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SUMMARY OF THE ANNUAL REPORT

TO THE INTERNATIONAL AGENCY FOR COOPERATION BETWEEN NATIONAL ENERGY REGULATORS AND THE EUROPEAN COMMISSION

ON THE REGULATORY ACTIVITIES AND FULFILMENT OF DUTIES OF THE ITALIAN REGULATORY AUTHORITY FOR ENERGY NETWORKS AND ENVIRONMENT

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31 July 2025

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 main legislative measures affecting the energy sectors are summarised below, as customary, in chronological order.

Law no. 11 of 2 February 2024, which converted Decree-Law no. 181 dated 9 December 2023, set out several urgent measures to ensure national energy security, encourage the use of renewable energy, and assist companies with high energy consumption. Some of the most important include:

- **measures to incentivise the self-production of renewable energy in energy-intensive sectors at risk of relocation.** More specifically, the law provides for a priority mechanism for the construction of photovoltaic and wind power plants intended to meet the needs of energy-intensive businesses[1], with incentives for new generation capacity (with a minimum power of 200 kW). While the plants are not yet operational, energy-intensive companies may apply for an advance of a portion of their renewable electricity and corresponding guarantees of origin from the Gestore dei Servizi Energetici (GSE) by entering into contracts for difference and offering suitable guarantees to mitigate the risk of non-compliance; subsequently, the GSE supplies this electricity to the market managed by the Gestore dei Mercati Energetici (GME). There is also a contribution of up to €100 million, capped at €1 million per company, to cover guarantee premiums; the Authority's role is to establish how the costs resulting from these measures will be covered.
- **measures to strengthen the security of natural gas supply at reasonable prices**, while also contributing to the reduction of climate-altering emissions. This provision revises the regulations[2] aimed at increasing domestic natural gas production for industrial customers with high energy use, referred to as "gas-intensive," providing gas to them at capped prices. In particular: within 30 days of the law taking effect (10 January 2024), the GSE will initiate procedures for the long-term supply of natural gas produced in Italy. Eligible to participate are holders of existing concessions (including those inactive or voluntarily suspended), whose extraction plants are wholly or partly located in areas approved by the Plan for the Sustainable Energy Transition of Suitable Areas (PiTESAI), following strict rules set out by the Plan, as well as European Union laws and international agreements. New offshore concessions are also permitted between 9 and 12 nautical miles from the coast, provided that the relevant gas fields have a proven reserve exceeding 500 million cubic metres (M(m^3)). The effectiveness of new concessions, extensions, and modifications to existing concessions, as well as the authorisations for the necessary infrastructures, will only become effective once long-term gas sales contracts have been signed between the GSE and the concession holders. Interested parties must submit expressions of

[1] That is, the entities registered on the list of high electricity-consuming companies maintained by the Energy and Environmental Services Fund (CSEA)

[2] That is, it amends the provisions of Article 16 of Legislative Decree No. 17 of 1 March 2022, as subsequently amended and converted into Law No. 34 of 27 April 2022, which outlines "Measures to enhance the security of natural gas supply at fair prices."

interest detailing production, investments, and costs, and enter into long-term contracts with the GSE, which also manages the procedures for priority allocation to industrial consumers with high gas usage. The Authority shall determine how to allocate any surplus revenue generated by these procedures to reduce transmission and distribution tariffs for the benefit of end customers.

- **measures** to enhance the security of the national energy supply and diversify natural gas supply options, **introduced to strengthen both onshore and offshore regasification terminals**. Projects for the construction and operation of liquefied natural gas (LNG) regasification terminals, for which authorisation had already been granted as of the date of the decree's entry into force, are to be considered strategic projects of public utility, and as such, urgent and non-deferrable.
- **amendments to the 2021 Annual Law for the Market and Competition** (Law no. 118/2022) state that, in gas distribution tenders, **bidders must include energy efficiency improvements in their financial offers**. These interventions should be implemented within the relevant district and must lead to additional energy savings beyond the established annual targets[3]. If the gas distribution companies awarded the contract fail to achieve the additional energy savings they committed to during the tender process, they are required to pay the local authorities within the relevant district the tariff contribution intended to remunerate the energy efficiency measures, with an added penalty based on the amount of energy not saved each year;
- assignment to the Authority of the task of **regulating the gradual termination of the economic met metering[4] for plants in operation as of 31 December 2024**, in implementation of Legislative Decree no. 199/2021. Ninety days after the new incentive decrees come into effect (once adopted), older plants will no longer be eligible for economic net metering and will instead be able to benefit from the new incentive schemes or the dedicated energy buy-back mechanism (that is, an administrative sale in which the energy produced is sold through GSE at market-based rates) with terms defined by the Authority, also depending on market conditions;
- **measures to strengthen the operation of biomethane production plants in operation or under construction,** through the establishment of a mechanism for contracting production capacity powered by sustainable bioliquids that meet specific requirements and are already operational on the date the decree enters into force. The energy generated by these facilities will be subject to minimum guaranteed pricing;
- **various provisions relating to the protection of households in the retail electricity market.** In particular, the law requires the Authority to regulate the "**vulnerability service**", through which, from the termination date of the standard offer service in the electricity sector (1 July 2024), vulnerable customers must be guaranteed access to electricity at prices based on wholesale energy costs and market-driven retail charges. The law tasks *Acquirente Unico* with buying wholesale electricity, based on market principles set by the Authority, so it can be sold on to the companies supplying electricity through the vulnerability service. The law also requires the vulnerability service to be awarded via competitive tenders, conducted by *Acquirente Unico* across clearly defined geographic areas, in accordance with principles of transparency, openness, broad participation, and equal treatment. The law also sets deadlines for providers of the protected service to submit a report to the Authority outlining costs incurred since 1 April 2023 that are directly linked to the service and cannot be recovered (including staff costs, whether employees or contractors, exclusively dedicated to the past commercial management of the vulnerability service), so these costs can be recognised and passed on to electricity customers.

[3] Defined *ex lege* by Legislative Decree no. 164/2000

[4] The economic net metering support mechanism allows any surplus energy generated by a photovoltaic system to be fed into the electricity grid, enabling its use later when demand is higher but production is lower.

The law entrusts *Acquirente Unico* with carrying out specific monitoring activities, based on criteria and methods established by the Authority in collaboration with the Ministry of Environment and Energy Security and after consulting major consumer associations, regarding the electricity supply conditions offered to households after the completion of competitive procedures for the gradual standard offer service, and ensuring that service providers apply the conditions correctly. The results of these activities are included in a report submitted by the Authority to the relevant parliamentary committees by 31 March 2025, and thereafter on an annual basis.

Pursuant to **Law No. 166 of 14 November 2024** (which converted, with amendments, Decree-Law No. 166 of 16 September 2024, "Urgent provisions for the implementation of obligations arising from acts of the European Union and from pending infringement and pre-infringement procedures against the Italian State"), Article 16-quater set out measures to fully harmonise national legislation with Commission Delegated Regulation (EU) 2024/1366 of 11 March 2024, which supplements Regulation (EU) 2019/943 of the European Parliament and of the Council. Specifically, it appointed the National Cybersecurity Agency (ACN) as the authority responsible for implementing the duties set out by Regulation (EU) 1366/2024, **creating a Network Code relating to sectoral rules on cybersecurity for cross-border electricity flows.** Paragraph 3 also introduced certain coordination amendments to Legislative Decree No. 210/2021 ("Common rules for the internal electricity market"):

- Article 9 addresses smart metering systems and the **right to a smart meter**, requiring the Authority to define the minimum functional and technical standards for these systems, respecting applicable EU rules and incorporating the best cybersecurity practices, in consultation with ACN on relevant issues, while also considering costs and the principle of proportionality;
- Article 22 covers the roles and responsibilities of the Transmission System Operator, requiring the Operator to carry out its functions after consulting the ACN regarding cybersecurity aspects.

Article 2 of **Law No. 191 dated 13 December 2024** [5]introduced, among other things, **changes** to Article 5-bis of Decree-Law No. 50/2022 on **natural gas storage**. It establishes that, to support supply security, the GSE will, also through agreements with state-owned or partly state-owned companies and in close cooperation with the main natural gas transmission operator (Snam Rete Gas), provide a **last-resort filling service** by purchasing natural gas for storage and later sale, as directed by the Ministry of the Environment and Energy Security (with the deadline no longer being 31 October 2025 as previously set). Furthermore, Article 10 of the same law, in paragraph 4-bis, requires that until Directive (EU) 2024/1788 of the European Parliament and Council of 13 June 2024 is transposed, the largest natural gas transmission company acts as **Italy's national representative to the European Network of Network Operators for Hydrogen** (ENNOH).

On 16 December 2024, Law No. 193, the "Annual Market and Competition Law 2023," was enacted, including **measures to boost competition in different sectors**, improve transparency, and encourage economic competitiveness. Under this law, Article 19 established provisions concerning the monitoring of commercial reading activities and the information provided to end customers by retail energy sales companies. Specifically, to guarantee transparency in the information provided to end customers of retail energy companies, paragraph 2 revised earlier rules to ensure customers are given the choice to receive billing details, invoices, and details of the intermediary with whom the

[5] Which converted, with amendments, Decree-Law No. 153 of 17 October 2024.

offer was signed, electronically. Additionally, upon request, customers must be provided with a clear and understandable explanation of how their invoice was calculated, particularly if the invoice is not based on actual usage. Furthermore, Article 24 ("Access for vulnerable households to the gradual standard offer service ") **has stipulated that vulnerable households may request access to the gradual standard offer service by 30 June 2025**[6], provided by the awarded operator of the area where the relevant delivery point is located. Article 24 assigns the national regulator the responsibility to set out how the article will be implemented, including the verification of vulnerability requirements, and to make this information publicly available on its official website.

Legislative Decree no. 202 of 27 December 2024, concerning "Urgent provisions on regulatory deadlines", converted into Law No. 15 of 21 February 2025, provided in Article 11, paragraph 2-octies, the integration of Article 16 ("Measures to strengthen the security of natural gas supply at reasonable prices") of Decree-Law No. 17/2022, establishing that, **from 1 January 2025, the gas delivery point shall be identified in the gas market (MGAS) managed by GME.**

The conversion into law of Decree-Law No. 208 of 31 December 2024, "Urgent organisational measures to deal with particular emergencies and to implement the Italian National Recovery and Resilience Plan (PNRR)" (Law No. 20 of 28 February 2025), approved Article 8, which sets out urgent actions to carry out Reform No. 4 from the Repower section of the PNRR and modifies Article 28 of Legislative Decree No. 199/2021 on long-term renewable energy power purchase agreements (PPAs), adding two new paragraphs:

- the new paragraph 2-bis, delegates to a decree from the Ministry of Environment and Energy Security, together with the Ministry of Economy and Finance, **the definition of the terms and conditions under which GSE takes on the role of last-resort guarantor to manage counterparty default risks in long-term renewable energy contracts**, applying market-based and risk-limiting criteria, aligned with the guarantee system established in the clause, as well as the operation of the mechanism, including the procedures for using guarantee funds to comply with the spending cap of €45 million annually for each year from 2025 to 2027. The guarantee requirements and obligations for the contracting parties, including through instruments used in the electricity market, as well as the disciplinary measures applied if contractors fail to comply, are set out in the decree regulating the organised market platform for PPAs (paragraph 2 of article 28), which is updated accordingly in agreement with the Ministry of Economy and Finance, after consultation with the Authority. The Authority is entrusted with the task of determining the fee payable by the contractors for access to the last-resort guarantee;
- the new paragraph 2-ter covers the expenses (€45 million annually for each of the years from 2025 to 2027), to be funded through the corresponding use of a portion of the proceeds from auctions of carbon dioxide emission allowances allocated to the Ministry of Environment and Energy Security (MASE) for the same years.

With reference to **Law 207 dated 30 December 2024**, titled "State Budget Forecast for the 2025 Financial Year and Multi-Year Budget for 2025-2027," attention should be drawn to paragraphs 50 through 53 of Article 1, which deal with the **extraordinary multi-year investment plans for the electricity distribution service**. In detail, paragraph 50 entrusts the Ministry of Environment and

[6] Pursuant to the resolution of this Authority dated 3 August 2023, 362/2023/R/eel.

Energy Security[7] with issuing a decree **defining the conditions and methods for the submission** by electricity distribution service concessionaires of **extraordinary multi-year investment plans.** These plans are intended to enhance the safety, reliability, and efficiency of the electricity distribution network as critical infrastructure, to timely meet the decarbonisation objectives outlined by international agreements and the European Union for 2050, and to guarantee urgent measures to bolster the defence and security of distribution infrastructures against risks of illegal intrusion and cyber and information technology attacks. Paragraph 51 also entrusts the aforementioned decree with **defining the terms and procedures for the evaluation and approval of the extraordinary investment plans**, as well as the criteria for determining the charges that electricity distribution service concessionaires are required to pay due to the restructuring of the concessions themselves. It clarifies that these charges are included by this Authority in the invested capital for the purpose of recognising depreciation and remuneration, applying the rate established for investments in electricity distribution. **The evaluation and approval of the Extraordinary Investment Plans fall under the Ministry of the Environment and Energy Security, with input from the Authority, resulting in the rescheduling of current concessions** consistent with the investment durations set out in the plans, **for a maximum period of 20 years.**

Paragraph 707 introduces amendments to Article 51 ("Audit Authority of European Structural and Investment Funds and other measures regarding European Structural Funds"), paragraph 1-quater, of Decree Law no. 13/2023 ("Urgent provisions for the implementation of the Italian National Recovery and Resilience Plan (PNRR) and the National Plan for Complementary Investments to the PNRR (PNC) as well as for the implementation of cohesion policies and the Common Agricultural Policy"). These amendments allows the Energy and Environmental Services Fund (CSEA) to fund, within its available resources, investments to upgrade water infrastructure. These funds may come from reimbursements granted by the European Commission for advance payments made by the State on energy cost reduction measures, as well as national co-financing shares and resources from the revolving fund for EU policy implementation, which have become available due to changes in the co-financing rate. It also introduces legal measures to offer energy and gas supply subsidies, especially for economically disadvantaged households or those with severe health issues.

Pursuant to Article 26 of Law No. 118 of 5 August 2022, Legislative Decree No. 190 of 25 November 2024, also known as the "**Consolidated Renewable Energy Act**" - came into force at the end of December 2024. This decree **sets out the administrative regimes governing the generation of energy from renewable energy resources.** The decree simplifies the procedures for the construction and operation of plants, by rationalising and restructuring the required formalities. The objective is to promote the expansion of renewable electricity sources (RES) in accordance with EU directives, ensuring a balanced approach between renewable energy growth and environmental preservation. It represents a step forward in simplifying and advancing renewable energy in Italy, encouraging a more efficient and project-oriented strategy within the sector.

The decree provides for the reduction of the administrative regimes for RES plants from four to three:

[7] To be enacted jointly with the Ministry of Economy and Finance, based on a proposal from the Authority, after agreement at the Unified Conference and following the advice of the relevant Parliamentary Committees.

free activity[8], simplified authorisation procedure (PAS)[9] and single authorisation (AU)[10]. Furthermore, the decree classifies RES installations as works of "public utility, non-deferrable and urgent". It applies to various types of installations, including those undergoing alterations, upgrading, and refurbishment, as well as to related works and essential infrastructure. Legislative Decree 190/2024 places particular emphasis on the protection of the environment, biodiversity, ecosystems, cultural heritage, and the landscape, ensuring a balance between the development of renewable energy sources (RES) and the safeguarding of the territory. As part of the alignment process, regional and local authorities may introduce specific measures to further simplify the administrative frameworks set out in Legislative Decree 190/2024, which may include raising the prescribed power thresholds, while still complying with the single authorisation requirements.

Developments in the electricity market

Facilities and main changes in regulation

In Italy, **power transmission** is carried out via 75,550 kilometres of power lines and electrical circuits, supported by 920 switching and conversion stations. The operator of the National Transmission Grid (TSO) is the Electricity Transmission Grid Operator (the company called "Terna"), 29.85% owned by the Italian state. Excluding the state's portion and 0.2% held as treasury shares, 69.95% of the capital is owned by the market. In 2024, there are still eight companies that own assets of the National Transmission Network (NTG), the same as in 2023. Taking into account the assets of all companies belonging to the corporate group, the Terna group holds almost complete ownership of the transmission infrastructure included in the NTG.

As of 31 December 2024, 114 **power distribution** companies (four fewer than in 2023) were registered in ARERA Registry of Operators, of which only 10 serve more than 100,000 customers and together distribute 98.5% of all energy withdrawn by users. There are four companies with more than

[8] Under the free activity regime, the implementation of interventions (as defined in Annex A of the decree) is not subject to obtaining permits, authorisations, or administrative approvals, nor must the applicant submit any communications, certificates, recommendation paper, or declarations to public administrations, while ensuring compliance with environmental, hydrogeological, and seismic safeguards. This regime, however, excludes works involving protected sites or natural protected areas, where the simplified authorisation procedure (PAS) applies.

[9] Under the PAS approval regime (applicable to installations listed in Annex B of the decree), the applicant submits the project to the Municipality using a standard form adopted by ministerial decree, accompanied by a set of documents demonstrating the interventions' compliance with existing regulations. If an explicit refusal is not issued within 30 days of the project submission, the authorisation shall be deemed granted without conditions.

[10] The AU approval regime applies to the authorisation of electricity generation plants powered by renewable energy sources (RES) exceeding specified power thresholds, as listed in Annex C of the decree. As with the PAS, the application must be submitted to the Municipality using a single standard form. The applicant shall attach to the request all documentation required by sector regulations for the issuance of authorisations, opinions, clearances, and consents, including those for environmental impact assessment (EIA), landscape and cultural assessments, and any required expropriations for the project, along with a sworn statement from a qualified professional confirming the area's classification. Within 10 days of completing the document review phase or receiving the required supplementary information, the competent authority shall convene the service conference (except for cases subject to environmental assessments). The justified favourable decision constitutes the single authorisation act and includes all approvals from relevant authorities and public asset or service managers, the environmental impact assessment (EIA) ruling, and, if necessary, acts as an amendment to the urban planning framework. The single authorisation act is immediately published on the official website of the competent authority and remains valid for a period of no less than four years.

500,000 withdrawal points: e-distribuzione (Enel group), Unareti (A2A group), Areti (Acea group) and Ireti (Iren group). Overall, power distribution in Italy takes place through 1,291,200 km of networks, most of which (68.4%) are low voltage. The company e-distribuzione is the leading operator, holding a dominant share of 85.1% of the energy distributed.

In January 2024, the Authority initiated a procedure to revise the guidelines related to the **scenarios supporting the energy network development plans.** It presented its guidelines in June 2024, indicating that Snam and Terna will continue to prepare scenarios supporting transmission and transport plans, while distribution companies will handle specific local assumptions. The guidelines focus on various aspects, such as the deadline for publishing the development scenarios document and the engagement of stakeholders. Following the consultations, the Authority determined that Snam and Terna must jointly prepare the scenario description document biennially, specifying the criteria employed and providing public information in advance. They must also arrange a public meeting to discuss the long-term prospects of Italy's energy sector.

The Authority has stipulated that Terna publish the first **summary progress report on the Transmission Network Development Plan** by 15 April 2024. The provision, along with the minimum standards for the ten-year development plan of the national electricity transmission network set in January 2023, was later included in the *Output-Based Regulation of the Transmission Service* (ROTE). Among the measures adopted, the Authority has established that Terna shall publish and submit to the Authority a progress report on the interventions presented in the Development Plan every even year, whereas in odd years, progress monitoring should be incorporated directly into the corresponding edition of the Development Plan. Furthermore, a two-stage approval process has been introduced to expedite projects, permitting initial spending of up to 5% of the planned investment costs. The Authority has also assessed and authorised certain preliminary expenses for transmission projects and established guidelines for extending the duration of this fast-track process.

The *Integrated text of the output-based regulation of the electricity transmission service for the 2020-2023 regulatory period* (TIQ.TRA), was approved in December 2019, introducing an incentive system to encourage the creation of extra transmission capacity, including additional bonuses for projects completed below the Authority's cost benchmarks. In 2024, Terna was granted bonuses for providing additional capacity in the Northern section of the network (France, Switzerland, and Austria-Italy), comprising a €14.4 million bonus for the provision of transport capacity and a €7.2 million bonus for investment cost efficiency.

In 2023, provisions were introduced to promote a more selective and transparent development of electricity distribution networks. In particular, Article 61 of the *Integrated Text of the Output-Based Regulation of Electrical Distribution Quality* (TIQD) mandates that distribution companies serving at least 100,000 customers provide the Authority with standardised documents and methodologies for preparing the **2025 Distribution Network Development Plans** to the Authority by 30 September 2024. The leading companies have started a working group to agree on a shared methodology, providing the Authority with several guideline documents, templates, and methodological explanations. The Authority positively endorsed the documents related to the harmonised structure, supporting models, and investment categories, but did not approve the document outlining the methodological approach for identifying investments, since it did not explicitly detail the technical and economic planning criteria or the criteria for sizing new assets for investment identification. Additional provisions have been incorporated relating to the publication of plans after consultation, cost reconciliation, and setting development scenarios, including shared deadlines and consultation methods. From 2024 onwards, companies with over 100,000 withdrawal points will be required to publish an **annual output report** on the electricity distribution service and a **progress monitoring**

report on the interventions presented in the Development Plan.

Regarding the **modernisation of energy metering systems** through the implementation of *2G smart metering*, in compliance with European and national regulations, the Authority has developed a ten-year schedule for the installation, replacement, and upgrading of smart metering systems. For the largest distribution companies (with over 100,000 withdrawal points), the recognition of costs incurred for *2G smart metering* systems has been regulated and updated, covering the periods 2020–2022 and 2023–2025. During 2024, the Authority updated and published on its website the timeline for deploying *2G smart meters* for the main distribution companies (serving more than 98% of Italian users), detailing the planned installations up to 2031 and actual installations up to 2022. It is estimated that approximately 38.6 million smart meters will be commissioned by the end of 2024.

The electrical system is undergoing a significant transformation to meet European decarbonisation targets, characterised by a growing presence of small-scale resources and fewer large facilities focused on primary nodes. This requires new ways of managing dispatching that can adjust to a system that is increasingly distributed, unpredictable, and variable. Distribution networks are becoming "active", capable of supplying energy and managing local phenomena such as voltage fluctuations or overloads, with the involvement of distribution companies. To address these changes, the Authority initiated a regulatory innovation process in 2015, which concluded in 2023 with the adoption of the new **Dispatching Integrated Text** (TIDE). The TIDE introduces a merit order dispatch model, whereby all resources can provide both energy and ancillary services, enhancing competition among various technologies and simplifying scheduling independent of energy markets.

Among the main innovations introduced are:

- definition of clear roles and responsibilities for the *Balancing Service Provider* (BSP), which supplies ancillary services, and the *Balance Responsible Party* (BRP), who oversees the scheduling of both production and consumption units and the regulation of imbalances;
- supporting competition between all units supplying global ancillary services, adhering to the principle of technology neutrality;
- allowing all technically eligible resources, even small-scale, to participate, with the option for aggregation;
- streamlining the eligibility and settlement criteria, introducing new charges and ensuring transparency on network models and the status of installations;
- reorganisation of the day-ahead and intraday markets, with a greater distinction between nodal and zonal level services.

The TIDE was set to come into effect on 1 January 2025, eighteen months after its publication, in order to enable Terna and GME to revise the Transmission, Dispatching, Network Development and Security Code (Network Code), the Integrated Electricity Market Code (TIDME), and the Energy Accounts Platform Regulation (PCE Regulation), as well as to allow other interested parties to carry out the organisational adjustments necessitated by the new regulatory system.

However, during 2024, regulatory changes occurred that led the Authority to update the TIDE even before it came into effect: notably, in July 2024, version 2 of the TIDE was approved, outlining the procedures for phasing out the Single National Price (PUN) from 1 January 2025, in accordance with the provisions of the Ministerial Decree of 18 April 2024. Furthermore, given the complexity of the matter, the Authority deemed it appropriate to structure the implementation of the TIDE into three separate phases:

- a transitional phase, from 1 January 2025 to 31 January 2026, characterised by the shift to imbalance regulation on a quarter-hourly basis;

- a consolidation phase, starting from 1 February 2026, characterised by the separation of roles between BSP and BRP (and the related settlement) for all units;
- a full implementation phase of the TIDE (starting from a date determined by Terna), encompassing the application of all current regulations, including market procedures for frequency reserve.

At the end of the year, the Authority approved a further revision of the TIDE (third version) to define the coordination methods (in terms of definitions and calculation of fees) with the previous dispatching regulations, along with a new version of the Energy Accounts Platform Regulation (PCE) prepared by GME in accordance with the TIDE.

In July 2024, the first phase of innovation in the **regulation of electricity settlement**, which began in July 2023, was completed. New provisions were adopted to introduce quarter-hourly settlement from 1 January 2025, in line with European and national regulations and the new TIDE, with full implementation of the new rules set to take effect on 1 January 2026. The main innovations include the use of actual or, where necessary, profiled quarter-hourly metering data for settlement sessions; the optional extension for distributors to apply quarter-hourly treatment to withdrawal points with a capacity of up to 55 kW equipped with 1G meters; and the use of metering data related to energy exchanged at interconnection points between different network operators, which were previously unmanaged, along with data on the transmission and distribution networks' own usage. Residual energy is defined as the difference between actual and standard leakages, and the procedures for managing, aggregating, and reporting this data through the Integrated Information System (SII) have been updated. Furthermore, plans include conducting the census, profiling, and aggregation of measurement data, with Terna tasked with finalising the residual energy evaluations and updating the system register. Certain charges and prior regulations have been removed, delegating the complete management of settlement activities to SII and Terna, as testing is conducted in preparation for the implementation of the new rules in 2026.

The **Capacity Market,** created by a legislative decree in 2003, seeks to provide sufficient energy production capacity, ensuring both service security and quality. The first tendering processes were conducted in 2019 for 2022 and 2023, followed by an auction in 2022 for the year 2024. From January 2022, assignees have been granted a fixed remuneration, along with regulations regarding the obligation to offer and the reimbursement of the variable fee, determined by the difference between the reference price and the strike price. The strike price, defined in 2019 and 2021, represents the variable cost of an open-cycle gas turbine power plant, including components for natural gas and emissions allowances. The methodology was promptly updated to more accurately capture the variable costs of peak technologies, incorporating daily indexing and the average natural gas price on the Italian network, also for 2024, in line with previous years' approaches. During 2024, two tendering processes for the Capacity Market for 2025 and 2026 were launched, resulting in significant regulatory and technical changes. Between March and May 2023, Terna submitted proposals to the Ministry and the Authority to encourage retrofitting of thermoelectric plants, improve the calculation and remuneration methods for capacity, and strengthen the rules on bidding, non-compliance, and penalties. The innovations include new methods for calculating available capacity, incentives for newly commissioned units, higher thresholds for offer obligations, the possibility of contract withdrawal, and adjustments to downtime and maintenance criteria. The proposals, approved by the Authority and the Minister via a decree in May 2024, aim to make the Italian capacity market more efficient and flexible. During the year, changes were also introduced to the technical operating rules of the Capacity Market, defining criteria and methodologies for calculating the variable remuneration, appointments, defaults, related information, and establishing the economic parameters for each tender procedure.

The main auction of the Capacity Market relating to the 2025 delivery period was held on 25 and 26 July 2024, with the auction for the 2026 delivery period taking place on 18 December 2024. According to the reports published by Terna regarding the main auctions for the 2025 and 2026 delivery years, it emerged, among other things, that the total expenditure on premiums amounts to approximately €1.72 billion and €1.82 billion respectively for 2025 and 2026, excluding premiums for new capacity already allocated in previous auctions for a fifteen-year period including those delivery years; the existing selected capacity is about 37.6 GW and 38.3 GW respectively for 2025 and 2026; the new selected capacity - fully authorised - is approximately 0.2 GW and 0.1 GW respectively for 2025 and 2026.

Article 18 of Legislative Decree No. 210 of 8 November 2021 introduced a new **forward procurement system for electrical storage resources** within the Italian electricity market architecture, to complement the markets for energy, ancillary services, and capacity. In 2023, the Authority established the operational criteria, including, among other things, the use of discriminatory auctions (pay-as-bid) and technology-specific standard contracts. Methods for market participation, penalty management, contract extensions, and incentives for upgrading storage resources were also established. The provisions have been in effect since June 2023 and were adopted in compliance with European regulations, with the EU Commission approving the mechanism in December 2023, deeming it compatible with State aid rules and beneficial for promoting decarbonisation and the integration of renewable energy. Between 2023 and 2024, discussions between Italy and the EU intensified, involving the notification and approval process of the measure, which aims to support investments in the electric storage sector through proportionate public aid, with tender procedures and safeguards against market distortions. Terna has developed regulatory proposals, which the Ministry approved, limited to new storage capacities such as lithium batteries and other technologies, with future amendments planned for hydroelectric storage.

Regarding **distribution quality**, in May 2024 the "Technical Instructions 2024-2027 for the recording and documentation of interruptions in the electricity distribution service" were approved: these updated technical instructions are intended for distribution companies and serve as a guide to best practices for the correct recording and documentation of continuity in the electricity distribution service. The instructions were also updated because in December 2023 some rules regarding the recording of interruptions were changed compared to what was previously established in the *Integrated Text of the Output-Based Regulation of Electricity Distribution and Metering Services for the 2020-2023 Regulatory Period* (TIQE). As part of the TIQE implementation, the procedure for determining the 2023 premiums and penalties related to the output-based regulation of the electricity distribution service was closed in December 2024. With respect to managing the duration and number of unplanned interruptions, €24.6 million in penalties were imposed (which are passed back to electricity system users who pay network tariffs), reflecting net premiums of €5.3 million paid to 24 distributors and net penalties of €29.9 million charged to 8 distributors.

In 2024, there was an improvement compared to 2023 in the average duration of unplanned outages (falling to 76 minutes from 100 minutes last year – see Figure 3.1), alongside a slight increase in the average number of short and long unplanned outages per low-voltage user (rising to 5.12 from 4.87 in 2023). The better duration performance in 2024 is partly due to the reduced impact from extreme weather events (floods, windstorms, and heatwaves). The duration of unannounced outages for which the distributors are responsible stands at 44 minutes nationwide, and the number of long and short unannounced outages (which, together, correspond to outages lasting more than a second) for which the distributors are responsible stands at 3.68 outages per low-voltage user nationwide.

Regarding **connection requests** in high and extra-high voltage for 2024, Terna received 5,304

connection requests for electricity production plants, corresponding to a total capacity of 474.3 GW. In relation to the applications received during the year, 1,770 quotations were accepted (of the 3,890 made available), corresponding to a total capacity of 136.6 GW. For just four of these quotes, a request for the Detailed Minimum Technical Solution (STMD) was made, but Terna did not deliver it by 31 December 2024. As far as active connection requests to medium- and low-voltage grids are concerned, in 2024, the distribution companies received more than 291,000 connection requests for power generation plants, corresponding to a total capacity of 33 GW, of which more than 245,000 quotations issued throughout the year were accepted, amounting to approximately 8.3 GW. Over the year, more than 185,000 connections, corresponding to just over 1.9 GW, were realised in relation to the requests received in 2024. As far as the connections of passive users are concerned, the data collected show that 184,852 connections were made to the distribution networks in 2022, almost all of them in low voltage. For 80% of the requests, the supply was activated during the year.

As regards **international coordination**, again in 2024, ARERA cooperated actively with other European regulators, through the European Agency for the Cooperation of Energy Regulators (ACER), the Council of European Energy Regulators (CEER) and the regional platforms provided for in the European electricity market regulations, as well as through bilateral meetings to explore topics of common interest, in particular with regulators from neighbouring countries. In continuity with previous years, interaction continued the implementation of the network codes and guidelines adopted as a result of the Third Energy Package and in the transposition of the provisions of the Clean Energy Package.

Significant progress was made in 2024 regarding the implementation of the **Balancing Regulation** and participation in the European balancing platforms. In February, the Authority concluded the inquiry started in September 2023, noting that negative marginal prices on the Italian system's PICASSO platform were caused by congestion among Load Frequency Control Areas and the unrestricted import of foreign offers, resulting from less-than-optimal aFRR reserve purchasing procedures. As a result, Italy's participation in the platform was temporarily suspended pending mitigation measures approved by ACER in July 2024, following which Terna and the Authority are currently engaged in discussions to establish the rules necessary for a safe resumption of participation. Moreover, Terna put in place a work plan, approved in May, to begin participating in the MARI platform for the exchange of balancing energy from manual frequency restoration reserves (mFRR). European authorities have also agreed to strengthen oversight of TSOs to ensure compliance with participation obligations on European platforms. Finally, in 2024, Terna ceased its activities on the TERRE platform in 2024, deciding to disconnect before year-end as a result of the European market framework and changes brought by EU Regulation 1747/2024, which render the platform incompatible with intraday market developments.

In 2024, the initiative to **reorganise the Capacity Calculation Regions** (CCRs) in Europe was consolidated, with the establishment of the new Central Europe CCR following the merger of the Core and Italy North regions, approved by ACER. As a result of this change, a new flow-based method for calculating and allocating capacity is being implemented, with TSOs, Swissgrid, and regulatory bodies playing an active role to uphold both market integrity and system security. Furthermore, in 2024, ARERA and the Montenegrin regulator REGAGEN launched a market coupling project between Italy and Montenegro, involving grid and market operators such as Terna, CGES, GME, and BELEN.

As in previous years, the Authority has been particularly engaged in its interactions with countries outside the European Union.

Wholesale and retail markets

According to provisional data released by Terna, **electricity demand** (312.7 TWh) increased by 2.3% in 2024 compared to 2023; with the recovery affecting almost all sectors. Energy available for consumption was met 84.4% by domestic net production, with the remaining 16.3% covered by the balance of imports and exports. Net domestic production increased by 2.8% compared to the previous year, alongside a 2.4% rise in imports and a 47.8% surge in energy exports. Peak demand was reached on 19 July 2024, when power demand at peak came to 57.9 GW (-1% from the peak recorded in 2023 of 58.5 GW).

Gross domestic production increased from 264.7 to 273.3 TWh (+3.2%). More specifically, there was a 6% decrease in thermoelectric production against a 14.9% increase in energy production from renewable energy resources. In the field of thermoelectric generation, the most significant decrease occurred in production from solid fuels (-70.8%) and petroleum products (-30.4%), while generation from natural gas saw a slight increase (2.1%). In the case of renewable energy sources, which contributed 49% to the national electricity generation mix in 2024 (up from 44% the previous year), a decline was seen only in wind generation (-5.6%) and a slight drop in geothermal output (-0.8%), while hydroelectric production rose sharply (+30.2%) along with solar photovoltaic (+17.2%). Bioenergy generation also saw a notable increase of 7.4%. The share of gross generation by the top three corporate groups (Enel, Eni, and Edison) fell to 28.6% (down from 34.3% in 2023), while the A2A groups remained in fourth and fifth place, respectively. There are four groups with a share of installed gross capacity exceeding 5%, the same as in 2023: Enel, A2A, Edison, and Eni.

The **amount of incentivised electricity** was approximately 53.5 TWh in 2024. Overall, in 2024, the costs associated with supporting renewable energy resources amounted to around €8.9 billion, representing a 26% increase compared to the previous year.

Imports increased by about 1.3 TWh over the previous year, from 54.6 to 55.9 TWh (+2.4%). However, exports also increased, and by a higher percentage - from 3.3 to 4.9 TWh (+47.8%); as a result, the sharp rise in net imports seen in 2023 did not occur again in 2024. While electricity imports into the Italian grid increased by 19.2% in 2023, they decreased by 0.5% in 2024. Since electricity demand (according to Terna's provisional data) was 312.7 TWh, the share of national demand met by foreign electricity slightly decreased to 16.3% from 16.8% recorded last year, but remains one of the highest in the past twenty years.

In 2024, the amount of **electricity traded on the day-ahead Market (MGP) in the Italian system** reached 283.9 TWh, an increase of 2.1% compared to 2023. Volumes traded on the exchange rose significantly (226.8 TWh; +8%), offset by a reduction in bilateral contracts recorded on the PCE (57.1 TWh; -16.1%), which were almost entirely related to national zones. Cross-border exchanges also increased, driven by a rise in imports, totalling 57.4 TWh (+3%), representing 25% of total exchange sales and 3% of bilateral transactions. Moreover, exports also increased, totalling 5.4 TWh (+41%), with the vast majority traded on the exchange. Following the end of the protection regime offer for non-vulnerable households, the share of volumes contracted by the *Acquirente Unico* further declined (13 TWh; -32%), while sales by the GSE increased (26 TWh; +8%), together accounting for 7% of traded volumes (down 1% compared to 2023). The **average purchase price of electricity (PUN)** in 2024 decreased compared to 2023, settling at €108.5/MWh (a 14% drop from 2023); this decline was observed across all three hourly bands: €116/MWh (-16%) during peak hours, €108/MWh (-14%) during off-peak hours on weekdays, and €100/MWh (-14%) on holidays. The total volumes traded on the **Intra-day Market** in 2024 (35.4 TWh) showed a significant increase compared to the previous year (+22%); the average prices on this market closely mirror those of the Day-Ahead Market (MGP). Throughout the year, average monthly prices were broadly in line with the

corresponding MGP sale prices, except in July for MI2 (with an average deviation of about +€15/MWh) and in August, November, and December for MI3 (with an average deviation of up to +€12/MWh). On the electricity **Forward Market** managed by GME, no trades were recorded in 2024 for standardised products with physical delivery. In 2024, **European exchange prices** fell everywhere compared to 2023, despite fluctuating throughout the year. The energy crisis that began in 2021 therefore remained unresolved in 2024, as shown by the fact that average prices observed in 2024 were still around 75% higher than those in 2019. Except for the Scandinavian exchange, where prices have fully recovered to 2019 levels, the average 2024 price remained just over double in Italy and Germany, and nearly 50% higher in France and Spain.

In 2024, **three penalty proceedings were initiated for breaches** of the rules on integrity and transparency in wholesale markets under the **REMIT** regulation. Specifically, one violation involved the failure to effectively and timely disclose to the public inside information regarding the unavailability of a production facility, and two proceedings concerned breaches of the prohibition on market manipulation in wholesale energy products.

The results of the Annual Survey show that in 2024 just over 243 TWh **were sold on the retail market** to 37.6 million customers. The data also show that the decline in consumption, which began in 2022 and worsened in 2023, halted in 2024: electricity consumption remained stable that year, while the number of withdrawal points increased by about 230,000 units (0.6%). The key change in 2024 was the notable transition of households between markets, following the end of the protection regime offer for most households and the launch of the new gradual standard offer service for those who had not selected a supplier in the free market by the end of the protection regime offer; from 1 July 2024, the protection regime offer is reserved solely for vulnerable households. Overall consumption remained stable due to a drop in sales to non-household customers being balanced out by a rise in sales to household customers. In fact, the household sector purchased a total of 58.8 TWh compared to 56.1 TWh in 2023, recording an increase of 4.8%. Conversely, energy acquired by the non-household sector fell from 185.4 to 184.2 TWh, showing a decrease of 0.7%, and thus remaining well below pre-Covid levels (198 TWh in 2019), which had been partly recovered in 2022. In 2024, the number of household withdrawal points reached 30.5 million, representing an increase of 0.5%.

The **electricity free market** recorded sales of 225.1 TWh in 2024, which is 4.6 TWh more than in 2023, supplying roughly 29 million customers, an 8.3% growth compared to the previous year. Household supply points in the free market grew by 1,799,000, an 8.4% rise from 2023; meanwhile, the average annual consumption per household customer reached 2,031 kWh, marking a slight increase of 2.8% over 2023.

Since 1 January 2021, small businesses connected to low voltage networks, as well as micro-enterprises with at least one low-voltage withdrawal point having a contractually committed power exceeding 15 kW, have lost the right to the **standard offer service**; from 1 April 2023, this also applied to all other micro-enterprises. Since May 2023, therefore, the service has been reserved exclusively for household customers. Lastly, as mentioned earlier, from 1 July 2024 only vulnerable household customers will be able to buy energy under the protection regime offer. In 2024, sales under the service amounted to 8.5 TWh, spread across approximately 5.6 million withdrawal points (calculated on a pro rata basis). Compared to 2023, there was a significant decline in consumption, amounting to 5.9 TWh (-41.1%), along with a decrease in the number of points served by about 3.7 million units (-39.8%). In 2024, the average annual overall consumption was 1,528 kWh, down 1% compared to 2023.

Customers for whom the protected service has ended *ex lege* are supplied under a specific **gradual standard offer service**, by a supplier selected by tender (divided into gradual standard offer services

for small businesses, micro-enterprises, and non-vulnerable household customers). In 2024, the gradual standard offer service for non-vulnerable household customers recorded electricity sales of 3.1 TWh, distributed over 1,675,000 withdrawal points, with the average consumption per household customer under this service amounting to 1,852 kWh. In the gradual standard offer service for small businesses, 1.2 TWh were sold to 77,132 withdrawal points; compared to 2023, consumption decreased by 17.8%, while the number of points served dropped by 15,000 units (-16.8%); the national average consumption was 16,050 kWh. In the gradual standard offer service for micro-enterprises, 1.5 TWh were sold across 829,000 withdrawal points; with an average consumption per other-use customer of 1,825 kWh.

The **safeguard service** contracted in 2024, serving 80,039 withdrawal points, marking an 18.2% decrease compared to 2023; a total of 3,563 GWh was drawn, down 30.4% from the 5,119 GWh recorded in 2023.

In 2024, as in the previous year, **switching** activity remained very high among consumers; for households, it increased by nearly five percentage points in terms of customers and by over two percentage points in terms of volume compared to 2023. During 2024, 23.8% of household customers switched their provider at least once. The switching rate among non-household customers, however, decreased compared to 2023, falling from 25.6% to 21.7% in terms of points, and from 27.8% to 22.6% in terms of volumes.

The average number of **commercial offers** proposed to household clients by each sales company in 2024 stood at 30, of which 11 were available exclusively online. For non-household customers, who naturally enjoy greater choice and to whom the supplier can certainly offer more personalised services and customised contracts, the average number of offers rises to 36, but only four of these are available through digital channels. Regarding the preferred **price type**, there is a marked decline in the proportion of household customers choosing fixed-price contracts in the free market, dropping from 66.8% in 2023 to 54.8%. Among non-household customers, the preference for variable-price contracts continues to strengthen; this type of offer, already dominant in 2023 with a share of 68.3%, reached 80% in the current year. In 2024, household customers paid an average price for the energy component of €237.18/MWh, lower than the €259.84/MWh of 2023 - almost €23/MWh less than the previous year. A similar reduction was seen for non-household customers: in 2024, the average price paid was €153.34/MWh, down from €181.31/MWh the previous year. Among customers who chose a variable-price contract, household customers once again showed a strong preference for **indexation** to the single national price (PUN), linked to the average market electricity price, which accounted for over 90% of withdrawal points. A similarly strong preference was observed among non-household customers: nearly 82%. For household customers, considering the average supply component paid under contracts with different types of indexing, the most cost-effective method - excluding contracts with unspecified indexing - was that with a discount on the price set by a Consip public tender or other public tender, followed by contracts with limited indexing (-23%), although the shares of such contracts are very small for both types. About 32% of households have signed a contract that provides a rebate or **discount** of one or more free periods or a fixed sum in cash or volume; amongst non-household customers, the figure is 16%. The Annual Survey also investigated the presence of **additional services**, revealing once again a strong preference among household fixed-price customers for energy contracts that include at least one extra service (only 1.8% of customers sign contracts without any additional service, a decrease of 2.2% compared to 2023). As in the previous year, the most popular extras are contracts guaranteeing electricity from renewable sources (50.7%) and those offering loyalty programmes (39.7%). 28.3% of household customers on variable-price contracts opt for a contract without additional services, down from 32.3% in 2023. Among customers choosing contracts with additional services, the most preferred

option is the guarantee of purchasing electricity generated from renewable energy (42.9%). Non-household customers, on the other hand, show a clear lack of interest in additional services, with 58.2% of fixed-price contracts and 55.4% of variable-price contracts excluding any added services. Among non-household customers who opted for a fixed-price contract, 33.5% valued the guarantee of electricity from renewable sources; meanwhile, just over a third of those with a variable-price contract selected one that included at least one additional service.

In 2024, the level of **concentration in the retail market** decreased across all segments, as shown by the various standard measures used to assess it. The top three corporate groups' cumulative share (C3) declined, dropping from 47.8% to 42.3%. The Herfindahl–Hirschman index (HHI) index fell from 1,356 to 988, well below the first threshold of concern, set at 1,500; indeed, an HHI value between 1,500 and 2,500 indicates a moderately concentrated market, while a value above 2,500 signals a highly concentrated one (the maximum possible HHI is 10,000). The number of corporate groups needed to exceed 75% of total sales increased from 11 to 14. However, the concentration in the Italian electricity market has two opposing sides: in the household segment it is high, albeit steadily decreasing, while in the non-household segment it is low.

The results of the analysis of the data submitted by the operators show that in 2024 the **average pre-tax electricity price** for households was 316.8 c€/kWh (215.6 c€/kWh the average value of the component covering procurement costs and marketing services). As usual, the data highlight variability in the unit cost borne by customers, with an inverse relationship to consumption size: unit costs range from €219/MWh for large users (more than 15,000 kWh annually) to €633/MWh for those in the smallest band (0–1,000 kWh). This pattern reflects the behaviour of supply costs, which consistently decline with increasing per capita consumption - from €344/MWh for the lowest consumption group to €158/MWh for the highest.

Regarding the **commercial quality of the sales service**, in 2024 the companies serving electricity sector customers received a total of 298,690 written complaints, 261,117 enquiries, 6,566 invoice corrections, and 565 cases of duplicate invoicing. 95.9% of compensations are related to the failure to meet response times for written complaints. In 2024, automatic compensation payments were made for more than € 1.1 million. Household customers in the free market received 55.13% of the total compensations paid, while 22.92% of compensations went to non-household customers in the free market.

In 2024, supervisory activities included both **inspections and document control activities**, which made it possible to check the work of a wide range of subjects and new areas of activity. In 2024, the total number of inspections stood at 22, showing a slight decrease compared to the previous year; these inspections resulted in penalties amounting to approximately €8.4 million.

Regarding the **sanctioning proceedings** in 2024, two were initiated against two companies for violations related to transfers, switching, and accreditation of operators in the Integrated Information System; four procedures were opened against four sales companies for breaches concerning social bonuses; five sanctioning procedures concerned the operation of the Integrated Information System; one procedure dealt with invoicing transparency; one addressed the recognition of general system charges not collected from end customers; and one concerned the breach of the Authority's obligation to participate in conciliation procedures.

Developments in the gas market

Facilities and main changes in regulation

In Italy there are eight companies operating the **national** (10,490 km) and **regional** (24,936 km) **gas transmission network**. The largest gas transmission company is Snam Rete Gas; in addition, two other companies operate on the national network, owning and managing smaller sections: Società Gasdotti Italia and Infrastrutture Trasporto Gas. The Snam group (consisting of Snam Rete Gas and Infrastrutture Trasporto Gas) owns 93% of the networks. The Italian gas transmission network is connected with several international gas pipelines: in the North it connects with the TENP natural gas pipeline for the import of gas from Northern Europe and with the TAG for the import of Russian gas; in the South it connects with the Transmed (Trans-Mediterranean Pipeline) for the import of Algerian gas and with the Greenstream for the import of Libyan gas, it connects with the TAP for the import of Azeri gas. In addition, four **liquefied natural gas terminals** are operational, which are injected into the Italian national transmission network through their interconnection with the national grid. The maximum total regasification capacity of the four terminals is 22.5 G(m^3)/year. The fifth regasification plant, the FSRU anchored approximately 8 kilometres off the coast of Ravenna and acquired by Snam in July 2022, will start operating in 2025. Built in 2015, this vessel has a regasification capacity of 5 G(m^3)/year. Once fully operational, it will increase Italy's total regasification capacity to around 28 G(m^3)/year.

Natural gas **storage** is carried out under 15 concessions held by five companies: Stogit, Edison Stoccaggio, Ital Gas Storage, Geogastock, and Blugas Infrastrutture. In June 2024, Snam submitted a bid to acquire Edison's gas storage facilities. Then, in March 2025, Snam, via its subsidiary Stogit, announced the completion of the acquisition of 100% of Edison Stoccaggio, following the receipt of the required antitrust approvals: Edison Stoccaggio's share capital was fully acquired by Stogit, and the company was renamed Stogit Adriatica. All active storage sites are built at depleted gas fields. The Italian gas storage system is of significant size: in the 2024-2025 thermal year, which ended on 31 March 2025, the system offered a total working gas capacity of 17.85 G(m^3), of which 4.6 G(m^3) were allocated for strategic storage. The available capacity for peak modulation storage amounts to 7.861 G(m^3); the remaining capacity is linked to products with a uniform withdrawal profile throughout the year or that, in any case, enhance the flexibility offered.

The **distribution** of natural gas in Italy takes place through a network of 272,175 km (of which 303 km were non-operational in 2024), with 57.1% at low pressure, 42.3% at medium pressure, and 0.6% at high pressure. The length of the networks increased by approximately 1,000 km compared to 2023. In 2024, there were 183 active gas distribution companies (four fewer than in 2023), including six very large ones (with over 500,000 customers), 22 with between 100,000 and 500,000 customers, 20 medium-sized (50,000–100,000 customers), 89 small (10,000–50,000 customers), and 46 very small (fewer than 5,000 customers). Since 2020, the number of companies with more than 100,000 redelivery points has been 28, and their share of gas distributed has remained stable at around 85%. In total, the 183 operators operating in 2024 supplied 25.8 G(m^3), which is 0.2 G(m^3) more than in the previous year, reaching 21.8 million consumers.

In January 2024, the Authority initiated a procedure **to update its regulations concerning the development plans for the natural gas transmission network**, aiming, among other objectives, to consider recent legislative requirements obliging the main transmission company to submit the unified gas transmission plan every two years. At the same time as this initiation, the Authority **repealed the exemption from the obligation to apply cost-benefit analysis** for the ten-year development plans of the gas transmission network relating to 2023, while also requiring system

operators who had used this exemption to supplement their development plans submitted in December 2023 with the corresponding cost-benefit analyses. As part of the procedure initiated, at the end of the year the Authority presented its **guidelines for the preparation of a single development plan for the transport network**. In particular, the Authority proposes to grant the main transmission operator the task of assessing the consistency of the development proposals of other companies and updating the cost-benefit analyses, while the individual operators will handle the project details and the implementation of the interventions. It also suggests integrating the coordination document between operators into the Plan itself to highlight the coordination process. The Plan would remain biennial, with deadlines on 28 February of odd-numbered years starting from 2027, and operators other than the main company may submit their information by 31 January of odd-numbered years. Furthermore, it proposes to set 31 July 2025 as the deadline for the issuance of the 2025 Plan, in order to facilitate the transition to the new periodicity and the new planning processes.

The Authority also proposes updates to the minimum requirements for the single gas Plan and the cost-benefit analysis, including: incorporating information in the Plan about decommissioned infrastructure, detailing timelines, purposes, costs, revenues, and system impacts; excluding inefficient dismantling costs, especially those related to recent or already completed interventions; providing detailed data on transport, storage, and regasification infrastructure projects promoted by third parties, with standardised forms managed by the transmission operator; integrating these forms into the Plan and monitoring their progress; identifying infrastructure needed as a result of third-party projects; adopting a more structured approach to identifying system needs, through joint analyses of gas and electricity capacity; evaluating cross-sectoral use of available capacity, including for hydrogen; replacing some benefit categories with quantitative indicators and removing others no longer relevant; presenting a tabular summary of the Plan's interventions; and including a biennial monitoring report on the Plan's progress.

According to legal provisions, it is the Authority's responsibility **to submit the ten-year development Plans for the natural gas transmission network to consultation** with all interested parties. Accordingly, the 2023 development Plans of nine companies managing sections of the national or regional transmission network have been made available on the Authority's website. Interested parties had the opportunity to submit their observations to the Authority by 14 August 2024.

In April 2024, the Authority updated certain provisions of the Integrated Balancing Text (TIB) to adapt them to the new management methods of some financial transactions (related to self-consumption, network leakage and unaccounted gas) introduced by the "Tariff Regulation for the Natural Gas Transport and Metering Service for the Sixth Regulation Period 2024-2027" (RTTG), approved in April 2023. At the same time, a **fixed price for the linepack was established, conventionally set** in line with the current market value, ensuring that Snam remains neutral with respect to price fluctuations under the previous valuation method.

In November 2024, some changes were made to the balancing regulations, particularly introducing a new formulation of the so-called *small adjustment*, aimed at reducing arbitrage opportunities caused by the timing asymmetry between the GME's and Snam's settlement systems. Given that it is a modification with impacts on the entire community of balancing users, the resolution stipulates that the modification itself will come into force in October 2025, allowing it to be anticipated in the commercial dynamics of wholesale gas trading. Furthermore, the changes involved the adjustment of the incentive system for Snam, in light of particular situations in which the latter may find itself operating (e.g.: market price volatility). Finally, in September 2024, the Authority partially amended

the fundamental provisions regarding **access to the transport service**, to introduce additional flexibility in the use of transport capacity with the aim of eliminating uncertainties linked to the effects deriving from a possible early termination of the supply contract due to non-compliance by the end customer, also encouraging the signing of contracts shorter than one year.

During 2024, some transportation, storage, and regasification **service codes** were updated to incorporate new regulatory provisions, Authority provisions, or management methods designed to improve service provision.

Following the approval of the tariff regulation criteria for the LNG regasification service for the sixth regulation period (RTRG 2024-2027), adopted in 2023, in February 2024 the Authority expressed its guidelines regarding the criteria for determining the rate of change of the deflator of gross fixed investments and consumer prices to be used for tariff determinations for the LNG regasification service, as well as regarding the treatment of updates to the rate of return on invested capital. Following this consultation, in June 2024 the Authority made amendments to the RTRG 6PR LNG, specifically deciding to align the determination of the deflator for gross fixed investments with the ROSS criteria, thereby maintaining consistency with the regulation of the transport service; it also aligned the methods for recognising inflation with the ROSS criteria.

In July 2024, the Authority **initiated** a procedure to **define the tariff regulation criteria for the natural gas storage service for the sixth regulatory period, starting from 2026**. In November 2024, the Authority outlined its guidelines on the matter, which, while maintaining substantial stability with respect to the existing criteria, contain some new elements. Among other things: alignment with the ROSS criteria concerning the duration of the regulatory period, the treatment of inflationary items, and the operating cost items excluded from tariff recognition; the introduction of a mechanism linking cost efficiency, system benefits, and incentives for companies, limiting the recognition of capital costs and providing for the sharing of achieved savings.

In June 2024, the Authority initiated proceedings to enforce the rulings of the Council of State regarding **tariffs for natural gas distribution and metering services**, with particular reference to the determination of the operating costs recognised for the 2020-2025 regulatory period, following a complex dispute brought by several operators and also taking into account the clarifications of several rulings of the Lombardy Regional Administrative Court.

The regulatory criteria for the quality of the natural gas storage service in force for the 2020-2025 regulatory period (RQSG 5PRS) were approved in [11]October 2019, maintaining substantial continuity with the previous regulation.

In July 2024, the Authority initiated a procedure to define the **criteria for regulating the quality of the natural gas storage service for the sixth regulatory period, starting from 2026**. In November 2024, the Authority outlined its guidelines on the matter, which, while largely maintaining the existing criteria, include some new elements such as, regarding service safety, the strengthening of provisions on leakages through the introduction of additional obligations; and, concerning service continuity, the removal of the penalty mechanism for non-compliance with contractual obligations.

In September 2024, the Authority amended the Regulation of the natural gas transport network metering service (RMTG) in order to address recommendation papers on critical issues received in the early months of 2024.

The regulation of the **quality of gas distribution and metering services** has the aim of minimising

[11]Resolution of 23 October 2019, 419/2019/R/gas.

the risk of explosions, outbreaks and fires caused by distributed gas and, therefore, has as its ultimate goal the safeguarding of persons and property from damage resulting from accidents caused by distributed gas. In 2024 the arrival time at the site following a (phone) call was nearly 37 minutes shorter than in 2023. In addition, the percentage of compliance with the maximum arrival time within 60 minutes was 99.9% compared to an obligation of at least 90%. Early intervention can prevent gas accidents that could have very serious consequences; however, almost half of all calls to emergency call centres actually turn out to be false alarms.

Data on connections are distinguished according to whether they are connections to transmission pipelines or to distribution networks. In 2024, 64 **connections to transport networks** were made, of which 58 were high-pressure pipelines and 6 medium-pressure pipelines. On average, a waiting time of 139.8 working days was recorded for high-pressure pipelines and 14.4 days for medium-pressure ones; just under half of the connections made activated the supply during the year. Even in the case of **local distribution networks** in 2024, approximately 2,600 fewer connections were made than in the previous year: their number fell from 61,826 to 59,236. As always, most of the connections involved low-pressure pipelines (94.2%) and the remainder medium-pressure pipelines. There was a slight increase in waiting times, both for connections to low-pressure networks (from 9.2 to 11.8 working days) and for connections to medium-pressure networks (from 34.1 to 36.7 working days).

In 2024, the **settlement framework** in the gas industry evolved according to two key directions: firstly, through enhanced detail in consumption measurement, and secondly, by minimising the gap between expected and actual daily gas withdrawals to better balancing the system. With a view to improving consumption forecasts, in November 2024 the Authority ordered[12] that the conventional profiling methodology, as defined in the Integrated Settlement Text gas (TISG), be further refined by introducing a parameter designed to adjust the withdrawal profile based on the actual daily withdrawal trends, thus enabling timely capture of both transient and structural consumption dynamics.

Wholesale and retail markets

According to provisional data released by the Ministry of Environment and Energy Security, gross natural gas consumption in 2024 increased by 340 M(m^3) compared to 2023. The change is only slightly positive, but it represents an important result after two years during which gas consumption experienced two significant declines. The recovery was supported by the weather conditions, which boosted consumption in the residential sector, as well as by the still positive - albeit weak - performance of the economy as a whole.

Domestic production recorded a 4.1% reduction, falling to 2.6 G(m^3) from 2.7 G(m^3) reached in 2023. The **foreign balance** also decreased by 0.7%, due to a 3.9% drop in imports, which fell to 59.4 G(m^3) from 61.8 G(m^3) in 2023, only partially offset by a sharp reduction in exports of 2 G(m^3) (from 2.6 to 0.6 G(m^3)). Since the volumes stored in reserves at the end of the year were approximately 0.4 G(m^3) higher than those at the beginning, the **gross domestic consumption** in 2024 amounted to 61.8 G(m^3), a figure 0.6% higher than in 2023. As a result, the **level of dependence on foreign supply**, measured as the ratio between net imports and the gross value of national consumption, has slightly decreased: in 2024, 95.2% of the gas available in Italy came from abroad (compared to 96.3% in 2023). Taking system consumption and network leakages into account, **net gas consumption** in 2024 can be estimated at 60.4 G(m^3), which is 0.6 percentage points higher than in

[12] Resolution 19 November 2024, 482/2024/R/gas.

2023.

According to preliminary data released by MASE, Italy imported 2.4 G(m^3) less natural gas in 2024 compared to 2023: gross imports fell to 59.4 G(m^3) from 61.8 G(m^3) in 2023, marking a 3.9% decrease. This marks the third consecutive decrease, bringing the level of gross gas imports close to that of 2014 (55.8 G(m^3)), which represents the lowest point in the past 15 years. The most significant decline was observed in the volumes of North African gas (from Algeria and Libya). Significant reductions have also been recorded from other areas: compared to 2023, we have imported less from Northern Europe (from Norway and the Netherlands) and from the group of countries classified as "Others", which includes regions with more recent relations with Italy, such as Nigeria, Mozambique, Congo, Equatorial Guinea, and others. In contrast, we have imported more gas from Azerbaijan, Qatar, and Austrian storage facilities that transit through the Tarvisio point (and that are statistically attributed to Russia). Last year, imports of liquefied natural gas also decreased, despite its growing importance in recent years for Italian and European supplies.

According to the (provisional) data gathered through the Authority's annual survey of the energy sectors, Italy imported 57.6 G(m^3) in 2024, slightly less than the 57.7 imported in 2023. Therefore, the decrease is smaller than the one estimated in the data from the Ministry of Environment and Energy Security. Approximately 8% of the total gas sourced from abroad, around 4.6 G(m^3), was purchased through European exchanges.

There are five corporate groups each holding more than 5% of the total gas supplied (either produced or imported): Eni, Edison, Azerbaijan Gas Supply Company Limited, Royal Dutch Shell, and Enel (the same as in 2023); together, they imported 44 of the 57.6 G(m^3) of foreign gas entering the Italian market. The five groups are also the only ones each holding more than 5% of the available gas (which, besides imports and production, also includes gas in storage), collectively covering 77.8% of it - a figure slightly higher than that of the supplied gas.

The import contracts (both annual and multi-year) active in 2024 show an increase in their **remaining duration** compared to last year: 50.5% of the contracts will expire within the next five years (compared to 46% in 2023), and 59% will reach their end within the next ten years (up from 52.1%). Of the contracts in force today, 14.8% have a residual life of more than 15 years. This share has slightly increased compared to last year, when it was 13.8%.

In 2024, **total demand in the gas sector**, defined as the sum of gas volumes sold on the wholesale market (including resales), the retail market, and self-consumption, increased by 6.5%, reaching 286.5 G(m^3). This was mainly due to a strong recovery in gas traded on the wholesale market and, to a lesser extent, in the retail market.

The **wholesale market** handled 228.4 G(m^3), up 7.6% compared to 2023, while the retail market moved 42.8 G(m^3), registered a 1.6% decrease compared to 2022. Self-consumption, meanwhile, remained virtually unchanged at just over 12 G(m^3).

In 2024, 301 **companies** operated in the wholesale market. In 2024, the number of companies operating in the wholesale market remained essentially unchanged compared to 2023 (although it is important to note that the operator count- based on those responding to the Annual Survey - is the figure most affected by varying response rates year to year), while the volume of gas sold, as mentioned earlier, increased by 16 G(m^3), resulting in an 11% rise in the average unit sales volume, from 682 to 759 M(m^3). The **level of concentration** in this market has remained largely unchanged: the combined share of the top three companies (Shell Energy Europe, Engie Global Markets, and Eni) was 23.6%, compared to 25.9% in 2023. The cumulative share of the top five companies (the three mentioned earlier plus Edison and Eni Global Energy Markets) decreased from 37.0% to 35.1%. The

HHI index for the wholesale market alone has marginally fallen from 442 to 427.

The main trading platform in the wholesale market in Italy is the **Virtual Trading Point** (PSV), operated by the transmission network operator, Snam Rete Gas. Alienations that can be registered are both those that take place through bilateral contracts and those that take place within the regulated markets managed by the GME. In 2024, 322 entities traded, alienated and acquired gas at the PSV. Only 54 qualified as standalone traders, since they were not transport system users. The number of PSV subscribers slightly increased compared to the previous year, reaching 387 units against 374 in 2023 (+3%).

OTC volumes increased by 8.1%, rising from 113.9 to 123 G(m^3); volumes with mandatory delivery at the PSV also saw a sharp rise, climbing from 28 to 183 M(m^3) in one year. Therefore, the total deliveries at the PSV increased by 8.2% compared to 2023, rising from 114 to 123 G(m^3). Volumes from market trades also showed a marked increase (+13.5%), fully recovering the decline of the previous year. Within the **gas exchange markets**, managed by GME, a total volume of 181.7 TWh was traded in 2024, marking an increase of 17% compared to 2023.

Liquidity in the **Day-Ahead Market** (MGP) increased to 76%, up 7% compared to 2023, driven by a significant rise in traded volumes (137 TWh; +29% over 2023). The largest share of these volumes (82%; +8%) was traded via continuous trading (111.7 TWh; +42%). The monthly trend also showed higher levels in the last two months of the year. The AGS segment of the MGP recorded trades totalling 25.3 TWh, down by 10% compared to 2023.

The share of volumes traded in the **Intra-day Market** decreased to 22% (down from 29% in 2023), totalling 40.2 TWh, which is a 10% decline compared to 2023. Continuous trading volumes (39.2 TWh; -12%) remained predominant, accounting for 97% of the entire market, while in the AGS segment the volumes were slightly less marginal than the previous year (1 TWh). Trading in the Gas Storage Market (MGS) also increased, with volumes reaching 3.5 TWh (+7%), while - as in previous years - Snam did not conduct any sessions in the market for locational products. Regarding the forward products traded on the MT-GAS, there were no recorded trades, while allocations in the "Royalties" sector of the P-GAS amounted to 1 TWh (+52%). Lastly, 42 slots were allocated on the Regasification Capacity Platform (PAR), which is 20 fewer than in 2023, for a total of 1.7 M(m^3) liquefied gas (-69%).

The **prices recorded on the various platforms** can be estimated at an annual average of approximately €36.54 per MWh, representing a 13% decrease from 2023 and aligning with the average annual price of over-the-counter trades at the PSV (€36.59/MWh), which also declined by 15% year on year. In particular, the average prices of the two continuous trading segments of the M-GAS, at €36.49/MWh for the MGP and €36.60/MWh for the MI respectively, showed an intra-annual trend that mirrors that of the PSV price.

The provisional results of the Annual Survey showed that **just under 45.7 G(m^3) were sold in the retail market** in 2024, to which must be added 243 M(m^3) supplied through last resort and default services. Overall, therefore, the value of final sales amounted to just under 46 G(m^3), representing an increase of 0.7 G(m^3) compared to 2023. However, to have a comparable figure with the final gas consumption published by the Ministry of the Environment and Energy Security, and discussed in the previous pages, it is necessary to include the volumes related to self-consumption, 12.2 G(m^3), which bring the total consumption reported in the Annual Survey to 58.1 G(m^3), a value close to the 60.3 G(m^3) from the Ministry's data. As usual, there are differences between the two sources, which classify the volumes of gas handled during the year differently. The Annual Survey data thus showed a slight recovery in total consumption levels in 2024, with an increase of 1.2% compared to 2023.

As in 2023, the **number of active suppliers** in the retail market declined again in 2024, dropping to

475; meanwhile, since gas volumes sold increased, the average unit sales volume saw a significant rise - from 92 to 97 M(m^3), a 5.5% increase. In 2024, 5.5% of active companies in the final market, that is 26 out of 475, sold over 300 M(m^3); collectively, these companies accounted for 83.9% of all gas purchased in the retail market.

Analysing the sales performance of corporate groups, instead of individual companies, allows a more accurate assessment of market shares and the **level of concentration in the retail market.** In 2024, the Eni group regained second place, surpassing the Enel group in total sales volumes. However, the data show that the sales volumes of the two competing groups are very close: indeed, there is a difference of 405 M(m^3) between Eni's and Enel's volumes. The market shares are therefore quite similar and have both declined compared to 2023: 12% for the Eni group (down from 13.3% in 2023) and 11.2% for the Enel group (down from 13.1% in 2023). Conversely, the Edison group has distanced itself further, with its share rising from 13.7% in 2023 to 15.5% in 2024, thanks to a particularly significant increase in sales volumes (16.4%). In contrast, the sales volumes of Eni and Enel have decreased by 5.6% and 13.9% respectively. Given the narrowing gap between the top three groups and the decline in two of their three market shares, the concentration level in the final gas sales market in 2024 slightly decreased, though it varied across different customer types. Using the measures calculated on the volumes sold, the number of groups holding more than 5% of the total market share has risen to five. Moreover, in 2024, the top three groups control 43.9%, while in 2023 the share was 45.3%. The Herfindahl-Hirschman Index (HHI) calculated on the sales market was 859, lower, therefore, than the 2023 index, which was 894. However, the level of the index remained well below the 1,000 threshold below which concentration is normally judged to be poor. The highest concentration is found in sales to industry and electricity generation, where the C3 exceeds 50%, while the lowest is observed in sales to apartment buildings and public service customers.

In 2024, just over 58 billion cubic metres were sold - of which 12 billion were for self-consumption and nearly 46 billion for sale - to 21.7 million customers (redelivery points). Overall, compared to 2023, **end market gas sales** increased by 2.9%; specifically, sales mainly related to the industrial and electricity generation sectors remained substantially stable (0.3%), sales in the free market, totalling 44.2 G(m^3), showed a rise of 6.8%, while sales under the vulnerability protection service and last-resort services, amounting to 1.7 G(m^3), more than halved. Domestic sector consumption (households and condominiums) increased by 1.1%, from 13.5 to 13.6 G(m^3), while consumption in the productive sectors (industry and thermoelectric generation) rose from 36.6 to 37.5 G(m^3), marking a 2.5% increase. Tertiary sector consumption (including trade, services, and public service activities) grew by 4.3%, rising from 6.7 to 7 G(m^3). Considering sales in the strict sense and thus excluding self-consumption, 96.3% of the gas is purchased on the free market, with the remaining 3.7% acquired through the vulnerability protection and last-resort services. In terms of customers, on the other hand, 87.7% purchase from the free market.

Considering only the **household sector**, it can be noted that in 2024 the share of volumes purchased on the free market reached 87.4% for households and 98.7% for condominiums (both figures are calculated on total sales net of self-consumption).

In terms of withdrawal points, in 2024 the share of households benefiting from the vulnerability protection service is 13%. The breakdown of sales to the end market (net of self-consumption) by consumption sector and customer size shows that on average the class with annual consumption up to 5,000 m3 buys 28% of all gas sold in the retail market.

Based on data provided by transport operators and information from the SII, the **switching rate** - that is, the percentage of delivery points that changed supplier in the calendar year 2024 - was 18.7% overall, or 23.5% when measured according to the consumption of customers who switched (with

percentages rising across all customer groups). Consumer switching in the household sector increased by four percentage points in 2024: around 4 million customers changed supplier at least once, representing 18.6% of the total household customer base and corresponding to 24.1% of the volume share. An equally large proportion, amounting to 24.1%, of domestic-use condominiums switched to a different supplier, corresponding to 30% of the consumption volume in that sector. This customer group lost the right to access the protection service already in 2023, and indeed, the supplier switching rate remained high, although it decreased compared to 2023.

Also in the gas sector, as already mentioned for electricity, the Annual Survey asked suppliers a number of questions aimed at assessing the quantity, types and modalities of offers that companies make available to customers who have chosen to supply in the free market.

The **average number of commercial offers** that each gas supplier is able to propose to their potential customers is 20.5 for household customers (9.2 available online only), 8.8 for household-use condominiums (2.6 online only), and 15.7 for non-household customers (3.5 online only). Despite the ongoing digitalisation process, family interest in **online offers** remains limited. Only 9.7% of household customers have indeed chosen to subscribe to an offer through digital channels. The share is higher among non-household customers, where it stands at 20.6%, while it remains particularly low in the segment of residential buildings with household use, with a penetration rate of 2% (data substantially unchanged compared to 2023).

Regarding the preferred **price type**, it was found that the percentage of household customers who signed a fixed-price contract in the free market (where the price does not change for at least one year from the time of signing) has significantly decreased compared to the previous year, dropping from 44% to 28.6%. For residential condominiums, the variable pricing model, meaning the price changes according to the times and methods established by the contract itself, continues to be widely prevalent, representing 93.6% of the contracts concluded. Even among non-household customers, this type is dominant, with a share of 85.7%.

Looking at the supply cost component of these contracts, it is evident that the price differential in favour of variable price contracts is particularly high for domestic customers (29.4 c€/m^3), quite significant for condominiums (23.1 c€/m^3), and more modest for non-household customers (6.9 c€/m^3).

For all customer types, the most frequent price **indexation mode** in variable-price contracts is the one linked to the PSV price trend, which, however, is not the one with the most advantageous economic conditions. Subsequently, the most popular type of variable price chosen by household customers was the one based on price trends with a discount applied to one of the tariff components set by the Authority for the vulnerability protection service. This option is the most favourable among the different indexing methods, featuring a supply component price that is 19% below the average.

43.5% of household customers have signed a contract that includes a **rebate or a discount**; lower percentages are found among other customers (21.1% for condominiums and 23.4% for non-household clients).

The spread of **additional services** in fixed-price gas supply contracts varies significantly depending on the type of customer. Among household customers, only 18.2% are without at least one additional service. Conversely, the proportion of contracts without additional services is considerably higher among residential condominiums and non-household customers. In variable price contracts, the share of household customers with contracts without additional services rises to 52.3%. With reference to household customers, it is noted that, among fixed-price contracts that include at least one additional service, there is a clear preference for those that provide participation in a points-

based loyalty programme (55.7%). Regarding the price of such contracts – measured based on the component related to supply cost and sales – it is observed that the most cost-effective contract is the one associated with benefits on the purchase of other goods or services, chosen, however, by a marginal share of customers (1.8%). Among household customers who subscribe to variable-price contracts with additional services - amounting to 47.7% overall - the same preferences observed for fixed-price contracts are confirmed: participation in a points programme (26.5%) and a guarantee of 100% "green" energy (11.3%).

An analysis of the data collected in the *Annual survey* shows that last year, the **average gas price** net of taxes (weighted by quantities sold), charged by sales companies to final customers was 71.1 c€/m^3. This reduction, resulting from additional declines in the wholesale markets, does not affect all customer categories and, where present, varies significantly across different size classes. Its maximum value (-22.2%) is observed for customers with consumption between 2 and 20 million m3/year.

The **price trend** shows a breakdown of customers with domestic usage (households and, until 2023, condominiums) according to the two main contractual conditions under which supply was provided, namely the protection service (which from 2024 is reserved for vulnerable customers only) and the free market, detailed by size class and trend over the past decade. The protection service shows lower values in all years and across both size classes, except for the smallest class (up to 5,000 m^3 per year) and only in 2022. In that year, the free market showed a price lower than the protection service (-17.6%), due to the widespread use in that market of fixed-price contracts which, in the short term, limited the pass-through to final customers of the sharp rise in wholesale gas prices following the outbreak of the Russia-Ukraine conflict. This transfer continued in both 2023 and 2024: in each year, there was an increase of around 10 c€/m^3, while the protection service initially fell by as much as 33 c€/m^3, only partially recovered by an 8 c€/m^3 rise in the last year. This trend has resulted in the free market becoming once again clearly more expensive: over the past two years, its price has consistently been between 27% and 28% higher than that of the protection service.

From the analysis based on data provided by 389 gas suppliers in 2024, companies serving both the regulated and free natural gas markets received a total of 202,784 written complaints, 127,311 information requests, 7,775 invoicing corrections, and 274 duplicate billing corrections.

The **average actual response times for handling complaints and invoicing corrections** stand at 16.3 and 32.8 calendar days respectively, both below the minimum standards set by the Authority (30 and 60 days respectively).

The average actual response time for **enquires**, at 6.25 calendar days, is instead considerably below the general standard.

In terms of **rectifying double billing**, the average actual response time is 31.93 calendar days, compared to the standard of 20 calendar days.

The cases of non-compliance with the standards set for commercial quality performance in the gas sales sector, which entitled customers to receive **compensation**, totalled 21,134, representing a 4.65% decrease compared to the previous year. Similarly to the electricity sector, the majority of compensations in the gas sector are due to failure to meet the standards for responding to complaints from household customers (95.37%). The market segment with the highest number of compensations overall is that of households in the free market, accounting for 74.03%.

In 2024, 82 suppliers reported serving 1,682,351 customers with dual fuel contracts. These customers submitted 30,355 written complaints, a decrease of 2.72% compared to the previous year, and 31,525 written requests for information, a decrease of 34.9%. Bill and double-bill adjustments amounted to 1,549 (-26.9%) and 54 (+45.9%) respectively. Overall, for customers with dual fuel contracts, there

were 3,439 instances of non-compliance with standards that led to the right to receive an automatic compensation on the bill for issues related to the commercial quality of sales. 93.5% of the non-compliance cases are attributable to responses to customer complaints exceeding the standards in force.

Customer 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 resolution of problems and disputes that may arise between customer and service provider (second level). The **Energy and Environment Consumer Help Desk** and the **Conciliation Service** are operated on behalf of ARERA by the *Acquirente Unico*. The Help Desk provides answers to calls to the call centre, written requests for information, requests to activate special information procedures and second-level complaints. In 2023, the Help Desk and the Conciliation Service recorded a marked increase in incoming volumes:

A noticeable reduction in total incoming written and telephone requests was observed in 2024, in contrast to the trend seen in 2023. In fact, in 2024 the **call center** received 1,122,521 calls during service hours, a decrease of 27% compared to 2023. The average duration of calls to the **call center** was 233 seconds, down from 252 seconds in 2023. Almost all the calls handled by the call centre concerned the electricity and gas sectors (97% of the total). The most frequently discussed topic in calls received by the cal centre was the social bonus (42%), followed by dispute resolution procedures (26%), while 14% concerned the gradual standard offer service and vulnerability in the energy sectors.

The **written requests for information** related to the energy sectors received by the Help Desk amounted to 48,658, showing a decrease compared to the previous year. In this case too, the vast majority of information requests concern the social bonus (24%), followed by the market (17%), billing (15%) and contracts (13%). **Special information procedures** make it possible to provide information without the need for assistance of the Help Desk staff. They are operational as of 1 January 2017 only for some specific topics in the energy sectors. In 2024, written requests that led to the initiation of a special information procedure numbered 51,423, marking a 14% increase compared to 2023; 62% involved the electricity sector, 26% the gas sector, and 12% both sectors.

Activities relating to the second level of the protection system concern the **resolution of issues and disputes** arising in the relationship between the customer and the regulated service supplier. They can be settled through the special settlement procedures of the Help Desk or through conciliation procedures. The latter may be brought before the Authority Conciliation Service or ADR entities registered on the Authority's special list.

Similarly to what happens for special information procedures, also for **special resolution procedures**, the Help Desk accesses information encoded in centralised databases. Unlike information procedures, special resolution procedures allow the outcome of the dispute to be determined. They imply assistance of the Help Desk staff, in case further information is needed to consult databases, or to verify the correct fulfilment of the regulation following the resolution of the dispute. In 2024, the Help Desk received 17,326 requests to initiate resolution procedures, representing a 45% decrease compared to 2023. The procedure concerning the social bonus remains the most frequently used, accounting for 82%, a decrease of 11.5 percentage points compared to 2023. The sector most affected by the special settlement procedures was electricity, accounting for nearly half of the requests (49%, the same as in 2023), while the gas sector recorded a slight increase

(+1%), reaching 30%. In the other cases, the issue involved both sectors or dual fuel customers. The household sector was involved in 94% of the special settlement procedures, and 85% of the requests were submitted by end customers without the assistance of delegates. The principal method for triggering these procedures was via email, used in 62% of cases.

The **Authority's Conciliation Service** allows electricity and gas end customers to resolve disputes with operators online when complaints go unanswered or are unsatisfactorily addressed. The procedure, conducted in the presence of an impartial third-party conciliator, can conclude with an agreement that holds the binding effect of a settlement under Article 1965 of the Civil Code. Furthermore, for disputes within sectors regulated by the Authority, an attempt at conciliation is a mandatory prerequisite before taking the matter to court, except in cases involving tax, fiscal matters, or urgent decisions. In 2024, customers and end users in the energy sectors submitted 29,180 requests to the Conciliation Service, approximately 480 more than the previous year (+2%). With a 40% share (13,954 requests), the sector that recorded the highest number of applications in 2024 was electricity, although it fell by 9% compared to 2023; gas followed with 33% (+7%, 11,373 requests). Dual fuel customers submitted 3,636 requests, accounting for 11% of the total (down 1%). Regarding the outcome of the requests received by the Service, the agreement rate for procedures concluded in 2024 was 63% (compared to 70% in 2023); the parties took an average of 57 calendar days to reach an agreement, one day longer than in 2023.

As an alternative to ARERA's Conciliation Service, the final customer may make a compulsory attempt at conciliation for judicial purposes also with recourse to other parties. ARERA, in implementation of the rules, established in December 2015 the **List of Organisations entrusted to handle ADR (Alternative Dispute Resolution procedures)**. At 31 March 2024, 27 ADR entities were registered in the Authority's List. The information transmitted by ADR bodies reveals that in 2024 there is a significant increase in the total number of applications received, compared to the previous year (+37%). In particular, out of a total of 2,300 applications, 1,956 concerned disputes arising in the electricity, gas and dual fuel customer sectors. The most common subject of disputes in the energy sector is the prominence of “contracts” (53%).

Since 2009, a protection mechanism known as the social bonus system has been in place to reduce electricity and gas costs for household customers facing economic hardship or health issues. To bridge the gap between those eligible and actual beneficiaries, from 1 January 2021 the bonuses have been automatically granted based on the equivalent economic status indicator (ISEE)[13], without the need to submit an application, as established by Decree-Law No. 124 of 26 October 2019. In 2024, due to the continued rise in energy commodity prices, the budget law provided for an additional extraordinary contribution during the first three months of the year for household customers entitled to the electricity social bonus. The Authority therefore revised the calculation criteria for the bonus, reverting to those in effect up to the third quarter of 2021, based on the expected average expenditure for 2024, and supplemented the amount with the extraordinary contribution. For the remaining months of 2024, the extraordinary measures that expanded the pool of beneficiaries were not renewed: the ISEE threshold has reverted to the standard value of €9,530. However, households that were already granted the benefit by 31 December 2023 continued to receive the bonus, provided they had an ISEE of up to €15,000, or up to €20,000 in the case of at least four dependent children. In 2024, over 2.8 million families benefited from the **electricity social bonus**; however, regulatory changes reduced the number of beneficiaries by 38.8% compared to the

[13] Equivalent Economic Situation Indicator: it is the tool used to measure the economic condition of families in Italy. It is an indicator that takes into account income, assets and the characteristics of a household (in terms of size and type).

previous year. The total amount disbursed (estimated) for direct electricity bonuses was approximately €360 million. In 2024, the number of families benefiting from the **social bonus for gas supplies** also decreased by 43.1% compared to the previous year due to regulatory changes. More than 1.7 million families received the social gas bonus; the total amount disbursed for direct gas bonuses was approximately €93 million. Alongside the social bonus to ease the economic hardship of families in Italy, there is also a bonus to assist families using electrical devices for life support (**physical hardship bonus**). In 2024, 77,175 families benefited from the bonus for the use of electrical devices for life support, marking a 16% increase compared to the previous year.

The **phasing out of price protections** was completed at the end of 2023 for the natural gas sector and in June 2024 for the electricity sector. Throughout 2024, the Authority continued its efforts to support end consumers during the transition away from price protections. As established by ARERA, therefore, the communications included in the bills continued to inform customers that changing contract or supplier is simple and free of charge and that continuity of service is guaranteed; they also provided the elements that should prompt the customer to make use of the tools aimed at making an informed and aware choice, such as the "Portale Consumi", the "Portale Offerte luce e gas" and the PLACET offers.

In 2024, the Authority approved updates and improvements to the pre-contractual and contractual regulation under the **Code of Business Conduct** to benefit end customers of electricity and natural gas. These relate to sellers' obligations in the event of contract changes; rules on telemarketing and teleselling; as well as the harmonisation of regulations concerning contract modifications for PLACET (free price offers under uniform contractual conditions) offers and the vulnerability protection service. At the end of 2023, continuing into 2024, the Authority launched a comprehensive review of **Bill 2.0**, aimed at improving its simplicity, clarity, and consistency; given the importance of this process and the need to ensure broad stakeholder participation. The new regulation will come into force on 1 July 2025 for low voltage electricity customers and for gas customers (domestic, condominiums, public administrations, and other uses) with annual consumption up to 200,000 Sm^3.

The **Portale Consumi** is continuously evolving, aimed both at monitoring and improving its performance and at implementing new features; as in previous years, additional functionalities were made available throughout 2024. A procedure has been initiated to allow end customers to authorise uniquely designated third parties to access their consumption data through the Consumption Portal, in compliance with privacy regulations.

As of 31 December 2024, the **Portale Offerte** database contained 12,489 offers, including 9,935 from the free market, 2,554 PLACET offers, and 722 offers for which it is not possible to estimate the annual expenditure due to the unique features and innovations in their pricing formulas. In total, 7,144 offers are available for the electricity sector, including 5,303 for natural gas and 42 for dual fuel. In the electricity sector, 41% of the offers aimed at household customers were fixed price, with a similar percentage (40.7%) for non-household customers. Similarly for the natural gas sector, the available offers are mainly variable price. Households account for 71.5% of the available offers, condominiums for 68.1% and non-households for 70%.

2.1.2 Implementation of the Clean Energy Package

Law No. 53 of 22 April 2021 is the ruling that defined the principles and guiding criteria for the delegation of powers to the Government for the implementation of the Clean Energy Package

standards in the Italian legal system, with particular reference:

- to Directive 2018/2001/EU on the promotion of the use of energy from renewable energy resources (art. 5);
- to Directive 2019/944/EU concerning common rules for the internal market in 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 in electricity (recast), and Regulation (EU) 941/2019, on risk preparedness in the electricity sector and repealing Directive 2005/89/EC (art. 19).

In implementation of this law, the following were then enacted: Legislative Decree No. 199 of 8 November 2021, on the 'Implementation of Directive (EU) 2018/2001 on the promotion of the use of energy from renewable sources' (so-called Decree Red II); Legislative Decree No. 210 of 8 November 2021 on 'Implementation of EU Directive 2019/944 concerning common rules for the internal market in electricity and amending Directive 2012/27/EU, as well as laying down provisions for the adaptation of national legislation to the provisions of EU Regulation 943/2019 on the internal market in electricity and EU Regulation 941/2019 on risk preparedness in the electricity sector and repealing Directive 2005/89/EC' and other decrees transposing European directives.

At the beginning of 2020, the **Energy and Climate Integrated National Plan (PNIEC)** was also published, which was sent to the European Commission by the Ministry of Economic Development in agreement with the Ministry of Environment and the 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, which is extensively described in the Annual Report 2020 (to which we refer) contains 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 pursue the goals of integrating the electrification of final consumption with the rational development of networks, overcoming regulatory barriers, and implementing initiatives supporting electric mobility and progressive decarbonisation already identified by the Authority in previous years, the Authority established technical working groups, called “Focus Groups on Electric Mobility,” in the early months of 2024, involving key stakeholders from the electricity distribution and sales sectors as well as electric mobility. In this context, the potential effectiveness and implementation methods of various possible tariff interventions applicable to electric vehicle charging in publicly accessible locations were examined in detail. Within the same technical working groups, the database developed and provided by ARERA was also presented to analyse the characteristics of typical consumption profiles at electrical connection points dedicated solely to powering electric vehicle charging stations.

On 30 April 2024, in its memorandum 161/2024/I/com regarding the proposed update of the PNIEC, the Authority also made several observations on electric mobility issues. Regulation (EU) 1804/2023, referred to as the “Alternative Fuels Infrastructures Regulation” (AFIR), is thought to establish ambitious objectives for the expansion of the charging network and, by extension, its incorporation into the national electricity grid. It was also highlighted that any public subsidies aimed at reducing charging costs in publicly accessible locations should be directed straight to motorists, rather than being borne by the electricity tariffs paid by charging point operators, and should focus on those facing the greatest barriers to purchasing an electric vehicle - whether social factors (such as income conditions) or other aspects related to urban characteristics, like the lack of private charging points.

The aforementioned AFIR regulation has assigned the energy regulatory authorities of each EU

member state the task of publishing the results of an assessment on the "potential contribution of bidirectional charging to reducing costs for users and the system, as well as increasing the share of renewable electricity in the power system". To this end, with the publication of report 417/2024/R/eel on 17 October 2024 - also supported by entities and associations participating in the focus groups on electric mobility - ARERA explained that bidirectional charging of electric vehicles still requires time to develop sufficient maturity for large-scale deployment and to have a measurable impact on the operation of the national electricity system. This maturation process involves a variety of aspects, not only regulatory and technological but also economic and social; among these is the fact that the economic rationale for these solutions, based on increasingly significant price differentials and flexibility needs, will progressively emerge alongside the growth of renewables and the advancement of the energy transition, which will place greater loads on the distribution network (resulting in a higher demand from distributors to procure upward services).

In 2023, one of the measures closely linked to the Clean Energy Package concerned the approval of the new Integrated Text on Electricity Dispatching, or TIDE (described in paragraph 3.1.5 of the Annual Report 2024), which is set to take effect from 1 January 2025 - one and a half years after its publication - to allow all relevant parties (primarily Terna and GME) to implement the organisational changes required by the new regulatory framework.

During 2024, however, regulatory developments prompted the Authority to update the TIDE even before it came into effect: specifically, with the resolution of 23 July 2024, 304/2024/R/eel, version 2 of the TIDE was approved, outlining the procedures for phasing out the Single National Price (PUN) from 1 January 2025 in accordance with the provisions of the ministerial decree of 18 April 2024 (see paragraph 3.1.5).