they purchased.

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

The **monitoring system of the retail markets** allows the Authority to accomplish the regular and systematic observation of the sale conditions, including the degree of liberalisation, market

competitiveness and transparency, and the level of participation of the consumers and their degree of satisfaction. Legislative Decree n. 93, of 1 June 2011, in implementation of Directives 2009/72/CE and 2009/73/CE, has established that the Authority must carry out the monitoring of the retail markets, with reference to the electricity and natural gas sectors. This activity was launched, for both mass customers market sectors, with the integrated *Integrated text of the electricity and natural gas retail sales markets monitoring system* (TIMR), as mentioned in the previous paragraph. Since, as just mentioned, the analysis is linked to between the electricity and gas sectors, the results of the monitoring for **both** sectors are shown below.

At the beginning of 2021, the Report illustrating the main outcomes of the retail market monitoring activity with reference to the year 2019⁹⁷ (2019 Report) was published, describing - where possible - the development of the relevant phenomena since 2012 (the first year of monitoring). Consistent with previous Reports, the 2019 Report analyses data collected on:

- structure of the offer and competitive dynamics in the sector of mass customer sales;
- the frequency with which customers change their supplier (switching) or renegotiate their contract with their current supplier;
- organisational processes and mechanisms to support the functioning of the sales market;
- arrears, as estimated by the analysis of the requests for supply suspension and based on financial indicators, such as invoices and un-paid amounts.

Compared to previous reports, many of the data on points served and customer switching, which were previously transmitted by the operators, have been transmitted by the Integrated Information System Manager (SII). Again with regard to 2019 indicators, issues related to the COVID-19 pandemic have slowed down collection and rectification of data from operators.

The results of retail monitoring for the year 2019, first of all, confirm that there are no specific critical issues of importance in the electricity sector for other uses connected to medium voltage. In particular, the increase in concentration is limited and customer dynamism is sustained. Therefore, also for the year under analysis, it is possible to state that the functioning of the market, with reference to the segment of other medium voltage uses, does not require any specific regulatory intervention.

For customers connected to the low-voltage - other uses service the evidence on the competitive dynamics and structure of the sales market shows, on the one hand, some encouraging signs of dynamism but, on the other hand, also aspects that require further verification. Although market sales to these customers are more concentrated than those to medium-voltage customers, the concentration indices are not such as to highlight any problems. Rather, it is the trend towards higher levels of concentration that is the area of concern and should be closely monitored in the coming years to assess its possible impact on the development of competition.

For domestic customers in the electricity sector, some of the signs of improvement seen in recent years are being consolidated. However, there remain potential critical issues that need to be addressed decisively, also with a view to phasing out price protection mechanisms. While the degree of concentration in the free market tends to decrease and the dynamism of customers tends to increase, the level of the relevant indicators is still more critical than for other customers. Signs of improvement in the degree of concentration are also gaining ground with regard to domestic customers and central heating in the natural gas sector.

⁹⁷ [Report 23 February 2021, 71/2021/I/com.](#)

The critical issues that have historically characterised these market segments, and which still persist today, suggest that greater attention should be paid to the process of supporting, including in regulatory terms, complete liberalisation. Particular attention should be paid, first and foremost, to the high levels of concentration and the continued competitive advantage of standard offer operators. Other elements likely to be examined further in the monitoring activity to come are impacts:

- on the pricing of offers available in the free market for individual additional services and other distinguishing features, also with a view to improving the comparability of offers and their analysis;
- of the different competitive dynamics between various marginal market segments that sales operators are able to achieve in each customer segment and when selling to free market customers;
- the market power held by some operators in the low-consumption customer segments, and in particular for domestic customers, the possible sustainability and effectiveness of aggressive pricing strategies in the high-consumption customer segments.

For both sectors, the above-mentioned elements, relating to the configuration of the markets and the difficulty faced by end customers in navigating the offers on the free market, must be taken into due consideration in the path of full liberalisation envisaged by Law No. 124/2017, which provides for the removal of the protection regimes, as illustrated in the paragraphs above. This is in order to avoid customers not being able to take full advantage of all the opportunities offered by the free market in the forthcoming context of full liberalisation.

In the meantime, the retail monitoring system continues to evolve, both to increasingly exploit the potential of the SII and, at the same time, to achieve other objectives: to expand and update the events monitored; to increase the detail of the information available; to define new and more timely methods of publication and reporting; and to lighten the reporting burden on operators.

To this end, the gradual publication of periodic retail monitoring analyses on the Authority's website⁹⁸ in open data format began in 2020.

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

The provisions for monitoring the quality of sales services ensure, on the one hand, that customers are protected in relation to certain services linked to sales services and, on the other hand, that elements of comparison are also available in relation to the results emerging from the Retail Monitoring Report.

The quality of sales services concerns all suppliers who sell electricity and natural gas to end customers. The Integrated text of the regulation of the quality of electricity and natural gas sales services (TIQV)⁹⁹, has established a series of rules to protect end customers and commercial quality indicators, which all electricity and gas sales companies are required to comply with. There are two types of indicators: general and specific. Written complaints, billing corrections and double billing corrections are subject to specific minimum standards on service time, while written requests for information are subject to general standards. In the event that the supplier does not comply with the specific commercial quality standards, the customer automatically receives compensation in the first

⁹⁸See the link www.arera.it/it/operatori/monitoraggio_retail.htm.

⁹⁹Annex A to Resolution of 21 July 2016, 413/2016/R/com.

bill. The automatic basic compensation (25 euros) doubles if the performance of the service subject to compensation takes place beyond twice the standard time and triples if the performance of the service takes place beyond triple the time of the standard or even longer. Regardless of the expected escalation, the compensation must in any case be paid to the customer within 6 months by the supplier who received the written complaint or the request for billing or double billing correction. Compensation is not due if compensation has already been paid to the customer in the calendar year for non-compliance with the same quality standard and in the case of complaints for which the customer cannot be identified (because the complaint does not contain the minimum necessary information). Furthermore, the supplier is not obliged to pay automatic compensation if the failure to comply with the specific quality standards is due to force majeure - understood as acts of public authority, exceptional natural events for which a state of emergency has been declared, strikes called without the notice required by law, failure to obtain authorisation - or to causes attributable to the customer or third parties, or damages or impediments caused by third parties.

For 2020, 462 companies, serving 33.3 million electricity customers, reported on the commercial quality of sales services in the electricity sector. The data communicated by suppliers pursuant to Article 36 of the TIQV include the average effective response time to a request for correction of double billing, calculated on the basis of the effective time both in cases where the specific or general quality standard has been met and in cases where this standard has not been met for reasons attributable to the supplier. From 1 January 2019 the standard has dropped to 60 calendar days.

Table 3.27 Standards for the electricity sales service and actual average times in 2020

In calendar days and percentage values

SERVICES	SPECIFIC STANDARDS (calendar days)	GENERAL STANDARDS (%)	AVERAGE ACTUAL TIMES (calendar days and %)
Maximum time for reasoned response to written complaints	30	-	15.63
Maximum time for billing corrections	60 or 90 ^(A)	-	26.52
Maximum time for double billing corrections	20	-	24, 53
Responses to written requests for information sent within the maximum period of 30 calendar days	-	95%	7.47%

(A) 90 calendar days in the case of quarterly frequency bills.

Source: ARERA, processing of data declared by operators.

On the basis of the available data, however, the actual average response times for electricity suppliers, in the case of complaints and billing corrections, are slightly below the minimum standards set by the Authority, equal to 30 calendar days for both complaints and requests for information. Average response times for complaints, information requests and billing corrections in 2020 are below standard, with the exception of double billing corrections (Table 3.27).

All in all (Table 3.28), companies that served customers in the electricity sector received a total of 297,341 written complaints, a slight decrease compared to the previous year (-2.2%); 65% of the complaints came from domestic customers, the remaining 35% from non-domestic customers; furthermore, 64% of the complaints came from free market customers, 29% from standard offer market customers. The total number of requests for information, 193,960, was down 6.5% on the previous year and came mainly (68%) from domestic customers, especially those in the free market. The 8,053 billing corrections, which follow written complaints about already paid bills whose content is disputed, mainly concerned the free market (80%) and domestic customers. Finally, double billing

corrections due to errors in switching procedures (for the same consumption period, the end customer receives a bill from both the old and the new supplier) only amounted to 967 in 2020, and mainly concerned domestic and non-domestic customers in the free market.

Table 3.28 Complaints, requests for information and billing corrections received by electricity suppliers

	2017	2018	2019	2020
Number of complaints	323,572	284,507	304,118	297,341
Number of requests for information	211,619	147,167	207,399	193,960
Number of billing corrections	19,006	9,245	9,973	8,053
Number of double billing corrections	3,798	2,191	2,058	967

Source: ARERA processing of data declared by operators.

In 2020, 85.5% of the cases of non-compliance with specific standards were attributed to causes for which the company was responsible, while 1.5% were due to third-party causes (customer, other companies) and 12.9% to force majeure. The subjects of complaints for which the companies were responsible concerned: for about 45.5% of the cases, billing and everything related to consumption and fees billed, self-reading, billing periodicity, including the closing bill, making payments and refunds; for 15.5% the events of the contract, such as withdrawal, change of name, transfer and take-over (completion and costs of transfer and take-over); for 10.1% subjects related to the market, such as procedures for the conclusion of new contracts, switching timescales and the economic conditions proposed by the supplier at the time of the offer compared to those provided for in the contract and actually applied. 10% of the complaint subjects were arrears and suspension issues, 7.7% connections, works and technical quality issues, 4.3% metering, 2.6% commercial quality, 0.6% social bonus and 3.7% other residual subjects not falling into the above categories.

In the electricity sector, the greater number of automatic compensation payments to be made is mainly linked to failure to comply with response times to written complaints, which account for 95% of the total. A very similar situation can be seen for the compensation actually paid in terms of amounts, which is also more concentrated in the free market.

Overall, in 2020, there were 30,004 cases of non-compliance with standards, resulting in the right to compensation for services related to the commercial quality of sales, 95% of which related to failure to meet response times to written complaints. Domestic customers account for 64.5% of the compensation, 39.5% in the free market and 25% in the standard offer market. A similar situation to that relating to accrued compensation can be seen for the compensation actually paid, which is more concentrated in the free market: in 2020, in fact, 58.4% of the total compensation paid, amounting to almost 1.3 million euros, was to free market customers.

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

Investigation and inspections

Enforcement of the provisions laid down by the Authority is carried out by monitoring the conduct of operators, identified from time to time on the basis of planning documents prepared on an annual basis or following reports or evidence in the possession of the Offices. For this reason, the Authority performs surveys, inspections and document verification of plants, processes and services in the

Authority's sectors of interest.

In cases where the monitoring activities reveal cases of non-compliance with regulatory provisions, the consequent sanctions and/or prescriptive measures are taken against 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. Control activities go hand in hand with a growing number of initiatives by the Authority aimed at promoting ex ante regulatory compliance, through interaction with stakeholders, information and dissemination seminars, aimed at illustrating how to apply measures, in particular newly issued ones.

In 2020 control activity was carried out through:

- documentary checks, in particular concerning the correct payment of incentives to energy-intensive companies and the correct contribution by regulated companies to the Authority's operating costs;
- surveys and reconnaissance: in particular, a survey of electricity and gas retail companies was carried out during the reporting period;
- on-site inspections, covering priority issues such as safety of service, consumer protection, proper functioning of markets and control of incentives provided and cost items recognised in the tariff.

At the end of 2019, the Authority launched¹⁰⁰ a document-based survey on electricity and gas retail companies, which was carried out in 2020 in cooperation with the Special Goods and Services Unit of the Guardia di Finanza, also by consulting the databases to which the Guardia di Finanza has access. The project was born out of the need to acquire information that would allow for an in-depth examination of the dynamics at work in the end-customer sales segment, particularly in light of the large number of operators present in the market and their continuous increase in numbers.

The survey was conducted by analysing the main economic and financial data of the subjects identified from the Authority's Operator Registry (about 900 suppliers present in January 2020), using information both already in the Authority's possession and from the statutory financial statements available at the Chambers of Commerce. Some information was also obtained from the tax registry.

On the basis of the calculations carried out, a set of synthetic indicators was defined for internal purposes, including economic and financial indicators, which can be used for further analysis and as a basis for defining future enforcement actions in the specific sector.

In January 2020, an **audit was carried out¹⁰¹ on a sales company regarding billing**. The programme approved by the above-mentioned resolution provided for three audits to be carried out by 31 March 2020; the first two were carried out in 2019.

The purpose of the checks was to ascertain the correct application of the provisions of the TIF¹⁰² by companies holding contracts for the retail sale of electricity and/or natural gas, with particular reference to:

- issue and frequency of bills for the period;
- use of metering data and criteria for determining consumption accounted for in period bills;

¹⁰⁰ With Resolution 26 September 2019, 386/2019/E/com.

¹⁰¹ Pursuant to Resolution 200/2019/E/com of 28 May 2019.

¹⁰² Integrated text of the Authority's provisions on billing of the retail sales service for electricity and natural gas customers (or, more simply, Integrated text on billing), Annex A to Resolution 463/2016/R/com of 4 August 2016.

- management of self-readings;
- issue of closing bills;
- determination and payment of automatic compensation to end customers.

The audit concerned a large sales company and established that the company complied with the provisions of the TIF. During the audit, some coordination problems were found between the company and its dispatching user in the identification and correct transfer of the automatic compensation paid by electricity distributors, due to the failure to provide actual metering data for periodic and closing billing purposes. Therefore, the company was recommended to take action in order to promptly ascertain the presence of compensation from distributors, so that it could be transferred to end customers on time.

In addition, in February-December 2020, two inspections were carried out at an electricity distributor and an electricity and gas supplier concerning **compliance related to the use of the Integrated Information System (SII)**. The purpose of the inspections was to verify compliance with the requirements of the regulations on the use of the SII. As a result of the first inspection, carried out on a medium-sized electricity distributor, critical issues were found in the application of reporting obligations towards the SII, mainly relating to the provision of metering data collected from users; therefore, a sanctioning measure was subsequently initiated against the inspected company, which ended with the distributor adhering to the simplified procedure, ceasing the contested conduct and paying a reduced fine of 32,000 euros. As a result of the second inspection, carried out on a large sales company, delays and omissions were found in the charging of the Rai fee to numerous end users, due to discrepancies between the data in the company's systems and those in the official central register of the SII. The possible initiation of a sanctioning procedure will be considered.

Gradual standard offer service

The deadline for phasing out the standard offer service has been postponed several times. Law No 124 of 4 August 2017 (so-called competition law) provided for the abolition of the service as of 1 July 2020 and assigned the Authority the task of regulating a safeguard service, to be assigned through competitive procedures and to be provided at conditions that would encourage customers to switch to the free market, aimed at customers without a supplier in the aftermath of the abolition of the standard offer service.

Subsequently, Law No. 124/2017 was amended by Decree-Law No. 162 of 30 December 2019, converted by Law No. 8 of 28 February 2020, which extended the deadline for phasing out the standard offer service to 1 January 2021 for small companies and 1 January 2022 for domestic customers and micro-companies, respectively. This latter deadline was lastly postponed to 1 January 2023 by Law no. 21/2021; at the same time, a service of last resort "with gradual standard offers" (similar to that originally named by Law no. 124/2017 "safeguard service"), regulated by the Authority, was provided for customers not supplied in the free market.

In implementation of the provisions of Law No. 124/2017, the Authority, following consultation¹⁰³, regulated the gradual standard offer service¹⁰⁴, aimed at small companies and micro-companies owning at least one delivery point with contractually committed power greater than 15 kW and which, as of 1 January 2021, do not hold a contract under free market conditions. The regulation of

¹⁰³ Document for consultation 220/2020/R/eel of 16 June 2020.

¹⁰⁴ Resolution 24 November 2020, 491/2020/R/eel.

the service for the remaining micro-companies and domestic customers will be the subject of subsequent regulatory interventions.

In detail, the Authority established that, in compliance with the legislative framework in force, the gradual standard offer service should be provided by operators selected through specific tenders; however, due to the time required to organise these tenders, a period of interim provision of the service was set up, from 1 January 2021 to 30 June 2021, during which the supply was provided by standard offer operators under economic conditions defined by the Authority which provide, among other things, for the application of an electricity price equal to the actual wholesale market prices. Subsequently, as of 1 July 2021, the gradual standard offer service is delivered by the assignees of the service following tenders. To this end, the Authority has:

- identified nine territorial areas for the assignment of the service;
- identified the data to be made available to tenderers in order to provide information useful for the formulation of their bids, as well as the relevant timeframe for making them available;
- set out the timeframe for conducting the tender procedures and the criteria for selecting the operators;
- determined the requirements to be met by operators participating in tenders and the guarantees to be provided;
- set out the grounds for disqualification and the manner in which the gradual standard offer service will be provided in such circumstances;
- defined the contractual (similar to those of the PLACET offers) and economic conditions applicable to customers of the service. With regard to these conditions, in addition to the provision of an electricity price equal to the actual prices of the wholesale market, there is also the application of a price, defined on the basis of the results of the tenders, which is undifferentiated at national level¹⁰⁵; to this end, a set-off mechanism has been introduced between the service operators in order to grant each of them the actual value of their economic offer as resulting from the results of the tenders compared to what may be obtained from the application of the aforementioned undifferentiated territorial price;
- identified, in a manner similar to the safeguard service for larger customers, mechanisms for reimbursing operators for non-recoverable arrears charges related to customers who cannot be disconnected and for cases where the service is activated following the failure of the supplier/dispatching user in the free market;
- set the duration of the service assignment period at three years (1 July 2021 to 30 June 2024).

Lastly, the resolution in question provided for the adoption of a specific mechanism for reimbursing unrecoverable receivables generated by customers who cannot be disconnected under the gradual standard offer service (the so-called gradual standard offer reimbursement mechanism). It also defines criteria and methods to encourage efficient credit management by operators, consistent with the similar reimbursement mechanism in place for the safeguard service. Therefore, the reimbursement mechanism for the gradual standard offer service also provides for the recognition of costs incurred on the basis of incentive criteria, through the provision of premiums and penalties depending on the level of uncollected receivables in relation to turnover and after a certain period of time has elapsed since the issue of the unpaid bill. In this way, the mechanism keeps the incentive for efficient credit management for the service provider. Subsequently, Resolution 53/2021/R/eel of 16 February 2021 established that the coverage of charges relating to the gradual standard offer

¹⁰⁵More details on the price of the gradual standard offer service are available on the Authority's website, at the following address: <https://www.arera.it/it/consumatori/STG.htm>.

reimbursement mechanism would be charged to a specific dispatching fee, pursuant to Article 25-ter of the TIS, to be set out in a subsequent provision.

Measures for the effective promotion of competition: purchasing groups

At the start of 2019, the Authority adopted¹⁰⁶ Voluntary Guidelines for the promotion of electricity and natural gas offers in favour of purchasing groups aimed at final domestic customers and small businesses assimilated to final domestic customers, i.e. low voltage connected businesses and those with annual consumption up to 200,000 S(m³), in implementation of Article 1, paragraph 65, of Law No. 124/2017.

The purchasing groups to which the Guidelines are addressed (so-called energy purchasing groups) are associative entities established with the aim of selecting one or more suppliers for the supply of electricity and/or natural gas to the end customers included in the group. The group's organiser typically manages the process of customers joining the group, negotiates the supply conditions with selected suppliers and assists customers if they end up signing an offer, without becoming a counterparty to the energy supply contract.

There are two potential advantages of participating in purchasing groups. Firstly, groups are potential instruments for transition to the free market, especially for smaller customers who have so far been more reluctant to abandon standard offer regimes because of perceived differences in negotiation with suppliers. This is because the aggregation of a large customer base allows small users to rebalance their bargaining position with the supplier in order to obtain offers that are more cost-effective and better suited to their consumption needs. Secondly, purchasing groups can stimulate the interest of end customers in understanding and evaluating market offers thanks to the opportunities for savings that they offer, also due to the information on offers that group organisers make available to customers.

In light of the above, the Authority, with the aforementioned Guidelines, has intended to establish uniform rules of conduct with which energy purchasing groups that decide to adhere to them must comply, in order to ensure the necessary transparency for its members on collective purchasing campaigns, correctness in the use of the various forms of communication to the customer right from the promotional phase of the initiatives in question, completeness of the information provided on how to join the group, on the commercial offers proposed as well as on the criteria for choosing them, as well as adequate information assistance to the customer, especially in the phase of joining the group and the suggested offer. Adherence to the Guidelines implies full compliance by accredited purchasing groups with the customer care and information obligations established for a period of at least 24 months.

The Authority publishes the list of purchasing groups that undertake to comply with the Guidelines (so-called accredited purchasing groups) on its website. At **31 December 2020, 12 purchasing groups** were accredited for the promotion of commercial electricity and gas offers for small customers.

Other measures for the effective promotion of competition concern PLACET offers, the provision of consumption data to customers and rules on the standardisation and comparability of bills. All these measures and others are described in the following section on consumer protection.

¹⁰⁶ With Resolution of 19 February 2019, 59/2019/R/com.

4 THE GAS MARKET

4.1 Infrastructure regulation

4.1.1 LNG infrastructure and network connection and access tariffs

Tariffs and access to LNG regasification plants

In November 2019, the Authority approved¹⁰⁷ the Tariff Adjustment Criteria for the liquefied natural gas regasification service (RTRG) for the regulatory period 2020-2023 (5PR LNG). With this measure, the Authority, substantially in line with the criteria for determining the recognised cost, which provide for price cap-type incentive regulation schemes for operating costs and rate of return-type regulation schemes for capital costs, has introduced the following main new features:

- the phasing out of input-based incentive criteria, without prejudice to the recognition of the portion of revenue attributable to the additional remuneration for investments that came into operation in previous regulatory periods;
- the introduction, in addition to the Q_{CP} coefficient to cover self-consumption and the losses of the regasification chain, of further fees to cover variable costs, such as the C_{CP} fee to cover the monetary costs associated with the consumption of the regasification chain and the C_{ETS} fee to cover the costs relating to the emission trading system;
- the introduction of the possibility, also for terminals benefiting from the coverage mechanism, to retain a share (40%) of the revenues deriving from the offer of flexibility services;
- the provision that a portion equal to one third of the revenue item to cover input-based incentives (relating to investments made in previous regulatory periods) be considered as part of the revenues subject to coverage according to the regasification capacity allocated through competitive procedures;
- the completion of the regulatory framework for LNG storage and regasification depots and the provision of small scale LNG (SSLNG) services:
- with reference to the revenue coverage mechanism for LNG depots equipped with facilities functional to the regasification service, a duration of application of the revenue coverage mechanism of 4 years;
- with regard to the sharing of revenues from SSLNG services to cover the common costs of regasification activity, the introduction of a flat rate sharing criterion that provides for the return to the system of 50% of the revenues from the offer of LNG services, less the costs directly attributable to those services.

In June 2020, following the review of the tariff proposals submitted by the regasification companies pursuant to RTRG 5PR LNG, the Authority approved¹⁰⁸ the reference revenues and determined the tariff fees for the LNG regasification service for 2021.

With regard to access to infrastructures, in March 2020, the Authority amended¹⁰⁹ Article 5 of the

¹⁰⁷ Resolution 474/2019/R/gas of 19 November 2019.

¹⁰⁸ Resolution 229/2020/R/gas of 23 June 2020.

¹⁰⁹ Resolution 85/2020/R/gas of 24 March 2020.

Integrated Text on the adoption of guarantees of free access to the liquefied natural gas regasification service (TIRG¹¹⁰), bringing forward the deadline by which multi-year capacity products can be defined for the efficient use of and access to regasification terminals. At the same time, the Authority launched a procedure aimed at:

- the extension of the capacity offer period for multi-year periods exceeding 15 years;
- the introduction of a regasification capacity product with a release option or withdrawal right, with the relevant allocation methods;
- the revision of the capacity non-utilisation provisions in Article 14 of the TIRG, in the light of the possibility of full allocation of transport capacity over multi-year periods;
- the updating of the reserve price for the offer of capacity for multi-year periods.

In May, the Authority presented¹¹¹ the guidelines in this regard, providing:

- the extension of the capacity offer period for multi-year periods up to the twenty-fifth year;
- for the revision of the capacity non-utilisation provisions in Article 14 of the TIRG, the introduction of a threshold mechanism providing for an increase in the time in advance with which the user releases the unloading slot according to the number of slots already released previously;
- the possibility for regasification terminal operators to offer capacity products that allow the user to decide at a later stage after allocation whether to use the capacity or not, against payment of a premium (capacity product with option).

These guidelines form the basis of the amendments to the TIRG that the Authority defined¹¹² in December 2020 regarding access to the regasification service for periods longer than the thermal year, with particular reference to the duration of the allocations and the provisions relating to the release of capacity. At the same time, provisions were adopted for the application of the Decree of the Ministry of Economic Development of 8 July 2020 on the allocation of the non-exempt capacity share of regasification terminals.

With regard to other aspects, in May 2020 the Authority ordered¹¹³ an update of the criteria for determining the reserve prices of the regasification capacity allocation procedures, taking into account the costs of the regasification service at European terminals and the estimated cost of access to newly built regasification capacity, in line with the objectives of minimising the charges borne by the system and promoting the liquidity of the gas market.

In addition, in June 2020 the Authority approved¹¹⁴ a proposal to amend the Regulation of the Regasification Capacity Allocation Platform (PAR), in relation to the way in which the parties awarded capacity, as a result of the allocation procedures in the OLT Offshore LNG Toscana (OLT) sector of the PAR, carry out post-session scheduling of slot unloading dates.

Finally, in November 2020 the Authority approved¹¹⁵ the proposal of the company Terminale GNL Adriatico for the determination of fees for flexibility services, in line with what was defined for the previous thermal year and with the relevant provisions of Article 12 of the TIRG.

¹¹⁰ Resolution 660/2017/R/gas of 28 September 2017.

¹¹¹ Document for consultation 170/2020/R/gas of 19 May 2020.

¹¹² Resolution 576/2020/R/gas of 22 December 2020.

¹¹³ Resolution 157/2020/R/gas of 05 May 2020.

¹¹⁴ Resolution 246/2020/R/gas of 30 June 2020.

¹¹⁵ Resolution 438/2020/R/gas of 03 November 2020.

Tariffs and access to the storage service

In October 2019, the Authority defined¹¹⁶ the tariff regulation criteria for the natural gas storage service (RTSG) for the fifth regulatory period (5PRS) 2020-2025. The regulation provides, in particular:

- the substantial continuity of the criteria for determining the recognised cost, which provide for price cap-type incentive regulation schemes limited to operating costs and rate of return-type regulation schemes applied to capital costs;
- extension of the duration of the regulatory period to 6 years, with intra-period review of the level of efficiency gains;
- the introduction of a mechanism for monitoring expected storage performance, aimed at ensuring consistency between the level of service provided to users and the level of remuneration recognised;
- the phasing out of tariff incentives for the creation of additional capacity, against a strengthening of mechanisms to promote the availability and flexibility of storage services;
- The introduction of an optional mechanism to reduce recognised revenues subject to coverage factor, while strengthening the output-based incentives referred to in the Regulation on free access to the natural gas storage service (RAST).

In July 2020, the Authority, following the review of the tariff proposals submitted by storage companies pursuant to RTSG 2020-2025, approved¹¹⁷ the corporate revenues for the storage service for the year 2021.

It should be noted that the tariffs are now applied on a residual basis, as they only cover the operational balancing services of transmission companies and the mineral storage of domestic production companies that absorb less than 2% of the total storage capacity.

The strategic storage, which absorbs about a quarter of the capacity and is aimed at coping with possible problems in supplies or in the functioning of the gas system, is remunerated through the variable fee C^{ST} , applied to the quantities of gas imported and those deriving from national production.

The remaining storage capacity (over 70%), intended for seasonal and multi-year modulation services, is allocated and remunerated on the basis of competitive procedures, governed by the regulation for access to and provision of storage services (RAST), as defined¹¹⁸ by the Authority in February 2019. The service charges for this capacity shall be determined by the market following appropriate auctions, which shall be open to participation by natural gas market participants. 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.

In March 2020, a number of corrections were made¹¹⁹ to the formulae used by the storage companies to calculate the reserve prices for the auction procedures for allocating storage capacity. In particular, the relative weight of forward prices for products listed on the VTP (Virtual Trading Point) was increased, compared to that of products listed on the TTF (Title Transfer Facility), because they were more representative.

Still on the subject of capacity supply, but in the short term, the provisions of the RTSG were

¹¹⁶ Resolution 419/2019/R/gas of 23 October 2019.

¹¹⁷ Resolution 275/2020/R/gas of 21 July 2020.

¹¹⁸ Resolution 67/2019/R/gas of 26 February 2019.

¹¹⁹ Resolution 58/2020/R/gas of 03 March 2020.

implemented¹²⁰ in June 2020, which provide for the possibility of storage companies waiving a share of guaranteed revenues by benefiting from an incentive mechanism that is enhanced compared to the "ordinary" one. To this end, it was established that revenues from the sale of short-term storage services are subject to enhanced incentive rates. The aim of this provision is to favour services that allow for greater flexibility. The revenues from the allocation of these capacities/services are shared almost equally between the company and the system, ensuring the sustainability of the mechanism.

Finally, the simplification provisions of Decree-Law No 76 of 16 July 2020¹²¹ were implemented¹²² in October 2020. Specifically, the Authority has established that the charges relating to the availability of strategic storage should be covered by an additional component of the transport tariff, avoiding the difficulties associated with the need to sign a special contract between storage companies and sales companies just to manage the amounts relating to the strategic storage service.

Tariffs and access to the gas transmission service

In March 2019, the Authority defined¹²³ the tariff regulation criteria for the natural gas transmission and metering service (RTTG) for the period 2020-2023 (fifth regulatory period - 5PRT). The new criteria, which implement Regulation (EU) 460/2017 on the harmonisation of gas transmission tariff structures (so-called TAR Code), was published as a result of an extensive public consultation process launched in 2017 and concluded in 2018¹²⁴ and takes into account the findings of ACER's Report entitled "Analysis of the consultation document on the gas transmission tariff structure for Italy", issued on 14 February 2019 in line with the provisions of the TAR Code, on the final guidelines on the reference price methodology and the cost allocation criteria submitted for consultation in October 2018¹²⁵.

The following are the main changes in the tariff regulation criteria for the transmission service for the new period (5PRT), compared to the previous one:

- substantially in line with the criteria for determining the recognised cost, which provide for price cap-type incentive regulation schemes limited to operating costs and rate of return-type regulation schemes applied to capital costs, the introduction of preparatory tools for the approach based on the recognition of total expenditure (totex) and a greater orientation towards output, such as greater coordination between tariff regulation and the assessments of the 10-year transmission network development plans, the monitoring of investments and the provision of incentives to increase the efficiency of investment expenditure, according to a gradual

¹²⁰ Resolution 232/2020/R/gas of 23 June 2020.

¹²¹ Converted by Law No 120 of 11 September 2020.

¹²² Resolution 396/2020/R/gas of 20 October 2020,

¹²³ Resolution 114/2019/R/gas of 28 March 2019.

¹²⁴ The proceedings were opened by Resolution No. 82/2017/R/gas of 23 February 2017 and the following documents were published for consultation:

- on 29 March 2018, document 182/2018/R/gas, containing the initial guidance on reference pricing methodology and cost allocation criteria;
- on 21 June 2018, document 347/2018/R/gas, containing the initial guidance on the criteria for determining recognised revenues;
- on 16 October 2018, document 512/2018/R/gas, containing the final guidance on the criteria for determining the revenue recognised for transmission services, the reference price methodology and cost allocation criteria for the transmission service.

¹²⁵ Document for consultation 512/2018/R/gas of 16 October 2018.

approach;

- with regard to investment incentive measures, the gradual phasing out of input-based incentives (based on additional return on investment);
- the phasing out of the determination of fees according to the so-called matrix methodology, in favour of the Capacity-Weighted Distance (CWD) methodology, identified as the reference methodology within the TAR Code;
- the elimination of the "postage stamp" fee applied to redelivery points on the national territory to cover regional transmission costs, since the costs of transmitting gas on the regional networks are included in the costs to be recovered through the entry and exit tariffs defined through the tariff methodology; this inclusion also entails the phasing out of capacity allocations at exit points from the national network to the delivery areas.

In May 2020, following the verification of the tariff proposals submitted by transmission companies pursuant to RTTG 2020-2023, the Authority approved¹²⁶ the reference revenues and determined the tariff fees for the natural gas transmission and metering service for the year 2021. In the following month of December, the Authority amended the RTTG regarding the criteria for determining and applying the fees for the metering service.

In July 2020, the Authority ordered¹²⁷ partial recognition of the higher charges incurred by the largest transmission company for the procurement of unaccounted for gas (UAG) for the years 2018 and 2019, to the extent that the increase in UAG found resulted from actions to improve the quality and reliability of gas metering at certain entry points. At the same time, a process was launched to revise the UAG recognition criteria for the period 2020-2023, which, after consultation¹²⁸, was concluded¹²⁹ in December 2020, introducing a partial adjustment mechanism for deviations between the recognised and actual quantities of UAG recorded in a given year.

With regard to access to the transmission service, please refer to the section on cross-border issues.

Tariffs for distribution and metering services

In December 2019, the new version of the Gas Distribution and Metering Services Tariff Regulation for the Regulatory Period (RTDG) was approved¹³⁰, with the following features:

- six-year regulatory period (2020-2025), divided into two half-periods of three years each;
- in relation to the quantification of the invested capital, recognition criteria based initially on the revalued historical cost, and the introduction of incentive regulation schemes based on a standard cost recognition approach, envisaging that it may be applied starting from investments made in 2022, taking into account the need to adapt the accounting systems necessary to support the planned incentive schemes;
- in relation to the rate of return on invested capital: to follow up the proposal to align the coefficient β for distribution and metering services, since the regulatory framework envisaged for the two services is homogeneous; not to change the level of the coefficient β for the distribution service, in consideration of the fact that the regulatory framework compared has changed little

¹²⁶ Resolution 180/2020/R/gas of 26 May 2020.

¹²⁷ Resolution 291/2020/R/gas of 28 July 2020,

¹²⁸ Document for consultation 437/2020/R/gas of 03 November 2020.

¹²⁹ Resolution 569/2020/R/gas of 22 December 2020

¹³⁰ Resolution 570/2019/R/gas of 27 December 2016.

compared to the previous period and therefore, as already decided for other regulated services in the gas sector, it seems reasonable to maintain the level of this coefficient;

- give substantial continuity to the criteria for the recognition of operating costs (application of the price cap method), with the aim of achieving full convergence of operating costs between operators of different sizes, with consequent differentiation of the X-factor (linked to the different density of customers served);
- for the purpose of determining the recognised operating cost, to apply equal weight to the actual costs and the costs recognised in the reference year, both in the event that the actual costs are lower than the recognised costs, and in the event that the actual costs are higher;
- to determine the actual cost incurred in 2018 for each activity and function, based on the data reported in the separate annual reports - sent to the Authority - which reflect recurring costs, excluding the costs whose coverage is already implicitly guaranteed in the regulatory mechanisms (for example through the remuneration of risk) or in relation to which the recognition is not compatible with an activity carried out under a monopoly regime;
- to provide that, during the infra-period review, the possible effects of environmental policies defined at EU level on the evolution of the number of redelivery points served are assessed and to consider how the risk is allocated between end customers and businesses;
- with reference to the definition of the natural gas distribution service tariff system:
 - confirm the positions expressed in the consultation, with reference to the fact (clarified by the Authority since December 2000¹³¹) that the gas service, unlike the electricity one, does not have the characteristics of an irreplaceable service, as it addresses needs and types of use that can be satisfied by means of other energy carriers, also with a comparable environmental impact, with the consequence that the generalised use of the service does not appear to be justified, which would lead to an increase in the cost of satisfying the country's energy needs;
 - in relation to Sardinia's methanisation prospects, to provide for an independent study to be carried out, aimed at a broader assessment, following a cost/benefit analysis approach, of the options available with regard to the upgrading of the energy system in the Region of Sardinia, taking into account the various infrastructure projects (launched or planned) and their possible interdependencies, in order to provide a transparent analytical framework based on precise assessments, in support of the necessary decisions on the island's energy future;
 - to confirm the establishment of a specific tariff area for Sardinia, establishing, however, that, in order to take into account the need to guarantee partial and transitory forms of compensation, a specific CE tariff component of the mandatory tariff, expressed in Euro/PoR, applied only to redelivery points served in the Region of Sardinia, should be introduced on a transitional basis, for a period not exceeding three years, and to provide for the lower revenues to be compensated as part of the equalisation mechanisms with coverage through the UG1 component of the same mandatory tariff;
 - to provide that, pending the completion of the independent study mentioned above, parties managing isolated LNG networks or isolated networks powered by tank trucks may request the application of the general rules provided for interconnected networks, even in the absence of an authorised interconnection project, in any case for a period not exceeding five years;
 - to provide that in any case, at the end of the five-year period, if interconnection with the national transmission system is not achieved, tariff solutions are adopted that guarantee the

¹³¹ Resolution 237/00 of 28 December 2000.

protection of final customers who have connected to these networks and limit the risk borne by final customers;

- in relation to the design of the tariff system, to provide for: (i) a reference tariff determining the company's permitted revenue; (ii) a compulsory tariff applied to final customers determining actual revenue; (iii) an equalisation mechanism between permitted and actual revenue;
- to launch a procedure for the reform of the tariff system to be applied in the second half of the fifth regulatory period, assessing: (i) in relation to the determination of the reference tariff, a possible review of the scale variables, considering in particular the possibility that a portion of the constraint may be set according to the volumes distributed; (ii) in relation to the compulsory tariff applied at the redelivery points, a possible review of the structure of the tariff of the distribution service, its breakdown between fixed and variable rates, as well as the current breakdown into tariff brackets; (iii) again in relation to the compulsory tariff, a possible review of the tariff areas, to be carried out with the aim of encouraging a development of the service based on economic criteria, in order to avoid increasing the cost of meeting the country's energy needs, which will already be affected by decarbonisation policies, and with the aim of making local authorities and companies more responsible for the extension and development of the service, and also allowing greater flexibility in local choices related to decarbonisation policies; (v) the continuation of the reform of connection fees, with a view to making the criteria for the application of such fees on the national territory more homogeneous to the investments made, making the distributors responsible;
- to provide that, in order to integrate the regulatory criteria for the second half-period of the fifth regulatory period, a procedure is launched aimed at defining parametric recognition methods for covering the costs of the remote reading/ remote management systems and concentrators, based on efficiency analyses.

In December 2020, the compulsory tariffs for natural gas distribution and metering services were approved¹³² for 2021. At the same time, the maximum amount for the recognition of the higher charges resulting from the presence of concession fees to be paid to local administrations, pursuant to Article 60 of the RTDG, has been set for distribution companies that have applied and provided appropriate documentation.

In relation to issues concerning the recognition of costs of gas distribution and metering services, two consultations were launched in 2020:

- in October 2020, the Authority set out¹³³ its final guidelines on the criteria for encouraging aggregations between natural gas distribution companies;
- in December 2020, the Authority outlined¹³⁴ its guidelines regarding the criteria for decommissioning traditional meters of class up to G6, which were replaced in implementation of the relevant European directives, also in order to homogenise the decommissioning criteria between meters of different size classes.

Gas infrastructure

In Italy there are nine companies that manage the **national** (10,286 km) **and regional** (24,817 km)

¹³² With the Resolution 596/2020/R/gas of 29 December 2020,

¹³³ Document for consultation 312/2020/R/gas of 04 August 2020.

¹³⁴ Document for consultation 545/2020/R/gas of 15 December 2020.

gas transmission network: three for the national network and eight for the regional network. The largest gas transmission company is Snam Rete Gas. In addition to Snam Rete Gas, two other companies own and operate small sections of the national network: Società Gasdotti Italia and Infrastrutture Trasporto Gas. The Snam group owns 92.8% of the networks: 32,564 km out of the 35,103 km that makes up the Italian gas transmission system. The second operator is Società Gasdotti Italia, which manages a total of 1,693 km of network (4.8%), of which 637 is on the national network. The company Retragas, of the A2A group, is the third with a share of 1.2%, thanks to its 417 km of regional network. The remaining six minor operators, with the exception of Infrastrutture Trasporto Gas own small sections of the regional network. At the end of 2020, the Trans Adriatic Pipeline (TAP) became operational, transporting gas from Azerbaijan to Europe via Turkey and Greece. The TAP is the European section of the Southern Gas Corridor, is approximately 900 km long, has a capacity of about 10 G(m³) per year and transports gas produced in the Azerbaijani Shah Deniz II field. In Italy, the receiving terminal is located, as mentioned, in the Apulian town of Melendugno, in the province of Lecce. It is operated by Tap AG, whose shareholders are BP, Socar and Snam with 20% each, Fluxys with 19%, Enagás with 16% and Axpo with 5%.

Liquefied natural gas is input into the Italian national transmission network through the interconnection with the terminals in operation in Panigaglia (in Liguria), Cavarzere (in Veneto) and Livorno (in Tuscany). The Panigaglia plant, owned by the company GNL Italia which belongs to the Snam group, has a maximum regasification capacity of 13 M (m³) / day and the maximum annual quantity of gas that it can input into the transmission network is 3.5 G(m³). At 1 October 2020, the start of the thermal year, the capacity at the Panigaglia terminal was 33.4% occupied. The Cavarzere terminal is an off-shore structure located in the Adriatic Sea off the coast of Rovigo with an annual regasification capacity of 8 G(m³) and approximately 26.4 M(m³)/day. 80% of the maximum regasification capacity, i.e. 21 M(m³)/day, is reserved for the terminal operator, Terminale GNL Adriatico, which has been granted exemption from third party access for 80% of the capacity for 25 years¹³⁵, i.e. until the thermal year 2032-2033; the remaining 20%, together with any unused capacity, is offered on the market through capacity booking procedures. The Livorno terminal owned by the company OLT Offshore LNG Toscana arose from the conversion of an LNG vessel - the "Golar Frost" - into a floating regasification terminal anchored about 22 km off the coast between Livorno and Pisa. Its maximum daily regasification capacity is 15 M(m³)/day, while the annual capacity is 3.75 G(m³). As of 1 October 2020, capacity was still fully available for booking.

Natural gas **storage** is carried out on the basis of 15 concessions owned by five companies: Stogit, Edison Stoccaggio, Ital Gas Storage, Geogastock, Blugas Infrastrutture. All active storage sites are built on exhausted gas fields. Stogit, which belongs to the Snam group, is the main storage company which owns 10 of the 15 concessions. The Italian gas storage system has important dimensions: in the thermal year 2019-2020, which ended on 31 March 2020, the system offered a total assignment availability in terms of total space for active reserve (so-called working gas) equal to 18.05 G(m³), of which 4.6 G (m³) is destined for strategic storage. The space offered at auction has all been assigned. At 31 October 2020 the stores were filled to 13.18 G(m³). The peak nominal delivery reached in the year was 258.4 million standard cubic meters/day: 248 M(m³)/g in Stogit storage, 8.9 M(m³)/g in Edison storage and 1.5 M(m³)/g in Ital Gas Storage storage.

The **distribution** of natural gas in Italy takes place by means of 265,920 km of network (of which 784 not in operation in 2020), 57.4% at low pressure, 41.9% at medium pressure and 0.7% at high pressure. The length of the networks grew by 1,885 km compared to 2019. In addition to the

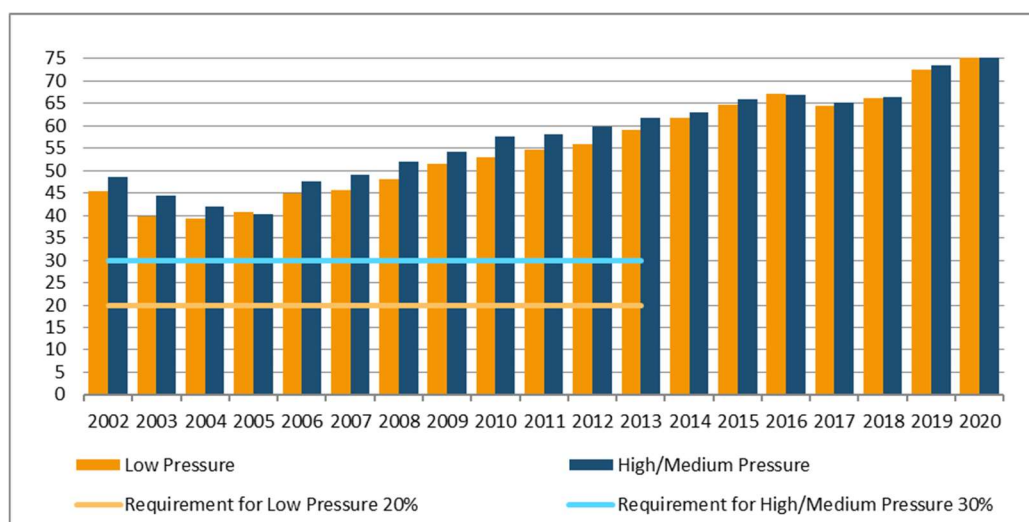
¹³⁵ Pursuant to Law No 239 of 23 August 2004 and European Directive 2003/55/EC.

networks, gas distribution takes place through 6,662 stations and 102,583 final reduction stations. 57.8% of the networks (153,693 km) are located in the North, 22.8% in the Centre (60,630 km) and the remaining 19.4% (51,598 km) are located in the South and the Islands. In 2020, there were 194 gas distribution companies (three fewer than in 2019) of which six were very large (with over 500,000 customers), 22 with between 100,000 and 500,000 customers, 19 medium (50,000-100,000 customers), 96 small (10,000-50,000) and 51 very small (less than 5,000 customers). The number of companies with more than 100,000 redelivery points has fallen in recent years (28 from 33 in 2013), but their share has not decreased in terms of gas distributed, which has remained stable at around 82% and has risen by two points in the last two years. Medium-sized companies remained unchanged both in terms of the number (approximately 20) and the incidence of volumes distributed (approximately 7%), while small and very small companies reduced both their number (from 175 to 147) and their share of volumes distributed (from 11% to 9.3%). Overall, the 194 operators active in 2020 distributed 30 G(m³), 1,251 million m³ less than the previous year, to 24 million consumers. The service was managed through 6,568 concessions in 7,249 municipalities.

Gas distribution service quality

At the end of 2019, the Regulation of the quality of gas distribution and metering services for the regulation period of 2020-2025 - Part I of the Unified text of the regulation of the quality and tariffs of the gas distribution and metering services for the period of regulation 2020-2025 (RQDG), was approved¹³⁶. The RQDG regulates certain relevant activities for the security of the gas distribution service. Among these we can mention emergency services, the inspection of the distribution network, the activity of locating leaks after inspection or notification by third parties and gas odourisation. 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 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 inspected network since 2002



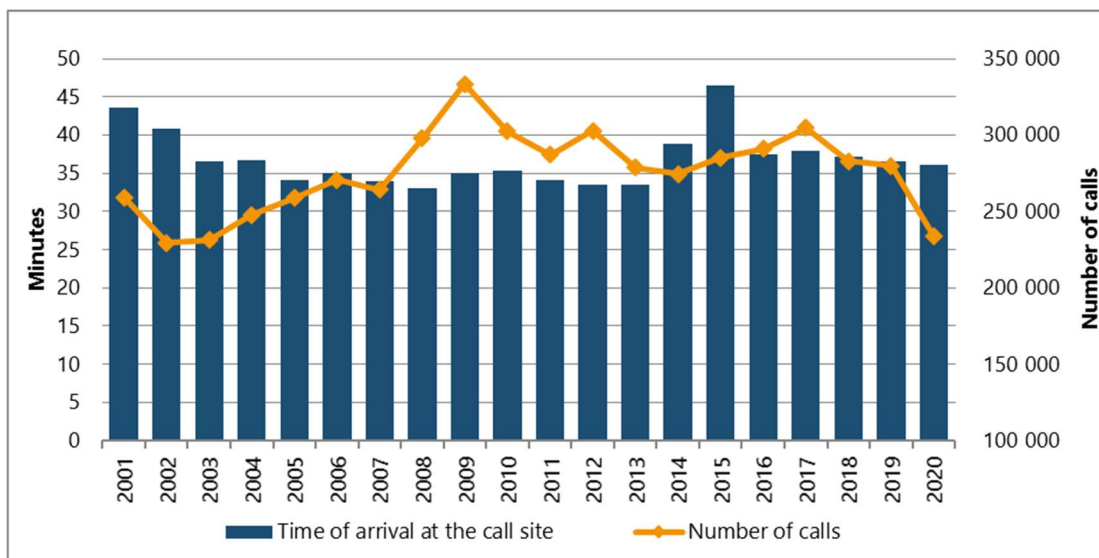
Source: Declarations from distributors to ARERA.

¹³⁶ With the Resolution 569/2019/R/gas of 27 December 2019.

Figure 4.1 shows the amount of network inspected each year from 2002. Until 2013, the regulation stipulated a minimum percentage to be inspected each year, while from 2014 an obligation was introduced for 100% of the network on a multi-year basis: the three-year rolling period, for high and medium pressure (HP/MP) pipelines, and the four-year period, for low pressure (LP) pipelines. For 2020, there was an increase compared to 2019 and still a higher share of network inspected than before 2014. Network inspections are generally aimed at intercepting leaks and thus improving the safety of citizens.

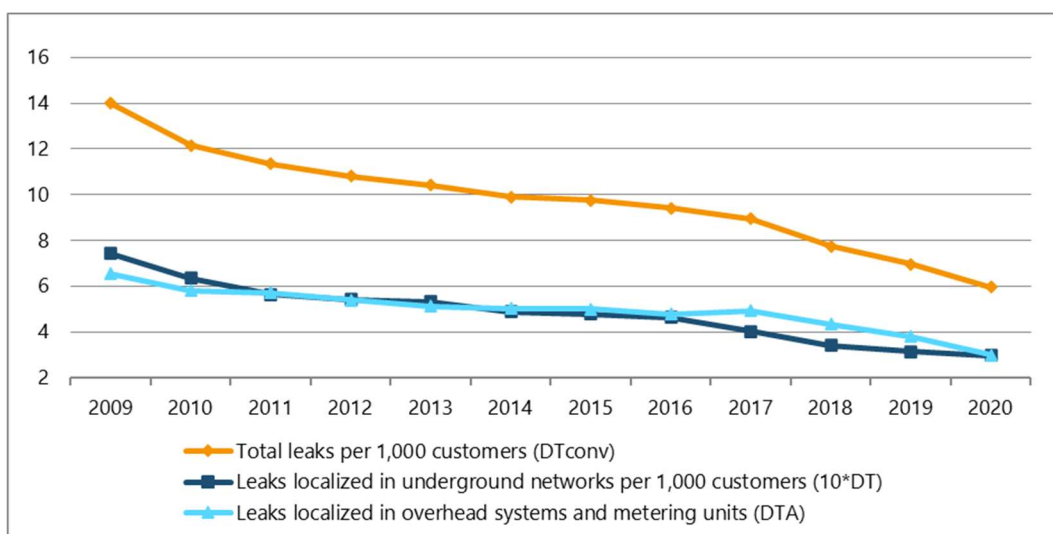
With reference to the obligations regarding emergency services, Figure 4.2 shows the historic series of the time of arrival to the call site (after a telephone call), updated to 2020. The national average value is approximately 36 minutes, slightly lower than in 2019. The obligation provides an annual minimum percentage of calls with time of arrival on the call site within 60 minutes, equal to 90%.

Figure 4.2 Emergency services for the distribution system since 2001



Source: Declarations from distributors to ARERA.

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



Source: Declarations from distributors to ARERA.

The obligation of recording the calls, introduced on 1 July 2009, accompanied by control campaigns on gas emergency services, and accomplished with the help of the Guardia di Finanza, drives companies to record the data precisely. We must also add that the companies obliged to participate in the premium-penalty regulation related to safety recovery has gradually increased and the compliance with the emergency regulation is an essential requirement for the recognition of the premiums.

Figure 4.3 illustrates the number of leaks located following third-party reports per thousand of customers for the distribution systems subject to the penalty-premium regulation: there is a decrease both for leaks located on the underground network (10^*DT), normally more dangerous, and for those on the above ground network (DTA). The number of conventional leaks located as a result of third-party reporting per thousand end customers (DT_{conv}) is steadily decreasing.

Connection times for the transmission and distribution networks

Data on connections are distinguished according to whether they are connections to transmission pipelines or to distribution networks. In each type of system, the data related to the number of accomplished connections and the average time passed in order to obtain them are highlighted, net of the time needed to acquire any administrative authorisations or fulfilment of 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 transmission capacity available, according to what is provided in the stipulated contract.

In 2020, 101 connections were made to transmission networks, 89 of which to high pressure pipelines and 12 to medium pressure pipelines (Table 4.1). On average, a wait of 77 working days was recorded for high pressure pipelines and 40.1 days for medium pressure pipelines. Compared to the previous year, the number of high-pressure connections increased, but the number of medium-pressure connections decreased, and the average time for making both types of connection increased slightly: by 7 working days for high-pressure networks and 2 working days for medium-pressure networks. The increase in time is not particularly great in view of the health emergency, which required several measures restricting people's mobility. Half of the 101 connections made overall activated the supply during the year (more precisely, 45 out of 89 high pressure connections and 5 out of 12 medium pressure connections).

Table 4.1 Connections to transmission networks and average connection time

Number and average time in working days

PRESSURE	2019		2020	
	NUMBER	AVERAGE TIME ^(A)	NUMBER	AVERAGE TIME ^(A)
High pressure	61	70.0	89	77.0
Medium pressure	19	38.3	12	40.1
TOTAL	80	62.5	101	72.6

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

Source: ARERA. Annual Survey on Regulated Sectors.

In the case of local distribution networks, a slight decrease in the number of connections was observed (Table 4.2): 106,996 in 2020, compared to 117,045 in 2019. As always, most of the connections concerned low pressure pipelines (95.9%) and the remaining medium pressure pipelines, as no connection was made by distributors for the high-pressure network, as was the case in the

previous year. There was a slight increase in waiting times, both for connections to medium pressure networks (from 7.4 to 8.1 working days) and for connections to low pressure networks (from 17.3 to 18.5 working days).

Table 4.2 Connections to distribution networks and average connection time

Number and average time in work days

PRESSURE	2019		2020	
	NUMBER	AVERAGE TIME ^(A)	NUMBER	AVERAGE TIME ^(A)
Low pressure	0	-	0	-
High pressure	4,871	7.4	4,342	8.1
Medium pressure	112,174	17.3	102,654	18.5
TOTAL	117,045	7.8	106,996	8.5

(A) Excluding the time needed to obtain any authorisations and the time needed for any fulfilment of obligations by the final customer.

Source: ARERA. Annual Survey on Regulated Sectors.

4.1.2 Balancing

Incentivising balancing efficiency

In 2016, the Authority introduced a system to incentivise the Balancing Manager (RdB), i.e. Snam Rete Gas, to take efficient balancing actions, thereby fostering liquidity in the short-term wholesale gas market. The incentive system is based on a set of parameters, defined in the Integrated Text on Balancing (TIB¹³⁷), which in February 2020 was supplemented¹³⁸ with the inclusion of two additional indicators (p4 and p5), aimed at measuring, in the new settlement regime, the efficiency of the RdB in the supply of the quantity of system gas. This efficiency is measured by:

- the difference between the volumes supplied and the volumes actually needed;
- the early purchase, as far as possible, of the volumes of gas to be supplied, both because of the greater liquidity of the market on gas day D-1 compared to those at the end of the day, and in order to minimise possible interference with the balancing activity on day D.

In December 2020, the application of indicators p4 and p5 was extended¹³⁹ to the whole of 2021.

Settlement rules

In February 2018, the Authority approved¹⁴⁰ the reform of the gas settlement rules, contained in the "Integrated text of the provisions for the regulation of the physical and financial items for the natural gas balancing service" (TISG). This reform, which entered into force on 1 January 2020, is characterised by the following main provisions:

- the assignment to the Balancing Manager (RdB), i.e. the main transmission company, of the task

¹³⁷ Annex A to Resolution of 16 June 2016, 312/2016/R/gas.

¹³⁸ Resolution 45/2020/R/gas of 18 February 2020.

¹³⁹ Resolution 578/2020/R/gas of 22 December 2020.

¹⁴⁰ Resolution 72/2018/R/gas of 08 February 2018.

- of supplying the difference between the quantities introduced into the distribution system by sellers and those withdrawn by final customers (Δ_{IO} or Δ_{IO}^0);
- the simplification of the procedures for determining the physical and economic items relating to balancing and adjustment sessions;
 - the easing of uncertainty for the balancing user (UdB) with reference to withdrawals destined to Redelivery Points (RP) with a reading frequency lower than monthly; in fact, the quantities to be supplied for these points are forecast by the RdB and these items are not redetermined, thus reducing the risk connected to their settlement;
 - the centralisation in the Integrated Information System (SII) of some activities previously under the responsibility of distributors;
 - the implementation by the RdB of a methodology for assessing the climatic factor in the determination of daily withdrawals concerning RPs with a detection frequency less than or equal to monthly, as well as the revision of the delivery profiles.

The aforementioned reform provided for the subsequent regulation of the RdB's supply of the volumes covering the Δ_{IO}^0 , as well as the consequent supplements to the regulation of balancing and incentives to the RdB. As a result of a special consultation launched in September 2018¹⁴¹, a new version of the TISG was approved¹⁴² in April 2019, incorporating the new regulation on the determination of daily physical items.

In May 2019, the Authority then approved¹⁴³ a series of provisions functional to the definition of the regulatory framework relating to the activities that, as from 1 January 2020, Snam Rete Gas must carry out in order to supply the market with the resources necessary for the system to function, i.e. the quantities to cover Δ_{IO} , self-consumption (C component), leaks (PE component), unaccounted-for gas (CNG component) and planned linepack changes (ΔLP_P component), in accordance with the provisions of the Tariff Regulation for the natural gas transmission and metering service for the fifth regulatory period from 2020 to 2023 (RTTG). Moreover:

- amendments were made to the *Integrated text on gas balancing* (TIBG), also in relation to the neutrality mechanisms of the RdB, as well as the introduction of a new performance indicator;
- it was decided that the Snam Rete Gas balancing equation should be altered so as to be able to distinguish the supply of resources necessary for the operation of the system from activities aimed at balancing the system, also due to the fact that the former do not contribute to the formation of marginal balancing prices.

In November 2019, further provisions on the supply by the RdB of the resources necessary for the operation of the system were approved¹⁴⁴, starting from the proposal submitted by the RdB under the TIBG, providing in particular that:

- supply takes place through auctions at marginal price within the MP-GAS sector, open to the participation of all operators admitted to operate on MGAS, without suspending the market at continuous trading during the auction;
- each auction is bilateral;
- transactions concluded in the auction are excluded from the formation of the System Average

¹⁴¹ Document for consultation 462/2018/R/gas of 20 September 2018.

¹⁴² Resolution 148/2019/R/gas of 16 April 2019.

¹⁴³ Resolution 208/2019/R/gas of 28 May 2019.

¹⁴⁴ Resolution 451/2019/R/gas of 05 November 2019.

Price (SAP).

With regard to the purchase and sale prices of the Snam Rete Gas offers, it was established:

- that the purchase prices are equal to the average SAP for the 7 days preceding the trading day increased by 30€/MWh;
- that the sales prices are equal to 0 €/MWh.

It was also ordered that Snam Rete Gas can continue to supply any additional quantities of system gas and, in particular, self-consumption, according to the methods established in May 2019¹⁴⁵. In the event of unforeseen and significant variations in market conditions, Snam Rete Gas, if it deems it necessary and urgent in order to supply the system gas, may define a purchase price higher than that mentioned above, notifying the Authority and the GME.

During 2020, measures were taken to implement the above-mentioned new settlement rules. In May 2020, the Authority, in light of the degree of functioning of the balancing sessions, planned¹⁴⁶ some urgent interventions:

- with reference to the final balance of January 2020, issued provisions allowing Snam Rete Gas, through dedicated procedures, to acquire directly from distributors the correct daily withdrawal of the redelivery points (PdR) of the distribution network excluded by the Integrated Information System Operator (SII), in order to account for them in the transmission balance;
- mandated Snam Rete Gas and the SII Manager to coordinate in order to propose to the Authority the criteria for identifying anomalous withdrawals;
- planned to define, by way of a subsequent measure, additions to the settlement provisions aimed at regulating, within the scope of the ordinary activities for which the SII Manager is responsible, the communication to distributors, Distribution Users (UdD) and Balancing Users (UdB) of anomalies detected for the purpose of their correction.

In June 2020, amendments to the settlement rules were approved¹⁴⁷ in order to implement the above-mentioned intervention with effect from the financial statement for May 2020. In addition, the timing of activities involved in drawing up the final financial statements has been optimised, increasing the time available for distributors to notify adjustments, while keeping the deadlines for drawing up these financial statements in line with the current ones.

In September 2020, additions were approved¹⁴⁸ to the regulation on access to the transmission service¹⁴⁹, on the subject of deviation fees, with the aim of preventing them from being excessively expensive in the event of repeated deviations, in response to reports received on the critical issues arising from the increase in the value of the aforementioned fees following the application of the new regulation of transmission tariffs¹⁵⁰ as well as uncertainties in estimating the need for transmission capacity for various reasons, starting with the possible effects of the COVID-19 pandemic. In particular, it was established that the maximum amount of the deviation fees applied to a user at a redelivery point, with reference to the entire thermal year, may not exceed 1.1 times the annual amount of the unit capacity fee at the redelivery point itself, multiplied by the maximum deviation recorded at that point during the thermal year. This provision was not subject to prior

¹⁴⁵ Point 7 of the Resolution 208/2019/R/gas of 28 May 2019.

¹⁴⁶ Resolution 181/2020/R/gas of 27 May 2020.

¹⁴⁷ Resolution 222/2020/R/gas of 16 June 2020.

¹⁴⁸ Resolution 329/2020/R/gas of 08 September 2020.

¹⁴⁹ Resolution 137/02 of 17 July 2002.

¹⁵⁰ Resolution 114/2019/R/gas of 28 March 2019.

consultation for reasons of urgency, but all stakeholders were given the opportunity to submit comments by 25 September 2020.

4.1.3 Cross-border issues

Access and development of the transmission system

Regulation (EU) 459/2017 (Capacity Allocation Mechanism - CAM), which establishes a network code relating to capacity allocation mechanisms in gas transmission systems, regulates, among other issues, the creation of new capacity at interconnection points between the countries of the European Union. On these points, the Regulation provides for a harmonised procedure at European level for the creation of new capacity and introduces directly applicable obligations on transmission system operators and national regulatory authorities. Under the CAM regulation, the first procedure for creating new capacity was launched by transmission system operators in 2017. In light of the experience gained in the aforementioned procedure and in view of the start of the new procedure on 1 July 2019, in April 2019 the Authority deemed it appropriate to amend¹⁵¹ some provisions of the national regulation relating to the creation of new capacity at points of the national network not connected with a country of the European Union. These amendments, in particular, are designed to harmonise the timing of the national and European procedures in order to ensure coordinated development of the national transmission network. Although the two procedures affect different access points of the national network (European and non-European), they have an impact on the development of the transmission system itself and it is therefore important that they are coordinated.

As regards, however, the interconnection points between countries outside the European Union, in the first months of 2019, several Italian operators entered negotiations with Algeria and Tunisia to renew the expiring contracts for the purchase and transmission of gas through the international TTPC-TMPC gas pipelines with a landing point in Mazara del Vallo. Due to the prolongation of the negotiations, the operators involved submitted a report to the main transmission company, to express their interest in acquiring annual capacity at the input point of Mazara del Vallo, but the inability to participate in the manner and the times indicated in the Transmission Code. In order to take into account the exceptional circumstances described above and in consideration of the fact that Mazara represents a strategic link point with a non-European Union natural gas producer, in July 2019¹⁵² the Authority ordered a derogation from the current regulation and gave a mandate to the main transmission company to introduce, only for 2020, a second session for the assignment of annual capacity (in addition to that of 1 July) in September. Following this provision, in July 2019 the Authority proposed¹⁵³ to carry out a more general update of the current rules, which date back to July 2002¹⁵⁴, on the allocation of annual capacity at the points interconnected with non-European countries or, more precisely, other than the points interconnected with countries belonging to the European Union and with Switzerland (i.e. Mazara del Vallo, for the connection with Algeria, and Gela, for the connection with Libya). The aim is to reconcile the issues related to the purchase of annual capacity resulting from negotiation/authorisation processes not regulated by European regulations with the need to protect the system from the point of view of security of supply.

¹⁵¹ Resolution 245/2019/R/gas of 16 April 2019.

¹⁵² Resolution 308/2019/R/gas of 16 July 2019.

¹⁵³ Document for consultation 344/2019/R/gas of 30 July 2019.

¹⁵⁴ Resolution 137/02 of 17 July 2002.

With regard to access to the Trans-Adriatic Pipeline (TAP), in June 2020 the Authority, together with the regulators ERE (Albania) and RAE (Greece), gave¹⁵⁵ a favourable opinion on TAP AG's request to extend the expiry of the exemption period. The opinion was forwarded to the Ministry of Economic Development, which, for Italy, is the competent authority for granting the exemption. The Trans Adriatic Pipeline (TAP) is part of the Southern Gas Corridor, which transports natural gas from the Shah Deniz II field in Azerbaijan to Europe, via northern Greece, Albania and the Adriatic Sea, before arriving in southern Italy, in Puglia. The exemption for the TAP pipeline was granted by the Ministry on the condition that the infrastructure became operational on 31 December 2020. The request of TAP AG to postpone this last deadline (without prejudice to all other conditions, including the duration of the exemption, which remains at 25 years) was submitted as a precautionary measure to take into account possible unforeseeable delays related to the COVID-19 emergency. The request was subsequently withdrawn by the company as the infrastructure became operational within the previously established deadlines.

Again with regard to the TAP, in November 2020 the Authority approved¹⁵⁶ the procedure for allocating the competing capacity on the Snam and TAP systems, proposed jointly by Snam Rete Gas and TAP AG. With the same measure, the allocation of any auction proceeds to the Melendugno interconnection point was approved. Indeed, according to Regulation (EU) 459/2017 (Capacity Allocation Mechanism - CAM) and the TAP Network Code, TAP AG is required to submit a "competing capacity" allocation procedure to the authorities. This type of allocation is necessary when capacity at several points in a system cannot be allocated independently due to physical constraints on the network. The CAM also provides that the 'competing capacity' procedure should be agreed with the TSOs (Transmission System Operators) involved, in this case Snam and DESFA (Greek TSO).

Evaluation of the 10-year transport network development plans and cost/benefit analysis

On 7 May 2020, the Authority launched a public consultation on the Natural Gas Transmission Network Development Plans for 2019 and 2020. As part of this consultation, which ended on 10 July 2020, two online public sessions were organised by the major transmission company, on behalf of the Authority, to present and discuss the Plans: the first, aimed at presenting the most important measures contained in the Plans and the main scenario assumptions made, on 26 May 2020; the second, to answer questions submitted by stakeholders, on 17 June 2020.

In December 2020, the Authority issued¹⁵⁷ its assessment of the Ten-Year Development Plans for the natural gas transmission networks for the years 2019 and 2020 and ordered certain amendments to the "Minimum requirements for the preparation of the Ten-Year Development Plans for the gas transmission network and for the cost-benefit analysis of the interventions"¹⁵⁸, which became necessary in relation to the lack of information found in the analysis of the Plans and the preparatory documents.

In its assessment, the Authority, with reference to individual development measures, noted in particular:

- the inadequacy of information or the failure to present cost-benefit analyses suitable for making

¹⁵⁵ Resolution 231/2020/R/gas of 23 June 2020.

¹⁵⁶ Resolution 453/2020/R/gas of 10 November 2020.

¹⁵⁷ Resolution 539/2020/R/gas of 15 December 2020.

¹⁵⁸ Content provided for in Annex A to Resolution 468/2018/R/gas of 27 September 2018.

- a complete assessment of certain development measures put forward by the transmission network operators and the need, therefore, to continue assessing them in future Plans;
- in the case of new methanisation interventions, the importance of adequate coordination of the development of the gas transmission and distribution networks, providing for the need for the transmission company to assess the necessary network developments, taking into account the minimum conditions for the development of the distribution networks envisaged by the contracting authority, so as to ensure adequate planning, and to plan their implementation in coordination with the concessionary distributor;
 - the need to reformulate, in upcoming Plans, Enura's intervention for the development of the transmission network in Sardinia, identifying the optimal infrastructural and management configuration consistent with the regulatory provisions introduced by Article 60, paragraph 6, of Decree-Law no. 76/2020, as converted into law, also taking into account the guidelines issued by the Ministry of Economic Development;
 - the opportunity of positively assessing the development projects for the dual-fuel compressor stations of Malborghetto, Messina and Poggio Renatico envisaged in the Snam Plan, also in view of the effects in terms of greater efficiency of compression costs and lower environmental impact compared to traditional technologies, while at the same time initiating a procedure to identify specific mechanisms aimed at returning a portion of any revenues deriving from the operator's participation in the dispatching services market to the service users;
 - the possibility of using independent external audits for assessing interventions in upcoming Plans of particular relevance or criticality.

4.1.4 Implementation of network codes and guidelines

Approval and updating of service codes

The regulations governing access to and supply of natural gas transmission, storage and regasification services, contained in Legislative Decree no. 164 of 23 May 2000, provide that the companies providing these services must define their own codes in accordance with the criteria established by the Authority, which approves them once it has verified their consistency with these criteria.

During 2020, a number of codes for transmission, storage and regasification services were approved and/or updated in order to implement new regulatory provisions, Authority provisions or management methods to improve service provision. In particular:

- in January 2020, approval¹⁵⁹ was given to the proposed Code for Italgas Storage, the owner of a new storage site in the municipality of Cornegliano Laudense (Province of Lodi), which went into commercial operation on 29 December 2018;
- in March 2020, the Stogit proposal was approved¹⁶⁰, which concerns the revision of the parts of the Code relating to certain characteristics of the basic services (trends in injection and supply performance during the thermal year) and other storage capacity operation and management processes (for example, criteria for confirming the reformulation of the daily schedule);

¹⁵⁹ Resolution 67/2020/R/gas of 21 January 2020.

¹⁶⁰ Resolution 55/2020/R/gas of 03 March 2020.

- March 2020 also saw the approval¹⁶¹ of a proposal to amend the Regasification Code of the company Terminale GNL Adriatico, which introduces the possibility of berthing and unloading larger LNG carriers than those currently envisaged and updates the minimum rating levels required for access to the service;
- in April 2020, the amendments proposed by Snam Rete Gas were approved¹⁶², with the aim of introducing an option to advance the planning and obtaining of permits for the construction of network connections;
- in May 2020, amendments to the network codes proposed by Snam Rete Gas and Infrastrutture Trasporto Gas were approved¹⁶³, updating the technical specification on the chemical and physical characteristics and the presence of other components in natural gas and biomethane for injection into the network;
- in June 2020, the Network Code for the TAP interconnection pipeline was approved¹⁶⁴. This approval came at the end of a multi-year process of interaction between TAP AG and the three regulatory authorities ARERA, ERE (Albania), and RAE (Greece). The conditions set out in the TAP Network Code shall be applied in a non-discriminatory manner to all users acquiring transmission capacity on the pipeline, including those who have so-called 'initial capacity' (subject to exemption);
- in August 2020, the proposed amendments to the network codes of the companies Snam Rete Gas and Società Gasdotti Italia (SGI) were approved¹⁶⁵, concerning financial guarantees for the transmission service and, for Società Gasdotti Italia alone, those relating to the early termination of the transmission contract in the event of non-payment or loss of the requirements for access to the service;
- a proposal to amend the regasification code of GNL Italia was also approved¹⁶⁶ in August 2020, incorporating provisions¹⁶⁷ that bring forward the start of the period for which multi-year capacity products can be defined to the second year following the year of allocation and introducing a fee for capacity exchange between users and GNL Italia differentiated according to the months of the thermal year in which the exchange takes place;
- in September 2020, a proposal to update the network code of Snam Rete Gas was approved¹⁶⁸ in order to implement the new tariff regulation¹⁶⁹ of the gas transmission service for the fifth regulatory period (2020-2023), in relation to the elimination, from the 2020/2021 thermal year, of the differentiation of the transmission tariff fees by outlet areas of the national gas pipeline network;
- in December 2020, proposals were approved¹⁷⁰ to update the Snam Rete Gas network code to bring it into line with the urgent settlement provisions¹⁷¹ of June 2020 described above; in any case, it was considered appropriate, due to the critical issues raised by users and operators, to

¹⁶¹ Resolution 97/2020/R/gas of 26 March 2020.

¹⁶² Resolution 129/2020/R/gas of 14 April 2020.

¹⁶³ Resolution 164/2020/R/gas of 12 May 2020.

¹⁶⁴ Resolution 218/2020/R/gas of 16 June 2020.

¹⁶⁵ Resolution 316/2020/R/gas of 04 August 2020.

¹⁶⁶ Resolution 317/2020/R/gas of 04 August 2020.

¹⁶⁷ Resolution 85/2020/R/gas of 24 March 2020.

¹⁶⁸ Resolution 329/2020/R/gas of 08 September 2020.

¹⁶⁹ Resolution 114/2019/R/gas of 28 March 2019.

¹⁷⁰ Resolution 521/2020/R/gas of 03 December 2020.

¹⁷¹ Resolution 222/2020/R/gas of 16 June 2020.

suspend the application of the fee requested by Snam Rete Gas for the correction of anomalous data, pending the conclusion of the investigations underway by the SII Manager and the introduction of regulations on the quality of distribution activities relating to settlement procedures.

4.2 Competition and market functioning

4.2.1 Wholesale markets

On the basis of the provisional results issued by the Ministry of Economic Development, in 2020, gross natural gas consumption dropped by 3.2 G(m³), reaching 71.3 G(m³) from 74.5 G(m³) in 2019. In percentage terms, consumption recorded a 4.3% decline (Table 4.3).

Table 4.3 Gross natural gas consumption in Italy

AVAILABILITY (M(m ³))	2019	2020 ^(A)	VARIATION
National production	4,852	4,107	-15.4%
Imports	71,065	66,393	-6.6%
Exports	325	316	-2.8%
Change in stocks	1,122	-1,076	-
GROSS DOMESTIC CONSUMPTION	74,470	71,260	-4.3%

(A) Provisional data.

Source: Ministry of Economic Development

In the face of lower consumption, net imports consistently showed a decrease of 6.6%. The volumes of gas imported from abroad decreased by 4.7 G(m³) compared to 2019, reaching 66.4 G(m³); exports fell by 9 M(m³). Another significant reduction was seen in domestic production (-15.4%), the greatest in the last ten years. On the other hand, unlike in the last two years, volumes in storage at the end of the year were 1.1 G(m³) less than at the beginning of the year, so part of the consumption was covered by storage. The level of foreign dependence, measured as the ratio of gross imports to the gross value of domestic consumption, fell to 93.2%, after having reached the record value of 95.4% in the previous year. Taking system consumption and network losses into account, net consumption in 2020 was 68.5 G(m³), 4.2% lower than in 2019.

Consistent with the downturn in economic activity caused by the COVID-19 pandemic, consumption from productive use fell significantly in 2020, as did consumption in the domestic sector, which was curbed by unfavourable weather patterns for heating. More in detail, industrial sector consumption fell by 2.2% and thermoelectric generation consumption by 3.1%. Trade and services is the sector that has suffered most from the various lockdown measures that have been adopted to slow down the spread of the virus, especially the sectors related to tourism (accommodation and catering services) and recreational services, which have been effectively shut down for many months of the year. It is therefore not surprising that consumption in the service sector has plummeted by 12.1% compared to 2019. For the same reasons, gas consumption linked to transport also showed a substantial drop, equal to -15.7%, while consumption in the domestic sector fell by -2.8%.

Production

The data collected in the usual *Annual Survey on regulated sectors* carried out by the Regulatory Authority for Energy Networks and the Environment also showed a significant contraction in national gas production: in 2020, a total of 4,051 M(m³) was extracted by 17 companies combined in 14 corporate groups (there were 14 companies combined in 9 corporate groups in 2019). Since the previous year's production was 4,107 M(m³), in 2020 the decrease measured in the survey data was 13.2%.

The share of domestic production held by Eni group companies also fell slightly in 2020, reaching 71.6% from 75.2% in the previous year. In 2020, in fact, the companies of the aforementioned group extracted about 610 M(m³) less than 2019, thus recording a 17.4% decrease. The group remains the dominant operator of this segment with a decisive majority share, far ahead of the second corporate group, Royal Dutch Shell, which owns 11.3%. As in 2019, the latter's production also decreased slightly in 2020, by about 28 M(m³) (-4.1%) but, due to the higher overall reduction, its share increased from 14.6% to 16.1%. The share of the third group, Energean PLC, whose companies extracted approximately 43 M(m³) less gas than in 2019 (-12.5%), remained essentially unchanged at 7.5%, as did that of the Gas Plus group, also 2.3% this year, which extracted 13 M(m³) less than in 2019. Energean is the group that acquired all the assets held by Edison E&P in upstream activities at the end of 2020. Conversely, the share of other producers grew to 2.4% (from 0.5% in 2019), who together extracted 99 M(m³), 75 more than the previous year.

Imports

As mentioned above, according to preliminary data released by the Ministry of Economic Development, in 2020 Italy imported 4.7 G(m³) less natural gas than in 2019: gross imports fell to 66.4 G(m³), a drop of 6.6% compared to 2019. Exports, on the other hand, fell from 325 to 316 M(m³). The foreign balance therefore fell from 70,740 to 66,077 M(m³).

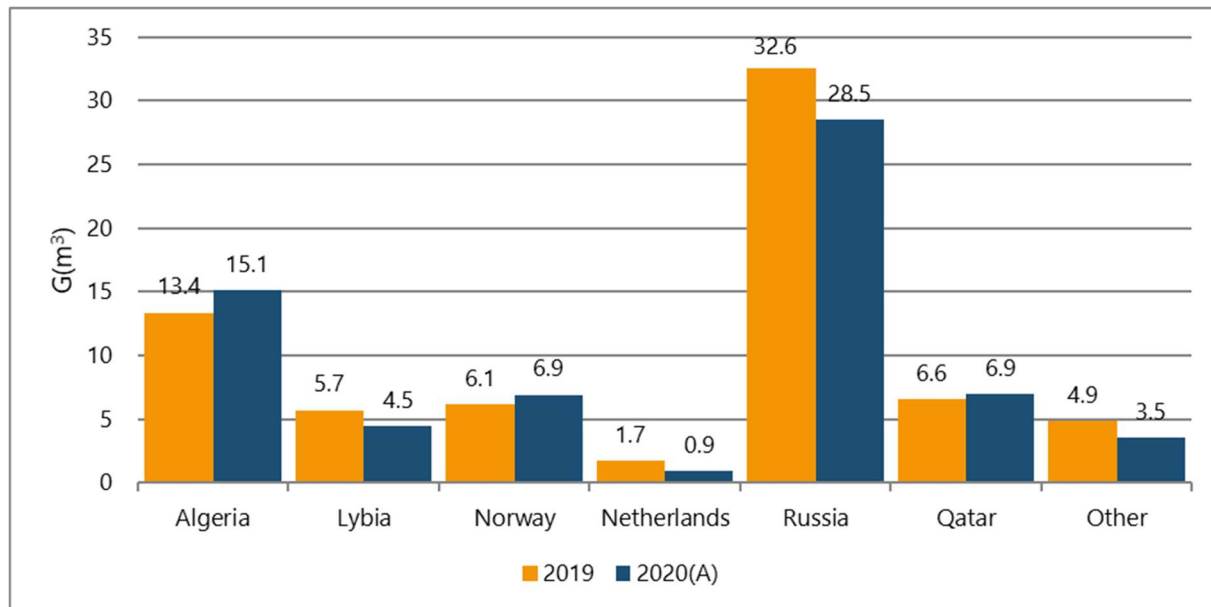
Figure 4.4 shows the amounts of gas supplied in the last two years per country of origin¹⁷² of the gas. The reduction in imports in 2020 did not have a similar impact in all the countries from which Italy purchases gas; in fact, gas volumes from Algeria, Norway and Qatar increased, while those from Russia, Libya, the Netherlands and the rest of the world decreased. 1.8 G(m³) more arrived in Italy from Algeria than in 2019, a growth of 13%. A similar rate of increase was recorded for Norway, from whom we imported a volume 0.8 G(m³) higher than the previous year. The positive change in gas from Qatar was smaller, at 6%, equivalent to 0.4 G(m³) more than in 2019. Conversely, in 2020 we imported: 4.1 G (m³) less from Russia, 1.2 G (m³) less from Libya, 0.8 G (m³) less from Holland and 1.3 G (m³) less from other areas. Within the latter, of particular note is the near elimination of LNG cargoes from Trinidad & Tobago (from which 1.4 G(m³) arrived in 2019, reduced to 0.2 in 2020) and the increase in LNG from the United States, from 1.6 to 1.7 G(m³).

In 2020, therefore, the weight of Russia among the countries exporting to Italy fell to 42.9% (it was 46% in 2019), while Algeria's share rose from 18.8% to 22.8%. The third most important country is Qatar where 10.5% of the total gas imported to Italy (9.2% in 2019) comes from, followed by Norway with a share of 10.4% and Libya with a share of 6.7%. In 2020, 5.3% of Italian imports came from all

¹⁷² Imports are divided by Country of physical origin of the gas, not by contract. The gas imported under swap regimes is also accounted for according to its Country of physical origin.

the other countries together. Due to the significant increase in the Norwegian share, and despite the reduction in Dutch gas, the share of imports from Northern Europe (i.e. Norway and the Netherlands together) did not decrease, but increased from 11.1% to 11.8%.

Figure 4.4 Gross gas imports according to its origin



(A) Preliminary data.

Source: Ministry of Economic Development

According to the (provisional) data collected with the annual survey on the sectors regulated by the Authority, 62.4 G(m³) were imported into Italy in 2020, 6.7 less than in 2019¹⁷³. The reduction was, therefore, 9.7%, slightly higher than that estimated in the data of the Ministry of Economic Development¹⁷⁴. 8.8% of the total gas supplied abroad, approximately 5.5 G(m³), is purchased at the European Exchanges. The latter value grew by 20% compared to 2019, when 4.6 G(m³) reached the European Exchanges.

As always, Eni is in first place in the ranking of importing companies, whose quantities purchased abroad in 2020, equal to 29.7 G(m³), decreased by almost 2.9 G(m³) compared to 2019. The significant reduction in Eni's imports (-8.8%), slightly less than that shown by total domestic imports, caused the company's market share to increase slightly to 47.6% (44.7% if calculated on the value of imports from ministerial sources), from 47.1% in 2019. Edison's imports, second in the rankings as in 2019, also fell sharply, having fallen from 14.7 to 10.8 G(m³); the import market share of the group mentioned has, therefore, fallen to 17.4% from the previous 21.3% and its distance from Eni has once again widened by almost five percentage points. On the other hand, there was a moderate increase (+2.9%) in Enel Global Trading's imports, which rose from around 6.7 G(m³) in 2019 to 6.9 G(m³): therefore, Enel Global Trading remained in third place, with its share rising from 9.8% to 11.1%. With

¹⁷³ Data from Annual surveys on regulated sectors.

¹⁷⁴ The differences compared to the Ministry data are due, in part, to the number of companies who respond to the Authority's Annual survey, and also due to the discrepancies in the classification of the import data. Non-respondents to the 2020 Survey, for example, include Danske Commodities, which was ranked seventh in the importer rankings in 2019 with an import volume of 858 M(m³). It is also likely that some quantities, which in the ministerial data are classified as imports, are considered in the Authority's survey as "Purchases at the Italian border", in view of the customs clearance procedures.

3.7 G(m³) imported, 2.6 more than in 2019, Shell Energy Europe has risen from sixth to fourth place in the ranking of the top twenty importers in 2020. The significant increase (+225%) in gas imported compared to the previous year by this company is due to the start of a new contract to import Algerian gas in Mazara del Vallo. Equally significant percentage increases were also observed for Gazprom Italia, from 260 to 832 M(m³), and for A2A, whose imports practically doubled, from 432 to 876 M(m³). On the contrary, there are companies that decreased their imports, even significantly, as in the case of Gunvor International (-1 G(m³), approximately), Met International, which halved its imports from 647 to 313 M(m³), or Hera Trading, which purchased 214 M(m³) less abroad in 2019.

Table 4.4 Development of the wholesale market

Year	Demand Total ^(A) G(m ³)	Peak demand ^(B) M (m ³)/d	Production G(m ³)	Import capacity G(m ³)/y	No. companies with supply share >5% ^(C)	No. of companies with available gas share >5% ^(D)	C3 of the main groups on total demand
2001	125.1	n.a.	15.5	n.a.	n.a.	2	68.2%
2002	111.8	n.a.	14.3	84.0	3	3	67.4%
2003	123.6	n.a.	13.9	84.8	3	3	63.8%
2004	127.3	386	12.9	88.7	3	3	62.4%
2005	138.3	421	12.0	90.6	3	3	66.7%
2006	134.3	443	11.0	92.3	3	3	66.5%
2007	136.1	429	9.7	98.4	3	3	63.8%
2008	151.5	410	9.3	100.3	3	3	57.1%
2009	147.2	436	8.0	110.9	3	4	49.2%
2010	173.5	459	8.3	116.0	3	5	42.3%
2011	178.9	401	8.4	116.3	3	3	42.1%
2012	178.3	464	8.6	116.9	3	3	40.5%
2013	180.8	360	7.7	122.1	3	3	42.7%
2014	210.9	330	7.1	121.7	3	3	51.4%
2015	244.5	340	6.8	120.3	3	3	50.6%
2016	267.4	384	5.8	120.1	3	3	46.3%
2017	285.7	425	5.5	121.7	3	3	44.4%
2018	287.5	396	5.4	120.4	4	4	47.2%
2019	329.4	394	4.9	120.2	3	3	46.8%
2020	385.0	366	4.1	119.6	4	4	42.1%

(A) Gas volumes sold in the national wholesale and retail markets; including resale and self-consumption.

(B) The volume indicated includes inputs, storage supplies, leaks and internal network consumption.

(C) Number of companies with a share of gas produced and/or imported of more than 5%.

(D) Number of companies with a >5% share of the volumes of gas available, which include production, net imports and stored gas.

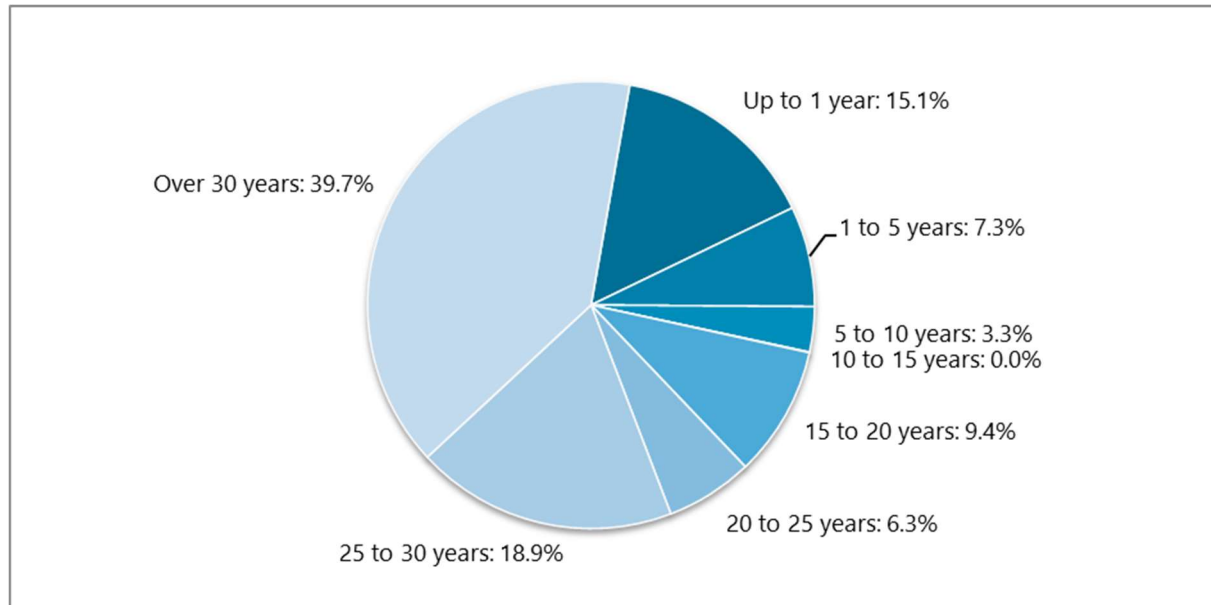
Source: ARERA processing on Snam Rete Gas data and on declarations from operators.

The groups¹⁷⁵ that hold a share of more than 5% of the overall gas supplied (i.e. produced or imported) are Eni, Edison and Enel, as in 2019, now also joined by Royal Dutch Shell (Table 4.4). Together they imported 51.2 of the 62.4 G(m³) of natural gas entering the Italian market. Considering the quantities produced within the national boundaries, these four groups account for 82.4% of all

¹⁷⁵ In the survey on the gas market participation in a corporate group is defined according to what is specified in art. 7 of the Law of October 10th, 1990, n. 287: in brief, belonging to a group is established even when there is a de facto control of the investee in the company.

the natural gas supplied. The four groups are also the only groups that each hold a share of more than 5% of the available gas (which includes stored gas, as well as imports and production), with an overall share for all four (82.3%) that is substantially the same as that of gas supplied.

Figure 4.5 Structure of import contracts active in 2020, according to their entire duration

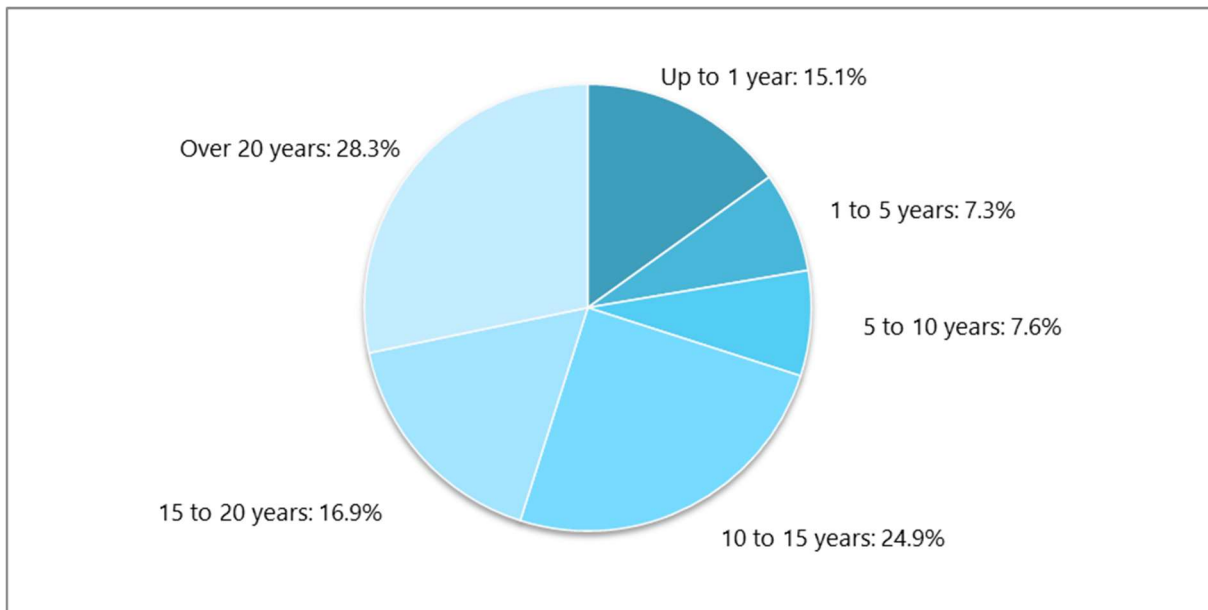


Source: ARERA. Annual Survey on Regulated Sectors.

The structure of the import contracts (annual and multi-year) active in 2020 according to the entire duration (Figure 4.5) maintains a rather long structure for 2020 as well. In fact, the share of long-term contracts, those whose entire duration exceeds 20 years, is equal to 64.9%, although a decrease compared to last year (when it was 72.1%). The incidence of short-term imports, i.e. those with a duration of less than five years, rose again to 22.3% from 20.4% in 2019, but the incidence of medium-term contracts (5-20 years) also increased by more than five percentage points compared to the previous year (12.8% instead of 7.5% in 2019). The annual contract quantities underlying the shares shown in the figure, which had increased in 2019 for the first time since 2016, fell only slightly: in 2020, contracted volumes totalled 85.4 G(m³), whereas the previous year they were around 800 M(m³) higher. The share of spot imports¹⁷⁶, i.e. imports with a duration of less than one year, which has been rising steadily for years, fell by almost four percentage points to 15.1% in 2020.

In terms of residual life, the import contracts in place as of 2020 (Figure 4.6) show that 56.8% will expire within the next ten years (the same share was 59.1% in 2019) and 39.8% will expire within the next five years. 35.9% of the contracts in force today have a residual life of more than 15 years. This share, which had been increasing since 2014, declined slightly to 34.3% in 2019, and returned to a slight increase in 2020.

¹⁷⁶ It is important to remember that, as in past years, this incidence has been assessed excluding the Annual Contract Quantities of spot contracts, which did not create imports in Italy, because the gas was sold directly abroad by the operator who was active in Italy and who purchased it.

Figure 4.6 Structure of import contracts active in 2020, according to their residual duration

Source: ARERA. Annual Survey on Regulated Sectors.

In 2020, 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 16.9%, reaching 385 G(m³)(Table 4.4).

Overall, the gas sold in the total sales market (wholesale and end market) reached 368.4 G(m³), an increase of 17.4% compared with the same figure in 2019. The wholesale market handled 313.1 G(m³), a 22.3% increase compared to 2019; the retail market handled 55.3 G(m³), recording a decrease of 4.7% compared to 2019, while self-consumption totalled 16.6 G(m³), also with an increase (6.3%). 5 industrial groups served a share of more than 5% of the total demand in 2020, one more than in 2019.

More precisely, the industrial groups and their respective shares, indicated between parenthesis, are: Eni (21.2%), Engie (13.2%), Alpiq (7.7%), Edison (7.1%) and Enel (6.9%). In 2019 this set did not include Alpiq. The top three groups cover altogether 42.1% of the total demand, a lower share than last year (which was 46.8%).

4.2.1.1 Monitoring the price levels of the wholesale market

Data relating to the wholesale gas market comes, as usual, from the first and provisional processing of the data collected in the *Annual survey on regulated sectors* that the Authority carries out on the state of the electricity and gas markets, administering questionnaires to the companies accredited in the Registry of Operators who have declared that in the previous year (even for a limited period of the year) they sold gas wholesale or to the end market.

The number of companies that reported selling gas was 759. A total of 612 companies (81%) responded to the *Annual Survey*. Of these, 75 said they were affiliated with a natural gas distribution company and 11 with a transmission company.

Of the 612 companies that participated in the survey, 59 said they remained inactive during the year. Of the remaining 553 active ones, 84 sold gas only on the wholesale market and were classified as

pure wholesalers, 354 sold gas only to consumers and were classified as **pure suppliers**. The remaining 115, who operated on both the wholesale market and end market, were classified as **mixed operators**.

Table 4.5 Sales and prices in the wholesale market in 2020

Operators	Number	Sales M(m ³)	Price c€/m ³
Pure wholesalers	84	181,173	15.22
Mixed operators	115	131,971	16.24
TOTAL WHOLESALE	199	313,144	15.65

Source: ARERA. Annual Survey on Regulated Sectors.

The wholesale market, which handled a total of 313.1 G(m³), is supplied for 58% by pure wholesalers, and 42% by mixed operators. In the last two years the number of companies operating in the wholesale market has slowly started to increase again. However, as the volume of gas sold has grown much more strongly, the average unit volume has continued to increase. In 2020, in fact, 199 suppliers (two more than in 2019) sold a total of 57.1 G(m³) more than in 2019; thus, the average unit volume increased from 1,300 to 1,574 M(m³) in the market as a whole, marking further significant growth, +21.1%, following the already remarkable +10.6% achieved in 2019.

In the natural gas wholesale segment, non-Italian companies accounts for 22% of the companies present.

During the year, 6 companies started the activity of natural gas wholesaling; 4 companies ceased their activity; 6 companies changed their corporate group. There have also been five mergers between companies that already belonged to the same corporate group.

In 2020, the market concentration level further decreased: in fact, the share of the top three companies (Eni, Eni Trading & Shipping and Engie Global Markets) was 29.8%, more than four percentage points below the 34.3% calculated in 2019. The combined share of the top five companies (the three mentioned above plus Alpiq and Enel Global Trading) fell from 48% to 44.8%. The HHI index calculated only on the wholesale market also fell from 612 to 552, remaining however below the value of 1,500, considered the first symptom of concentration.

In 2020 the average wholesale market price was 15.65 c€/m³, well below the 21.45 c€/m³ (-27%) charged in 2019. This is in line with the VTP price trend which in 2020 dropped by 35% compared to the 2019 average. The mixed operator price was 16.24 c€/m³, that is 1.02 cents higher than the price charged by pure wholesalers (equal to 15.22 c€/m³).

Virtual trading point

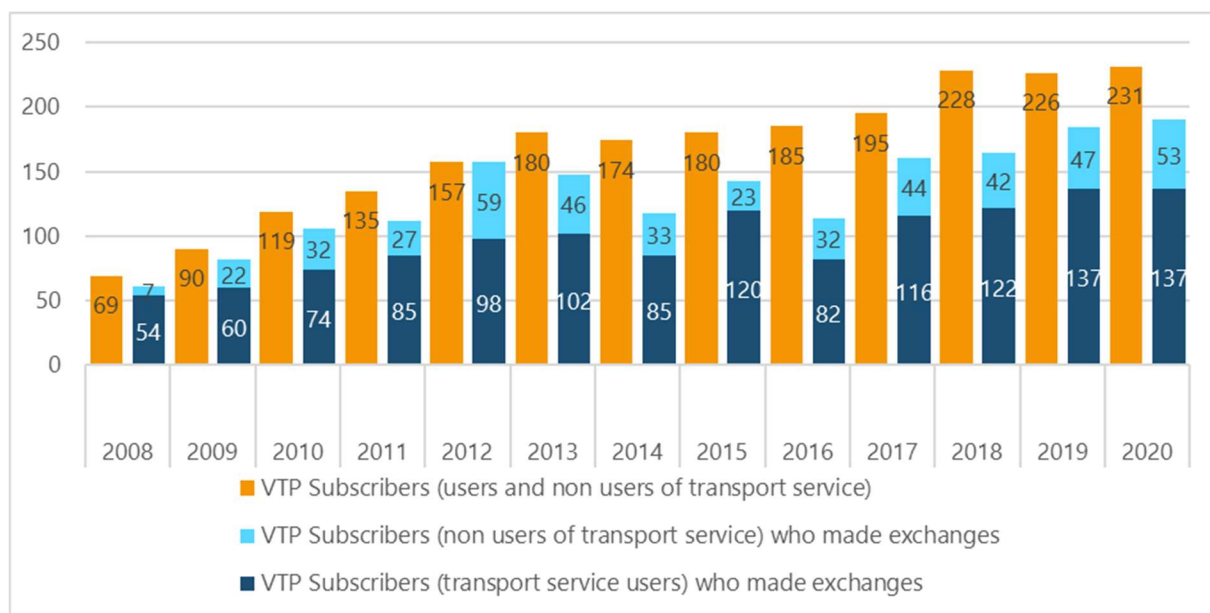
The main trading platform in the wholesale market in Italy is the Virtual Trading Point (VTP), operated by the leading transport network operator, Snam Rete Gas. The sales that can be registered are the ones carried out with bilateral contracts and the ones carried out in the regulated markets managed by the GME. Since September 2015 it is also possible to register contracts managed by third party¹⁷⁷

¹⁷⁷ By third party Stock exchange we mean the manager of a foreign regulated market, in which financial derivatives are exchanged which provide for the physical delivery and whose clearance and guarantee activities for the transactions carried

Stock exchanges to the VTP, thus increasing the offer of futures products with physical gas delivery to the VTP. In order to operate at the VTP it is necessary to be a subscriber, i.e. to be in possession of the required requirements and to have signed a membership form or an access contract, by which one undertakes to comply with the conditions approved by the Authority¹⁷⁸.

In 2020, 190 entities performed the trade, sale and purchase of gas on the VTP. Only 53 of these were traders, as they were not transmission system users. Although demand for natural gas has been down overall, the number of VTP subscribers has increased slightly compared to the previous year, standing at 231 compared to 226 in 2019. The number of subscribers who carried out transactions (Figure 4.7) remained unchanged at 137, as in the previous year, but the number of pure traders (i.e., subscribers who are not users of the transmission system) rose by 6 (15%), from 47 to 53.

Figure 4.7 VTP Subscribers since 2008



Source: ARERA. Annual Survey on Regulated Sectors.

Figure 4.8 shows the evolution of the trades recorded at the VTP. In the figure, redeliveries to the VTP (daily OTC, multi-day OTC, forced LNG) have been grouped together and, with the indication "VTP Markets", all trades recorded at the VTP resulting from trading on centralised markets and those operated as clearing houses. The VTP has grown considerably over time, both in terms of the number of transactions and the volumes exchanged, thanks to the increase in the available purchasing methods described. Beginning in the autumn of 2015, the transactions recorded on the VTP, which acts as clearing house, have been notably increasing. Also contributing to this continued growth was the launch of the new balancing market (Q4 2016), which brought a sharp increase in trading on the various M-GAS platforms.

In 2020, OTC volumes traded at the VTP increased by 7% from around 98 G(m³) to almost 105 G(m³). If we add volumes with forced delivery to the VTP, the growth of gas traded in 2020 compared to 2019 can be estimated at 8.8%, considering that the annual quantities increase from around 100 to

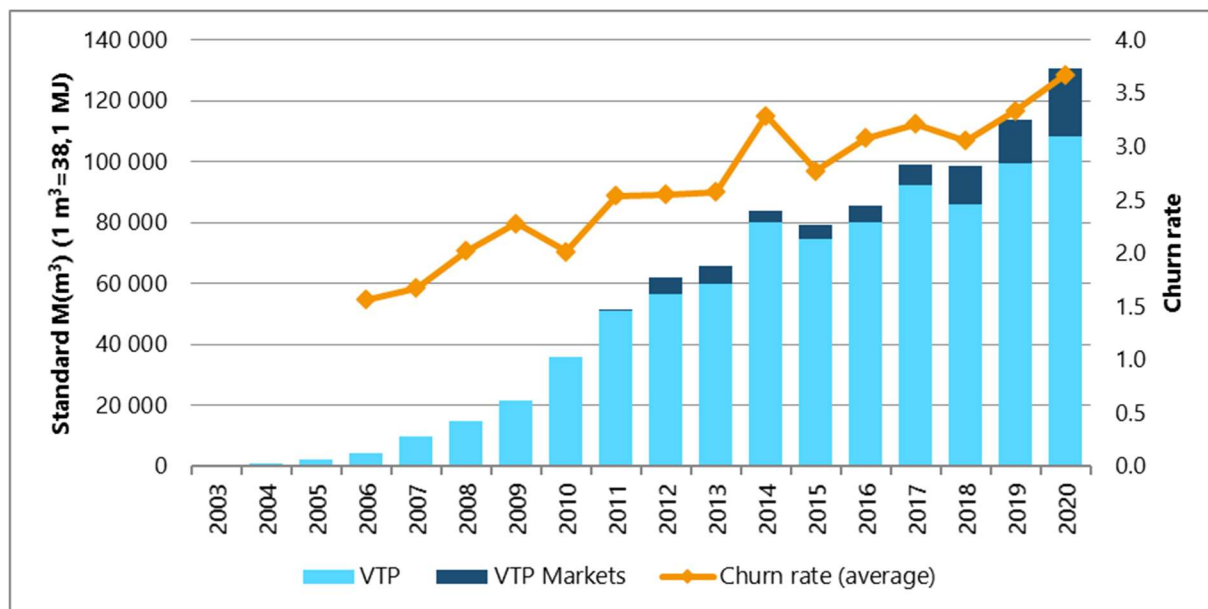
out in this market are regulated through a clearing house (the third party that accepts the counterparty risk); or it is the same clearing house that is responsible for the fulfilment of the physical delivery of the purchased products, directly or through subsidiaries or investees.

¹⁷⁸ With the Resolution 147/2017/R/gas of 16 March 2017.

108.5 G(m³) (Fig. 3.14). Volumes from trading in the markets increased significantly, by 58%, albeit less than the jump seen in 2018, when +77% was recorded. Volumes traded on the exchange reached 22 G(m³) from 13.9 G(m³) a year earlier, thanks to a large increase in volumes handled in centralised markets, which was also accompanied by robust growth in energy traded through clearing houses.

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 physical delivery. The indicator can be calculated in different ways. The one shown in figure 3.13 is obtained by dividing the total volumes subject to trading at the VTP by the value of the registrations that result in physical delivery. The more liquid the market, the more this value increases. This rate rose sharply between 2006 and 2014, fell sharply in 2015 and then stabilised at around 3.1 in the years 2016 to 2018. In 2019, the increase in activity brought the value to 3.3. In 2020, the rate increased further and reached a value of 3.7, although it is still below 10, which is the threshold value of the churn rate often used in the literature to judge the liquidity and maturity of a market.

Figure 4.8 VTP transaction volumes and churn rate



Source: ARERA processing on Snam Rete Gas data.

Gas exchange

The creation of a gas exchange in Italy began in 2007 with the obligation for holders of natural gas production concessions to surrender the rates of gas produced in Italy due to the State and, for importers, to offer a share of the gas imported on the regulated capacity market. In 2009, the financial management of the gas market was exclusively entrusted to the GME, which manages the sale and purchase offers (and all the connected services) according to financial criteria.

The first core of the Stock Exchange was created in March 2010, with the creation of the negotiation Platform for the exchange of imported gas shares, called P-GAS. With the birth of M-GAS, in October 2010, the spot natural gas market was launched, in which GME plays the role of central counterparty. On this market, operators qualified to perform transactions on the VTP can buy and sell volumes of spot natural gas. It is divided into:

- MGP-GAS (day ahead gas market), in which the dealings occur with sale and purchase offers related to the next-day gas. The negotiation modality is continuous with closing auction price;
- MI-GAS (intra-day gas market), in which the dealings occur with gas negotiations related to the actual gas-day. The negotiation modality is continuous.

In September 2013, the forward market operated by the GME (MT-GAS) was launched¹⁷⁹. This market, which was placed next to the existing spot markets, is carried out according to the continuous negotiation modalities with different negotiation books, one for each type of negotiable product and referring to different delivery periods, where gas purchase and sales offers are selected.

PB-GAS, in operation from the end of 2011 until September 2016, replaced the "storage" balancing system with a "market" balancing system, where the price was no longer set by the Authority, but determined by the intersection of supply and demand for stored gas. Those who had storage capacity were required to participate in this mechanism. The compulsory participation, added to the presence of Snam Rete Gas as Balancing Manager (RdB), has allowed higher gas handling in this market, compared to the others managed by the GME.

Following the approval of the European Balancing Regulation¹⁸⁰, a balancing system was introduced on 1 October 2016, which puts all available flexible resources such as storage, import or regasification of LNG into competition during the day. In this system, the users and Snam Rete Gas access these spot market products to stock the necessary resources to balance the individual position and the aggregated position of the system, respectively. This reform also introduced imbalance prices that lead the single users to balance their own positions, so that the network, in its entirety, is also balanced. In this context, the Snam Rete Gas system operator supplies the users with real-time information on the state of the network so that the users can balance the system efficiently, limiting, vice versa, its purchase and sales actions on the market to what is strictly necessary to supply "price signals".

Beyond the existing MGP-GAS and MI-GAS, the following markets of spot products useful for balancing purposes have been activated since 1 October 2016:

- the storage gas Market (MGS) allows all the users to exchange, in one single marginal price auction session, the ownership of the stored gas; Snam Rete Gas can access this market in order to safely manage possible network deviations, as well as for other operations;
- the locational products Market (MPL) is carried out according to auction negotiation methods and only at the request of Snam Rete Gas. In this market, Snam Rete Gas obtains the amounts of gas that are necessary to manage the physical requirements inside the balancing zone, or possible expected deviations between total network inputs and withdrawals, from the qualified users.

The negotiations of both the aforementioned sections, organized in a transitional way in the context of the balancing Platform (PB-GAS), are part of the Gas Market organisation (MGAS), since April 2017.

Since 2015, the operators can also extend the VTP registration for the transactions concluded at Stock Exchanges managed by subjects other than the GME¹⁸¹. The GME has been instructed to record the transactions performed on the platforms managed by ICE Endex and Powernext (PEGAS platform of the EEX group) on the VTP, which had already launched futures products with delivery to the VTP,

¹⁷⁹ In implementation of Article 32, paragraph 2 of Legislative Decree No 93 of 1 June 2011.

¹⁸⁰ (EU) 312/2014 Regulation approved by the European Commission on 26 March 2014.

¹⁸¹ Resolutions 282/2015/R/gas of 12 June 2015, and 436/2015/R/gas of 10 September 2015.

in April 2015.

Between January and February 2018, some measures were introduced aimed at promoting the development of the liquidity of the natural gas markets and, in particular, of the spot market. Of particular importance was the creation of market making figures, i.e. liquidity providers who undertake, in return for an economic advantage, to maintain sale and purchase offers contained within a predefined price differential in the market at the same time; liquidity providers operate in the trading of day-ahead products. The GME pays a fixed fee of 160 euros for each useful session and a fee of 0.01 €/MWh for each MWh traded on the MGP-GAS for the daily product G+1 to liquidity providers that have carried out market making activities in compliance with the terms, methods and conditions provided for, per calendar month.

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 operating; this is a highly anticipated evolution for users because it allows them to optimise trading activities through simultaneous operations on several markets from a single trading platform.

In order to promote the liquidity of the natural gas spot market by expanding the range of products available for trading and the flexibility for market participants, at the end of 2019 the Ministry of Economic Development¹⁸² introduced the weekend product, tradable from 1 January 2020, into the MGP-GAS market. In 2019, the Authority expressed a favourable opinion¹⁸³ on the proposals to amend the Integrated Text of the Electricity Market Regulations (TIDME) and the - M-GAS Regulations, prepared by the GME, as they were considered functional to the introduction in the MGP, MI and MP - GAS natural gas markets of a single guarantee to cover the net exposure accrued by the operator on these markets.

Finally, as of 1 January 2020, a new segment of the M-GAS has been activated for the procurement by the RdB (Balancing Manager) of the resources needed to operate the system¹⁸⁴. This segment, called AGS, is divided into two auctions for products with delivery on each gas-day, to be held on gas-day D-1, after an initial assessment of the quantities to be supplied, and on day D, without suspension of the continuous trading market, during the course of the auction. Participation in the auctions is open to all operators admitted to trade on the M-GAS with bids of the opposite sign to those of the RdB.

Prices and Volumes

In the gas markets managed by the GME, total volumes traded in 2020 amounted to 114 TWh (Table 4.6), a significant increase over the previous year (+36%). This growth is largely attributable to the launch of the AGS segment on MP-GAS, which is instrumental in the procurement by the Balancing Manager of the resources needed to operate the gas system¹⁸⁵. The greatest liquidity was still observed on MI-GAS (46.7 TWh; +14%), thanks mainly to exchanges between operators other than the RdB (29.7 TWh; +23%), while the volume handled by the RdB remained essentially stable, accounting for 36% of the total traded in the sector and characterised, compared to 2019, by higher purchases (12.4 TWh, +6%) and lower sales (4.6 TWh, -14%). In the first year of operation of the AGS

¹⁸² By its own decree of 12 December 2019, following the favourable opinion expressed by the Authority in its resolution of 26 November 2019, 496/2019/I/com,

¹⁸³ With the Opinion of 16 July 2019, 309/2019/I/com.

¹⁸⁴ The structure of which was defined with resolution 451/2019/R/gas of 5 November 2019.

¹⁸⁵ In implementation - as mentioned - of the new structure defined in Resolution 451/2019/R/gas.

sector, trades totalling 4.4 TWh were recorded, mostly attributable to sales by Snam Rete Gas (57% of volumes).

Table 4.6 Annual volumes for each of the gas markets managed by the GME

MARKETS		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
P-GAS	Import	-	-	-	-	-	-	-	-	-	-
	Royalties	2,870	2,708	1,801	-	-	-	1,057	2,471	1,290	-
	Decree-Law No. 130/10	-	-	-	-	-	-	-	-	-	-
M-GAS	MI-GAS	13	36	4	102	1,009	7,090	23,826	27,862	41,053	46,701
	MGP-GAS	149	136	13	-	-	335	3,280	13,006	24,564	30,079
	MT-GAS	-	-	-	-	-	-	171	602	3,225	655
	MGS	-	-	-	-	-	3,269	16,633	13,502	13,365	6,450
	MPL	-	-	-	-	-	-	-	-	-	-
	MGP-AGS	-	-	-	-	-	-	-	-	-	25,716
	MI-AGS	-	-	-	-	-	-	-	-	-	4,363
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 (GWh)		4,743	37,805	42,699	41,627	49,199	47,480	44,967	57,443	83,497	113,965

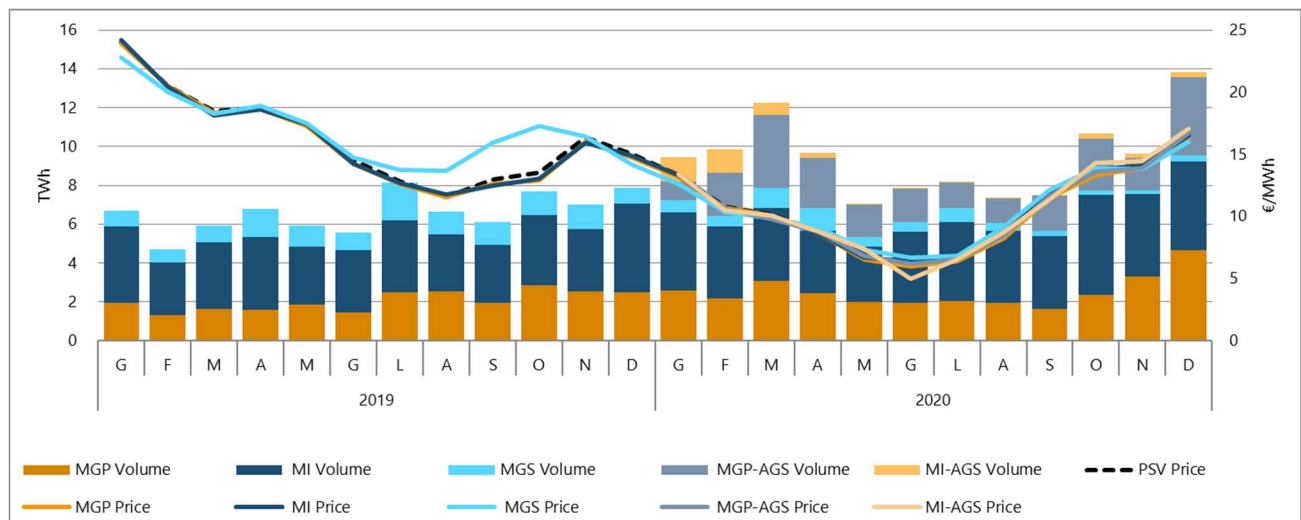
Source: GME.

Volumes traded on the MGP-GAS also increased (30.1 TWh; +22%), concentrated in the session relating to the day before delivery and characterised by a monthly trend that showed lower levels between July and October and very high values in the final two months of the year. This growth was also supported by the presence of the market making service and the introduction of the weekend product. Also on this market, in the first year of operation of the AGS sector, a total of 25.7 TWh was traded, mostly attributable to purchases by Snam Rete Gas (69% of volumes).

In 2020, Snam Rete Gas did not hold any sessions on the MPL, while there were trades on the Regasification Capacity Allocation Platform (PAR), for a total of 173 slots, referring to multiple products corresponding to 22.0 M(m³) liquefied.

With regard to products traded forward on the MT-GAS, a decrease in trading was observed with 122 matches, totalling 0.6 TWh with delivery in 2020. On the other hand, no deliveries of previously traded volumes were observed on the P-GAS Royalties segment.

On an annual basis, spot prices recorded on the various trading platforms (Figure 4.9) can be approximated to an average value of 10.8 €/MWh, in line with the annual average spot price quotation on OTC markets with delivery to the VTP (10.55 €/MWh). In particular, the average prices of the two sectors of M-GAS - respectively 10.41 €/MWh for MGP-GAS and 10.57 €/MWh for MI-GAS - showed an intra-annual trend that faithfully reflects that of the day-ahead product at the VTP, confirming an average differential between the latter and the System Average Price (SAP) of -16 c€/MWh since 2019. In 2020, compared to 2019, price divergences in the MGS sector are more limited compared to other markets, tending upwards in the summer months and downwards in the winter months.

Figure 4.9 Monthly performance of prices and volumes in the markets useful for gas balancing

Source: GME.

4.2.1.2 Monitoring the level of transparency, including compliance with transparency obligations, and the level and effectiveness of market opening and competition

Monitoring of the wholesale market

In December 2018, the Authority adopted¹⁸⁶ the Integrated Text on Wholesale Natural Gas Market Monitoring (TIMMIG) in order to strengthen its monitoring function in the sector¹⁸⁷.

The TIMMIG appointed GME to monitor the competitive dimension and the largest transmission company, Snam Rete Gas to monitor the structural dimension. In addition, it requires the largest transport company to collect and organise data on monitoring activities within a database, called the "Core data database". This database is accessible to the Authority and GME. The outline of the Agreement, as well as subsequent updates, are approved by the Authority, on the basis of a proposal by SRG and the GME.

In 2020, the Authority updated some of the approval timelines in the TIMMIG.

Management of commercial relations in the gas supply chain

With effect from 1 April 2020, the Authority has updated the provisions on the management of commercial relations within the gas sector supply chain¹⁸⁸. In particular, the transitional nature of the default transmission service, whose main function is to guarantee the security of the system, has not been changed, but it has been provided that, in the absence of a correspondence report of individual

¹⁸⁶ With the Resolution 631/2018/R/gas of 05 December 2018.

¹⁸⁷ For more details on the structure, purposes and provisions of the TIMMIG, see the 2019 Annual Report.

¹⁸⁸ With the Resolution 88/2020/R/gas of 24 March 2020.

redelivery points¹⁸⁹, the service must be provided for a maximum period of six months from the date of its activation and at more substantial economic conditions starting from the third month of activation. In addition, the Authority has established that *last resort services* should be implemented with reference to the individual redelivery points owned by the distribution user for which, at the end of the period of provision of the default transmission service, there is no valid correspondence report; at the same time, it has also provided for the possibility for the distribution user to notify the SII of the presence of a "residual" balancing user to which the redelivery points can be associated for which, following the performance of ordinary procedures, there is no valid correspondence report.

Resolution of disputes between regulated parties

In 2012¹⁹⁰, the Authority launched the procedural rules relating to the EU-derived judicial function (Article 44 of Legislative Decree No. 93 of 1 June 2011), i.e. the function concerning the resolution of disputes between network operators and managers concerning access to and use of energy infrastructures, as well as the provision of connection services for electricity production plants powered by renewable sources. In 2020, justice - as an alternative to judicial protection - is once again confirmed as a rapid and easily accessible tool for operators, completely free of charge, to pursue the publicity objectives set out in European legislation and national regulations (primary and regulatory), as well as a fundamental safeguard, widely appreciated and used by stakeholders, to guarantee the functionality and effectiveness of the energy infrastructure access and use regime. In view of the central role played by this remedy within its enforcement functions, the Authority has included the development and promotion of the out-of-court dispute resolution between operators and the updating of its decision log as part of the strategic objectives of its institutional action in the period 2019- 2021, providing for a specific line of action in order to achieve higher levels of regulatory compliance, with a view to reducing litigation.

623 complaints have been filed since 2012, of which 61 in 2020. Of these:

- 271 (43.5%), 47 of which were filed in 2020, were dismissed due to inadmissibility, preclusion of claim or settlement between the parties during the proceedings or because the network operator, during the proceedings, satisfied the complainant's request;
- 28 (4.5%), of which 8 were submitted in 2020, were being dealt with as at 31 December 2020;
- 324 (52%), of which 6 were submitted in 2020, have been the subject of decisions, making a total of 240 resolutions issued (of which 27 in 2020). It should be noted that the number of resolutions is lower than the number of complaints submitted because some of them, due to the nature of the technical and legal issues addressed, dealt with several complaints jointly.

The average time for settling disputes between economic operators, managed by the Authority, is 8 months and 4 days.

The decisions taken by the Authority are respected in almost all cases; in particular, most of the decisions (about 85%) were immediately acknowledged and implemented by the parties, while the remaining (about 15%) were acknowledged and implemented only following reminders from the Authority.

¹⁸⁹ *Correspondence report* is the report defining, for each redelivery point in the distribution contract of a distribution service user, to which transmission and balancing service user the withdrawals are to be traced.

¹⁹⁰ Resolution of 18 May 2012, 188/2012/E/com.

In the course of 2020, in accordance with the described strategic objective and the indicated line of action, the updating of the log of decisions rendered by the Authority in the exercise of its judicial function also continued. This tool - which is freely accessible by interested parties from ARERA's institutional website - is intended to promote the widest possible understanding and dissemination of the interpretative guidelines adopted by the Authority in judicial proceedings, in order to meet the need for certainty and uniformity in their application, with a view to regulatory compliance and reducing judicial and judicial disputes, as evidenced also by the aforementioned increase in the number of cases in which complaints are dismissed without the need for a decision by the Authority, the operator having satisfied the complainant's claim during the proceedings: such cases in 2020 accounted for 29.5% of the total, compared to 15.7% of the average for the entire period considered.

With reference to the gas sector, the decisions taken by the Authority on complaints submitted by regulated entities mainly concerned issues related to volume allocation, distribution and procedural issues.

4.2.2 Retail market

The provisional results of the Annual Survey, on which the comments on these pages are traditionally based, show that in 2020 55.3 G(m³) were sold to the retail market, in addition to 190 M(m³) supplied through the last resort and default services¹⁹¹. Overall, the end sales therefore amounted to almost 55.5 G(m³), with a decline of 2.8 G(m³) compared to 2019.

Table 4.7 Final natural gas consumption

	VOLUMES M(m ³)			DELIVERY POINTS (thousands)		
	2019	2020	VARIATION	2019	2020	VARIATION
Final sales	56,057	55,302	-4.7%	21,682	21,899	1.0%
Last resort and default supplies	197	190	-3.6%	128	127	-1.1%
TOTAL MARKET	58,254	55,492	-4.7%	21,810	22,026	1.0%
Self-consumption	15,584	16,561	6.3%	2.6	1.3	-48.7%
FINAL CONSUMPTION	73,838	72,054	-2.4%	21,812	22,027	1.0%

Source: ARERA. Annual Survey on Regulated Sectors.

In order to obtain data that can be compared with the end gas consumption data published by the Ministry of Economic Development mentioned above, we must however consider the volumes related to self-consumption, 16.6 G(m³), that bring the value of overall consumption given by the Annual Survey to 72.1 G(m³), which is comparable to the 68.5 G(m³) reported by the Ministry. The two sources classify the volumes of gas handled over the year in different ways. According to the Annual Survey data, the level of overall consumption in 2020 is therefore 2.4% lower than in 2019.

The drop in volumes was cushioned by self-consumption, which, in contrast to sales, recorded a good increase: compared to the previous year, it rose by almost 1 G(m³) or 6.3%, thus offsetting part of

¹⁹¹ The request for data related to the last resort and default supplies can be found in the Annual Survey in simplified form. Therefore, for this kind of supply there are no available details (consumption sector, type of connection, etc.) with which the final sales are usually analysed. So all the detailed analyses are accomplished net of this market component in the rest of this paragraph.

the drop in total sales (-4.7%). The decline in final consumption that emerges in both the Annual Survey data (-2.4%) and the ministerial data, albeit to a greater extent (-4.2%), is linked to a drastic drop in the productive sectors.

Of the 55.3 G(m³) of gas sold in the end market, 17.6 G(m³) were sold by pure suppliers, while the remaining 37.7 G(m³) were brokered by suppliers who also operate in the wholesale market (Table 4.8). The average price charged to customers in the retail market by all sales companies operating in this market was 33.86 c€/m³, 5.32 c€ (-13.6%) lower than in 2019. As usual, this price is higher than the one offered on the end market by wholesalers, which was equal to 27.45 c€/m³. The reason for the positive difference of 6.4 c€ this year mainly lies in the type of customers supplied and the related characteristics. The companies that operate mostly in the end market mainly address civil customers that are connected to the distribution networks and that, although there are many of them, are characterised by low consumption. Vice versa, the customers supplied by the wholesalers are mainly large consumers, especially industrial, which, thanks to the high levels of consumption, are surely able to obtain more favourable prices. Industrial customers are often directly connected to the transmission network and, therefore, do not pay for distribution costs.

Table 4.8 Sales and prices in the retail market in 2020

Operators	Number	Sales M(m ³)	Price c€/m ³
Pure suppliers	354	17,638	47.53
Mixed operators	114	37,664	27.45
TOTAL RETAIL	468	55,302	33.86

Source: ARERA. Annual Survey on Regulated Sectors.

In 2020, the number of active suppliers on the retail market rose again and substantially¹⁹². As the gas sold decreased and the number of suppliers increased, the average unit sales volume decreased by more than 11 M(m³) on average compared to 2019, falling from 129.6 to 118.2 M(m³). Ten years ago, before the economic crisis, average sales were almost twice as high at 237 M(m³). 6.2% of companies active in the end market, i.e. 29 out of 468, sold more than 300 M(m³) in 2020. Overall, the 29 companies that sold more than 300 M(m³) account for 82.2% of all gas sold in the retail market.

There were a number of movements between companies in 2020 as well: 36 companies have started selling to final customers; 8 companies in total have ceased operations; two companies have acquired or sold their sales activities (even partially); 9 companies have changed corporate group; there have been 6 mergers by incorporation, all within the same corporate group.

Of the 468 active suppliers that responded to the Annual Survey, 24.1% (i.e. 113 companies) supply customers throughout most of the country, i.e. in at least 17 Italian regions¹⁹³; 247 companies (52.8%) sold electricity in 6 to 16 regions; the remaining 108 companies (23.1%) operated in 1 to 5 regions. The number of companies operating on all or a large part of the national territory is growing. The corporate breakdown of the share capital of gas suppliers, limiting the analysis to direct holdings,

¹⁹² In fact, as seen in the paragraph dedicated to the wholesale market, this year 612 companies responded to the annual survey of the 759 that, in the Authority's Operators' Registry, declared that they had sold gas at wholesale or retail level during 2020 (even if only for a limited period of the year). Excluding the 59 companies that declared they remained inactive, of the remaining 553, there were 85 that sold gas exclusively on the wholesale market. Therefore, 468 entities operated in the retail market, 20 more than in 2019.

¹⁹³ In Sardinia the gas service has only just arrived.

displayed poor foreign presence: only 25 companies (of around 462 that provided this data) have a non-Italian majority shareholder. The direct foreign shareholders are mainly Swiss, Luxembourg, Spanish and Austrian companies, but there are also British, German, Irish and other nationalities.

Net of the last resort and default supplies, 71.9 G(m³) were sold in 2019 - of which 16.6 were for self-consumption and 55.3 for sales - to 21.9 million customers (redelivery points). Overall, gas sales decreased compared to 2019 in non-domestic uses, with the exception of those destined for industry, due to a strong increase in related self-consumption. The latter, which mainly relates to the industrial and power generation sectors, increased by 6.3%; the quantities of gas sold in the free market, at 49.2 G(m³), showed a decrease of 3.9%, while sales in the standard offer market, at 6.1 G(m³), fell by 11.3%. The regulated market values shown in the table do not include the quantities supplied in the default and last resort services, as they cannot be divided into the different segments. These were 197 M(m³) in 2019 and 190 M(m³) in 2020. If the default and last resort services are also considered, the gas sold in the regulated market increases to 6.3 G(m³).

In 2020 the COVID-19 pandemic has had a marked negative effect on the Italian economy, especially in the trade and services sectors, many of which have remained largely static for most of 2020. The industrial sector also suffered a major slowdown in the spring months of the first lockdown, only to recover just as vigorously in the autumn. In addition, the weather in 2020 was not favourable for gas consumption, given the mild temperatures in the winter months. Based on these factors, it can be seen that the reduction of 2.4% observed in gas consumption was very uneven between sectors. In fact, consumption in the domestic and central heating sector remained broadly stable at around 17 G(m³), even showing a slight increase of 0.2% compared to 2019. Consumption in the production sectors (industry and thermoelectric generation) fell from 48.4 to 47.2 G (m³), thus recording an overall decline of 2.4%. On the other hand, consumption in the tertiary sector (trade and services together with public service activities) decreased by 8.2%, from 8.2 to 7.5 G(m³).

Table 4.9 End market per consumption sector

CONSUMPTION SECTOR	2019				2020			
	STANDARD OFFER SERVICE	FREE MARKET	SELF-CONSUMPTION	TOTAL	STANDARD OFFER SERVICE	FREE MARKET	SELF-CONSUMPTION	TOTAL
VOLUMES (M(m³))								
Domestic	6,473	8,232	0	14,706	5,757	8,981	2	14,740
Central heating	445	1,931	5	2,382	381	1,999	5	2,385
Commerce and services	-	7,195	24	7,219	-	6,635	22	6,657
Industry	-	18,678	1,847	20,524	-	17,778	4,487	22,265
Electricity generation	-	14,148	13,708	27,855	-	12,923	12,045	24,967
Public service sector	-	954	0	954	-	848	0	848
TOTAL VOLUMES	6,918	51,139	15,584	73,641	6,138	49,164	16,561	71,863
REDELIVERY POINTS (thousands)								
Domestic	8,920	11,294	0	20,214	8,096	12,336	0	20,432
Central heating	60	131	0	191	56	136	0	192
Commerce and services	-	1,046	1	1,047	-	1,047	1	1,048
Industry	-	185	0	185	-	183	0	183
Electricity generation	-	1	0	1	-	1	0	1
Public service sector	-	45	0	45	-	45	0	45
TOTAL REDELIVERY POINTS	8,980	12,701	2	21,683	8,152	13,748	1	21,901

Source: ARERA. Annual Survey on Regulated Sectors.

More specifically, gas sales in 2020:

- to the domestic sector decreased by 11.3% in the standard offer service, while they increased by 8% in the free market;
- to the industrial sector fell from 18.7 to 17.8 G(m³) (-4.8%), while self-consumption increased significantly (+2.6 billion m³ compared to 2019); overall, therefore, industry consumption grew by 8.5% in 2020;
- to the thermoelectric sector decreased by 8.7% (-1.2 G(m³)), and self-consumption decreased by 12.1%: taking both items into account, therefore, consumption in the sector was 10.4% lower than in 2019;
- to the trade and services sector fell by 7.8%, just as self-consumption fell by 8.9%, for a total loss of more than half a billion m³ (-7.8%);
- to the public service sector fell by 106 M(m³), with a loss of 11.1%.

In 2020, the average consumption for households was 721 m³, for domestic central heating was 12,408 m³, 6,351 m³ for commerce, 121.9 thousand m³ for industry, 22.8 M(m³) for electricity generation and, finally, 18,967 m³ for the public service sector. In the free market household average consumption (769 m³) was slightly higher than in the standard offer market (726 m³), while in the case of central heating the average consumption in the free market, equal to 15,578 m³, was almost double that found in the standard offer service, equal to 7,861 m³.

The proportion of volumes purchased on average on the free market was 68.4%, that of the standard offer market was 8.5%, while self-consumption amounted to 23%. If we consider sales in its strict sense and therefore exclude self-consumption, 89% of the gas was purchased on the free market and the remaining 11% on the standard offer market. In terms of customers, 37.2% turned to the standard offer market, while 62.8% bought on the free market.

Considering only the domestic sector, we can see that the share of volumes purchased on the free market in 2020 reached 60.9% for households and 84% 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 2019 these values were 56% and 81.3%, respectively. In terms of delivery points, in 2020, the share of households purchasing gas in the standard offer service fell to 39.6%; in 2019 this share was 44.1%, after falling below half (49.9%) for the first time in 2018.

Table 4.10 End market by customer type and size in 2020

SECTOR	CUSTOMERS DIVIDED BY ANNUAL CONSUMPTION CLASS (m ³)						TOTAL M(m ³)
	<5,000	5,000- 50,000	50,000- 200,000	200,000- 2,000,000	2,000,000- 20,000,000	>20,000,000	
STANDARD OFFER MARKET	5,715	397	26	0	-	-	6,138
Domestic	5,663	94	0.3	0	-	-	5,757
Central heating	52	303	26	-	-	-	381
FREE MARKET	10,205	4,747	2,242	4,993	9,150	17,828	49,164
Domestic	8,800	175	5	2	0	-	8,981
Central heating	85	1,441	396	77	0	-	1,999
Commerce and services	1,100	2,303	1,054	1,346	661	171	6,635
Industry	179	625	652	3,180	7,407	5,734	17,778
Electricity generation	0	3	10	161	876	11,872	12,923
Public service sector	41	200	124	228	205	50	848
TOTAL	15,920	5,144	2,268	4,993	9,150	17,828	55,302

Source: ARERA. Annual Survey on Regulated Sectors.

The breakdown of sales to the end market (net of self-consumption) by sector of consumption and customer size (Table 4.10) shows that, on average, the class with annual consumption up to 5,000 m³ buys 28.8% of all the gas sold in the retail market, that with consumption between 5,000 and 50,000 m³/year absorbs 9.3%, the third class (50,000-200,000 m³/year) 4.1%, the fourth class (200,000-2,000,000 m³/year) 9%, the penultimate (from 2 to 20 million) 16.5% and the last (over 20 million) 32.2%. 98.1% of the volumes sold to the domestic sector are purchased by households with an annual consumption below 5,000 m³: in fact, this share is 98.4% for households that purchase in the standard offer market and 98.0% for those that purchase in the free market. The largest share of volumes sold for central heating is concentrated in the annual consumption class between 5,000 and 50,000 m³: this class, in fact, absorbs 79.6% of the volumes of gas purchased in the standard offer market, and 72.1% of those purchased in the free market. 67.2% of all gas purchased by the commercial sector is concentrated in the first three classes. Conversely, the classes with the highest annual consumption are particularly prominent for industrial consumption and thermoelectric generation. The consumption in the public service sector is relatively equally distributed among the intermediate classes: 23.6% is consumed by customers with annual consumption between 5,000 and 50,000 m³, 26.9% by customers with annual consumption between 200,000 and 2,000,000 m³, another 24.2% is sold to customers consuming between 2 and 20 M(m³)/year.

Switching

Once again this year, the analysis of switching activities in the natural gas sector includes data collected from transmission and distribution operators through the annual survey on regulated sectors and data from the Integrated Information System (SII), managed by the Acquirente Unico (single buyer). Based on data provided by transmission operators and data from the SII, the switching percentage, i.e. the number of customers¹⁹⁴ that changed supplier in the calendar year 2020, was 10.2% overall, or 20.4% if evaluated on the basis of the consumption of the customers who made the change (

Table 4.11). Compared to 2019, the percentages are increasing for domestic customers. The increase in domestic and switching rates may have been affected by the imminent end of the standard offer regime (although the date for the removal of price protection has been postponed several times).

In 2020, domestic consumer switching grew by one percentage point, confirming and indeed increasing the already significant dynamism seen since 2018, after a number of years in which it had eased somewhat (Fig. 3.16). Last year, in fact, at least 2.2 million customers changed supplier, equivalent to a share of 10.1% of the total (and corresponding to a 11.4% share of volumes). The fraction of domestic use central heating that switched to another supplier was a little lower (9.4%), for volumes corresponding to 10.4% of the related consumption sector. Both central heating figures are slightly lower than those shown in 2019, but nevertheless testify to extensive customer switching, given that a change of contract by a multi-residence building generally requires more complex decision-making procedures than those required for a change of supplier by an individual customer.

¹⁹⁴ For reasons of editorial convenience, we generally speak of customers in the text. We must however explain that we are speaking of a number of redelivery points in the case of the transmission users and the number of metering units in the case of distribution users.

Table 4.11 Switching rates of final customers

CUSTOMERS BY SECTOR	2019		2020	
	CUSTOMERS	VOLUMES	CUSTOMERS	VOLUMES
Domestic	8.8%	10.9%	10.1%	11.4%
Central heating	10.1%	12.4%	9.4%	10.4%
Public service sector	15.7%	31.4%	12.8%	9.2%
Other uses	13.3%	37.0%	12.5%	23.8%
TOTAL	9.1%	30.7%	10.2%	20.4%

Source: ARERA. Annual Survey on Regulated Sectors.

12.8% of the entities managing a public service activity (equivalent to 9.2% in terms of volumes) have chosen to switch to a new supplier; this is a high rate, but this is one of the "hybrid" categories that includes very different realities: not only small municipal offices (which are similar to commercial establishments in terms of consumption values), but also large hospital complexes, which have very significant annual consumption and which, consequently, can greatly increase the volumes involved in switching. Lastly, 'other usage' customers who changed their supplier accounted for 12.5% of the total in terms of customers and 23.8% in terms of volumes, showing less dynamism than in previous years.

Table 4.12 Switching rates by region and customer type in 2020

TERRITORY	DOMESTIC		CENTRAL HEATING		OTHER USES		PUBLIC SERVICE SECTOR		TOTAL	
	DOMES TIC	VOLUM ES	DOMES TIC	VOLUM ES	DOMES TIC	VOLUM ES	DOMES TIC	VOLUM ES	DOMES TIC	VOLUM ES
	TIC	ES	TIC	ES	TIC	ES	TIC	ES	TIC	ES
NORTH	10.2%	11.2%	8.9%	10.2%	12.1%	16.7%	11.4%	8.6%	10.3%	15.1%
CENTRE	10.6%	12.2%	10.2%	10.9%	13.5%	34.3%	15.0%	9.3%	10.8%	27.2%
SOUTH AND ISLANDS	9.2%	11.1%	13.4%	13.7%	12.8%	35.8%	14.2%	11.5%	9.4%	31.4%
ITALY	10.1%	11.4%	9.4%	10.5%	12.5%	23.8%	12.8%	9.2%	10.2%	20.4%

Source: ARERA. Annual Survey on Regulated Sectors.

The switching levels at territorial level, also with detail by type of customer, are shown in Table 4.12. The data show that, even in 2020, the Centre is more active than the rest of Italy, with switching rates in terms of customers that are on average higher than the national average. In general, however, the regional values maintain a fair degree of territorial homogeneity, especially in the Centre-North areas and in the less consumer-intensive sectors, while the South and Islands area shows, on the whole, lower switching rates in terms of customers.

For domestic consumption, the percentage of the Centre is equal to 10.6% in terms of customers and to 12.2% in terms of volumes, against a national average of 10.1% (customers) and 11.4% (volumes). Switching of central heating users shows a higher level in 2020 in the South, in terms of both customers (13.4%) and volumes (13.4%), than the national average (whose rates are 9.4% and 10.5% respectively). In the public service sector, the rates in the South were the highest in terms of customers (14.2% against 12.8% of the national average) and volumes (11.5% against a national average of 9.2%). Finally, in terms of consumption for other uses, there is a moderate homogeneity in switching activity between the different areas in terms of customers, 12.5% of whom change supplier on average at least once a year; in terms of volumes, however, there are greater shifts in the Centre-South.

Available offers in the free gas market

As already mentioned in chapter 3 (paragraph 3.2), this year the Annual Survey of Regulated Sectors asked electricity and natural gas suppliers certain questions to assess 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, enriched recently years by the creation of the PLACET (free price under equivalent protection conditions) offers¹⁹⁵. The data discussed below on the types of contracts chosen by customers in 2020 therefore also include PLACET offers, but do not distinguish them.

Here too it is useful to reiterate that the objective of the questions on the quantity and quality of the commercial offers is aimed at classifying the numerous offers on the market, although not completely exhaustive of reality. Therefore, please accept with caution the results presented in these pages. What's more, since the supply of non-domestic customers traditionally introduces more complex and varied necessities compared to households, this year's distribution of collected results is also practically only concentrated on the latter¹⁹⁶.

The average number of commercial offers that each gas supplier was able to offer their potential customers was 10.8 for domestic customers, 6.8 for central heating and 15.1 for non-domestic customers. The latter obviously has greater choice, generally being the most important customer in terms of consumed volumes and with more differentiated requirements compared to those of a domestic customer. Compared to the 2019 data, the number of offers available is largely unchanged, with a slight decrease for non-domestic customers (it was 10.9 for domestic, 6.6 for central heating and 18.2 for non-domestic). However, 15.1% of suppliers offer a single contract type, 36.9% offer up to 3 and the remaining 48.1% of the suppliers propose a range that offers 4 plus contract offers to their customers. Compared to 2019, the numbers of commercial offers have hardly changed.

Of the 10.8 offers made available to domestic customers on average, 4.6 can only be purchased online, i.e. only through the internet, a sales channel through which the company can clarify its offer conditions while saving on operating costs (there were 4.9 in 2019). The share of suppliers with at least one online offer has increased from 17.5% to 18.4%. In 2.3% of cases the number of online offers was equal to the number of total offers to customers, therefore, in the vast majority of cases, the number of online offers was lower than the total offers. Households' interest in online offers grew in 2020, but remains, for the time being, a fairly niche phenomenon, as only 7.9% of clients signed a contract offered through this method (in 2019 this share was 7.3%).

Concerning the preferred type of price, it was found that 73.9% of households signed up to a fixed price contract on the free market (i.e. with the price that doesn't change for at least one year from the time of signing), while only 26.1% chose a variable price contract, with the price that changes according to the timing and methods established by the contract itself. The percentage of customers choosing a fixed-price contract increased by four percentage points compared to 2019 and is the highest observed so far (The results (Table 4.13) show that the presence of additional services is more prevalent in fixed-price contracts than in variable-price contracts: 62% of customers who have chosen a fixed-price offer sign a contract that also includes an additional service, while this percentage drops to 24.4% in variable-price contracts. In fixed-price contracts that provide an additional service, there is a clear preference (35.2%) for those contracts that provide for participation in a points programme

¹⁹⁵ For a description of these offers, see the paragraph relating to the free electricity market, in Chapter 2 of this Volume.

¹⁹⁶ The only result shown for non-domestic customer concerns the number of available offers because the specific question in the supplier's questionnaire obtained a good response rate.

and a certain appreciation (14%) for contracts that offer an accessory energy service. The possibility of obtaining advantages on buying other goods or services is also of interest (5.1%). In contrast, the most popular options were additional energy services (13.1%) and participation in a points programme (6.1%).

Table 4.13).

There are several types of indexation for variable price contracts, thus covering just over a quarter of domestic customers. 47.3% (47.8% in 2019) 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; 33.6% chose a contract that provides for a form of indexation linked to TTF (Title Transfer Facility) prices (28.5% in 2019), 2.3% of customers (11.4% in 2019) chose a contract that provides for indexation to the Brent trend. Minimal shares of customers have chosen contracts with other forms of indexation: 3% linked to VTP prices, 0.8% linked to markets operated by the GME and 3.2% with alternative forms of indexation, often a combination of the above.

Concerning the length of the contract, 4.5% of the customers subscribed to a contract that provides a clause of minimal contractual duration, where the client can't change supplier for a minimum time duration indicated by the contract, in order to apply the established price. The percentage is somewhat higher (9.5%) in the case of variable price contracts. However not all the vendors of the free market apply a contract that provides a contractual minimal duration clause, and those that contemplate this possibility, also offer customers alternative contracts that do not include this constraint. In 2020, 36 suppliers applied contracts with a minimum duration clause; together they serve about 1.2 million households. The share of these suppliers' customers who purchased a contract with minimal duration clause is equal to 45.9% (49.8% with fixed price and 43.2% with variable price). All figures are up on the previous year, but in 2019 there were 29 suppliers offering a contract clause and 39.1% of their customers who signed up to it.

32.9% of the domestic customers subscribed to a contract that provides a rebate 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 provided when a certain condition is met (for example a discount for contracts signed by the customer's friends, discount for direct automatic bank payments, etc.). More specifically, it appears that on average the discount is applied to 38.4% of customers who chose a fixed price contract and 17.2% of customers who chose a variable price contract. The share of contracts purchased with a rebate or discount is broadly the same as in 2019, when it was 33.1%.

As already extensively described in paragraph 3.2, to which we refer, in the questionnaires of the Annual Survey on 2020 the presence of additional services in natural gas sales contracts has been streamlined and further explored with the addition of two new items:

- other products or services offered together with the natural gas (e.g. internet, telephone subscription, TV subscription, insurance/financial product, etc.);
- a combination of additional services (where it was necessary to specify which additional services are covered by the contract, choosing between those listed or others).

In addition, the item 'Personalised telephone services', which was only present in the questionnaire for natural gas suppliers (not in the questionnaire for electricity suppliers) and which had basically never been answered, was removed.

In this regard, as mentioned in Chapter 2, it is worth noting that the presence of an option to indicate a combination of additional services may have made the answers to the questions on additional services less comparable with past surveys. This is because, when this option was not present,

suppliers probably included contracts with several additional services under a single heading, i. e. that of the service considered most relevant.

The new options for identifying additional services in contracts signed by domestic customers had a moderate impact on the responses for fixed price contracts, where the presence of an additional service is historically high; in variable price contracts, however, the impact was more modest, partly because in this case the presence of additional services concerns about a quarter of the contracts signed. As can be seen in Table 4.13, in fact, the item "Other" declined in importance compared to the past to the benefit of the option "A combination of additional services", whose frequency in terms of customer points was 14.1% in fixed price contracts and 6.3% in variable price contracts. However, the gas questionnaire, like the electricity questionnaire, asked for the combination of additional services contained in the contracts chosen by customers. Therefore, it was possible to reallocate the delivery points pro rata to the individual additional services.

The results (Table 4.13) show that the presence of additional services is more prevalent in fixed-price contracts than in variable-price contracts: 62% of customers who have chosen a fixed-price offer sign a contract that also includes an additional service, while this percentage drops to 24.4% in variable-price contracts. In fixed-price contracts that provide an additional service, there is a clear preference (35.2%) for those contracts that provide for participation in a points programme and a certain appreciation (14%) for contracts that offer an accessory energy service. The possibility of obtaining advantages on buying other goods or services is also of interest (5.1%). In contrast, the most popular options were additional energy services (13.1%) and participation in a points programme (6.1%).

Table 4.13 Contracts for the supply of natural gas by type of price and type of additional services

Percentage of customers who signed the indicated contracts

CONTRACTS	2016	2017	2018	2019	2020
Fixed price	68.5%	68.6%	70.4%	69.9%	73.9%
Variable price	31.5%	31.4%	29.6%	30.1%	26.1%
ADDITIONAL SERVICES OF FIXED PRICE CONTRACTS					
No additional services	85.3%	38.3%	45.0%	52.6%	38.0%
Points collection programme (own or others)	72.0%	51.4%	46.1%	33.0%	35.2%
Accessory energy services	23.0%	7.1%	6.1%	4.3%	14.0%
Advantages on buying other goods or services	5.0%	1.4%	0.9%	0.4%	5.1%
Gifts or gadgets	n.a.	0.2%	0.2%	0.2%	5.0%
Personalised telephone services	n.a.	0.0%	0.0%	0.0%	n.a.
Other products or services offered in conjunction with natural gas	n.a.	n.a.	n.a.	n.a.	2.2%
Other	1.0%	1.6%	1.8%	9.4%	0.6%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%
ADDITIONAL SERVICES OF VARIABLE PRICE CONTRACTS					
No additional services	68.4%	86.5%	82.7%	76.2%	75.6%
Points collection programme (own or others)	13.3%	2.0%	1.8%	4.0%	6.1%
Accessory energy services	20.9%	7.0%	6.6%	11.8%	13.1%
Advantages on buying other goods or services	1.5%	0.4%	0.4%	0.2%	1.9%
Gifts or gadgets	n.a.	0.3%	0.4%	0.6%	0.4%
Personalised telephone services	n.a.	0.0%	0.0%	0.0%	n.a.
Other products or services offered in conjunction with natural gas	n.a.	n.a.	n.a.	n.a.	0.1%
Other not included in the above items	64.3%	3.7%	8.2%	7.1%	2.8%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%

Source: ARERA. Annual Survey on Regulated Sectors.

Concentration in the retail natural gas market

The analysis of the sales performance of corporate groups, instead of those achieved by individual companies, allows a more correct assessment of market shares and the level of concentration in the final sales market (Table 4.14).

There was no change in the top five positions of the end market, where Eni, Edison, Enel, Hera and Iren remain strong. Compared to 2019, the groups' shares have all increased slightly, with the exception of Eni and Iren. In fact, Eni's share decreased by one percentage point compared to 2019, from 19.4% to 18.4%, as the group's sales dropped by more than one billion cubic meters (-9.5%). The share of the Iren group also dropped from 4.7% to 4.6% due to a significant reduction in sales, equal to almost -220 M(m³) (-7.9%). The shares of the Edison, Enel and Hera groups, on the other hand, increased slightly, thanks to a less negative sales result: in fact, compared to 2019, the changes in the quantities that these groups placed on the retail market were respectively equal to -2.6%, -4.3% and -1.7%. Therefore, both the gap between Eni and Edison, and the gap between Edison and Enel narrowed slightly compared to 2019. In particular, the gap between the Eni and Edison groups fell below 5%. A look at the lower positions in the ranking highlights that in 2020 there were no particular changes in the order compared to 2019. However, it should be noted that: the EPH group, whose sales increased by 2.7%, overtook A2A, which recorded a reduction of 2.1%; Royal Dutch Shell achieved a clear increase in sales to end customers, thus climbing two places in the ranking; the Sorgenia group, despite recording a loss of 7.8% in sales to end customers, maintained its eighth position. On average, from the second half of the ranking, the groups all dropped one position.

Table 4.14 Top twenty groups for sales on the final market in 2020

GROUP	VOLUME M(m ³)	SHARE	POSITION IN 2019
Eni	10,196	18.4%	1st
Edison	7,490	13.5%	2nd
Enel	6,503	11.8%	3rd
Hera	3,016	5.5%	4th
Iren	2,536	4.6%	5th
Energetický A Průmyslový Holding	2,242	4.1%	7th
A2A	2,170	3.9%	6th
Sorgenia	1,535	2.8%	8th
Royal Dutch Shell	1,462	2.6%	11th
Axpo Group	1,399	2.5%	9th
Engie	1,099	2.0%	10th
Estra	971	1.8%	12th
E.ON	908	1.6%	13th
Unogas	762	1.4%	14th
Solvay Energy Services Italia	648	1.2%	15th
EG Holding	523	0.9%	16th
Dolomiti Energia	482	0.9%	17th
Egea	431	0.8%	22nd
ACSM-Agam	428	0.8%	19th
Alperia	426	0.8%	21st
Others	10,074	18.2%	-
TOTAL	55,302	100.0%	-

Source: ARERA. Annual Survey on Regulated Sectors.

As a result of these dynamics, the level of concentration in the end sales market generally decreased in 2020. Table 4.15 highlights the detail of the concentration measures, also distinguished by consumption sector. In the first part of the table, the measures are calculated from the volumes sold by corporate groups in the retail market, while in the second part of the table, the measures are calculated on the basis of the customers (delivery points) served by the corporate groups themselves.

Using the measures calculated on volumes sold, it can be seen that the number of groups with a total market share above 5% remained unchanged at 4. Nevertheless, in 2020 the top three groups controlled 43.7%, while in 2019 the share was 44.3%. The Herfindahl-Hirshman Index (HHI) calculated on the sales market was 787, slightly lower than the 809 of 2019. However, the index level remained well below the threshold value of 1,000, under which concentration is normally judged to be low. When measured in terms of the customers served, concentration tends to increase in almost all sectors: the only exceptions are industrial and public service activities, as well as the non-domestic sector as a whole. However, it should be noted that the level of concentration in the Italian natural gas market is generally quite low: with few exceptions, the C3 does not exceed 55%, but above all the values of the HHI index are below the first attention threshold equal to 1,500¹⁹⁷ in all sectors.

Table 4.15 Concentration measures in the retail natural gas market

Measures calculated on corporate groups

SECTOR	2019			2020		
	GROUPS >5%	C3	HHI	GROUPS >5%	C3	HHI
MEASURES CALCULATED BASED ON THE ENERGY SOLD BY THE CORPORATE GROUPS						
DOMESTIC CUSTOMERS	3	48.7%	963	4	48.4%	956
Domestic customers	3	53.2%	1,137	4	53.1%	1,137
Central heating	4	36.6%	621	4	36.3%	640
NON-DOMESTIC CUSTOMERS	5	45.2%	854	5	44.7%	849
Commerce and services	5	30.5%	523	5	30.5%	502
Industry	5	58.2%	1,430	4	59.9%	1,515
Electricity generation	6	48.0%	1,183	6	50.5%	1,253
Public service sector	4	50.8%	1,101	4	51.9%	1,185
TOTAL MARKET	4	44.3%	809	4	43.7%	787
MEASURES CALCULATED BASED ON THE CUSTOMERS SUPPLIED BY THE CORPORATE GROUPS						
DOMESTIC CUSTOMERS	4	55.5%	1,291	4	54.3%	1,198
Domestic customers	4	55.7%	1,301	4	54.5%	1,257
Central heating	5	40.0%	712	5	40.9%	742
NON-DOMESTIC CUSTOMERS	4	38.3%	607	4	37.1%	583
Commerce and services	4	37.7%	602	4	36.4%	572
Industry	3	43.4%	827	3	43.3%	838
Electricity generation	3	51.3%	1,221	5	49.6%	1,202
Public service sector	4	29.8%	481	3	34.1%	521
TOTAL MARKET	4	54.5%	1,240	4	53.3%	1,198

Source: ARERA. Annual Survey on Regulated Sectors.

¹⁹⁷ An HHI value between 1,500 and 2,500 indicates a moderately concentrated market, while a value higher than 2,500 indicates a strongly concentrated one (the maximum index value is 10,000).

4.2.2.1 Monitoring of the retail market price level, the level of transparency, the level and effectiveness of market opening and competition

As already described in detail in Chapter 3 (see paragraph 3.2.2.1, to which reference is made) on the subject of sales prices in the retail markets of electricity and natural gas, the Authority has two observations:

- that of *Average prices applied in the electricity and natural gas market* carried out according to the Resolution of 29 March 2018, 168/2018/R/com, in which the quarterly data relative to the charges billed¹⁹⁸ by the suppliers to the domestic and non-domestic customers is recorded at half-yearly intervals, divided into consumption classes and market types;
- the other carried out within the context of the Annual Survey on Regulated Sectors, in which the data for the previous year is recorded and divided according to several retail categories (type of market, sector and consumption classes, type of contract).

The data of the Annual Survey is used for the statistical analysis carried out by the Authority, especially those presented in the annual reports to the national and European Authority.

The analysis of data gathered in the survey conducted by the Authority for 2020 shows that, last year, the average price of gas (weighted by the quantities sold), net of sales taxes, set by the sales companies operating on the end market, was 33.9 c€/m³ (Table 4.16). This value almost coincides with the lowest of the last decade, recorded in 2016. This price was 39.2 c€/m³ in 2019. Overall, therefore, the average final price of gas in Italy in the last year showed a decrease of 5.3 c€/m³, equivalent to 13.5%. The decrease, which reflects the sharp drops in the cost of raw materials in wholesale markets following the COVID-19 pandemic, affects all consumption classes by a fairly similar amount, meaning that the price differential between smaller and larger customers remains at the same level as in 2019 (41 c€/m³).

Table 4.16 Average sales prices net of taxes on the end market

ANNUAL CONSUMPTION CLASS	PRICES (c€/m ³)									
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Less than 5,000 m ³	52.6	60.3	61.2	58.8	55.7	51.7	52.1	58.3	63.4	58.1
Between 5,000 and 50,000 m ³	43.9	50.0	51.3	46.9	46.0	42.1	43.1	48.4	50.7	43.7
Between 50,000 and 200,000 m ³	41.1	48.3	44.4	41.4	41.0	37.0	36.2	43.7	44.7	37.3
Between 200,000 and 2,000,000 m ³	34.6	41.1	36.6	35.0	32.5	28.3	26.8	31.4	33.8	27.3
Between 2,000,000 and 20,000,000 m ³	30.7	36.9	33.8	34.0	28.0	24.2	23.0	26.5	28.2	21.9
More than 20,000,000 m ³	33.1	36.8	32.7	32.2	26.5	21.8	24.3	29.2	22.4	16.9
TOTAL	39.3	45.5	44.0	42.3	38.9	33.8	34.3	40.0	39.2	33.9

Source: ARERA. Annual Survey on Regulated Sectors.

This difference is due to the fact that the fixed costs are shared over greater amounts, in the presence of higher consumption. In particular, the effect of the distribution tariffs is much higher on smaller consumption, while, for larger customers that are directly connected to the transmission network, this component is not even present. We can state that the ability to obtain more convenient supply conditions is directly proportioned to the size of the customer, in relation to the greater knowledge of the market and higher attention to contract conditions. Obviously, given the different price levels,

¹⁹⁸ More precisely, these are average unit costs obtained from the relation between the payments received and the quantity of energy invoiced in the reference quarter period.

the decrease in the last year has a different percentage incidence between the various classes, increasing uniformly from -8.4% for the smallest customers (consumption up to 5,000 m³/year) to -24.4% for the largest (over 20 million m³/year).

Table 4.17 shows the breakdown of the average prices for 2020 by size and type of customer. The overall average for each customer type (shown in the last column on the right) depends on the distribution of volumes sold among the size classes. Domestic customers, characterised by the prevalence of lower unit consumption, have a higher average total price (57.9 c€/m³), while for the opposite reason industry and electricity generation have lower overall prices (respectively 22.6 and 17.4 c€/m³). Central heating, public service and commercial activities have an intermediate price.

Table 4.17 Retail sales prices on the market by consumption sector and customer size in 2020

SECTOR	CUSTOMERS DIVIDED BY ANNUAL CONSUMPTION CLASS (m ³)						PRICES (c€/m ³)
	<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	44.1	37.7	28.1	-	-	57.9
Central heating	50.5	44.9	41.0	33.9	43.0	-	44.2
Public service sector	59.2	44.8	36.5	28.4	23.4	17.5	33.1
Commerce and services	57.5	42.8	36.7	29.2	24.1	21.4	39.1
Industry	57.5	43.4	36.0	26.4	21.6	16.9	22.6
Electricity generation	53.7	35.9	30.0	25.3	22.2	16.9	17.4
TOTAL	58.1	43.7	37.3	27.3	21.9	16.9	33.9

Source: ARERA. Annual Survey on Regulated Sectors.

Table 4.18 shows the price trend since 2011 for domestic customers (households and central heating), divided according to the main contractual conditions under which supply can take place, i.e. the standard offer service and the free market, with details by size class (consumption up to 200,000 m³/year).

Table 4.18 Retail prices for household customers, by consumption class and market type in 2020

ANNUAL CONSUMPTION CLASS AND MARKET	PRICES (c€/m ³)									
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Less than 5,000 m³										
Standard offer service	52.5	60.1	60.2	56.8	52.8	47.7	48.2	55.8	60.4	51.0
Free market	53.6	61.3	63.7	62.4	60.1	56.8	56.1	60.3	65.5	62.0
Difference	2.1%	2.1%	5.8%	10.0%	13.9%	19.2%	16.5%	8.1%	8.3%	21.8%
Between 5,000 and 50,000 m³										
Standard offer service	43.1	48.2	52.2	44.1	44.7	37.8	39.2	46.4	48.9	39.6
Free market	44.9	51.5	50.9	47.6	46.1	42.8	43.5	48.6	50.9	44.1
Difference	4.0%	6.7%	-2.4%	8.0%	3.1%	13.1%	11.1%	4.9%	4.1%	11.1%
Between 50,000 and 200,000 m³										
Standard offer service	42.6	48.1	50.5	41.9	40.9	36.1	36.1	45.2	44.9	36.7
Free market	40.6	48.4	43.9	41.4	41.0	37.0	36.3	43.7	44.7	37.3
Difference	-4.7%	0.6%	-13.0%	-1.1%	0.2%	2.6%	0.5%	-3.4%	-0.5%	1.6%

Source: ARERA. Annual Survey on Regulated Sectors.

With regard to smaller customers (up to 5,000 m³/year, mainly single households), in all years of the decade the free market has higher values than the standard offer service. In 2020, the gap widened

significantly compared to the previous year, rising to 22%, as a result of the different evolution of the two markets: while in the standard offer service there was a drop in price of 16%, in the free market the decrease was limited to 5%; this is easily attributable to the fact that, as the free market features mainly fixed price contracts for a predetermined period, it transferred the sharp drop in prices in the wholesale markets to a lesser extent to end customers.

The class of customers with consumption between 5,000 and 50,000 m³/year (mainly central heating) also has higher prices in the free market, but on the one hand there is a year in which this does not occur (2013), and on the other hand the gap is smaller, presenting its maximum value (13%) in 2016. In this class too, the gap widened in 2020 compared to the previous year, reaching a value (11%) of similar magnitude to that of 2016. This confirms what has been pointed out above regarding the greater presence, in the free market, of fixed-price contractual formulas that filter out the drops in the wholesale markets, even if, compared to the previous class, there is greater reactivity, since the variations in the last year in the two markets are more homogeneous (-19% in the standard offer service, -13% in the free market).

Finally, with regard to larger customers (consumption between 50,000 and 200,000 m³/year, almost exclusively central heating), there is an alternation between periods in which either market is cheaper, with a clear parity in terms of the number of years (5 years each), and a slight prevalence of the affordability of the free market, taking into account all the differences over the decade. It should be noted that this is a marginal size class for household consumption (less than 2% of their total).

Obviously, price differences between the two markets may also be affected by factors other than those described. It is worth considering what has already been pointed out in the paragraph on the free market, in particular the presence of commercial offers featuring the joint purchase of the energy supply and other goods or services of various kinds (assistance services, maintenance, insurance policies, telephone services, discounts in supermarkets or on fuel, etc.).

Monitoring the level of transparency, including compliance with transparency obligations, the level and effectiveness of market opening and competition

The retail markets sale monitoring system (already described in detail in Chapter 3) allows the Authority to accomplish the regular and systematic observation of the sale conditions, including the degree of liberalisation, market competitiveness and transparency, and the level of participation of consumers and their degree of satisfaction.

Please refer to paragraph 3.2.2.1 in which the Report illustrating the main outcomes of the retail market monitoring activity with reference to the year 2019¹⁹⁹ is presented, describing, where possible, the evolution of the relevant phenomena over the seven years of its implementation (2012-2019).

Complaints relating to the commercial quality of the natural gas sales service and compensation

The rules for the protection of final 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 of the regulation of the quality of electricity and

¹⁹⁹ [Report 23 February 2021, 71/2021/I/com.](#)

natural gas sales services (TIQV) as described in paragraph 3.2.2.1.

Also in relation to the sale of natural gas, as in the electricity sector, if the supplier does not meet specific standards, the customer automatically receives compensation in their next bill. The automatic basic compensation (25 euros) doubles if the performance of the service subject to compensation takes place beyond twice the standard time and triples if the performance of the service takes place beyond triple the time of the standard or even longer.

From the analysis based on the data reported by the 367 suppliers for the gas sector, the actual average time taken to respond to complaints and billing corrections made stood at 14.82 and 27.24 calendar days respectively, well below the minimum standards set by the Authority. The actual average times to respond to requests for information are also well below the general standard, i.e. overall, 7.79 calendar (Table 4.19) days.

Table 4.19 Sales service standards and average actual times in the natural gas sector in 2020

SERVICES	SPECIFIC STANDARDS (calendar days)	GENERAL STANDARDS %	AVERAGE ACTUAL TIMES 2020
Maximum time for reasoned response to written complaints	30	-	14.82
Maximum time for billing corrections	60 or 90 ^(A)	-	27.24
Maximum time for double billing corrections	20	-	32.10
Minimum percentage of responses to written requests for information sent within the maximum period of 30 calendar days	-	95	7.79

(A) 90 calendar days in the case of quarterly frequency bills.

Source: ARERA on data declared by operators.

On the other hand, with regard to double billing corrections, compared to the standard of 20 calendar days, the actual average correction time is 32.1 calendar days. However, it should be noted that the number of billing corrections is extremely low (849 cases) (Table 4.20).

Table 4.20 Complaints, information requests and billing corrections

	2017	2018	2019	2020
Number of complaints	216,704	194,074	197,928	172,004
Number of requests for information	99,300	86,728	107,937	121,054
Number of billing corrections	44,217	20,587	19,325	16,487
Number of double billing corrections	2377,221	2319,389	2,256	849

(A) Partial data referring to 64% of gas customers.

Source: ARERA processing of data from the Help Desk for the energy consumer.

Overall, for 2020, sales companies serving the standard offer and free natural gas markets received 172,004 written complaints, down from the previous year (-13%); 85% of complaints came from domestic customers; complaints relating to the free market accounted for 73% of the total number of complaints submitted; 20.6% came from customers on the standard offer market, while a residual 6.4% came from multi-site gas customers. A total of 121,054 requests for information were made, an increase of 10.8% compared to the previous year. 66% of the total value related to domestic customers in the free market, 18.8% to domestic customers in the standard offer market and 7.9% to customers with other uses in the free market. Overall, 75% of requests concerned customers in the free market. Billing corrections amounted to a total of 16,487, a decrease compared to the previous year (-14.7%); a significant number of corrections were requested by domestic customers (84.7%), both in the standard offer and free market. The phenomenon of double billing adjustments

is down sharply compared to the previous year (-62.36%) and involved a small number of customers in 2020 (849), 80.56% of whom were domestic customers in the free market.

In 2020, there were 17,027 cases of non-compliance with the standards set for services relating to the commercial quality of sales in the gas sector, resulting in customers being entitled to compensation, of which 89% were attributable to responses to customer complaints. The market segment with the highest number of compensations, overall, is domestic customers in the free market, accounting for 58.8%. During the year, compensation for gas customers was paid out for a total amount of more than 760,000 euros. Similarly to what happened in the electricity sector, as regards automatic compensation paid directly in the bill in the natural gas market, the largest number (89.1%) was paid for failure to meet the standards for written complaints. The market segment that has benefited most from automatic compensation payments is domestic customers in the free market (58.9%), followed by customers in the standard offer market (23.2%). Free market customers are the recipients of 92% of the total compensation.

In the gas sector, the main subjects of complaints for which companies were responsible were, in 54.4% of cases, problems relating to billing and everything concerning consumption and billed amounts, self-reading, periodicity of billing, including the closing bill, making payments and refunds; in 14.3% of cases, problems relating to the contract, such as termination, change of owner, transfer and takeover (completion and cost of transfer and takeover); in 7.7% of cases, complaints related to arrears and suspensions; in 7.6% of cases, they concerned problems relating to the market, such as the way in which new contracts are concluded, the timing of switching and the economic conditions proposed by the supplier in the offer compared with those actually stipulated in the contract and applied. Finally, 6.9% of the complaints concerned metering, 3.6% connections/works and technical quality, 2% commercial quality, 0.6% social bonus and 2.8% other residual topics not related to the previous categories.

In 2020, **customers with dual fuel contracts** sent 32,314 written complaints and 29,564 requests for information. Billing corrections and double billing corrections amounted to 2,474 and 128 respectively.

Overall, there were 2,382 cases of non-compliance with standards that led to the right to automatic compensation in the bill for services related to the commercial quality of sales. The majority resulted from failure to meet response times for billing corrections, followed by written complaints and double billing corrections. Overall, compensation of 99,935 euros was paid to the dual fuel customer segment.

96.7% of the cases of non-compliance with the standards for response times to written complaints were due to causes attributable to the suppliers, 2.6% to external causes, i.e. attributable to the end customer or a third party (such as the distributor) and 0.7% to force majeure. The most frequent topics that generated complaints for which suppliers were responsible concerned: in 47.8% of cases, billing and everything related to consumption and billed amounts, self-reading, billing frequency, including the closing bill, making payments and refunds; in 10.8% of cases, the methods for entering into new contracts, the timing of switching and the economic conditions proposed by the supplier at the time of the offer compared to those provided for in the contract and actually applied; in 10.8% of cases, the events of the contract, such as withdrawal, change of owner, transfer and takeover (completion and costs of transfer and takeover). Complaints relating to arrears and suspension accounted for 7.4%, those relating to metering for 7%. In the remaining cases, complaints concerned connections, work and technical quality, commercial quality, social bonus and other residual topics.

4.2.2.2 Recommendations on final sales prices, investigations, inspections and measures to promote effective competition

Measures for the promotion of competition and recommendations on the final sale prices

The activities in terms of analysis and recommendations on the final sale prices performed by the Authority are common to the sectors of electricity and gas and are already described in paragraph 3.2.2.2.

Investigations, inspections and measures for the effective promotion of competition

With reference to the activities carried out in 2020, please 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 forecast the future demand and the available supply, the additional capacity and the measures in order to cover peak demand or supply decrease) exclusively to the Ministry for Economic Development.

5 CONSUMER PROTECTION AND DISPUTE RESOLUTION

5.1.1 The protection system: the handling of final customer complaints (basic level)

The consumer protection system in the sectors regulated by the Authority consists of two macro-areas: the first concerns information and assistance to customers (basic level); the second concerns the solution of problems and disputes that may arise between customer and service provider. The activities related to the basic level, described below, are carried out on a national scale by the Acquirente Unico (single buyer), on behalf of the Authority²⁰⁰, through the *Sportello per il consumatore energia e ambiente*, the Energy and Environment Consumer Help Desk (Help Desk). The activities relating to the basic service are represented by the Help Desk's responses to:

- calls to the Call Centre,
- written requests for information,
- requests for activation of special information procedures,
- second level complaints.

An overview of the volumes handled by the protection system in 2020 and, in particular, those that reached the Help Desk is illustrated in Table 5.1.

Table 5.1 Protection system: volumes reaching the desk and second level activities

ACTIVITIES	YEAR 2020
Basic level	
Calls to the call centre 800,166,654 (received during service hours)	480,475 ^(A)
Written requests for information	13,486 ^(B)
Requests for activation of special information procedures	32,271
Second level complaints redirected with information on conciliation	2,464
Second level	
Applications to the Conciliation Service (compulsory conciliation)	18,602
ADR entities registered in the Authority's List (compulsory conciliation)	1,469
Requests for activation of special resolution procedures	9,625

The value also includes calls relating to the water sector (9%).

(A) Of which 346, classified as complex, have been redirected to the Conciliation Service because they are related to potential disputes.

Source: Energy and Environment Consumer Help Desk processing.

Calls received by the Help Desk call centre during operating hours amounted to 480,475 in 2020, a slight decrease (-0.5%) compared to 2019; of these, 443,146 were handled and 37,329 were dropped by customers without waiting for a response from the operator. Compared to 2019, both the average waiting time (174 seconds versus 149) and the average conversation time (227 seconds versus 200) increased slightly. 91% of calls handled by the call centre concerned the electricity and gas sectors. The topics dealt with in the phone calls received at the Help Desk concerned, in particular, social bonuses (44%), dispute resolution (24%), rights and regulation (9%), practices at the Help Desk (12%), the COVID-19 emergency (3%) and in the remaining 8% of cases other aspects (*Portale Offerte*, Consumption Portal, purchasing groups). Lastly, there were 9,451 contacts (less than half compared

²⁰⁰ Renewed from the end of 2019 for the three-year period 2020-2022, with Resolution of 10 December 2019, 528/2019/E/com.

to last year) in which information was provided on the issue of phasing out price protections in the energy sectors, both on specific request ("rights and regulation" channel), and during a conversation on related issues.

With regard to **requests for written information**, in 2020 the Help Desk received 13,486 requests for the energy sectors, which were divided into two categories: simple and complex. More than half of the requests for information (13,454 net of those relating to the earthquakes), can be attributed to just two topics: "billing" (30%) and "market" (22%). The topics "contracts", "arrears and suspensions" and "connections and technical quality" accounted for 14%, 13% and 11% of the written requests for information respectively. Regarding the first topic by percentage share, i.e. billing, the main subtopics were incorrect estimated consumption (36%), recalculations and payments (25%) and refunds (12%). 346 written requests (2.5%) were classified as "complex", because, in addition to the information on regulation relating to the problem highlighted by the customer, they also entailed indicating the out-of-court dispute resolution tools available in the event that the first complaint is not resolved.

The **special information procedures** make it possible to provide information without the need to speak to the Help Desk staff. They have been operational since 1 January 2017, but only for certain issues in the energy sectors. By means of information encoded in centralised databases (Integrated Information System, Compensation System) and "automatically applicable" regulations, the Help Desk provides final customers or their delegates with the required information. Compared to the previous year, in 2020, requests for the activation of special information procedures increased by 12% to a total of 32,271 cases, broken down as follows: 69% for the electricity sector, 21% for the gas sector and 10% for both sectors; this breakdown is almost the same as the previous year. The majority of requests (44%) concerned the identification of the operator in the event of a transfer ("unknown supplier"), followed by those aimed at knowing the current commercial counterpart and the date of switching (36%), while requests to know the supplier that requested the application of the C^{MOR} fee (20%) practically doubled compared to the previous year (+3,104 requests compared to 2019, +96%)²⁰¹.

Finally, the Help Desk also received 2,464 **second-level complaints** (i.e. those for which the dispute was not resolved with the first complaint), for which it informed the client about the conciliation tools that could be used to resolve the dispute, i.e. the Authority's Conciliation Service or other conciliation bodies. The 2,013 energy customers redirected directly to conciliation were mainly affected by "billing" problems (50% of cases, half of which for incorrect estimated consumption).

5.1.2 The protection system: out-of-court dispute resolution (second level)

The activities related to the second level of the protection system concern the resolution of problems and disputes arising in the relationship between the customer and the provider of the regulated service. They can be settled through the Help Desk's special resolution procedures or conciliation procedures. The latter may be carried out using the Authority's Conciliation Service or ADR entities on the Authority's special list.

²⁰¹ The C^{MOR} is an indemnity that the energy supplier applies in the bill at the request of a previous supplier, in case the latter has unpaid bills referring to consumption or charges of the last 4 months of service provision.

Special resolution procedures

In the same way as for the special information procedures (relating to the basic level of the protection system), the Help Desk also accesses information encoded in centralised databases for resolution procedures. In contrast to the information procedures, the special resolution procedures make it possible to determine the outcome of the dispute and involve a discussion with the Help Desk staff if further information is required to consult the databases or to verify the correct fulfilment of the regulations following the resolution of the dispute.

In 2020, the Help Desk received 9,265 requests to activate resolution procedures, a slight increase compared to 2019 (+1%). The majority of requests concerned the special "bonus" procedure (83%), followed by requests on "C^{MOR} cases" (verification of the conditions for its cancellation), which accounted for 15% of the total, while requests on "double billing" (1%) and "voluntary restoration procedure"²⁰² (1%) were marginal. Finally, there were only 7 cases of activation of the special resolution procedure for "failure to pay automatic compensation" due within the maximum time limits set by the regulation. Compared to the previous year, the incidence of requests on "C^{MOR} cases" has practically doubled from 8 to 15%, at the expense of the incidence of special "bonus" procedures, which has fallen from 89 to 83%.

Unlike in 2019, the sector most affected by special resolution procedures was electricity, with 47% of requests (9 percentage points more than in 2019), followed by gas with 36.5% (15.5 percentage points less), while the remaining 13.5% share concerns requests for both sectors. In 91% of cases, the special resolution procedures involved domestic customers, while e-mail was the most commonly used method of access.

The Authority's conciliation service

The Authority's Conciliation Service is a dispute resolution procedure, which can be activated by final customers of electricity and natural gas for problems arising with energy operators (suppliers and distributors), in the event of failure to respond or an unsatisfactory response to the complaint. The procedure is undertaken entirely online and in the presence of a third-party, impartial conciliator, expert in mediation. The eventual final agreement is effective as a settlement between the parties, according to Art. 1965 of the Civil code. Moreover, with the approval of Article 141, paragraph 6, letter c) of the Consumer Code²⁰³, an attempt at conciliation has become a condition for bringing an action before the judiciary for disputes arising in the areas regulated by the Authority (with the exception of tax or fiscal issues), unless urgent and precautionary judicial measures are taken.

The Authority, in implementation of Article 141-sexies of the Consumer Code, has provided for specific information obligations for energy suppliers, towards final customers.

In 2020, customers and end users of the energy sectors submitted 16,270 requests to the Conciliation Service, 1,805 more than the previous year. The sectoral breakdown of requests received by the Service in 2020 confirms the prevalence of electricity, with a 54% share of requests submitted (10,054

²⁰² Procedure governed by the Integrated text on preparatory measures for the confirmation of the contract for the supply of electricity and/or natural gas and voluntary restoration procedure, TIRV, adopted by Resolution No. 228/2017/R/com of 6 April 2017.

²⁰³ The legislative decree n. 130/15 has activated the Directive 2013/11/UE of the European Parliament and the Council of May 21st, 2013, in the Italian legislation, concerning the ADR for the consumers, that amends the regulation (EC) 2006/2004 and the Directive 2009/22/CE (Directive on ADR for consumers).

requests, around 1,900 more than in 2019); followed by the gas sector, with 26% (4,794 requests). The percentage of dual fuel customers also increased (1,330 requests, 7%), while prosumers fell (95 requests, 0.5%).

The main method of submitting requests has become the use of delegates other than consumer associations (44%, compared to 41% in 2019), while the proportion of requests submitted through consumer associations registered with the CNCU²⁰⁴ (24%, compared to 27% in 2019) while those submitted directly by customers (32%) remained stable. 74% of the requests received by the Service concerned a domestic end customer, in continuity with the previous year; there is a differentiation between electricity, where this percentage is 62%, and gas, where it is 91%. With regard to the subject of disputes, the prevalence of billing remains (55.5%), followed by contracts (12%) and compensation for damages (10%). Breaking down the data into energy sectors, different percentages can be identified: in the electricity sector "billing" is at 52% and "damage" at 15%; in the gas sector the weight of "billing" is higher, at 64%; for dual fuel customers, "contracts" are particularly important (at 24%), while for prosumers the highest share concerns on-site exchange (36%).

With regard to the response²⁰⁵ to requests received by the Service, 81% were admitted to the procedure (two points higher than the previous year). 71% of procedures concluded with an agreement between the parties, a slight increase compared to the previous year (69%). The parties took an average of 62 days to reach an agreement, 7 more than in 2019: it should be noted that, when the pandemic emerged, the Authority extended²⁰⁶ the maximum duration of the procedure from 120 to 180 days and that there was a suspension of deadlines for procedures to be regularised in the period 9 March-11 May in the event of impossibility declared by the consumer²⁰⁷.

With regard to the procedures concluded by agreement, in 2020 the value of the dispute was declared by the activator in 53% of cases; of these, 54% were in the range from 0 to 1,000 euros, while 87% did not exceed 5,000 euros (threshold of small claims pursuant to Regulation (EC) 861/2007 of 11 July 2007, as amended and supplemented). The rate of agreement on procedures initiated in 2020 and concluded (some procedures are still pending) recorded by the Conciliation Service, net of waived procedures (equal to 1.5% of admitted requests), is 71% of the total, up two points compared to 2019. The parties took on average 62 days to close a procedure (65 days for agreements and 57 days for non-agreements). 72% of the procedures ended in no more than two meetings. The agreements signed before the Conciliation Service, relating to procedures initiated in 2020 and concluded, produced around 12.9 million euros in compensation. This value is given by the algebraic sum of the economic consideration (in the form of value recovered also with respect to the value of the dispute or refunds, indemnities, recalculation of erroneous bills, waiver of expenses and default interest, etc.) obtained by customers or end users through the aforementioned agreements. Of the approximately 4,600 questionnaires completed at the end of the conciliation procedure, 98% of the activators were satisfied with the Service.

²⁰⁴ The Consiglio Nazionale dei Consumatori e degli Utenti (National Council of Consumers and Users - CNCU) is the representative body of consumer and user associations at national level. It is based at the Ministry of Economic Development and is composed of consumer associations recognised according to the criteria established by the Consumer Code (Legislative Decree 206/2005, art. 137) and a representative designated by the State - City and Local Authorities Unified Conference (Legislative Decree 281/1997, art. 8).

²⁰⁵ The data shown in the remainder of the paragraph also concern the water sector.

²⁰⁶ Resolution 12 March 2020, 59/2020/R/com.

²⁰⁷ Article 83, paragraph 20, of Decree-Law No 18 of 17 March 2020 and article 36, paragraph 1 of Decree-Law No 23 of 8 April 2020.

Other conciliation services

As an alternative to the Conciliation Service of Authority, final customers can also fulfil the obligation to attempt conciliation for judicial purposes by turning to other bodies. In December 2015, in implementation of art. 141-bis of the Consumer Code, the Authority established²⁰⁸ the List of bodies appointed to manage ADR (Alternative Dispute Resolution) procedures pursuant to Title II-bis of Part V of the Code.

At 31 December 2020, 25 ADR bodies were registered in the Authority's List. Of these, 7 are sectoral joint conciliation bodies - based on specific memoranda of understanding stipulated between consumer associations and companies - and 18 are transversal bodies, which also operate in sectors other than those falling within the Authority's competence; among the latter, 17 are mediation bodies and, as such, also registered in the Register of mediation bodies kept by the Ministry of Justice²⁰⁹.

The information sent by the ADR bodies shows a decrease in the number of conciliation requests related to the energy sectors, which fell from 1,412 in 2019 to 1,084 in 2020; this figure is also affected by the fact that 4 bodies did not receive any requests, 2 of which due to pandemic-related issues, 2 others because they were recently enrolled on the Authority's list. Over half of the requests were submitted by the customer through a consumer association.

Also with the ADR channel, the main subject of disputes is billing (49%), followed at a great distance by contracts (18%) and metering (9%). The percentage of requests admitted is very high (98.4%); the related procedures were completed in 80% of cases in 2020, largely (67%) with an agreement. Finally, as regards the average time taken to conclude procedures, there is a difference depending on the outcome: on average, 55 days in case of agreement (50 in 2019) and 62 days in case of non-agreement (54 days in 2019).

5.1.3 Protection of vulnerable domestic consumers and energy poverty

Initiatives for customers in economic hardship and with serious health conditions: social bonuses

Since January 2009, a protection mechanism has been in place for the electricity and natural gas supplies of domestic customers who find themselves in situations of economic difficulties or have serious health conditions, that receive a bonus, i.e. a discount on the electricity and/or gas supply.

In March 2020, the Authority adopted²¹⁰ urgent provisions on the electricity bonus, gas bonus and water bonus in relation to the urgent measures implemented in the country for the epidemiological emergency caused by COVID-19. In particular, deadlines related to the management of bonuses have been deferred²¹¹.

²⁰⁸ Resolutions of 17 December 2015, 620/2015/E/com and 14 July 2020, 267/2020/E/com.

²⁰⁹ Legislative Decree 4 March 2010, No. 28 and Ministerial Decree 18 October 2010, No. 180.

²¹⁰ With Resolution of 17 March 2020, 76/2020/R/com.

²¹¹ In detail, communication flows functional to bonus management (invitation to renew, withdrawal of subsidies) have been temporarily suspended. For the period from 1 March to 30 April 2020, the continuity of bonus payments was guaranteed to citizens whose bonuses were due to expire during the suspension period and who would renew them within 60 days of the expiry date. In April 2020, due to the continuation of the emergency situation, the period of suspension of deadlines was extended to 31 May 2020 (resolution of 28 April 2020, 140/2020/R/com).

In the meantime, in order to bridge the gap between potential beneficiaries and actual bonus recipients, which has always remained quite large²¹², Decree-Law No. 124²¹³ of 26 October 2019 updated the regulatory framework by providing, inter alia, that as of 1 January 2021, bonuses must be recognised automatically to those eligible²¹⁴ and, therefore, without the need for them to submit a special application to the municipalities and/or tax assistance centres. To this end, the decree provides that the Authority, having consulted the Italian Data Protection Authority, shall define: (i) the methods of transmission of the relevant information by the INPS (The National Social Security Institute) to the Integrated Information System (SII) managed by Acquirente Unico; (ii) the application methods for the payment of the benefits; (iii) the methods of sharing information relating to those entitled to the bonuses between the SII and the SGAtE system (Facilities Management System), in order to ensure full recognition to citizens of other social benefits.

In January 2020, the Authority initiated²¹⁵ the procedure to implement the provisions of Decree 124/19 and in June 2020, after discussions with the parties and operators in the sectors concerned, the Authority outlined²¹⁶ its guidelines regarding the possible application methods of the automatic bonus recognition system, with particular reference to: the criteria and procedures for recognising the benefits; the role and responsibilities of the various parties in each of the phases into which the automatic bonus recognition process is divided; the necessary information flows between the various parties; the processes through which the automatic allocation of benefits to eligible parties can be achieved; the procedures for managing the transition from the previous "demand-based" system to the new automatic system.

In November 2020, the outline for implementing the automated system was sent to the Italian Data Protection Authority, together with a legal and technical explanatory note, for the purpose of obtaining the opinion required by Decree 124/19. Following further clarifications from the Authority at the request of the offices of the Data Protection Authority, the latter issued its opinion on 17 December 2020.

In February 2021, the Authority therefore approved²¹⁷ the implementing procedures for the system of automatic recognition of social bonuses for electricity, gas and water for economic hardship, entirely replacing the regulation of the previous "on demand" system. In this way, the framework of the new implementing rules has been defined and made known to the parties involved well in advance of its implementation, in order to allow them to start preparing the activities (adaptation of information systems and internal procedures) necessary to make the new regime technically operational within the timeframe defined in the measure. On the other hand, the social electricity bonus for physical hardship does not fall within the scope of the measure, which remains "on demand" and continues to be managed through the SGAtE system under a specific Agreement²¹⁸.

²¹² The proposal to provide for the transition from an "on-demand" system to a system of automatically allocating bonuses to the entitled persons, based on the telematic exchange of the necessary information contained in the databases of INPS and the Manager of the SII and compliant with the legislation on the protection of personal data, had been put forward by the Authority, most recently, in its report 280/2019/l/com of 25 June 2019.

²¹³ Converted, with amendments, by Law No. 157 of 19 December 2019.

²¹⁴ In particular, the Decree-Law introduces the automatic recognition of benefits for persons whose valid ISEE is within the limits set by the legislation.

²¹⁵ Resolution 28 January 2020, 14/2020/R/com.

²¹⁶ Document for consultation 204/2020/R/com of 9 June 2020.

²¹⁷ With Resolution of 23 February 2021, 63/2021/R/com.

²¹⁸ The Energy Tariffs Subsidies Management System (SGATE) enables Italian municipalities to fulfil their legislative

In summary, the new mechanism provides for the following:

- on a monthly basis, the SII Manager receives from INPS the personal data of households in a state of economic hardship based on the Single Self-Declarations (DSU) certified by INPS in the previous month. To access the automatic bonus recognition procedure, it is therefore sufficient to submit a DSU every year to obtain the ISEE (Equivalent Financial Situation Indicator) certificate for one's household;
- the SII carries out all the checks necessary for the recognition of energy bonuses to those eligible, following the processes defined in the measure (one bonus per household, search for the supply to be subsidised and verification of the relative eligibility requirements) and sends the relevant operators all the information necessary for the subsequent payment of the bonus, which takes place in the same way as in the previous "on demand" system (except for the transitional provisions); the annual amount of the bonus to be paid remains defined by the Authority (differentiated on the basis of the number of households and, for the gas bonus, on the use and climate zone);
- bonuses have a duration of 12 months and a starting date for the bonus period which varies according to the "type" of bonus²¹⁹. The way in which bonuses are applied and paid out has been kept substantially unchanged, when fully implemented, compared to the previous "on-demand" system, in order to avoid any impact on the existing billing logic and systems;
- The measure takes effect, in terms of granting benefits to those entitled to them, as of 1 January 2021, in line with the provisions of Decree-Law 124/19. Taking into account the time required to develop the related IT systems, the mechanism enters into operation as of 1 June 2021 and the resolution defines the procedures for recognising any portion of the 2021 bonus accrued prior to this date.

The bonuses in numbers

In 2020, the number of citizens who applied for and obtained the **social bonus for electricity supplies** was distributed as follows: 854,900 families had access to the electricity social bonus, of which 805,303 for economic hardship and 41,046 for physical hardship. The total amount of bonuses paid for the electricity sector (for economic and physical hardship) was approximately 135.5 million euros. Measures related to the COVID-19 epidemiological emergency have certainly had a negative impact on the submission of new and renewal bonus applications: for the first time in at least five years, there has been a decrease in the number of beneficiaries, despite the increase, as of 1 January 2020, of the ISEE reference threshold (from 8,107.5 to 8,265.5 euros).

Starting from the introduction of the subsidy in 2008 and until 31 December 2020, the number of households who have benefited, for at least one year, from the electricity bonus due to economic hardship, including the beneficiaries of the Carta Acquisti (Purchase Card), was equal to approximately 3.2 million households, more than 50% of which are located in the macro-areas of the South and the Islands.

During 2020, the number of households that took advantage of the Carta Acquisti (Purchase Card)

obligations to compensate domestic customers in difficult circumstances for the supply of electricity, natural gas and water. SGATE acts under an agreement with the Authority adopted by Resolution 13/2020/R/com of 28 January 2020.

²¹⁹ The measure also regulates the way in which bonuses are to be administered in cases where, during the period of eligibility, there are significant changes in the conditions for eligibility or in the conditions determining the value of the bonus.

scheme rose from 8,300 to around 8,551, an increase of 3% compared to the previous year, which however saw a drastic reduction. The decrease in 2019 is presumably linked to the introduction of the Citizenship Income, which has replaced, for many households, the Carta Acquisti system, although the two measures can be combined. In addition, as has already been pointed out in the past, the automatic method of accessing the electricity bonus envisaged for the Carta Acquisti had critical elements, since the relevant application did not include the obligation to include the POD (an identification number found on the bill) among the information to be communicated, which makes it impossible to identify the supplies to be subsidised in the SGAt circuit. This category of bonus recipients will be affected by the transition to the automatic recognition mechanism described above.

The number of households with an active bonus for the use of electrical equipment for life support (hardship bonus) as at 31 December 2020 was 41,046, broadly the same as in the previous year. The bonus for physical hardship is divided into three bands, to consider the type of used equipment, the average hourly consumption of each type of equipment and the average hours of daily use. On the basis of these elements, certified by the ASL (local health authority), the customer is assigned to one of the three provided bands of compensation. The three bands are then further differentiated according to the committed power (up to 3 kW and from 4.5 kW)²²⁰.

Charges associated with the payment of the electricity bonus for economic and physical hardship are included among the components of general charges relating to the electricity system and are covered by the A_{SRIM} component, which is included in the bill for final customers in the A_{RRIM}²²¹ tariff component, which is paid by all customers who do not enjoy the electricity bonus.

At 31 December 2020, 543,963 households benefited from the **social bonus for gas supplies** due to economic hardship, with a 2.6% decline (around 15,000 households) compared to 2019. In total, more than 2 million households have benefited from the subsidy at least once since its entry into force. The total amount of bonuses paid for the gas sector was approximately 76.2 million euros in 2020. In order to cover the costs resulting from the application of the gas bonus, the Authority has established, within the compulsory tariff for natural gas distribution and metering services, the GS and GS_T components, charged to non-domestic customers. The funds from the State Budget are added to the funds collected from customers. As in the electricity sector, the amount of bonuses is defined annually, at the same time as the tariff update.

5.1.4 Guarantees for the effective protection of the gas consumer: compliance with article 41, paragraph 1, letter o) of EC Directive 2009/73/EC

Article 41, paragraph 1, letter o) of Directive 2009/73/EC requires the regulator, also in cooperation with other Authorities, to ensure that consumer protection measures, including those in Annex 1, are effective and applied.

In Italy, these measures are now fully and widely applied.

²²⁰ See the Annual Report 2013 for the details of the functions of the bonus.

²²¹ Article 1 of Resolution 922/2017/R/eel of 27 December 2017 provides that, as from 1 January 2018, the A_{SRIM} element of the A_{RRIM} component shall be applied without distinction to all users, including those entitled to the electricity bonus. The effects of this application are offset in favour of users entitled to the electricity bonus by increasing the same bonus by the value of the A_{SRIM} element applied to the annual reference consumption for each type of disadvantaged customer provided for by the TIBEG. Since January 2019 this component (formerly the A_S component) represents 2.61% of the average expenditure of the typical user.

Over the course of time, a number of regulatory bodies have been consolidated, which bring together in an organic way all the provisions on some relevant thematic areas, in particular:

- the Code of Commercial Conduct²²²;
- the Integrated text on confirmation of the contract for the supply of electricity and/or natural gas and voluntary restorative procedure (TIRV)²²³;
- the Integrated text on the quality of sales services (TIQV)²²⁴;
- the Integrated Text on Billing (TIF)²²⁵.

5.1.5 Interventions in pricing for vulnerable customers

Standard offer service, safeguard service and gradual standard offer service

Legislative Decree n. 93/11 does not provide a specific definition of vulnerable customer concerning the **electricity sector**. However, Article 35 on “Public service obligations and consumer protection” provides that all domestic consumers and small companies (with less than 50 employees and a turnover of less than 10 million euros) who do not choose a supplier on the free market are served within the framework of the standard offer service established by Law No 125 of 3 August 2007²²⁶.

The standard offer service is regulated by the Authority and ensures, on the one hand, continuity of supply (universal service function) and, on the other, specific (contractual) quality at reasonable prices; this price discipline is of a transitional nature and is being phased out. Until the date of termination of the transitional price regime, the Authority will regulate the standard offer service in accordance with the principles, identified by the European Court of Justice,²²⁷ of proportionality and timeliness in relation to the market opening process.

Customers who find themselves without a supplier in the free market and who are not entitled to access to the standard offer service, because they are not household customers, are supplied:

- in the gradual standard offer service (see paragraph 3.2.2.2), if they are small companies and micro-companies with at least one delivery point with a contractually agreed power of more than 15 kW;
- in the safeguard service, in the case of other customers.

Both services are aimed at ensuring continuity of supply and are provided by sales companies selected through competitive procedures for territorial areas at economic conditions determined as a result of the same procedures.

For the **gas** sector, Legislative Decree No 93/11 defined 'vulnerable' household customers, non-household customers with consumption of less than 50,000 S(m³)/year, and end customers with users relating to public service activities, i.e. users belonging to a structure, public or private, which carries out a recognised service activity. This definition was subsequently amended by Decree-Law No 69 of 21 June 2013, which provided that, as part of the public service obligations, the Authority would

²²² Latest version approved with Resolution 366/2018/R/com.

²²³ Latest version approved with Resolution 28/2017/R/com.

²²⁴ Latest version approved with Resolution 413/2016/R/com.

²²⁵ Latest version approved with Resolution 463/2016/R/com.

²²⁶ Converting Decree-Law No.73 of 18 June 2007.

²²⁷ Judgement of the European Court of Justice – Great Chamber, April 20th, 2010, proceeding C-265/08.

continue to update the standard offer service "for domestic customers only". As a result of this change, the following are still entitled to be served under standard conditions:

- consumption points of a domestic customer;
- consumption points related to domestic use central heating, with consumption not above 200,000 S(m³)/year.

Decree Law No. 69/13 was converted into Law No. 98 of 9 August 2013, confirming the termination of the standard offer service for non-domestic end customers.

Information measures in view of phasing out price protections

Law no. 124/2017 provided for preparatory actions for the termination of the transitional price regime²²⁸. These interventions include, for example, each supplier sending final customers adequate information on whether price protections have been phased out, in accordance with the procedures defined by the Authority, and a strengthening of the Authority's functions, with specific reference to the disclosure and dissemination of information on the full opening of the market and the conditions under which services are provided, for the benefit of final customers and users. In this context, in November 2017, the Authority ordered²²⁹, among other things, that, as of January 1, 2018, the standard offer operators send their customers, within the summary bill, a special information note, with content defined by the Authority, regarding the expected phasing out of price protections.

In May 2019, the Authority ordered²³⁰ that the information note should continue to be sent with the bill until the price protections were completely phased out. The wording to be included in the bills issued in 2019 contains, on the one hand, an indication of how simple and free of charge it is to change contract or supplier, with the guarantee of continuity of service, and, on the other hand, the elements to encourage the final customer to take advantage of the Authority's tools aimed at making an informed and aware choice, such as the *Portale Offerte* (Offers Portal) and PLACET offers (see below). At the same time, the Authority launched a procedure to define new tools for the information and empowerment of final customers in the energy markets, additional and complementary to the information in the bill; the final aim is to involve customers more actively in the evolution of the markets and the tools set up for them and to increase the involvement of customers already served in the free market.

PLACET offers

Increased understanding of commercial offers by final customers is a prerequisite for their active participation in the market and is therefore a key area of action to achieve a structure in which the free market is the normal mode of supply even for small customers. Consistent with this framework, the Authority has, therefore, promoted actions aimed at increasing the awareness of final customers and the transparency of contractual terms and conditions, in order to allow their wider participation in a competitive market.

²²⁸ Article 1, paragraph 69.

²²⁹ Resolution 10 November 2017, 746/2017/R/com.

²³⁰ Resolution 21 May 2019, 197/2019/R/com.

With this in mind in July 2017 the Authority introduced²³¹ the regulation of offers "at a free price under equivalent protection conditions" (so-called PLACET offers), aimed at increasing customers' ability to evaluate the commercial offers present on the free market, by identifying offer structures that are easy to understand, comparable between suppliers (since they differ only in price) and separable from any proposal for additional services by the same supplier. The regulation of PLACET offers applies to small customers served in the free market, identified, for the electricity sector, as all customers (domestic and non-domestic) connected to the low voltage network and, for the natural gas sector, as end customers (domestic, domestic central heating and other uses) holding points with annual consumption of less than 200,000 S(m³).

The Authority imposed an obligation on each operator in the free market to include two PLACET offer formulas among its commercial offers - one fixed price and one variable price - characterised by general supply conditions set by the Authority, with the exception, however, of economic conditions, the levels of which are freely defined by the supplier (according to a predefined fee structure). In both cases, the price of energy is divided in a fixed share expressed in €/customer/year and an energy share expressed in €/kWh or €/S (m³) and therefore proportional to the consumed volumes²³².

Table 5.2 Number of PLACET offers on the Offer Portal at 31 December 2020, distinguished by type of final customer

SECTOR	FIXED PRICE	VARIABLE PRICE	TOTAL
Domestic customer	213	222	435
Non-domestic customer	212	218	430
TOTAL ELECTRICITY SECTOR	-	-	865
Domestic customer	214	210	424
Non-domestic customer	209	210	419
Domestic central heating with consumption of less than 200,000 m ³	183	186	369
TOTAL GAS SECTOR	-	-	1,212
TOTAL PLACET OFFERS	-	-	2,077

Source: ARERA. Processing on Acquirente Unico (single buyer) data.

As of 31 December 2020, there were 2,007 PLACET offers on the Offer Portal (Table 5.2). According to the Authority's monitoring data of operators with at least one PLACET offer in their portfolio, it also appeared that the general supply conditions form drafted by the Authority, both for the electricity and the natural gas sectors, was used by 72% of suppliers.

5.1.6 Access to consumption data

An initial 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, must contain data on annual consumption and its breakdown by time bands. Further elements can be found in the detailed bill, available on the website. Through complaints and requests, the customer can request the data from the supplier. On the other hand, given the widespread use of smart meters, particularly in the electricity sector, the

²³¹ Resolution 27 July 2017, 555/2017/R/com.

²³² For a detailed description of PLACET offers, please refer to the *2018 Annual Report*.

final customer has access, via electronic display, to the current consumption data both in terms of energy and power consumption, as well as the consumption values divided into peak/off-peak/mid level hours used for the last bill.

The right for final customers to have access to their historical consumption data was however made explicit by Legislative Decree no. 102 of 4 July 2014, implementing Directive 2012/27/EU and the Authority has intervened in the matter since 2015. Lastly, in June 2019, the Authority defined²³³ the methods by which from 1 July 2019 end customers can access their consumption data through the dedicated **Consumption Portal**²³⁴ in which consumers can find, in a simple, secure and free manner, data relating to their historical consumption, reported in summary documents, numerical tables and graphs, as well as the main technical and contractual information.

The Consumption Portal is conceived as a project with several implementation phases. Therefore, since its inception, it has undergone continuous developments aimed both at verifying and improving its performance and at implementing its features. In particular, during 2020, the Authority, together with the Manager, introduced several interventions aimed at increasing the usability of both the private and public areas, to the benefit of the user.

In particular, the historical depth of consumption data has been progressively increased, now available up to 36 months, and the availability of quarter-hourly electricity consumption data has been introduced for supplies where a 2G meter is in service. In addition, further upgrades pursued within the portal included displaying the power drawn, showing the maximum value reached on the consumption graph, downloading technical and contractual information on supplies and displaying the historical programming of the bands for 2G meters.

5.1.7 Availability of price comparison tools

Law no. 124/2017 provided for preparatory actions for the termination of the transitional price regime. This includes, inter alia, a strengthening of the Authority's functions, with specific reference to disclosure and dissemination of information about the full opening of the market and the conditions under which services are provided. These tools include a price comparison tool for small customers²³⁵.

Within this framework, in February 2018 the Authority adopted²³⁶ the Regulation for the creation and management, by the Integrated Information System Manager, of a website in which to display offers aimed at domestic end customers and small electricity and natural gas companies, called the **Portale Offerte** (Offers Portal)²³⁷.

The Portale offerte contains fixed offers and variable offers on the free market, PLACET offers, as well as the cost of standard offer schemes for both electricity and natural gas. These offers are all aimed at domestic customers, low voltage electricity companies, domestic central heating with gas consumption of less than 200,000 S(m³)/year, and gas companies with consumption of less than

²³³ Resolution 25 June 2019, 270/2019/R/com.

²³⁴ <https://www.consumienergia.it/portaleConsumi/>.

²³⁵ Article 1, paragraph 61. "... the creation and management ... of a special web portal for the collection and publication in open data mode of the offers in force on the retail market for electricity and gas, with particular reference to domestic users ... low voltage connected companies ...".

²³⁶ Resolution of 1 February 2018, 51/2018/R/com, as amended by Resolution of 5 March 2019, 85/2019/R/com.

²³⁷ <https://www.ilportaleofferte.it/portaleOfferte/>.

200,000 S(m³)/year.

During 2020, work was carried out to improve the technological adequacy of the *Portale Offerte*, as well as activities related to extending its features. As a result of the constant monitoring of market offers and requests from operators, the implementation of a new layout was evaluated, by means of which it was possible to compare offers that were previously considered not feasible to simulate, including, by way of example, staggered offers, offers with discounts limited in time or applicable to specific cost items, and flat offers.

The design and implementation of the *Portale Offerte* is focused on ensuring ease of consultation by the end user. To this end, an analysis was carried out on the usability and ease of consultation of the *Portale*, assessing its use both via PC-desktop and mobile devices. Access monitoring shows that overall, from 1 July 2018 to 31 December 2020, the site had a total of 1,640,436 visits, while there were 12,997,526 total page views, of which 60% were via desktop and 32% via smartphone.

The *Portale Offerte* has several filters and options for refining the search (e.g. based on a specific operator, or based on discounted offers, etc.) that allow the user to select the offer that best meets their needs. During 2020, significant changes were also made to the usability and layout of the portal, with the dual aim of making it more user-friendly and providing as much useful information as possible.

As of 31 December 2020, there were a total of 5,015 offers in the *Portale Offerte* database, of which 2,938 were free market offers and 2,077 PLACET offers (free price contracts under equivalent protection conditions). The types of offers were varied: for example, there were offers with a discount on standard offer services or subject to another type of discount (e.g. welcome discounts), offers with differentiated prices for consumption brackets, offers with differentiated prices over 12 months.

A total of 2,696 offers were available for the electricity sector and 2,245 for the natural gas sector; there were 74 dual fuel offers. For the electricity sector, 62.9% of offers to domestic customers are fixed price, while for non-domestic customers this percentage is 55.2%; for the natural gas sector there is a prevalence of fixed price offers both for domestic customers, at 57.5%, and for non-domestic customers, at 50.5%.

Periodic monitoring of the electricity offers on the Portal shows that in 2020, for a typical domestic customer²³⁸, the average pre-tax cost of the offers of the top 10 operators was 8% lower than the pre-tax standard offer cost for fixed-price offers and 2% for variable-price offers.

Periodic monitoring of the natural gas offers on the *Portale* shows that in 2020, for a typical domestic customer²³⁹, the average pre-tax cost associated with the offers of the top 10 operators was lower than the pre-tax cost in the standard offer service by 10% for fixed price offers and 7% for variable price offers.

²³⁸ A typical domestic electricity user is considered a resident domestic customer, with consumption of 2,700 kWh, two-tier price tariff, power equal to 3 kW and located in Milan (postcode 20132).

²³⁹ A typical domestic user for natural gas is a domestic customer with consumption of 1,400 S(m³), for cooking, heating and domestic hot water production, meter < G6 and located in Milan (postcode 20132).