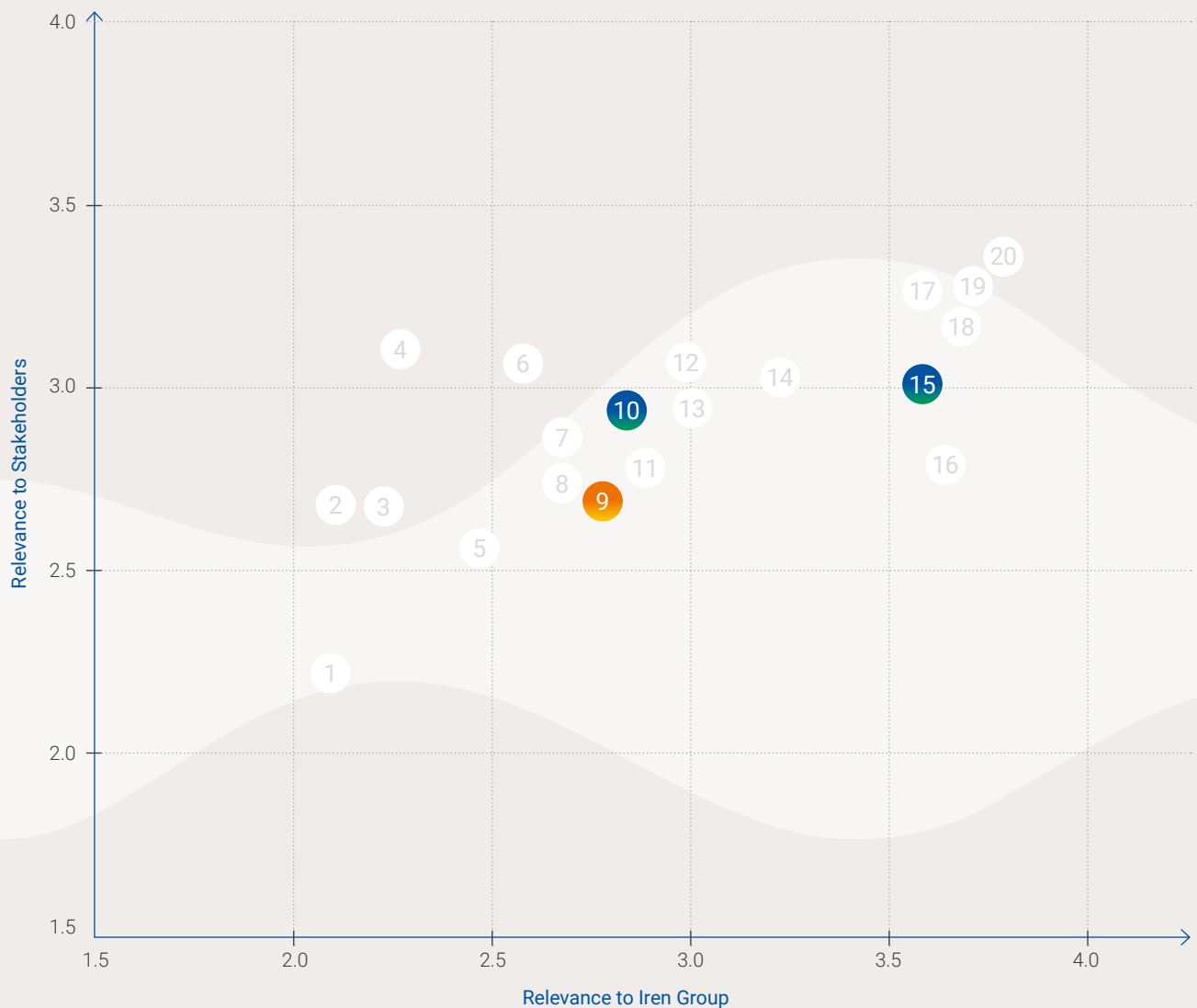




Service quality



Priority topics



- 10** Efficient, reliable and safe management of processes and infrastructures



- 9** Effective and transparent dialogue and communication with stakeholders



- 15** Service quality and customer orientation



Our customers

[GRI 102-7, 206-1, 406-1, 416-2, 417-2, 417-3, 418-1, G4-EU3]

	2021	2020	2019
Retail electricity customers	1,048,648	970,663	910,830
Retail gas customers ¹	954,419	906,152	904,971
Residents served by district heating ²	595,772	585,594	575,063
Integrated water service residents served	2,748,268	2,765,363	2,791,927
Integrated water service municipalities served	238	241	242
Waste management services residents served	2,978,164	3,061,547	3,057,857
Waste management services municipalities served	300	307	297

¹ Customer growth in 2021 is also due to the acquisition of Sidiren.

² The 2020 and 2019 data has been restated and recalculated using the new estimation criteria, adopted since 2021, based on residential volumes only.

Relations with customers

The customer is at the centre of the attention and daily work of Iren Group. Customer satisfaction, together with a high-quality level of service, are pillars that support Iren's growth strategies. In relations with customers, the Group has transformed its role from a simple supplier to an expert in energy-related services, innovative products for the home, solutions for electric mobility and energy efficiency, adopting a new relationship model that evolves over time and adapts to different lifestyles, offering personalised experiences and services.

In 2021, despite the continuation of the Covid-19 emergency, the physical points of contact always remained open and adopted specific measures: the use of personal protective equipment (PPE), limited access to the premises, spacing, protective plexiglass barriers, digital systems for managing queues and appointments, disinfectant dispensers, sanitisation of the premises and contact tracing of visitors.

At the same time, the Group has strengthened and promoted the use of digital channels, such as the website [irenlucegas.it](https://www.irenlucegas.it) and the IrenYou App – from which it is possible to carry out operations related to the management of contracts, communication of the meter reading, paying bills, etc. – or the Facebook page “Iren luce gas e servizi” (Iren light gas and services) to have a first response to the most straightforward requests. In addition, the UFirst App always remained active to schedule appointments with offices and avoid queues and crowds.

To families and businesses in an objective situation of economic difficulty, Iren Group has offered the possibility to request the postponement of the deadline for payment of bills or to resort to interest-free instalments to meet the payment of gas, electricity, water, district heating.

Communication with customers

Iren Group considers priority communication related to its development plans, products and services, aiming to provide timely and transparent information through several channels.

Also in 2021, there was a growth in followers on the Group's social channels and visitors to its websites, and product communication campaigns continued. To support the commercial action beyond the legacy regions, an important communication campaign was undertaken to position *Iren luce gas e servizi* as a national brand, through multi-subject television commercials on all the major national broadcasters. TV campaigns were flanked by local press campaigns, billboards and posters, dedicated to products and offers. In November, in particular, an important poster campaign in the legacy regions was dedicated to the *Fisso&Basso* (Fixed & Low) electricity offer reserved for customers coming from protected market. In addition, releases have been scheduled in the most important local newspapers with advertising pages. Investments in digitalization have made it possible to promote and support bundled offerings – *Più Green, Più Vantaggi, più Regali e più Smart* (Greener, More Benefits, More Gifts and Smarter) – across a wider territory. A press campaign launched in legacy regions communicated the commitment to convert all household supplies to 100% green energy supplies at no additional cost.

In its relations with local and national media, the Group dedicated ample space to the topics of renewable energies, decarbonization, circular economy and related plant development, also with the aim of giving greater visibility to the investments and objectives of the Business Plan.

As a continuation of the restyling and rebranding activity launched in 2020, the activity of fitting out new stores and retail spaces in the territories (Sarzana, Turin, Grugliasco, Modena, Parma and Reggio Emilia) or the complete renovation of existing ones (Piacenza and Ponte Taro) was intensified. In the new exhibition areas, great space has been given to communication in digital format, with the aim of transmitting content more effectively and focusing attention on environmental issues. In addition to the opening of new stores, the Group continued to set up corners in shopping centres and new display areas focused on selling e-mobility and energy efficiency products.

Single toll-free number for commercial services: in the first half of 2021, there was an increase in incoming telephone traffic, consistent with 2020. In the second half of the year, contact volume began to decline back to pre-pandemic levels. Although the number of calls increased by 17% (3,165,349 customers spoke to an operator), the performance respected the targets required by ARERA, with an answer rate of 95.3% on incoming calls, with an average waiting time of 40 seconds.

Results that also depend on projects to improve the functionality of the telephone service in order to reduce waiting times: the systematic adoption of call back, which allows the customer to book a call from the call centre operator when the telephone line is busy, and the integration, in the reserved web area, of the virtual assistant, an automatic artificial intelligence channel able to understand the most common questions of the customer.

Waste management services customer care: the service provides information on waste collection and management services. All incoming contacts – telephone, e-mail and web – are tracked on a specific management system that allows subsequent calculation and statistical processing. Reports and requests are automatically transferred to the local waste management services. In 2021, the Group carried out a significant customer care activity aimed at increasing the value of the relationship with the customer and creating direct communication, with the objective of planning actions aimed at specific customer groups and communications modulated according to needs. There were 634,063 calls managed (+10% from 2020) and 124,059 were e-mail and web contacts (+22% from 2020).

The significant growth in contacts highlights the importance of customer care dedicated to waste management services in guiding citizens towards sorted waste collection, in gathering their requests and reports and in responding quickly and with effective solutions, accompanying them even in difficult times such as the last two years, marked by the pandemic emergency. Despite the increase in incoming calls, 83.2% of customers who contacted the service by phone spoke to an operator, with an average wait time of 54 seconds, in line with the 2020 figure.

Integrated customer relationship management (CRM) system: the new CRM system is integrated with many communication channels, allows all information relating to each customer interaction to be collected, recorded and managed. Provides for the sending of proactive multi-channel communications (e-mail, SMS, mail) that allow customers to receive notifications regarding their supplies and updates on the progress of their practices or requests, on an ongoing basis, until they are resolved.

Also introduced in 2021 is the possibility for customers to report receiving suspicious calls and/or visits from staff dedicated to promoting commercial products/services, in order to verify the reliability of the proposals received. The service, which has handled 1,270 reports, is available by e-mail, dedicated call centre, IrenYou App and form available on the website irenlucegas.it.

Counters, Iren space for customers: in 2021, the number of contacts at the counters increased, generated by the progressive improvement of the pandemic situation. The Group managed 541,513 customers (+40.3% compared to 386,090 in 2020) in the 92 physical points located throughout the territory.

Despite the critical nature of the period, the counters maintained the objective of continuous improvement in service quality and customer loyalty, together with the promotion and sale of services and products. The counter has consequently evolved into a place for advice, capitalising on the role of the human figure as a vehicle for trust, support and specialised experience.



The network of Iren Spaces is growing: 92 physical points for managing requests and providing professional advice to customers

In 2021, the number of counters increased – adding four counters managed in the province of Avellino by the company Sidiren and six new counters opened in Emilia-Romagna, Piedmont and Liguria – and there was an improvement in average waiting time, to which the scheduling of appointments through the UFirst App contributed, alongside management through the queue management systems already in place.

Counters activities	2021	2020 ¹	2019
Counters (no.)	92	82	68
Customers served (no.)	541,513	386,090	607,469
Average waiting time (min.)	5.3	5.5	12.0

¹ The figures are affected by the closure of the counters for two months due to the Covid-19 emergency and the reopening with access by appointment only.

Direct contact channels: interaction with condominium administrators and Consumers' Associations continued thanks to a direct channel, via a dedicated e-mail address, which handled around 1,100 requests (+120% compared to 2020). The Group also continued to promote meeting sessions, mainly with Consumers' Associations, to discuss issues of particular importance such as promotional activities, compliance with the Code of Business Conduct or free market contracting methods, the new tariff adjustment for the water sector (TICSI), the interpretation of the various hidden leak regulations and the new resolution on arrears.

Websites: in order to make the irenlucegas.it website more and more usable, the menus and contents have been revised, to simplify navigation and offer the customer more information in a clear and organised manner. The live chat has been optimised, introducing a robot equipped with artificial intelligence, to offer assistance in searching for information or in the path to purchase services and products. In order

to achieve greater visibility on the internet, with a good ranking in the major search engines, all pages of the site have been optimised. In 2021, the irenlucegas.it website obtained the A+ Energy Efficient Website rating, issued by Karma Metrix, a project that aims to measure the environmental impact of websites and increase their energy efficiency. In addition, on the irenlucegas.it website there is a guide that makes the electricity and gas bills clearer and more understandable for the customer, analysing in a simple way the single items.

Social networks: social channels (Facebook, Instagram, Twitter) are to all intents and purposes active and standard channels for customers, with constant monitoring of public comments and private messaging. Through these channels, the customer can make caring requests similar to commercial toll-free numbers, as well as obtain business information. The Group, thanks to a friendly and more informal approach, uses social channels to spread messages about the world of energy, services, regulations and environmental sustainability. The language used is simple, and quizzes or gamification modules are presented to encourage interaction with customers. Moreover, on the social channels, the Group tells its story more directly, through videos and photographs, and responds to customers through quick and easy interaction.

Mobile apps: IrenYou, accessible from smartphone or web, is the app that allows customers to directly manage the supply of electricity, gas, water, district heating and waste. Customers can download the bill online, check their consumption, communicate their meter reading and be informed about the Group's initiatives. Through IrenYou, improved in 2021, it is possible to use the IrenPay channel or credit card to pay bills through a bank account. In order to increase the attractiveness of IrenPay, a contest has been launched, aimed at customers, with a prize system through the Instant Win game. The digital campaign implemented in 2021 to support the dematerialisation of the paper bill incentivised the download of the IrenYou app. To this end, digital information initiatives continued, using video tutorials sent to customers, uploaded onto the Group's website and YouTube channel and projected onto monitors at local counters. There were 852,078 customers registered on IrenYou at the end of the year, up 86% from 2020.

Ecolren is the app that provides useful information on waste management services and on Acquapubblica (Public water) distributors in the area; the app features a photo-signalling system through which photos of abandoned waste, damaged bins and other anomalous situations can be taken and sent to Iren Group, accompanied by text and geographical coordinates.

IrenCollabora.it platform: this is a tool that was created within the context of the Iren Local Committees (see page 104), to establish an innovative channel of dialogue, discussion and participatory planning between Iren Group and the local community stakeholders. The platform collects project ideas to support and initiate environmental and social sustainability actions.

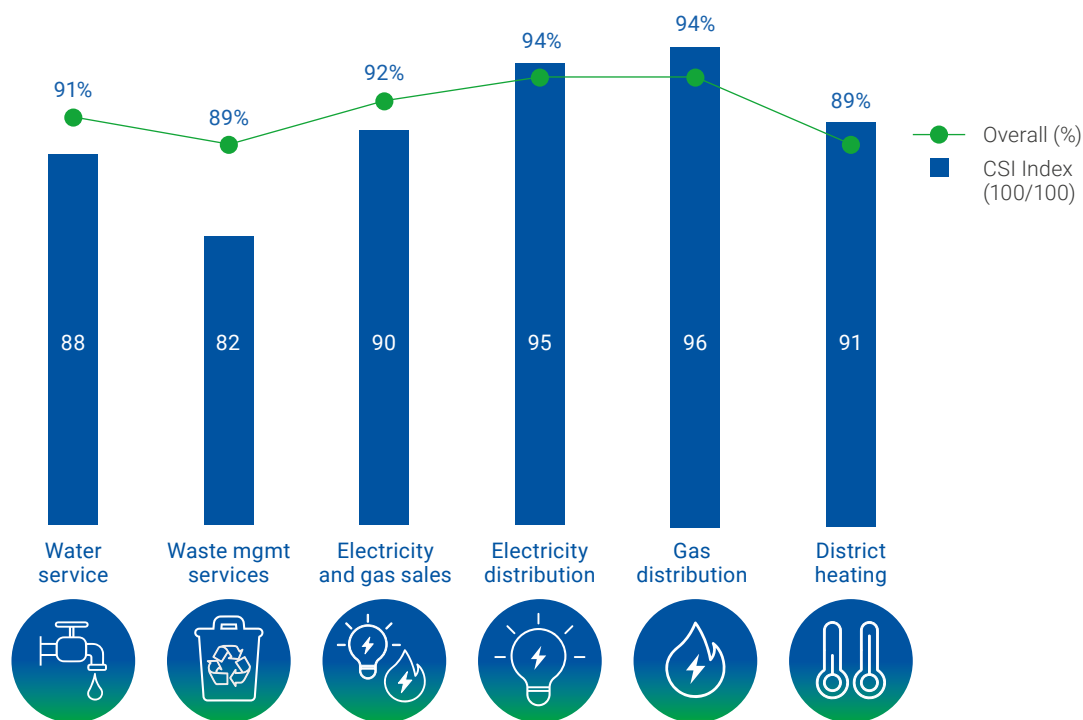
Customer satisfaction

Iren Group has structured an annual monitoring system to evaluate the quality of the services supplied in order to identify actions for communication and operational interventions for continuous improvement. Customer satisfaction surveys are assigned to the Corporate Social Responsibility and Local Committees Department, which deal with various Business Units for the definition of the survey areas and sharing the results achieved.

The customer satisfaction survey provides the following for the various sectors:

- an overall indicator (CSI index) that shows customer satisfaction in terms of the difference between perceived service value and expectations in regards various technical and relational aspects, which are weighted together;
- a synthetic overall satisfaction indicator that is monitored by directly asking the customer to highlight the overall perceived satisfaction level. Elements concerning the image and reputation of the Company are crucial in this question.

The 2021 survey shows overall positive results, in line with past surveys.



Complaints and breaches

The monitoring of complaints is not only an obligation in respect of the Regulatory Authorities but is also a fundamental management tool for identifying critical issues and defining and implementing corrective actions. The number and type of complaints is, therefore, a key focal point for the Group and, at the same time, attests to the heightened awareness of customers and the growing level of their expectations.

In 2021, Iren Group received a total of 42,582 complaints – of which 17,651 referred to waste management services, 19,538 to energy services (gas, electricity and district heating), and 5,393 to the integrated water service – an increase compared to 2020. With regard to the sale of electricity and gas, the increase was seen above all in billing and contracting issues, with an increase, in particular, in requests for the prescription of electricity and gas consumption, which more than doubled compared with last year. Moreover, the volume of direct contacts managed by the channel between Iren Mercato and the Consumers' Associations has doubled. On the other hand, complaints regarding billing adjustments and double billing fell sharply, following the fine-tuning and streamlining of the customer acquisition process. As regards the water service, the complaints mainly concerned prescription requests, while in the waste management services, in particular in the city of Turin, they were mainly related to the initial phase of transformation of the sorted waste

collection services from street to door-to-door and collection centres. Finally, during the year, there was an increase in complaints relating to district heating that mainly concerned billing and technical aspects of the service.

Following the entry into force of EU Regulation 2016/679 (GDPR) relating to the protection of personal data (privacy), the term complaint means requests submitted by natural persons concerned by the processing of personal data to the Data Protection Authority, in the face of a possible violation of the law by the data controller. In 2021, 18 complaints and one GDPR violation penalty in the amount of 1,428,085 Euro were registered. On the other hand, there were no reports of loss or theft of customer information.

In 2021, Iren Group did not record any violations regarding discriminatory practices towards customers or instances of non-compliance regarding the health and safety of products and services, marketing communications and promotion and sponsorship activities. Following on from the appeal submitted by Iren Mercato, the decision concerning the proceedings instigated by the Antitrust Authority in 2016 for alleged unfair sales practices regarding the acquisition of some electricity and gas customers is still pending. The judgement for damages following the action of a competitor against Iren Mercato for alleged anti-competitive conduct is also pending.

Quality, efficiency and safety in services

[GRI 102-7, 303-1, 416-1, G4-EU4, EU12, EU27, EU28, EU29]

Sale of energy services and innovative products

Iren Group proposes to its customers a complete offer portfolio which, starting from historically managed activities, incorporates new solutions and technologies to meet energy management needs and the well-being of residents, companies and Public Administrations. The service is managed through an efficient sales network, consisting of a widespread network of counters and call centres available to households and small businesses, as well as specialists dedicated to large companies, which are also able to support energy supply with consultancy and assistance activities on tariffs and contracts.

Commercial activities aimed at **retail customers** are aimed at building loyalty and developing new territorial areas. Sales activities are managed through various channels: teleselling and physical agencies where the utmost attention is paid to monitoring and controlling sales partners, through quality call, confirmation call and courtesy call processes carried out on 100% of contractual proposals, in order to guarantee a correct commercial approach that complies with current codes of conduct, procedures and company regulations. In addition to these, the web sales channel has seen a strong and progressive development in 2021, as well as an important increase in the range of offers concerning sustainable mobility products, home and personal services. The growth of the web channel is mainly due to the assistance and sales service through chat, thanks to the activation of an AI Bot (robots with artificial intelligence), among the most performing in the energy field, which is able to identify the most frequent topics and direct the customer towards the most appropriate information or towards human support, collecting in the meantime the information to offer a higher quality service.

In 2021, the Group initiated the conversion of electricity supplies to retail customers to **100% supplies from renewable sources** at no additional cost. Thanks to its production assets, Iren Group, in fact, can offer certified 100% green energy with a guarantee of origin, confirming its sustainability policies.

The commodity market scenario has been characterised, even in 2021, by extreme volatility. In this context, the Group has maintained, thanks to an effective portfolio of dedicated offers, its presence in the segment of **large energy customers**, supporting the promotion of green offers for the supply of electricity produced entirely from renewable sources, as well as the first pilot projects aimed at **off-setting CO₂ emissions from gas supplies** that allow business customers to promote their environmental commitment.

Marketing and caring campaigns

In 2021, the communication strategies identified as part of the social media project, launched in 2020, were consolidated, focusing on the following objectives: greater differentiation by channel and development of campaigns on a monthly basis aimed at brand awareness and lead generation in order to support the promotion of commodity products, Iren Plus and IrenGO products, aimed at potential customers.

Iren Mercato combined the advertising campaigns on the Google search engine (Google Ads) with SEO (Search Engine Optimization) activities, with the aim of improving the positioning of the website in the search engine results. Google Ads and SEO activities had a significant impact not only on sales, but also on Iren Mercato brand awareness. In addition, the optimisation of SEM (Search Engine Marketing) campaigns was fundamental to the development of the web channel, enabling a significant increase in the number of contracts to be recorded compared with the previous year.

Social media activity, in continuity with the path taken in previous years, continued with the collaboration of influencers and programming aimed at reaching a wider audience. In 2021, digital and physical events were organised, mainly in the industry, dedicated to the presentation of services and products related to electric mobility and energy efficiency.

2021 was also the year of the launch of the new loyalty program “Be Iren”, which aims to bring customers closer to the Group’s values, including environmental sustainability, with an engagement path through gamification.

Innovative products

The range of products made available in the Iren-GO and Iren Plus offers promotes the improvement of the customer’s health and safety, starting from home safety up to that of the person, and the quality of the urban environment.

Iren Plus

In 2021, the Group further implemented the range of **Iren Plus** offers: home services, home automation products, internet connection and energy and consumption efficiency products. The development of the range continued with the aim of offering high quality solutions, with a strong focus on the rationalisation of energy consumption and environmental sustainability.

The offer of Iren Plus products, such as photovoltaic systems, condensing boilers, air conditioners, fixtures and thermal coats, the environmental benefits of which are illustrated on page 146, was significantly strengthened in 2021 thanks to superbonus and ecobonus introduced by the Italian Legislative Decree no. 34/2020. Iren Plus products are offered through traditional sales channels, teleselling, physical agencies, e-commerce, call centres, counters, with dedicated display stands and, for complex products such as photovoltaic systems, boilers and thermal coats, through a sales network of agents.

In the field of **home automation**, the attention has been focused on the integration of the latest technological devices (Smart Kit) for the remote monitoring of the house: thanks to the dedicated app, customers can manage lighting, reducing costs for inefficiencies, check for gas or water leaks and verify external intrusions.



IrenGO

2021 was a year of growth and further consolidation of the business line dedicated to electric mobility **IrenGO**, which offers not only products and services, but also a complete consultancy to all customers (consumer, business and Public Administration). Thanks to partnerships and agreements with selected companies throughout Italy, a wide range of recharging infrastructures for private customers (wall boxes and columns) has been created. In addition, the Group has begun installing public charging infrastructures that will form an important part of the network of charging stations in our country. The most significant projects concern the Group's main areas of operation: Vercelli, where the project has been completed, Reggio Emilia, in the design phase, while in the cities of Turin, Parma, Genoa and La Spezia work has begun. In addition, an own management software platform has been created, through which it is possible to interact with the recharging systems and a mobile app for the provision of the service to end customers on the recharging stations and columns of the main operators on the Italian market.

Iren also offers electric cars for rent, and light mobility means such as pedal-assisted bicycles and electric kick scooters for the sustainable mobility of customers. In 2021, the partnership relationship with MiMoto was consolidated for the provision of scooter sharing service in Turin and Genoa and with Dott for the sharing of kick scooters in Turin and Rome.

The energy that powers the electric vehicles and charging systems is 100% certified renewable. To strengthen this element of coherence with sustainable mobility, formulas have been developed for the supply of electricity from renewable sources that the customer can combine directly with the electric mobility offers with a discount on the supply invoice, such as the "IrenGO Bonus Luce Verde" formula.

Finally, in 2021, Iren proposed to the Municipality of Genoa the *Valpolcevera* project, which consists in the conversion of a public transport line of traditional buses with full electric vehicles, with the installation of recharging infrastructures, the maintenance service and the supply of electric energy to recharge the vehicles.

Other innovative products

As part of the **home services**, several new products and offers have been launched:

- **Casa h24 plus**, an enrichment of the package of assistance services for the home provided by Covercare with the inclusion of an AXA Assistance insurance policy to cover the breakdown of household appliances;
- **Iren Revolution Luce Verde**, supply of electricity 100% from renewable sources at a single fixed price for all time slots, with the inclusion of an AXA Assistance insurance policy that guarantees 24-hour intervention by craftsmen for small breakdowns in the home and a bonus of 30 Euro on the electricity bill;
- **Iren 4 Zampe**, a combination of pet products and services and a complimentary veterinary surgery policy;
- **Iren casa online**, in partnership with Linkem, through which Iren Group proposes itself as the sole supplier for **internet connectivity** and electricity. The customer who subscribes to the offer has priority access to Linkem support. In 2021, the "Iren Fibra Pura" offering for fiber connectivity provided by Open Fiber was launched.



Business conduct

Communications to customers comply with the principles of **clarity** and **transparency** provided by the Code of Ethics and Code of Business Conduct, with the objective of placing the customer in a position to be able to make an informed choice.

Iren Group fully complies with the guidelines of the Code of Business Conduct for the sale of electricity and natural gas to end customers, formulated by ARERA, the Italian Regulatory Authority for Energy, Networks and Environment, which regulates sales outside of the commercial premises, i.e. activities of physical door-to-door companies and at commercial stands and teleselling and webselling to promote energy contracts.

As part of the contractual relationship, the Group requires external promotion companies (door-to-door companies, telesellers and websellers) to comply with the regulations and procedures of the sector and, more specifically, requires compliance with ARERA's Code of Business Conduct, the Consumer Code, as well as Iren Group's Code of Ethics, Model 231 and Quality Policy. In addition, it implements **control systems** on contract promotion that are also stricter compared to sector regulations.

The agency **selection process** takes place on the basis of a rigorous examination of the requirements, which must include:

- the possession of all permits, licences and registrations for conducting commercial agency activities (including registration in the National Register of Commercial Agents);
- the availability of a back office to monitor and train agents, conduct the preliminary verification of contracts acquired and verify customer awareness via check-calls;
- the knowledge of the local market and technical and organisational expertise.

It is only once the formal and technical verifications have had a positive outcome that an agency contract or a commercial collaboration contract is signed.

All agency collaborators receive adequate **training** on the regulations governing the sector and the codes of conduct to adopt. This training is divided into different sections (gas market, electricity market, offer type, Code of Business Conduct) and the first session is held in the presence of Group sales staff. The activity of the agencies is monitored and controlled at various levels and in different ways depending on the type of activity performed, the method of signing and acceptance of the contract. In order to verify the correct operation of suppliers, as provided for in the mandate, the Group carries out controls through quality calls on the activity carried out by door-to-door companies to confirm that contact has been made with the agent and that the contractual proposal has been accepted. Alternatively, in 2018 instant calls were introduced, a quality call carried out on average within 2 hours of the contract being signed, for more timely and effective control of the sales activity. With regard to telesellers and activities deriving from webselling, a third party is appointed to make calls to check customer awareness concerning the proposal accepted (welcome calls, courtesy calls and confirmation calls).

Pursuing a policy of transparency and protection of the customer's true wishes, Iren Group offers customers with telephone contracts the option of listening to their own telephone recording by accessing a dedicated section on the company website using personal login details.

Lastly, to verify that the companies work in compliance with contractual obligations and, specifically, in compliance with the Company's self-regulatory documentation (Code of Ethics, Model 231, operational procedures), visits are made periodically to the sales offices, the results of which are presented and discussed at the process committee.

The organisation of Iren Mercato also provides for a specific structure dedicated to analysing customer complaints concerning external channels of sales. These complaints can result in the application of penalties and, in more serious cases, the dismissal of the agent, with a ban on working for Iren Mercato, even through other agencies, up to the possible resolution of the agency mandate.

Commercial and marketing activities are conducted in accordance with principles of fairness and transparency, in full compliance with all regulations on **privacy** and **personal data protection** (EU Regulation 2016/679 – GDPR, Italian Legislative Decree 196/2003). To this end:

- the processing of customers' personal data in accordance with freely given and collected consents is guaranteed;
- the processing of personal data on behalf of Iren Mercato is permitted only to persons appointed in writing as external data controllers (Art. 28 of the GDPR);
- commercial or promotional actions are carried out exclusively with regard to persons who have given their informed consent after reading the specific privacy policy (Articles 13 and 14 of the GDPR).

Moreover, in order to guarantee the exercise of the rights provided for by the GDPR, the Group makes available communication channels and facilities dedicated to the reception and management of requests regarding access, rectification, cancellation, restriction of processing, portability and opposition to the processing of personal data.

In compliance with the principles of **anti-competitive behaviour**, Iren Mercato does not conduct any commercial or promotional action towards customers who are part of the protected market, limiting its activities to its customers in the free market or prospective contacts acquired under regulations.

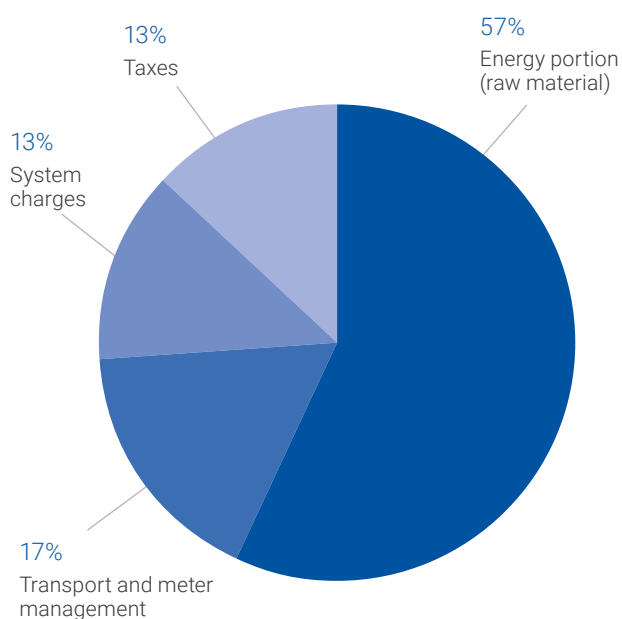
Electricity tariff

Electricity tariffs are made up of the costs associated with the energy raw material and the commercial activities of the distribution companies (procurement and commercialization), the charges associated with transporting electricity on national and local distribution networks, the costs of managing metering activities, general system charges and taxes.

In the free market, the seller expresses its offer by differentiating itself from competitors in the share of supply and commercialisation costs, as the other components are subject to single national standards and tariffs established by ARERA and the State.

In 2021, the annual expenditure per typical family (3 kW meter and annual consumption of 2,700 kWh) served in the protected market amounted to 631 Euro (source: ARERA).

2021 Average composition of electricity tariff for protected market



In 2021, Iren Group, thanks also to the beneficial dialogue started in the last months of the year with the Consumers' Associations, has activated concrete initiatives to support its customers in relation to the increase in the cost of electricity and gas, such as the possibility of resorting, even before the government intervention, to instalments at more favourable conditions, for bills that make payments difficult. In December, a particularly advantageous offer for electricity at a fixed price (*Fisso&Basso* - Fixed & Low) was launched, dedicated to protected market customers, who have been most affected by the increase in the raw material, which can be activated directly through online channels.

Electricity social bonus

With effect from 1 January 2021, ARERA has defined new criteria for the recognition of the social bonus on the domestic supply of electricity to citizens/families in conditions of economic hardship. In order to activate automatic recognition (from July 2021) of social bonuses, it is necessary for those entitled to present an annual self-declaration, regarding the family unit and any income and assets, for access to a subsidised service (e.g. maternity allowance, school canteen, etc.) and obtain an ISEE (Equivalent Economic Situation) indicator within the access threshold, or be holders of a citizenship income/pension. The bonus is also provided for in cases in which a serious disease requires the use of indispensable electrical medical equipment to keep them alive (physical problems).

The bonus values that also allowed a 30% reduction in the bill in 2021 were:

- 174 Euro for a family of 1 or 2 members;
- 206 Euro for a family of 3 or 4 members;
- 241 Euro for a family of more than 4 members.

Electricity social bonus	2021	Amount (Euro)
Number of bonuses awarded	96,098	13,630,730

Electricity sales service quality

The commercial quality standards are dictated by ARERA (Res. 413/2016 Integrated Text on the Quality of Sales Services - TIQV) refer to how promptly the

seller provides some services requested by customers (replies to written complaints and requests for information, correction of bills, etc.).

The seller must comply with specific standards (beyond which, customers are entitled to automatic compensation) and general standards (for which a certain percentage of performance is required, and no automatic compensation is paid). Data relevant to the individual companies are published in order to allow customers to compare the service levels offered.

The 2021 average response time to written complaints reflects a more efficient customer management process, as the 2020 performance was impacted by the temporary reduction in staffing due to the health emergency.

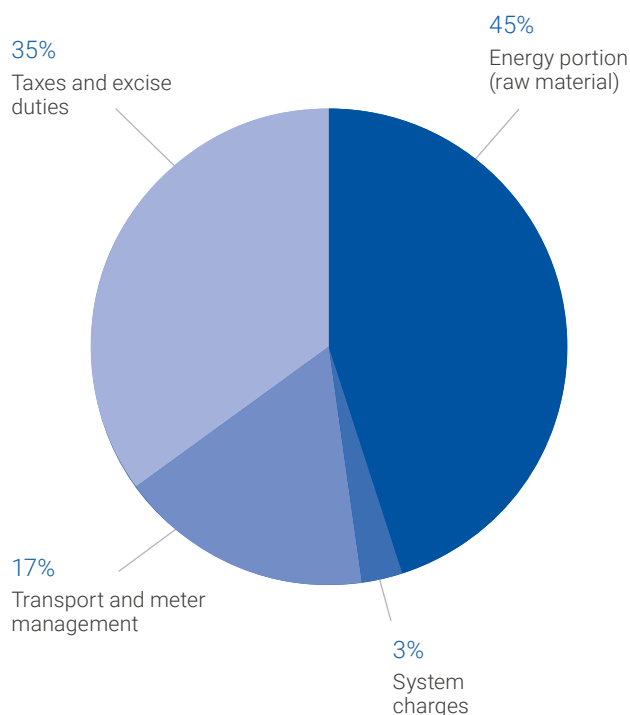
Response to written complaints (days)	2021	2020	2019	ARERA max time
Average time	19.8	27.9	16.7	30

To constantly monitor its commercial quality, the Group considers it strategic to monitor customer satisfaction (see page 198).

Gas tariff

Gas tariffs comply with ARERA regulations (Integrated Text on Gas Sale – TIVG and Single Text – TUDG/RTDG), State laws concerning Gas Excise Duties and VAT and Regional laws concerning the additional regional tax (ARISGAM) applied to natural gas. Gas tariffs are made up of the costs related to the energy raw material and commercial activities managed by the sales company (procurement and commercialisation) and the component related to costs for gas transport into national and local distribution networks, which cover the costs of the national transporter and the local network operator. In addition to these, there are national taxes and regional additional taxes as well as general system charges. In the free market, the seller expresses its offer by differentiating itself from competitors in the share of supply and commercialisation costs since the other components are subject to single national standards and tariffs established by ARERA and the State.

2021 Average composition of gas tariff for protected market



In 2021, the annual expenditure per typical family (annual consumption of 1,400 scm) served with a protection tariff stood at 1,130 Euro (source: ARERA).

- As in the case of electricity, in order to mitigate the effects of price increases due to sharp rises in the cost of raw materials and higher consumption during the winter season, the Group offered more favourable instalment terms for bills that make it difficult for households to pay, strengthened direct contact channels with customers via local counters, and further expanded the channels for acquiring gas self-metering to facilitate the accurate recording of actual consumption.

Gas social bonus

With effect from 1 January 2021, ARERA has defined new criteria for the recognition of the social bonus on the domestic supply of gas to citizens/families in conditions of economic hardship. In order to activate automatic recognition of social bonuses, it is necessary for those entitled to present an annual self-declaration, regarding the family unit and any income and assets, for access to a subsidised service (e.g. maternity allowance, school canteen, etc.) and obtain an ISEE (Equivalent Economic Situation) indicator within the access threshold, or be holders of a citizenship income/pension. The process for the automatic recognition of social gas bonuses has been in place since July 2021, first for direct supplies and, later, for households using condominium supplies (the system excludes the presence of direct supply already in the name of one of the members of the household).

The gas bonus applies only to methane gas distributed to the network for home-of-residence consumption and not cylinder gas or LPG.

Gas social bonus	2021	Amount (Euro)
Number of bonuses awarded	67,223	6,581,016

Gas sales service quality

As for electricity, the quality standards for gas sales are dictated by ARERA (Res. 413/2016 Integrated Text on the Quality of Sales Services

– TIQV) and provide for compliance by the seller with specific standards and general standards in the performance of certain services required by the customer.

The average time to respond to complaints in 2021 is down from 2020, when there was an exceptional increase in complaints.

Response to written complaints (days)	2021	2020	2019	ARERA max time
Average time	20.2	27.0	20.0	30

Electricity distribution

Iren Group manages the electricity distribution network plants in the cities of Parma, Turin – as well as some sections of network in some municipalities in the metropolitan area and Valle Dora – and Vercelli. The size of plants owned by the Group at 31 December 2021 is summarised up in the table below:

Distribution network plants	u.m.	Parma	Turin	Vercelli
HV/MV stations	no.	5	10	1
MV/MV primary substations	no.	-	21	1
MV/LV secondary substations	no.	1,199	3,371	187
HV/MV transformers	no.	13	24	2
MV/LV secondary substation transformers	no.	1,420	3,146	302
HV power lines (overhead and non-overhead)	km	-	22	11
MV power lines (overhead and non-overhead)	km	927	2,081	205
LV power lines (overhead and non-overhead)	km	1,631	2,640	332
Electronic meters	no.	137,745	593,906	31,882

Quality of electrical distribution

Quality standards for the distribution of electricity are defined by ARERA (Res. 566/2019/R/EEL), which approved the “Integrated text on the output-based regulation of the electricity distribution and measurement services” for the 2020-2023 period, which governs the continuity of service and voltage quality, specific and general levels of commercial quality and the selective promotion of investments in distribution networks.

Indicators measuring the service levels of Iren Group, which are considered relevant due to the impacts they may have on end customers or the environment, are analysed below.

The level of **network leaks** within the Group is consistently below the national average. ARERA conventionally sets standard leaks for the electricity grid, defining a percentage amount of the energy withdrawn in function of voltage, with the aim of encouraging the reduction of network leaks, comparing standard leaks with actual leaks.

Electricity network leaks	2021	2020	2019
Iren Group	2.75%	2.91%	4.23%
National average ¹	6.40%	6.40%	6.40%

¹ Most recent data available from the GSE Energy Report dated 31 December 2018.

The **mean number of interruptions per LV (low voltage) customer (N1)** is the indicator relevant to unexpected long (more than 3 minutes) or short-term interruptions (less than 3 minutes but more than 1 second) attributable to the distributor. The **cumulative downtime (D1)** measures the average number of minutes of interruption, per LV customer, of long interruptions without notice, attributable to the distributor.

ARERA sets target values for these indicators concerning the size of the areas served: high concentration (municipalities with more than 50,000 residents), medium concentration (municipalities with more than 5,000 residents) and low concentration (municipalities with less than 5,000 residents). If the distributor delivers improvements in the indicators compared to the previous year, it receives a bonus from ARERA; otherwise, it may receive a sanction and the relative fine.

ARERA raised the level of the objective if, in the calculation of the average number of minutes of interruption, the distributor also includes external causes, i.e., service disruption events caused by third parties (e.g., damage to cables because of excavation work by third parties who do not operate on behalf of the distributor; service disruptions caused by failures occurring on private systems underlying the network).

Average no. of interruptions per LV customer - N1 ¹	2021	2020	2019	ARERA obj. 2021
Turin high-density	1.67	1.47	1.43	1.25
Parma high-density	1.18	1.32	0.98	1.20
Parma low-density	3.36	4.01	2.23	4.30
Vercelli medium-density	0.62	0.81	0.75	2.25

¹ 2021 data are estimated. They are subject to verification and are dependent on submission to ARERA on 31/03/2022 for the 2021 financial year.

Cumulative downtime – D1 (min./user) ¹	2021	2020	2019	ARERA obj. 2021
Turin high-density	28.29	26.81	25.70	28.00
Parma high-density	30.23	34.90	23.00	28.00
Parma low-density	75.16	72.90	48.07	68.00
Vercelli medium-density	11.24	11.57	8.12	45.00

¹ 2021 data are estimated. They are subject to verification and are dependent on submission to ARERA on 31/03/2022 for the 2021 financial year.

In 2021, an increase in the average duration of interruptions was recorded for the Turin area, linked to the complexity of the events that involved longer resolution times, while in Parma and Vercelli there was an overall improvement in the number and duration.

Iren Group, in the context of credit control, monitors the network disconnections of customers due to non-payment of bills, but does not consider it appropriate to report it, considering it as being sensitive data.

Safety of electricity distribution

The annual maintenance plan, on the secondary electricity distribution networks, provides for the inspection of medium voltage (MV) substations and overhead power lines with different articulation depending on the areas:

- inspection of electrical substations every two years for Parma and Turin and every year for Vercelli. In 2021, 2,731 out of a total of 5,546 substations were inspected (in addition to primary MV/MV substations and secondary MV/LV substations, MV delivery substations and conversion substations for tramway power supply are also included), equal to 49%;
- visual inspection of medium voltage (MV) overhead lines every three years for Parma, every six months for Turin and once a year for Vercelli. The overhead electricity network is approximately 1,378 km and, in 2021, around 14.5% was inspected.

The inspection plan, fully carried out in 2021, provides for quarterly checks of compressed air systems in the Turin area, general inspection of each system every four months, six-monthly thermographic control of the active parts of the systems, yearly control of electrical equipment containing oil with PCB>50 ppm and of the state of the asbestos manufactured articles.

Electromagnetic fields

Initiatives are implemented to safeguard the health of customers to ensure compliance with the limits of electromagnetic fields at power generation and distribution plants. Electromagnetic field measurements involve:

- primary electricity power plants and stations;
- overhead and underground HV power lines;
- MV/MV and MV/LV electricity substations installed in schools, hospitals, parks, or with specific load characteristics;
- MV/LV electricity substations with a higher capacity;
- office buildings of Group Companies.

During the inspections and on every new substation realised, the location of the substation is checked, as well as the electrical equipment it contains with respect to any sensitive adjacent buildings and to any potentially environmental and electrical hazardous situations found in the substation. In 2021, the design and construction of new MV/LV substations continued, using techniques that allow to reduce the population's exposure to emissions from electromagnetic fields.

Acoustic impact

In the electrical energy transformation plants (substations), measurements of the acoustic emissions to the outside are carried out in order to verify the absence of situations of noise pollution towards the population. In 2021, no critical situations emerged in terms of exceeding the noise emission limits allowed by the regulations in force, so it was not necessary to implement noise mitigation systems at the primary electricity transformation plants.

Gas distribution

Quality of gas distribution

The distribution service consists of the withdrawal of natural gas from Snam Rete Gas pipelines, by means of first-stage withdrawal points, and its transportation through local gas pipeline networks for delivery to end users. A gas distribution system is typically composed of:

- main supply natural gas distribution networks (pressure greater than 5 bar), medium pressure networks (greater than 0.04 bar up to 5 bar) and low pressure networks (up to 0.04 bar);
- RE.MI. substations (acronym for Regulation and Measurement) or first-stage substations, where a first reduction in the pressure of the gas taken from the Snam Rete Gas high pressure pipelines is made. The RE.MI. plant consists of the complex of equipment where the gas undergoes filtration, pre-heating, pressure reduction, measurement and odorization;
- user-derived systems, the complex of pipes and accessory devices that constitute the installations necessary to supply the gas to the end customer. The user-derived system starts from the gripper (the part of the system used to withdraw the gas from the main pipe by conveying it, through a pipe with a smaller diameter, towards the meter) and extends to the measurement group (meter).

Gas distribution is carried out by the Group in compliance with the rules of functional separation for companies vertically integrated into the sector, in compliance with the principles of cost-effectiveness, profitability and confidentiality of company data with the aim of promoting competition, efficiency and adequate service levels.

The use of innovative technologies for laying and maintaining the networks means that necessary activities can be performed while reducing time frames and costs and keeping disruption to residents to a minimum. Security is guaranteed via remote control systems, a 24-hour emergency service, the cathodic protection of the steel networks, the use of odorised gas and regular and scheduled inspection of the network.

The Group also manages the distribution of LPG, in particular in the province of Reggio Emilia (21 storage tanks) and in the province of Genoa (7 storage tanks), located in places not yet reached by the natural gas network. Suppliers deliver the pre-odorised LPG in tanks, the Group distributes it to customers at a pressure of 30 mbar and ensures safety through remote control of the plants. The LPG distribution activity is closely connected to the gradual “methanisation” of the area.

The Group is continuing with the progressive installation of electronic meters which, as well as providing real-time data for billing the relative amounts due and speeding up certain activities (activation or deactivation of a supply, consent, etc.), help to raise residents’ awareness about their energy usage, promoting behaviour aimed at reducing and improving gas consumption with subsequent benefits for the environment.

Installed gas meters (no.)	2021	2020	2019
Total gas meters	812,940	811,606	809,899
<i>of which electronic</i>	<i>712,096</i>	<i>675,041</i>	<i>613,303</i>
% electronic meters	87.6%	83.1%	75.7%

In relation to the commercial quality parameters for gas distribution, ARERA has defined standards which provide for the automatic compensation to customers in the case of non-compliance.

Commercial quality levels (business days)	2021	2020	ARERA max time
Cost estimate for simple jobs	9.9	7	15
Cost estimate for complex jobs	13.1	12.5	30
Execution of simple jobs	6.4	7.1	10
Activating supply	4.1	4.2	10
Deactivating supply	4.1	3.7	5
Reactivation following deactivation due to non-payment	1.2	1.3	2 working days

Leaks in the gas network and interruption of service

Gas interruptions occur mainly during network renovation works when the user connections are switched from old to new pipelines. The interruptions are divided into **scheduled outages**, if the works are planned and it is possible to promptly communicate the interruption to the citizen, and **unscheduled outages**, that is, those for which it is not possible to notify all the customers involved, since they are generally caused by a local failure in a part of the network or damage caused by a third party.

In the case of scheduled outages, in order to limit the inconvenience to the end customer, the work is carried out with the help of plugging with by-pass systems that allow the work to be carried out without suspending the flow of gas.

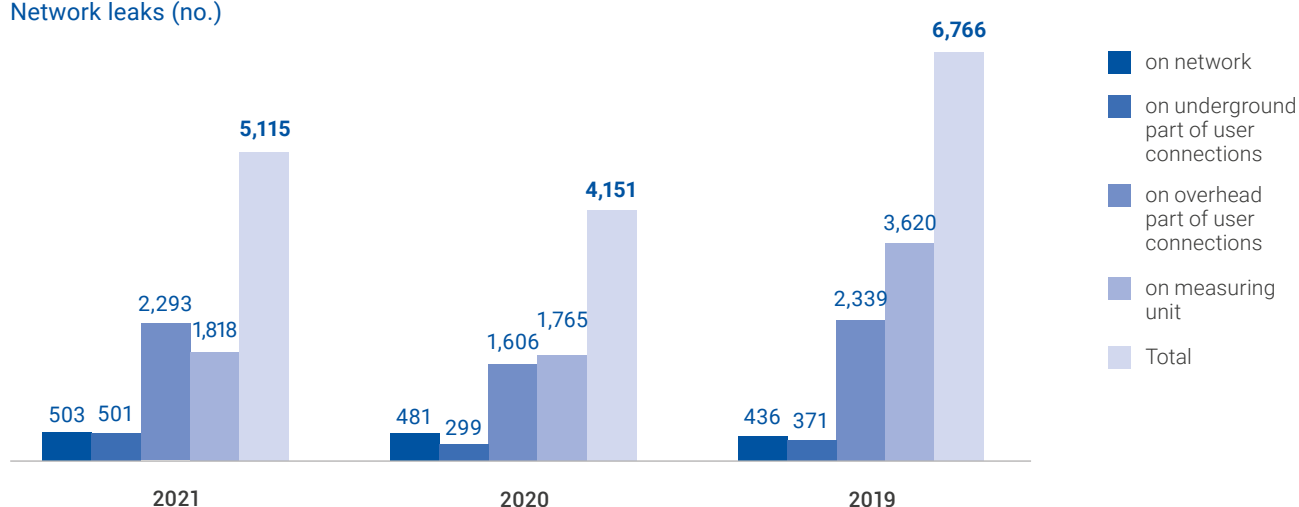
- | In 2021, the easing of restrictions due to the Covid-19 emergency led to an increase, compared to 2020,
- | in excavations by third-party contractors – the main cause of gas pipeline damage – and this resulted in
- | a slight increase in unscheduled outages as a consequence, although maintaining the trend of strong improvement over 2019.

Gas distribution interruptions (no.)	2021	2020	2019
Unscheduled outages	781	662	1,266
Scheduled outages	970	1,023	1,376
Total	1,751	1,685	2,642

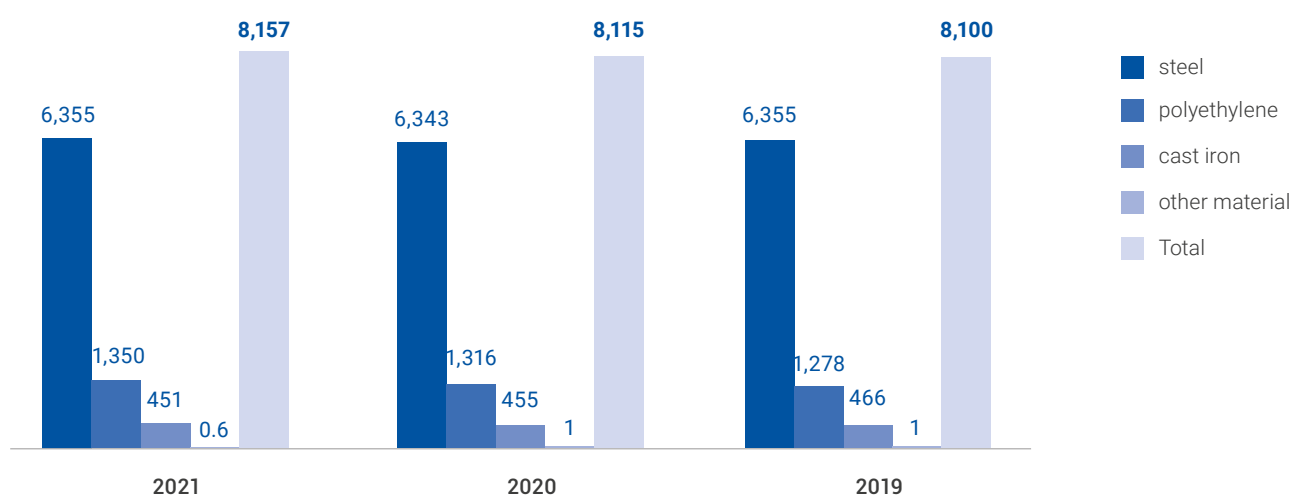
The main initiatives to reduce **leaks in the gas network**, in accordance with the provisions of ARERA, envisage the gradual cathodic protection of the unprotected steel network and the replacement of grey cast iron pipelines with hemp and lead joints. In 2021, in addition to the search for leaks on the underground network established by ARERA, the systematic search for leaks also continued at the measurement groups.

Network leaks are up compared to 2020, a year that recorded an exceptional reduction mainly due to lower customer/citizen reports during the pandemic period; considering a longer time horizon, the trend is significantly positive (-24% compared to 2019). The most numerically significant leaks come from overhead utility derivation plants.

Network leaks (no.)



Gas network composition (km)



The project to replace the gas network with new steel and polyethylene pipes also continued in 2021.

Gas network replaced (km)	2021	2020	2019
Steel pipes	9	15	16
Polyethylene pipes	28	0	0
Cast iron pipes	5	3	4
Total	42	18	20

Safety of the gas network

People's safety is dominant in gas distribution service. The use of competent and adequately trained resources, together with a continuous monitoring

of the network, are factors that contribute decisively to the prevention of accidents and are subject to continuous analysis and improvement, in order to increase their effectiveness with respect to efficiency.

Network inspection, an effective emergency service and an adequate odorant concentration are fundamentally important for a proper management of a distribution system, together with a continuous modernisation of the networks.

ARERA establishes the safety service obligations, including network inspections. In 2021, Iren Group inspected 8,029 of the 8,158 km of the gas network managed. Scheduled inspection has also led to a greater control of leaks.

Gas network inspected	2021	2020	2019	ARERA requirement
Low pressure network	97.3%	97.6%	84.0%	≥ 25%
Medium and high pressure network	99.2%	100.0%	95.0%	≥ 33%
Total network inspected	98.4%	98.8%	88.0%	



In 2021, over 98% of gas networks were inspected: more than three times the number of inspections required by ARERA

ARERA also sets minimum levels of odorants for service safety and the protection of people and things. In 2021, Iren Group injected over 45 mg of odorants (tetrahydrothiophene) into the network for every

cubic metre of gas distributed, a higher amount than that established by ARERA (32 mg/m³), which means that its presence in the air can be noticed easier and any gas leaks identified quickly.

The Emergency Service is also essential to ensuring the safety of residents and sites. The Group's performance in this context is significantly above the parameters established by ARERA. In 2021, the gas Emergency Service handled 7,505 calls, with an average arrival time at the call site that varies in the range shown in the table below, depending on the regions served.

Emergency service	2021	2020	ARERA requirement
Average arrival time at the call site (min.)	30.4-37.9	30.6-36.5	60
Compliance with average arrival time at the call site (%)	97.7%	98.7%	90.0%

Acoustic impact

In 2021, campaigns to measure the effects of noise produced on the surrounding environment did not reveal any critical issues in gas distribution plants.

Integrated water service

Integrated water service tariff

The organisation of the integrated water service in ATOs (Optimal Territorial Areas) entails rules for setting tariffs, which must completely cover investment and operating costs. In general, the water service tariff consists of:

- a **fixed component of service**, due regardless of consumption;
- a **variable component**, based on the consumption of water and wastewater treatment services.

To discourage waste, the tariff is divided into bands and increases as consumption rises. There are also different types of use: domestic resident, domestic non-resident, industrial, artisan and commercial, agricultural and livestock, public non-disconnectable, public disconnectable, other uses (residual category).

The following table shows the average tariffs, defined by the Regulatory Authorities, for the services managed in each local area (drinking water distribution, sewerage collection and treatment). The Provinces of Savona, Imperia and Mantova are not reported, where Iren Group only manages the distribution of drinking water.

Average tariff for IWS (Euro/m ³) ¹	2021
Province of Asti	2.60
Province of Cuneo ²	1.77 - 1.79
Province of Genoa	2.34
Province of La Spezia	2.14
Province of Parma ²	1.90 - 2.45
Province of Piacenza ²	1.83 - 2.37
Province of Reggio Emilia	2.13
Province of Vercelli ²	1.76 - 1.86

¹ The average tariff is calculated by adding the basic domestic use tariff for the aqueduct service, the sewerage tariff and the wastewater treatment tariff. In the provinces of Genoa, Piacenza, Reggio Emilia and Vercelli the ARERA 2020-2021 tariffs have been approved. In the remaining provinces, tariffs are provisional.

² Minimum and maximum values of the different tariffs in place across the country.

Water bonus

With Resolution 897/2017 ARERA has introduced the social water bonus for customers in economic hardship. Users with an ISEE (Equivalent Economic Situation) indicator of less than 8,265 Euro (or less than 20,000 Euro if there are more than three dependent children) and other specific categories are entitled to apply for the bonus. The bonus covers the consumption of 50 litres per day per capita of integrated water service. To support the cost of the bonus, a specific tariff component (UI3) equal to 0.005 Euro/m³ sold was introduced for the year 2021, which is applied to all Italian users. In addition to the bonus provided by ARERA, the Local Sector Authorities can add an additional bonus financed by the tariff of the area and disbursed according to methods established by the Authorities themselves. ATERSIR (Territorial Agency of Emilia-Romagna for Water and Waste Services) has resolved for 2021 the Supplementary Social Bonus for users in conditions of economic hardship: 240,000 Euro for Parma area, 160,000 Euro for the Province of Piacenza and 350,000 Euro for the Province of Reggio Emilia. The Local Sector Authorities of the Genoa and La Spezia areas have approved an amount for the two Provinces of 400,000 Euro and 220,000 Euro, respectively.

Water social bonus ¹	2021 ²	Amount (Euro)
Number of bonuses awarded	25,316	1,315,921

¹ Data shown are for bonuses recognised in bills issued in 2021 and related to the year 2020. Calculations and amounts include ARERA Bonuses and supplementary bonuses from Local Sector Authorities.

² 2021 data are estimated and subject to verification and are dependent on submission to ARERA on 31/03/2022 for the 2021 financial year.

Quality of the integrated water service

The Service Charters of Iren Group's integrated water service include the indicators and time frames defined by ARERA (Resolution 655/15). In 2021, the data for 2020 were reported, confirming a very high level of compliance with the established time frames, with an average of over 90% of the services.

In order to constantly monitor the quality of services, Iren Group also regards customer satisfaction monitoring to be of fundamental importance. The periodic collection of these surveys was included as an integral and essential part of the quality management system (see page 198).

Service efficiency

At the end of 2021, the Group manages 913,105 water meters serving the various types of users, 14% of which are electronic. These are new-generation meters that, in addition to providing real-time data for billing amounts due, contribute to make residents more aware of their consumption, encouraging behaviour aimed at reducing and improving the use of water, with subsequent environmental benefits.

The water taken from the different sources is introduced in the distribution network that reaches all the users, after having carried out the necessary controls and verifications of the potability requirements. Control, extension and maintenance activities are carried out on the networks with the aim of minimising inconvenience for the public as far as possible. A priority, in fact, is given to the protection of the urban environment and the sustainability of everyday life, in particular with regard to the impact on city streets.

In 2021, out of 20,088 km of managed water network, 15,644 km (nearly 78% of the total) were checked for leaks: 4,578 km (about 23%) through the acoustic research technique carried out on-site and 11,066 km (more than 55%) employing night-time flow monitoring, a structural activity that makes it possible to analyse distribution districts and check for any anomalies that may indicate dispersions of water resources.

In the case of scheduled service interruptions, i.e. suspensions of the water supply necessary for the execution of planned works, warnings are issued through the press and local television stations on the duration of the interventions, as they affect a large part of the population. In other cases, notices are posted in the areas concerned to inform the public of the interruption date. In 2021, there were 1,016 planned outages in the managed territories.

For emergency interventions, e.g. a sudden breakage of pipes, all of the necessary measures are implemented in order to restore the water supply in the shortest possible time, in accordance with the provisions of the laws in force. In 2021, there were a total of 8,566 outages in the network, subject to repairs carried out following the search for leaks or reports received.

The average arrival time at the place of the emergency call for the Group is 112 minutes.

Water safety

In the supply of water for drinking purposes, the health and safety of the customer are an absolute priority, guaranteed by Iren Group through constant control, even beyond the legal obligations, of the quality of the water, through the analysis of the parameters, provided for by Italian Legislative Decree 31/2001 at the various sampling points established by the Control Body (Local Health Authority) along the distribution network and at points located at the exit of the large purification plants. If the water withdrawn contains levels of harmful substances that exceed the limits specified by legislation, it will be subject to treatment prior to distribution. The treatments most frequently used for the purification of deep water are normally designed to remove iron, manganese and ammonia, elements naturally present in the groundwater captured. The quality of the water is guaranteed by a control on the entire water process: from water sources to the treatment, filtration and purification processes and the distribution network, up to actual delivery to customers. The samples taken are analysed at Group laboratories to determine their chemical and microbiological characteristics.

In the wastewater treatment sector, analytical tests are carried out on the wastewater flowing into and out of the plants, and on the intermediate treatment steps, the sludge produced and the drains from the production user plants into the sewer. The number of samples and the relative analysed parameters derive from sampling plans prepared for all the areas managed. The internal tests exceed the minimum number required by law and the protocols stipulated with Local Sector Authorities, ARPA (Control Body) and Provincial Authorities.

Controls on drinking water and wastewater (no.)	2021		2020		2019	
	Samples	Parameters	Samples	Parameters	Samples	Parameters
Emilia-Romagna	37,365	467,067	36,769	435,516	36,159	426,542
Piedmont ¹	5,087	57,503	5,371	63,865	5,199	64,046
Liguria	13,162	324,700	13,512	287,345	14,216	279,693
Lombardy ²	517	8,823	473	7,947	485	7,925
Total	56,131	858,093	56,125	794,673	56,059	778,206

¹ As of 2021, the Cuneo area is no longer included, in which the Group has ceased to manage the service.

² The data regards samples and parameters conducted on drinking water only, as the Group does not manage the wastewater service.



Over 56,000 samples and 858,000 parameters analysed on drinking and wastewater to ensure residents' safety

Acoustic impact

The subject of reducing the acoustic impact is normally not particularly relevant for the integrated water service. Despite this, machinery and equipment (compressors, grills, etc.) are replaced during the unscheduled maintenance interventions with models producing lower levels of acoustic impact or greater degree of soundproofing.

Waste management services

The emergency produced by the Covid-19 pandemic, also in 2021, required Iren Group to make a greater commitment in the field of environmental services with significant interventions to support citizens.

The Environment Points (Punti Ambiente) remained always open for the distribution of materials needed for the sorted collection of waste. Residents' access was restricted, ensuring the distance foreseen by the regulations, and the counters were equipped with all health safety devices (plexiglass, disinfectant dispensers, masks and gloves for operators).

During the year, the Group continued to promptly acknowledge and manage the requests of the Municipalities to postpone the deadlines of the TARI payment notices, staggering them both for domestic users and for non-domestic users.

In order to meet the needs caused by the health emergency, specific home collection services of unsorted waste have been arranged, street washing services have been intensified, as well as the cleaning of play areas in parks and urban hygiene. In particular, at the request of Public Administrations and through protocols agreed with regional bodies, ad hoc services have been set up for waste collection, including doubling the frequency of emptying unsorted waste bins and the pick-up at the floor collection service for families with Covid-19 positive cases and in the case of objective and proven inability of people to leave their apartments or private property to take out the container or reach the nearest street bin. Residents were able to request the service through the Group's waste management contact centre, from which they received instructions on how and when to display their waste at the front door for collection by the environmental operators. For the management of the waste, a collection kit was provided consisting of black bags and a vademecum containing the necessary instructions for the new collection methods during the first collection.

The activity of the contact centre operators has also allowed managing all the calls from the subjects who needed dedicated waste collections for positivity to Covid-19 or quarantine.

Tariff system

The TARI tax is composed of:

- a **fixed part**, determined by the cost of sweeping, general costs, part of the cost of personnel and other essential components of the cost of the service, relating in particular to depreciation and administrative costs;
- a **variable part** related to the quantity of waste conferred, the service provided, and the management costs.

The TARI is applied to utilities, taking account of the surface area occupied and, for domestic utilities, also of the number of family members. With the TARI, Iren Group invoices its service to the Municipality

and the Municipality issues payment notices to the users. In calculating the TARI, the Municipality takes account of the VAT that it has to pay, which is why, in the tax applied to users, the VAT is not expressed but included in the tax itself.

Social tariffs are not provided for by the general legislation of the TARI. At a regulatory level, every Municipality may include favourable conditions or reduction clauses in favour of certain categories of users.

The average tariff for waste collection and hygiene services in Turin, La Spezia, Vercelli, Parma, Piacenza and Reggio Emilia is in line with previous years. The table below provides the average TARI for 2021 for the main municipalities served.

Type of domestic users - Year 2021	Average TARI by provincial capital (Euro/year)				
	La Spezia	Parma	Piacenza	Reggio Emilia	Turin
1 member families	151.01	132.07	121.95	168.37	131.54
2 member families	195.84	215.09	216.17	253.95	246.53
3 member families	208.42	247.57	270.49	334.52	294.69
4 member families	220.27	288.13	298.54	382.64	326.63
5 member families	232.12	336.78	358.06	430.41	381.69
≥ 6 member families	244.35	380.14	405.58	455.99	433.72

Safety of environmental services

[GRI 416-1]

The Group has developed performance monitoring tools such as environmental impact assessment, analytical controls, internal audits and legislative compliance checks, aimed at monitoring performance also in terms of sustainability and environmental protection. 70% of products and services in the environment sector undergo health and safety impact assessments of the customer.

Acoustic impact

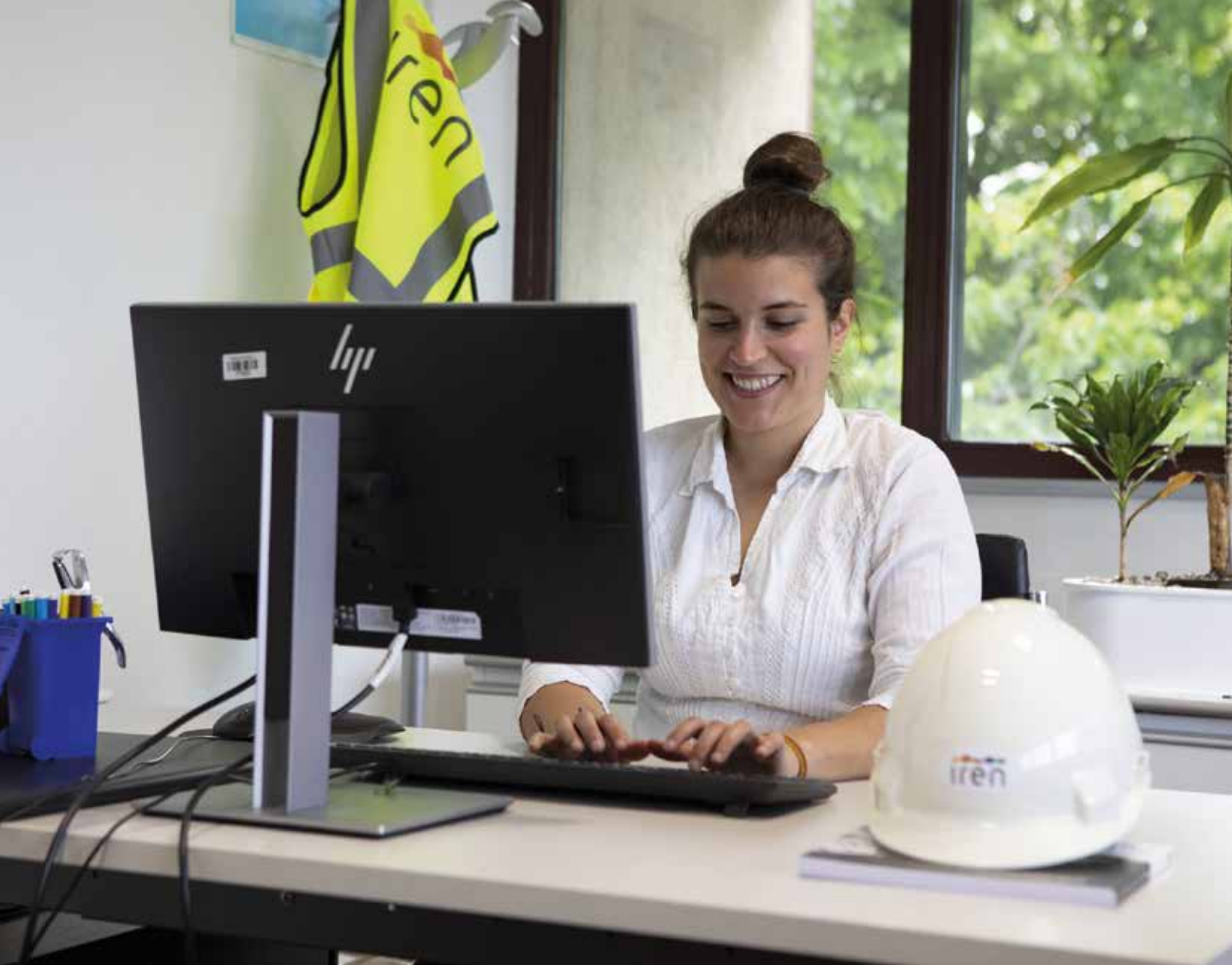
In all the areas managed, sound level checks are periodically carried out on waste collection, street sweeping and collection centres. In particular, in the waste collection sector, the Group is adopting new methods with vehicles with low acoustic impacts, such as electric vehicles. For waste-to-energy plants periodic acoustic monitoring campaigns are carried out. To date, the results of the investigations conducted show that the limits have been respected.

District heating

Iren Group's district heating service produces and supplies the thermal energy required by customers for heating rooms and producing of domestic hot water.

ARERA has defined (Res. 661/2018) the district heating and district cooling commercial quality regulation, valid until the end of 2021, in view of which the Group has taken steps to adapt the technical-administrative processes and update the Service Charter. The Service Charter constitutes the commitment to satisfy customer needs and to guarantee the reliability of the service, safety when using the service, and fairness and equity in contractual relations. The parameters contained in it allow for objective assessments of compliance with the standards envisaged.

Iren Group constantly monitors the quality and efficiency levels of its services, including district heating, with the aim of adapting strategic choices to customer expectations in a logic of continuous improvement (see page 198).



District heating tariffs

District heating tariffs are not currently governed by national regulations and are historically constituted in accordance with the principle of “avoided gas cost”, i.e. in relation to the cost that the customer would have paid using natural gas (expressed in Euro/scm).

The tariffs are, therefore, related to the final cost of natural gas, which is updated depending on the regulations of ARERA, as regards the gas tariffs of the retail market, and the State as regards the fiscal components.

District heating safety

The Department of Environmental, Territorial and Infrastructure Engineering (DIATI) of the Politecnico di Torino University has carried out, since 2017, some studies on the consequences of the possible environmental benefits, in terms of air quality, of

district heating systems in the cities of Turin, Reggio Emilia, Parma and Piacenza. Analyses were conducted by comparing the environmental impacts of a scenario with a district heating system to a past scenario with a heating system based on decentralised stand-alone systems. The results showed a substantial reduction in the environmental impacts on the atmosphere through the extension of district heating networks powered by cogeneration plants. The magnitude of this reduction and the average concentrations of pollutants in the atmosphere were also calculated in economic terms, i.e. by estimating the social costs avoided due to the reduction of adverse health effects.

The district heating network managed by Iren Group in the municipalities of Turin, Nichelino, Beinasco, Grugliasco, Collegno, Rivoli, Moncalieri, Genoa, Reggio Emilia, Piacenza and Parma is about 1,091 km long and was inspected entirely in 2021.

Smart solutions

The Group offers integrated energy efficiency solutions for condominiums, businesses, Public Administrations, non-profits and charities. In addition, it provides products and services that meet the needs of safety and well-being of customers, such as: energy, building, anti-seismic upgrades, implementation and management of public lighting systems that increase the safety of urban areas, lighting upgrades (LED relamping) to improve efficiency and visual comfort, optimised management of thermal systems that make indoor environments more efficient and comfortable, improving heat distribution. These activities are carried out by providing a complete package and, for energy requalification interventions of buildings-plants, the customer has the possibility to receive the discount on the invoice or to opt for the transfer of the credit corresponding to the tax deduction, as provided by the current legislation.

The proposed solutions are turnkey, including consulting services, design, implementation and monitoring, with the possibility of using incentives and customised financial and contractual solutions.

Thanks to the collaboration with professionals and companies qualified in the Supplier Register, the Group, through Iren Smart Solutions, acts as the only interlocutor towards the customer.

In 2021, the Group launched several initiatives to raise awareness of the importance of urban redevelopment and energy efficiency as levers to improve urban sustainability. Moreover, several territorial roadshows were organised, dedicated to professionals and companies, in order to spread the culture of tax bonuses, provide clarifications on regulatory requirements and support external professionals in the complex processes they are involved in alongside Iren Smart Solutions.

Smart solutions safety

In managing smart solutions activities, the Group works to minimise impacts on the health and safety of customers and communities. For example, for technological services managed for Public Administrations, the light pollution of public lighting systems (alteration of the levels of light naturally present in the night environment) and the consequent photobiological risk (damage that the direct vision of light sources, in particular LEDs, can cause to the human eye), are parameters monitored through the inclusion of stringent requirements in the purchase of lighting equipment. Furthermore, Apps are available for the public lighting and traffic lights service through which citizens can report any faults or malfunctions in real time.

For the technological global service (management of thermal and electrical systems) of public buildings, a detailed process is envisaged for reporting faults and malfunctions, managing calls and solving the problem, with response times defined for each type of request, as well as the analysis and evaluation of the level of service. A 24-hour contact line is provided to manage domestic heating systems, with repairs within 3 hours of the report.

Energy production

The management model adopted by Iren Group takes into account the health and safety of people, also evaluating the environmental aspects, risk analysis and measurement, in all phases: from design to maintenance of the plants, up to the choice, storage and disposal of materials and products, for which specific certifications are required.

Acoustic impact

The Group monitors, evaluates and mitigates noise emissions throughout the life cycle of its plants and infrastructure, supported by specialist technicians, and dedicates time and resources to limit the acoustic impact of its activities, including through mitigation measures (e.g., soundproofing panels, noise suppressors). In order to verify that the limits laid down by current legislation are respected, specific Acoustic Impact Assessments are carried out at each energy production site, either as a preventive measure or on existing situations, whenever:

- it is decided to build, modify or upgrade a construction project;
- it is intended to start a new business;

- an application is made for the issuance of permits for the construction of new plants, the infrastructure of productive activities or commercial services;
- a public body or a municipality requests it.

In cases where the specified limits were exceeded, acoustic decontamination measures were taken on the most significant sources to bring the noise emitted within the legal limit. Periodic phonometric tests are also carried out at the perimeters of the sites or in proximity of the sensitive receptors; moreover, upon receiving reports or complaints from citizens, appropriate measurements are taken to assess the need for specific mitigation measures.

Emergency management

In order to respond to potential accidents and alarm situations, which could occur after a natural disaster, explosions or fires and to prevent and mitigate the consequent damage to people and the environment, the companies of Iren Group have procedures and practices that define:

- the organisation and coordination centres set up to address the emergency situations that could arise within the activities carried out;
- the management of information and relationships with the Prefectures, Civil Defence, Authorities, Regions, Provinces and Municipalities, including their relative operation rooms.

All monitored sites and facilities have specific emergency plans covering the most likely emergency scenarios, including those with possible environmental impacts. Emergency personnel have been identified at each site and plant, who are trained and updated periodically. Evacuation tests are carried out annually involving all persons present, including visitors, customers and suppliers; depending on the site, simulations are also carried out regarding the management of additional emergency scenarios (illness, spillage, etc.). The contingency plans of the main corporate districts identify an emergency manager and coordinator for each site. Upon entering the site, visitors are given a specific informative note containing the behavioural procedures to be followed. The company emergency plans are constantly updated in accordance with the guidelines shared by all Group companies.

Emergency situations connected to possible environmental pollution during the operation of plants, or due to mechanical failure of instruments of control or measurement of chemical physical operating parameters, are managed in accordance with criteria of immediate intervention on the fault, by specialised personnel, 24/7, by requesting and calling technicians on call. The action aimed at fixing the failures occurs in the minimum time needed to carry out works.

To facilitate access to information relative to any weather alerts, the company smartphones – which are provided to all employees – are equipped with a special App that provides a direct link to the official weather alert sites in the regions where the Group operates. For employees who operate mainly in the outdoors, specific procedures have been established to define the operating guidelines to be observed in relation to the presence or otherwise of weather alerts.