



# Quality, efficiency and safety in services

[GRI 2-6, 2-23, 2-24, 2-25, 3-3, 303-1, 416-1, G4-EU4, G4-EU12, G4-EU27, G4-EU28, G4-EU29]

Efficiency, reliability and safety are relevant both for the quality of services and to ensure proper use of resources and reduction of impacts. Iren Group invests to guarantee security, continuity, health and business sustainability, aware of the responsibility that energy and waste management service management entails, for the present and for the future of people and the environment.

## Efficient, reliable and safe management of processes and infrastructure



### Risks

- Failure to achieve the objectives and targets (economic-financial and ESG) set out in the Business Plan and consequent negative impacts (operating, economic, financial and reputational)
- Malfunctions or business interruption of plants, networks and services
- Disruption of continuity and quality of service, including due to emergency or crisis events
- Chronic or extreme natural phenomena from climate change that may cause impacts on assets/performance
- Compromising the security of services
- Loss of certifications affecting business continuity
- Damage to third parties (persons and/or property) resulting from activities carried out by the Group, interruption of managed services or reduced reliability of managed infrastructures
- Environmental and social impacts (e.g. accidental spills, odour emissions, noise pollution, electromagnetic fields)
- Cyber risk or inadequacy of the ICT system
- Non-compliance in the processing of personal data
- Legal proceedings brought by consumers



### Opportunities

- Improving the environmental impact of services and infrastructure



### Management methods

- Planning and monitoring of business plan objectives and targets (economic/financial and ESG)
- Code of Ethics
- Sustainability Policy
- Organisational Model 231 and information flows to the Supervisory Bodies
- ERM system (Operational Risk Policy, Climate Change Risk Policy and Cyber Risk Policy)
- Investment plans and planned maintenance
- Business Continuity Management (BCM) model: organisational and technological safeguards for the continuity of business processes
- Procedures: Management of emergencies
- Service and plant monitoring, remote control for the safety of networks and plants
- Integrated Certified Management System (risk assessment, containment measures and third-party audits)
- Adoption of best available technologies
- Environmental authorisations
- Local Committees
- Insurance plans
- Personal data processing management system

## Sale of energy services and innovative products

Iren Group presents its customers with a complete offer portfolio which, starting from historically managed activities, incorporates new solutions and technologies to meet management needs, energy saving and the well-being of residents, companies and Public Administrations.

Despite the uncertain market scenario in 2023, the Group continued to develop innovative product offerings, particularly for home and personal care. Sales activities were consolidated through the already active 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. Furthermore, the development of the web channel for the sale of offers concerning sustainable mobility products, home and personal services continued, also thanks to the improvement of the chat service and sales. Crucial to the development of the web channel was also the optimisation of SEM (search engine marketing) campaigns, which contributed to a significant increase in the number of contracts compared to 2022.

The capillarity of the sales networks and a level of service characterised by increasingly high-quality standards offer customers assistance and advice from the explanation of tariff matters to the installation of home systems. Iren Group consultants accompany customers by offering advice both through physical channels, such as counters and stores, and through digital channels such as chat and web sales. Thanks to the support of increasingly innovative digital tools, customers can carry out operations such as switching, self-reading or bill payment directly from their device in no time at all.

The Group also offered its customers **clean electricity** from renewable sources, certified with a guarantee of origin, in line with its strategy and defined targets: to reach 3,500 GWh of renewable energy sold by 2030.

In addition, the offer of **offsetting CO<sub>2</sub> emissions from gas supplies** remained active in 2023, allowing customers to promote their environmental commitment.

### INNOVATIVE PRODUCTS

The innovative products made available in the Iren Plus and IrenGO offers generate positive impacts, both in terms of customer safety and protection of the quality of the urban environment.

#### IREN PLUS

Iren Plus is the line that provides customers with all the tools that can make their homes smarter, optimising domestic consumption and minimising waste.

The development of the Iren Plus range of offers continued in 2023, in line with previous years, with the aim of offering top quality solutions capable of simplifying people's lives, with a strong focus on energy efficiency, the rationalisation of consumption and environmental sustainability. New offers were also introduced in the areas of insurance and connectivity. Iren Plus products and services were offered through traditional sales channels (call centres and counters) and physical agencies, comparators, teleselling, e-commerce, as well as a sales network of external agents dedicated to products in the "Iren Green Plus" range.

The offer of **"Iren Green Plus" energy efficiency** products (e.g. photovoltaic systems, condensing boilers, air conditioners, fixtures, heat pumps) was affected in 2023 by the regulatory measures (Decree-Law 16/2/2023 no. 11), adopted in February, which put an end to the instruments of invoice discount and credit assignment previously applicable for energy efficiency measures. Starting in September, Iren launched a dedicated offer for window frames with a 75% invoice discount, as provided for by the Architectural Barriers Bonus, which resulted in the signing of around 100 contracts for the renewal of window frames.

In the field of **home automation**, attention was focused on the integration of latest generation technological devices (Iren Smart Kit) for remote monitoring of the home.

In the area of **home services**, the offer continued of:

- **Luminea** range, Europ Assistance home insurance assistance packages for unforeseen domestic incidents, under which three new insurance products for head of household liability and injuries were launched (Luminea Injuries, Luminea Family and Luminea Family Plus);
- supply of **100% electricity from renewable sources** at a monthly variable one-off energy component price, including grid losses as defined by ARERA. Included in the Iren Revolution Luce Verde Variabile offer is a 30 Euro bonus on the supply of electricity and an assistance policy for minor faults in the home. With the Iren Extra Large Luce Verde Variabile offer, the customer has the opportunity to buy an IrenGo e-bike and save, thanks to the billing bonus, 288 Euro in 48 months on the electricity supply. With the Iren Smart Control Luce Verde Variabile offer, the customer receives a free smart thermostatic head for remote heating control;
- **gas supply** at a monthly indexed raw material price with a free **smart thermostatic head** for remote heating control and a 15% discount on the purchase of subsequent spare parts.

For **internet connection**, the new Iren Connect You offer (FTTH, FTTC and FWA technology) 4G and 5G was launched in 2023, combined with a 5-year fixed price electricity offer. All products and offers are explained in detail on [irenlucegas.it](http://irenlucegas.it).

## IRENGO

In 2023, consolidation continued 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 throughout the country, a wide range of **recharging infrastructures** for private customers (wall boxes and recharging stations) has been set up, complemented by turnkey design, installation and maintenance services through selected companies operating in the Group's main regions of choice.

In the public sector, recharging infrastructures have already been built in the cities of Genoa, La Spezia, Parma, Turin and Vercelli, while a network of recharging stations is still under construction in Reggio Emilia, where Iren Group participates in an experimental neighbourhood car sharing project, promoted by the municipality, under which it will install four recharging stations for cars made available and managed by other

project partners.

The energy that powers the electric vehicles and charging systems is 100% certified from renewable sources with guarantees of origin. To strengthen the environmental value of sustainable mobility, formulas have been developed for the supply of electricity from renewable sources that the customer can combine with electric mobility offers with a discount on the invoice.

**Light mobility means** such as pedal-assist bicycles and electric scooters are also offered to customers of the different targets - private individuals, companies, public administrations.

In 2023, Iren Group participated, as a supplier of recharging infrastructure, in a number of important tenders promoted by public administrations in the historical regions of operation for the conversion of their public transport fleets to electric power. In addition, the needs of customers owning electric fleets (e.g. logistics companies) were investigated in order to propose the implementation of charging hub projects.



## BUSINESS CONDUCT

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

During the year, particular attention was paid to the implementation of new management systems, the improvement of commercial quality and the continuous training of operators, especially following the introduction of new products such as insurance policies and connectivity. All sales and marketing activities that take place outside the Group's business premises are carried out in compliance with the rules set out in the Code of Business Conduct formulated by ARERA (Regulatory Authority for Energy, Networks and Environment).

The Group carefully **monitors all the activities of the supplier agencies**, differentiating its controls according to the customer's method of engagement, the type of commercial action requested by the customer, and the way in which the contract is signed and accepted. For each acquisition channel, whether physical or digital, further controls are foreseen. Specifically, in order to constantly check the correct operation of teleseller agencies and web comparators, as foreseen by the mandate, the Group makes telephone calls called courtesy calls or confirmation calls, depending on the different contractual modalities, within a maximum of 48 hours after the contract has been signed and confirmed by the customer. As regards physical channels, already 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. Systematic monitoring of the agencies' activities is aimed at confirming that contact has been made with the agent, that the contract proposal has been accepted and that the agent is fully aware of the signed offer. In line with its transparency policy and to protect the actual wishes of the customer, Iren Group offers signatories to a contract stipulated over the telephone (verbal order) the possibility of listening to their own telephone recording by accessing a dedicated section of the website with personal credentials.

The company organisation provides for a specific structure dedicated to **analysing complaints** of customers concerning external channels of sales. These complaints can result in the application of penalties and, in more serious cases, the dismissal of the agent or operator, with a ban on working for the Group, even through other companies, up to the possible resolution of the agency mandate. Furthermore, with the aim of verifying that the work of the agencies complies with contractual obligations and, in particular, with the company self-regulation documentation (Code of Ethics, Model 231, operating procedures), visits are periodically carried out at the commercial structures, the results of which are monitored by the managers of the different channels.

In 2023, a new tool was introduced for uploading all business files and usable by all sales channels, both physical and digital: a further step towards complete digitalisation and the adoption of more technologically advanced working tools that offer agencies continuous and immediate feedback on their work. The new tool ensures the possibility of dedicated reporting, the use of more and more advanced integrated preliminary verification tools, the opportunity of different types of digital signatures and increased efficiency of contracting processes.

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, Legislative Decree 196/2003):

- the processing of customers' personal data in accordance with freely given and collected consents is guaranteed;
- the processing of personal data on behalf of the Group's sales company is permitted exclusively to persons appointed, in writing, as external data processors;
- commercial or promotional actions are carried out exclusively towards subjects who have expressed informed consent following having read the specific privacy policy.

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.

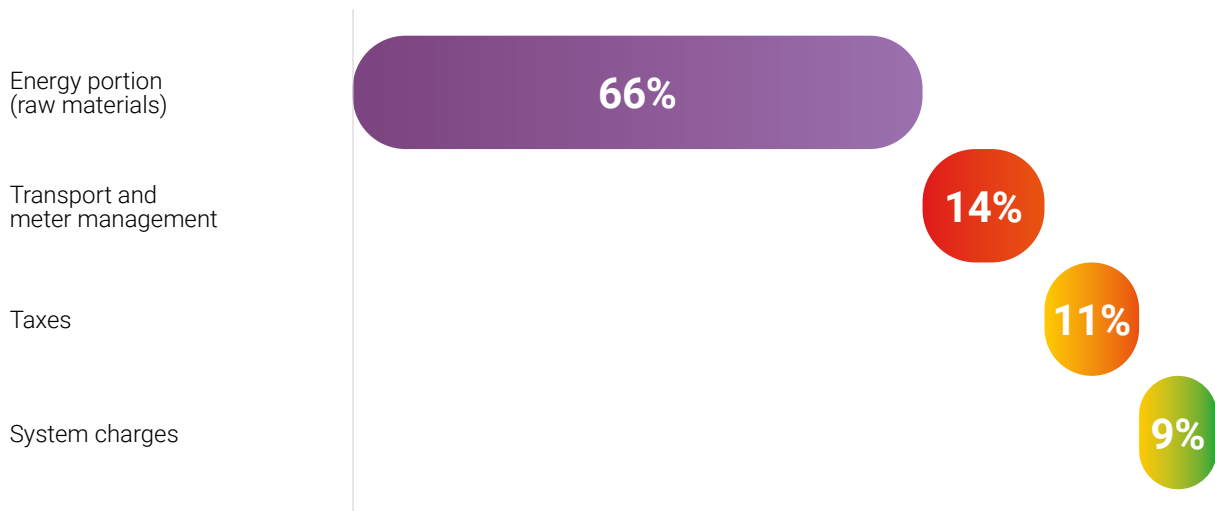
In compliance with the principles of **anti-competitive behaviour**, the Group companies do not conduct any commercial or promotional action towards customers who are part of the protected market, limiting their activities to their customers in the free market or prospective contacts acquired under regulations.

## 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 national 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.

### 2023 AVERAGE COMPOSITION OF ELECTRICITY TARIFF FOR PROTECTED MARKET



The average composition of the 2023 energy tariff takes into account government interventions on curbing 'high bills' (Decree-Law 130/2021), which reduced general system charges to zero for the first quarter.

In 2023, the annual expenditure per typical family (3 kW meter and annual consumption of 2,700 kWh) served in the protected market amounted to 1,195 Euro (source: ARERA), an increase of about 7% compared to 2022.

In 2023, Iren Group, thanks also to the strengthening of the fruitful dialogue initiated some time ago with the Consumer Associations, maintained the concrete initiatives to support its customers in relation to the increase in electricity prices, such as the possibility of resorting to installments at more favorable conditions, for bills that make payments difficult and the strengthening of direct contact channels with customers through local counters.

## ELECTRICITY SOCIAL BONUS

ARERA defines criteria for the recognition of the social bonus on the domestic supply of electricity to citizens/families in conditions of economic hardship. Since 2021 (Decree-Law 124/19), social bonuses have been recognised automatically: it is necessary for those entitled to present an annual Single Substitute Statement (Dichiarazione Sostitutiva Unica - DSU) for access to a subsidised service (e.g. maternity allowance, school canteen, etc.) and obtain an ISEE indicator within the access threshold, or be holders of a citizenship income/pension.

There is also a bonus for physical discomfort in cases where a serious illness requires the use of essential life-sustaining electro-medical equipment; this request must be made to the municipality of residence.

The bonus values that allowed a 31% reduction in the bill in 2023 were:

- 380 Euro for a family of 1 or 2 members;
- 485 Euro for a family of 3 or 4 members;
- 540 Euro for a family of more than 4 members.

Electricity social bonuses disbursed	2023	2022	2021
Number	211,258	172,767	96,098
Amount (Euro)	62,402,255	88,095,526	13,630,730

In 2023, a greater number of electricity social bonuses were disbursed compared to 2022 (+22%) to better help people in economic difficulty to combat the "high bill".

## ELECTRICITY SALES SERVICE QUALITY

The commercial quality standards are dictated by ARERA (Res. 413/2016 as amended, Amalgamated Law 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.

In 2023, the number of complaints from the electricity sales service decreased by more than 33% compared to 2022. The number of written requests for information remained almost stable while there was a decrease, compared to 2022, for double billing corrections.

The average response time for written complaints, which has decreased since 2022, respects the parameters set by ARERA.

Response to written complaints (days)	2023	2022	2021	ARERA max time
Average time	25.9	33.7	19.8	30

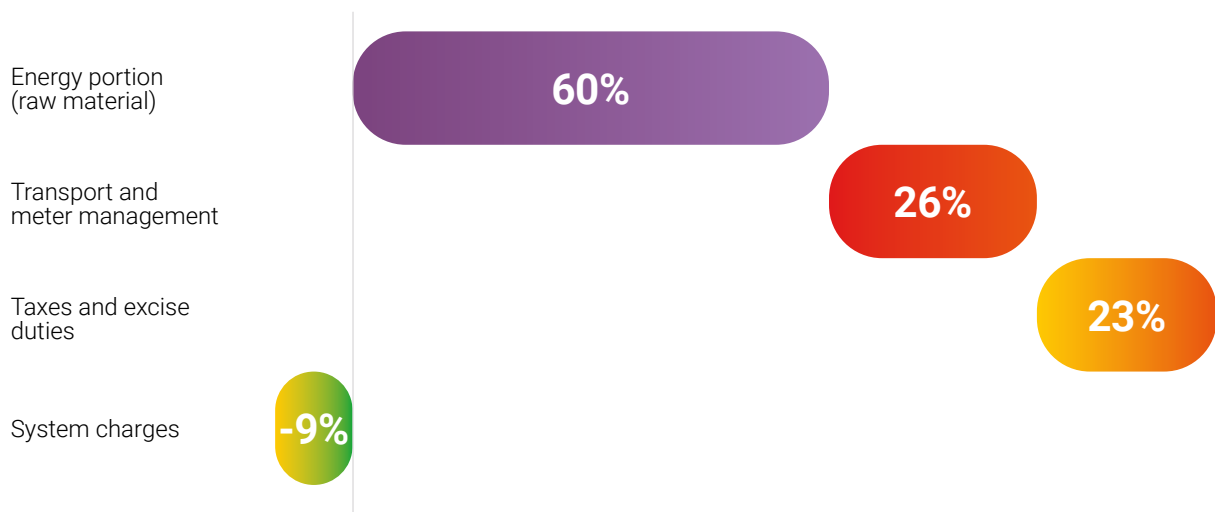
To constantly monitor its commercial quality, the Group considers it strategic to monitor customer satisfaction

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## GAS TARIFF

Gas tariffs comply with ARERA regulations (Amalgamated Gas Sale Law – TIVG and the Consolidated Law – 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.

### 2023 AVERAGE COMPOSITION OF GAS TARIFF FOR PROTECTED MARKET



The average composition of the 2023 gas tariff takes into account government interventions on curbing 'high bills' (Decree-Law 130/2021) that reduced the general system charges until April.

In 2023, the annual expenditure per typical family (annual consumption of 1,400 sm<sup>3</sup>) served with a protection tariff stood at 1,512 Euro (source: ARERA), a decrease of about 11% compared to 2022.

In the sale of gas, also for the first months of 2023, the Group continued to offer instalment payments on more favourable terms for bills that made it difficult for households to pay. The Group strengthened direct contact channels with customers through local counters and further enhanced gas self-reading channels to facilitate the timely recording of actual consumption.



## GAS SOCIAL BONUS

ARERA defines 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 Single Substitute Statement (Dichiarazione Sostitutiva Unica - DSU) for access to a subsidised service (e.g. maternity allowance, school canteen, etc.) and obtain an ISEE indicator within the access threshold, or be holders of a citizenship income/pension. The automatic recognition of gas social bonuses is valid for direct supplies and for households using condominium supplies (i.e. indirect).

The system recognises only one gas bonus per household. The gas bonus applies to methane gas distributed to the network for home-of-residence consumption.

Gas social bonuses disbursed	2023	2022	2021
Number	135,799	113,618	67,223
Amount (Euro)	28,366,101	67,859,557	6,581,016

In 2023, 83% more social gas bonuses were disbursed than in 2022 to further help people in economic hardship to combat 'high bills'.

## GAS SALES SERVICE QUALITY

As for electricity, the quality standards for gas sales are dictated by ARERA (Res. 413/2016 as amended, Amalgamated Law 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 number of gas complaints received in 2023 decreased by more than 20% compared to 2022. With regard to written requests for information, the number remains more or less stable, while for double billing corrections there is a decrease compared to the previous year's figures.

The average response time for written complaints, which has decreased since 2022, respects the parameters set by ARERA.

Response to written complaints (days)	2023	2022	2021	ARERA max time
Average time	27.2	35.0	20.2	30





## Electricity distribution



Iren Group manages the electricity distribution network plants in the municipalities of Parma, Turin and Vercelli.

Electricity 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 size of plants owned by the Group at 31 December 2023 is summarised in the table below.

Distribution network plants	u.m.	Parma	Turin	Vercelli
HV/MV stations	no.	5	11	1
MV/MV primary substations	no.	12	21	1
MV/LV secondary substations	no.	1,205	3,370	189
HV/MV transformers	no.	13	24	2
MV/LV secondary substation transformers	no.	1,443	3,192	308
HV power lines (overhead and non-overhead)	km	-	16.5	11
MV power lines (overhead and non-overhead)	km	945	2,057	208
LV power lines (overhead and non-overhead)	km	1,659	2,654	331
Electronic meters	no.	146,207	622,013	32,448

## QUALITY OF ELECTRICAL DISTRIBUTION

The technical quality of electricity distribution and metering services is defined by ARERA in the "Integrated text of the output-based regulation of electricity distribution and metering services (TIQE)" (Res. 566/2019/R/EEL) for the 2020-2023 period and governs the continuity of service, 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 and the environment, are analysed below.

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. The Group's **grid losses** decreased compared to 2022, although they remain below the national average of 7% (source: Terna data).

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The Group's grid losses are below the national average of 7%

Electricity network leaks	2023	2022	2021
Iren Group	3.80%	4.20%	2.75%

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 inhabitants), medium concentration (municipalities with more than 5,000 inhabitants) and low concentration (municipalities with less than 5,000 inhabitants). If the distributor achieves improvements in the level of the indicators, compared to its targets, it receives a bonus from ARERA, otherwise it pays a penalty.

ARERA raised the level of objectives of duration and number of interruptions if the distributor also considers external causes, i.e. disservice events caused by third parties (e.g. damage to cables following excavation work by third parties who do not operate on behalf of the distributor; disservice caused by faults occurring on private systems underlying the network).

In 2023, there is an increase in the number of interrupted customers for the Vercelli area, due to an increase in cable faults with more users and transformer failures in the primary station.

Average no. of interruptions per LV customer - N1 <sup>(1)</sup>	2023	2022	Obj. ARERA 2023
Turin high-concentration	2.95	2.91	1.21
Parma high-concentration	1.13	1.26	1.20
Parma low-concentration	4.12	3.87	4.30
Vercelli medium-concentration	1.31	0.65	2.25

<sup>(1)</sup> 2023 data are estimated. They are subject to verification and are dependent on submission to ARERA on 31/03/2024 for the 2023 financial year. The 2022 data have been restated, the final data reported to ARERA are shown.

Cumulative downtime - D1 (min./user) <sup>(1)</sup>	2023	2022	Obj. ARERA 2023
Turin high-concentration	69.16	64.00	28.00
Parma high-concentration	24.54	29.60	28.00
Parma low-concentration	73.15	73.38	68.00
Vercelli medium-concentration	34.72	18.10	45.00

<sup>(1)</sup> 2023 data are estimated. They are subject to verification and are dependent on submission to ARERA on 31/03/2024 for the 2023 financial year. The 2022 data have been restated, the final data reported to ARERA are shown.

In 2023, there was an improvement in the Parma area and an increase in the average duration for the Vercelli and Turin areas, due to an increase in cable faults with more users and faults in the primary station that led to longer resolution times. The cumulative duration is, in fact, conditioned by the number of disruptions that occurred and the complexity of the resolution times.

To improve the quality of electricity distribution service and the resulting negative impacts, the Group has set a target of reducing the frequency of interruptions by 40% by 2030 compared to 2022.

Iren Group, in the context of credit control procedures, 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) stations and overhead power lines with different articulation depending on the areas:

- inspection of electrical stations every two years for Parma, Turin and Vercelli. In 2023, 2,793 out of a total of 4,802 stations were inspected (primary MV/MV stations, secondary MV/LV stations), equal to 58%;
- 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 medium voltage overhead electricity network is approximately 318 km long and approximately 65% of it was inspected in 2023.

The inspection plan, fully carried out in 2023, provides for the general inspection of each system, with six-monthly controls, 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 stations installed in schools, hospitals, parks, or with specific load characteristics;
- MV/LV electricity stations with a higher capacity.

In the case of building a new electrical station (MV/MV and MV/LV), a series of technical and environmental factors are assessed in advance to identify the location of the station itself and the electrical machinery to be installed in it. The necessary actions are also implemented to limit the environmental impact, both in terms of landscape and acoustics and/or emissions. In 2023, the design and construction of new MV/LV stations continued to reduce the population's exposure to emissions from electromagnetic fields.

### ACOUSTIC IMPACT

In the electrical energy transformation plants (stations), we proceed with measurements of the acoustic emissions towards the outside in order to verify the absence of situations of noise pollution towards the population. No noise remediation was necessary in 2023, thanks to compliance with noise emission limits.





## 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 distribution through local gas networks for delivery to end users. A gas distribution system is typically composed of:

- high-pressure 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. stations (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 odorisation;
- second-stage reduction units where the last gas pressure reduction takes place before reaching the end users;
- user-derived systems, i.e. 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 and continuity are guaranteed via remote control systems of plants, 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 (14 storage units) and in the province of Genoa (7 storage units), 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 maximum 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.)	2023	2022	2021
Total gas meters	816,310	813,397	812,940
- of which electronic	733,770	726,491	712,096
% electronic meters	89.9%	89.3%	87.6%

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.

The year 2023 is characterised by an increasing stabilisation of processes with an increasing percentage of performance within the standard.

Commercial quality levels (business days)	2023	2022	ARERA max time
Cost estimate for simple jobs	6.5	8.5	15
Cost estimate for complex jobs	10.5	9.3	30
Execution of simple jobs	5.9	6.7	10
Activating supply	4.5	4.3	10
Deactivating supply	3.8	4.0	5
Reactivation following deactivation due to non-payment	1.1	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.

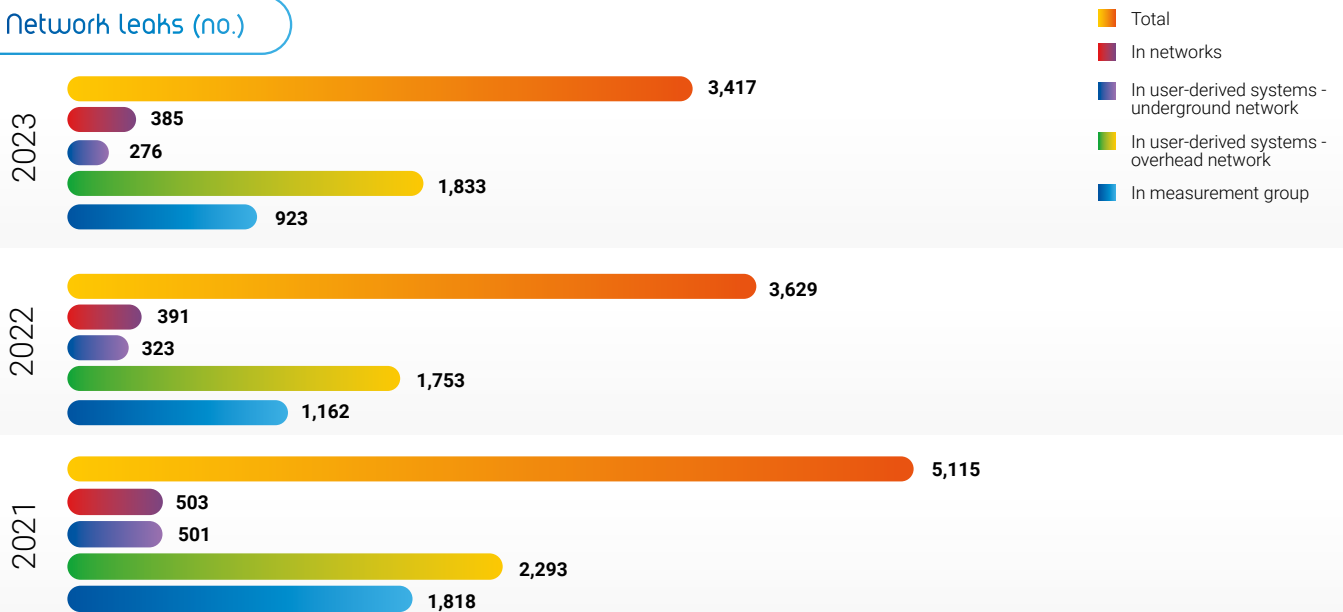
In the case of scheduled outages, to limit the inconvenience to the end customer, the work is carried out with the help of "plugging with by-pass" systems that allow the work to be carried out without suspending the flow of gas. In 2023, as in the previous year, the increase in gas distribution interruptions is mainly due to the numerous requests for suspension by third parties resulting from the implementation of redevelopment interventions in the 110% Superbonus area.

Gas distribution interruptions (no.)	2023	2022	2021
Unscheduled outages	1,688	1,151	781
Scheduled outages	991	1,118	970
<b>TOTAL</b>	<b>2,679</b>	<b>2,269</b>	<b>1,751</b>

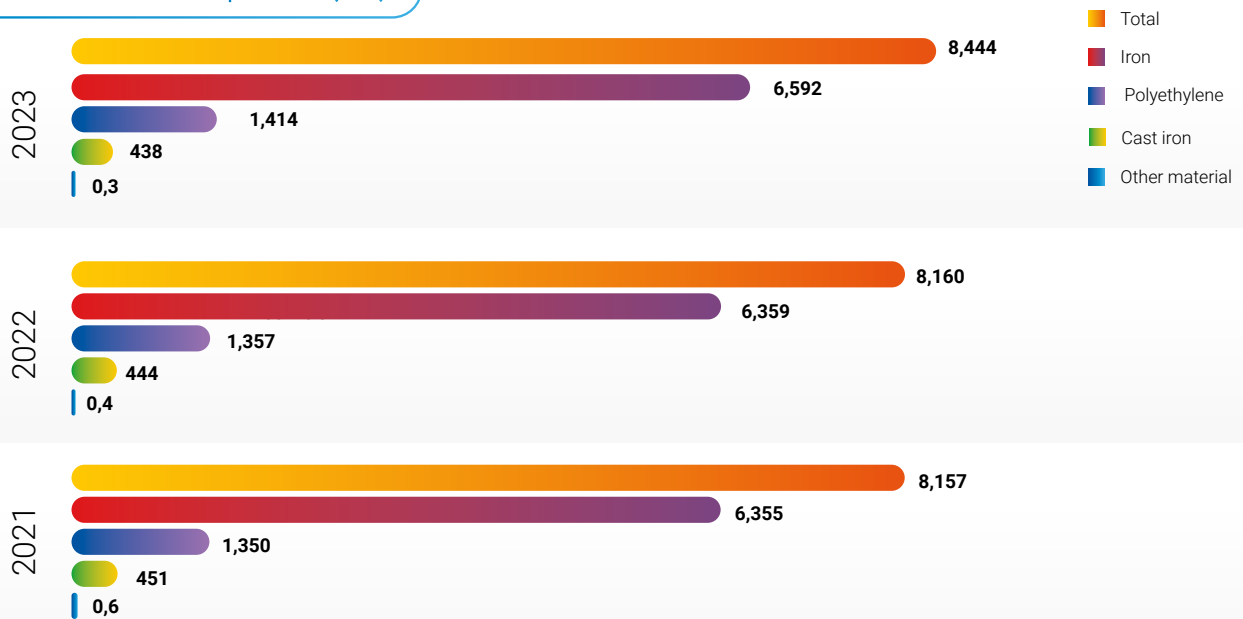
The main initiatives to reduce **leaks in the gas network**, in accordance with the provisions of ARERA, envisage the gradual cathodic protection of the unprotected steel network and the replacement of grey cast iron pipelines with hemp and lead joints. In addition to the search for leaks on the underground network established by ARERA, the systematic search for leaks also continued in 2023 at the measurement groups as well.

In 2023, network losses decreased (-6% compared to 2022), and the numerically most significant ones come from overhead shunt installations.

### Network leaks (no.)



### Gas network composition (km)



In 2023, the plan to renew sections of the network made of non-compliant material continued, particularly in the Liguria area.

Gas network replaced (km)	2023	2022	2021
Steel pipes	8	20	9
Polyethylene pipes	1	5	28
Cast iron pipes	4	5	5
<b>TOTAL</b>	<b>13</b>	<b>30</b>	<b>42</b>

## SAFETY OF THE GAS NETWORK

Personal 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 and to prevent potential negative impacts on customers.

Network inspection, an effective emergency service and an adequate odorant concentration are fundamentally important in the proper operation of a distribution system and for a positive impact on customer service, together with a continuous modernisation of the network.

In compliance with the provisions of the Italian Gas Committee guidelines and ARERA resolutions, inspections are carried out on the high, medium and low-pressure networks with instruments suitable for identifying any dispersions that cannot be perceived by smell, so that they can be rapidly eliminated. The inspection can be carried out:

- using a vehicle equipped with suction probes and suitable instrumentation to detect the presence of gas while driving over the pipeline (in the case of a driveway);
- using a manually moved suction mat (in case of pedestrian streets, mule tracks or historical cobblestones and bricks).

ARERA sets out the obligations for the inspection of gas networks. In 2023, Iren Group inspected 99.7% of the 8,444 km of the gas network managed. The scheduled inspection has also led to a greater control of leaks.

Gas network inspected	2023	2022	2021	ARERA req.
Low pressure network	100%	100%	97.3%	≥ 25%
Medium and high pressure network	99%	100%	99.2%	≥ 33%
<b>Total network inspected</b>	<b>99.7%</b>	<b>100%</b>	<b>98.4%</b>	

In 2023, about 100% of gas networks were inspected: more than triple the number of inspections required by ARERA



In distribution, gas odourisation must be ensured in accordance with the applicable regulations and ARERA and the minimum number of odour checks per thousand end customers served must be defined, to be carried out annually for the safety of the service and the protection of persons and property. In 2023, Iren Group introduced more than 43 mg of odourant (tetrahydrothiophene) into the network per cubic metre of gas distributed in order to make its presence easily noticed in the air for rapid identification of any gas leaks.

The emergency service is also essential to ensure the safety of citizens and places and to collect customer information/reports. Iren Group's performance in this area is significantly better than the minimum levels defined by ARERA. In 2023, the gas Emergency Service handled 7,564 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	2023	2022	ARERA req.
Average arrival time at the call site (min.)	32.6-34.3	30.9-35.8	60
Compliance with average arrival time at the call site (%)	99.6%	99.1%	90.0%

### ACOUSTIC IMPACT

Campaigns to measure the effects of noise produced on the surrounding environment within gas distribution plants in 2023 did not find any criticalities.



# INTEGRATED WATER SERVICE



## INTEGRATED WATER SERVICE TARIFF

The current tariff method, consistent with European directives, is aimed at determining, for each individual territorial area, tariffs that ensure full coverage of efficient 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.

The tariff structure is determined, at the level of each area, by the Area Governing Body on the basis of the principles of modulation by tariff bands, in order to disincentivise inefficient consumption, and adoption of pro-capita criteria for resident households. The regulation provides for different types of users of the integrated water service: a) domestic, b) industrial, c) artisan and commercial, d) agricultural and livestock, e) public non-disconnectable, f) public disconnectable, g) other uses (residual category).

The following table shows the average tariffs by area, as approved by the competent Area Governing Body, in relation to the integrated water service managed by the Group (drinking water distribution, sewerage and wastewater treatment). The provinces of Savona and Imperia are not reported, where Iren Group only manages the distribution of drinking water.

Average tariff for IWS (Euro/m <sup>3</sup> ) <sup>(1)</sup>	2023	2022
Province of Asti	2.55	2.55
Province of Genoa	2.64	2.49
Province of La Spezia	2.30	2.23
Province of Parma <sup>(2)</sup>	2.27 - 2.62	2.14 - 2.54
Province of Piacenza <sup>(2)</sup>	1.96 - 2.53	1.89 - 2.45
Province of Reggio Emilia	2.13	2.17
Province of Vercelli <sup>(2)</sup>	1.88 - 1.99	1.82 - 1.93
Province of Enna	2.83	n.a.

<sup>(1)</sup> The average tariff is calculated by adding the basic domestic use tariff for the water service, the sewerage tariff and the treatment tariff.

<sup>(2)</sup> Minimum and maximum values of the different tariffs in place across the country.

### UNIVERSAL RIGHT TO WATER

Iren Group is committed to guaranteeing **universal access to water**, recognising that all surface water and groundwater, even if not extracted from the subsoil, are public. For the Group, water is a resource that must be protected and used according to criteria of solidarity; any use is carried out safeguarding the expectations and rights of future generations to enjoy an intact environmental heritage.

A subsidised tariff is applied to resident domestic users on a quantity at least equal to the minimum vital quantity; resident domestic users in economically and socially disadvantaged conditions are guaranteed the supply of the minimum vital quantity.

## WATER BONUS

ARERA introduced (Resolution 897/2017/R/idr) the social water bonus for customers in financial difficulty. Users with ISEE not exceeding 9,530 Euro (or not exceeding 20,000 Euro if there are at least 4 dependent children) and other specific categories are entitled to request the bonus. The bonus covers the consumption of 50 litres of integrated water service per person per day.

In addition to the bonus provided by ARERA, the Area Governing Bodies can add an additional bonus financed by the tariff of the Area and disbursed according to methods established by the Body itself. ATERSIR (Territorial Agency of Emilia-Romagna for Water and Waste Services) confirmed also for 2023 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 Governing Bodies of the Genoa and La Spezia Areas have approved an amount for the two provinces of 1,432,000 Euro and 220,000 Euro, respectively. The Governing Body of the Asti Area approved an amount for the province of 14,138 Euro.

As of 2021, ARERA changed the process of acquiring and applying the water bonus. As a result of the changes introduced, it is not always possible to complete the procedure within the reporting year. In 2023, bonuses that were outstanding in 2021 and 2022 were also acquired and issued, generating a significant increase in bonuses in the year, as shown in the table below.

Water social bonus <sup>(1)</sup> <sup>(2)</sup>	2023	2022
Number of bonuses awarded	192,162	36,998
Amount (Euro)	19,460,630	2,015,958

<sup>(1)</sup> Calculations and amounts include ARERA bonuses and supplementary bonuses from Area Governing Bodies.

<sup>(2)</sup> The figures for 2023 refer to the amounts disbursed in the calendar year 2023. The final data will be sent to ARERA by 31/03/2024 for the financial year 2023.

## QUALITY OF THE INTEGRATED WATER SERVICE

Iren Group's integrated water service charters incorporate the indicators and timing defined by ARERA (Resolution 655/2015/R/idr) for the contractual quality of the integrated water service. In 2023, the figures for 2022 were reported, confirming a very high level of compliance with the established time frames, with an average of 90%.

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 operators' quality system [» SEE PAGE 257](#).

## SERVICE EFFICIENCY

At the end of 2023, the Group manages 953,789 water meters serving the various types of users, 18% of which are electronic. These are new-generation meters that, in addition to providing real-time data for billing amounts due, help 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 a view to minimising negative impacts for the public as far as possible. A priority, in fact, is the attention to the protection of the urban environment and the sustainability of everyday life, in particular with regard to the impact on city streets.

In 2023, out of 21,977 km of managed water network, 20,232 km (92% of the total) were checked for leaks: 5.677 km (26%) through the acoustic research technique carried out on-site and 14,554 km (66%) 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.

**20,232 km**  
of managed  
water network

In the case of planned service interruptions, i.e. suspensions of the water supply necessary for the execution of planned works, the methods (tracked and documented) of notifying users deemed most effective on a case-by-case basis (e.g. notices in the press and on local television, signs posted in the area concerned) are adopted within the time limits required by the regulation. In 2023, there were a total of 541 planned outages in the managed territories. For emergency interventions, e.g. to repair a burst pipe, 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 regulation in force. In 2023, there were a total of 15,765 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 65 minutes.

## WATER SAFETY

In the supply of water for drinking use, the health and safety of the customer are an absolute priority, guaranteed by Iren Group through constant verification, even beyond legal obligations, of the quality of the water throughout the supply cycle: capture, treatment, disinfection, distribution. The Group has adopted the implementation of **Water Safety Management Plans** (WSP), defined by the World Health Organisation (WHO) and European Directive 2020/2184 to systematically ensure the safety of a drinking water system, the quality of the water supplied and the protection of consumer health [» SEE PAGE 189](#).

In the 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 controls, aimed at preventing possible negative impacts, are more numerous than those envisaged by the regulations in force and by the protocols signed with the Area Authorities, ARPA and the Provinces.

Controls on drinking water and wastewater (no.)	2023		2022		2021	
	Samples	Parameters	Samples	Parameters	Samples	Parameters
Emilia-Romagna	36,480	455,446	38,072	455,605	37,365	467,067
Piedmont	4,798	55,920	5,027	52,940	5,087	57,503
Liguria	17,114	465,938	14,807	387,321	13,162	324,700
Sicily <sup>(1)</sup>	567	23,809	-	-	-	-
<b>TOTAL</b>	<b>58,959</b>	<b>1,001,113</b>	<b>57,906</b>	<b>895,866</b>	<b>56,131</b>	<b>858,093</b>

<sup>(1)</sup> Since 2023, the Group has acquired control of Acquaenna, which manages the service in the Territorial Area of Enna.

“ About 59,000 samples and 1,000,000 parameters analysed on drinking and wastewater to ensure residents’ safety

## ACOUSTIC IMPACT

The subject of reducing the acoustic impact is 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

### 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 Municipal Authority 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 groups or users.

The average tariff for waste collection and environmental health services in the municipalities of La Spezia, Vercelli, Parma, Piacenza, Reggio Emilia and Turin is in line with previous years. As is the average tariff for the Toscana Sud area, which includes the provinces of Arezzo, Grosseto, Livorno and Siena. The table below provides the average TARI for 2023 for the main municipalities served.

Year 2023		Average TARI by provincial capital				
Type of domestic users	La Spezia	Parma	Piacenza	Reggio Emilia	Turin	Southern Tuscany
	Euro/year	Euro/year	Euro/year	Euro/year	Euro/year	Euro/year
1 member families	149.98	130.85	121.17	179.09	133.66	123.18
2 member families	194.27	215.38	215.50	273.05	251.23	216.38
3 member families	207.09	247.32	269.66	354.69	301.11	270.30
4 member families	218.21	289.28	297.61	406.80	333.36	315.45
5 member families	229.33	340.92	357.36	454.60	389.55	404.47
≥ 6 member families	240.65	398.55	404.97	489.75	442.67	470.61

### QUALITY OF WASTE MANAGEMENT SERVICES

With Resolution 15/22, ARERA adopted the Consolidated Text for the regulation of the quality of the municipal waste management service (TQRIF), in force as of 1 January 2023, launching a regulatory path aimed at leading the sector towards a generalised improvement in quality - both commercial and technical - within a framework of common but differentiated rules depending on the starting level. The Competent Territorial Entities have identified the management regulatory scheme, among the four envisaged by ARERA.

For waste management services, Iren Group has adopted and published Service Quality Charters, according to current standards, which contain the main commercial and technical quality profiles. In this area, too, Iren Group considers periodic customer satisfaction surveys to be strategic >>> SEE PAGE 257.



## SAFETY OF WASTE MANAGEMENT SERVICES

The Group has developed tools for monitoring performance, also in terms of sustainability and environmental protection, such as the assessment of environmental impacts, analytical controls, internal audits and legislative compliance checks. The continuous evolution of customer expectations and needs, strongly reinforced by market competitiveness, requires flexible organisational models and lean management systems, whose effectiveness in terms of results must be monitored. The organisational and procedural set-up of each activity or project takes into account all aspects that may impact on the health and safety of stakeholders. 100% of products and services in the environment sector undergo health and safety impact assessments.

### 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 hot water.

ARERA started regulating the sector as of 2018 on aspects of commercial quality, technical quality, quotation, measurement, transparency and pricing. The Group has taken steps to adapt its technical-administrative processes and update the Service Charter, which 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.

Iren 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 257](#).

## DISTRICT HEATING TARIFFS

District heating prices were, for the whole of 2023, predominantly constructed on the principle of "avoided cost", i.e. on the construction of a price, expressed in Euro/MWh, that corresponds to the price the customer would have paid for the unit of heat produced with a methane gas-fired boiler or by adopting the most widespread competing technological solution. The prices were updated on the basis of the increases applied monthly by ARERA to the sum of the tariff components related to the gas raw material for the protected market (supply, sale, infrastructure costs) and the updates of the tax components.

In December 2023, ARERA (Resolution 638/2023/R/tlr1) approved the "District Heating Tariff Method for the transitional period from 1 January to 31 December 2024" and, at the same time, commenced proceedings to define the tariff regulation to be applied from 1 January 2025, the development of which includes data collection activities, the preparation of consultation documents and the performance of in-depth studies.

## DISTRICT HEATING BONUS

In consideration of the continuing international energy crisis that has produced a strong increase in the price of raw materials, in 2023, Iren Group renewed and expanded its actions to support its customers in situations of greater difficulty, confirming, inter alia, the District Heating Bonus for the 2022/2023 and 2023/2024 thermal seasons, in consideration of the fact that district heating does not benefit from government subsidies (social bonuses) that are instead applied to other energy sources.

The measure, to be paid for in full by the Group, is a discount on the district heating service granted on the bill to end customers who meet the following requirements:

- **domestic utility** for heating service or mixed heating with individual district heating contract or centralised district heating with split service or centralised district heating;
- **residence** in one of the municipalities where the Group provides district heating service (Beinasco, Collegno, Genoa, Grugliasco, Moncalieri, Nichelino, Parma, Piacenza, Reggio Emilia, Rivoli, Turin);
- **ISEE** not exceeding 25,000 Euro (for the 2022/2023 heating season); by band (less than 9,530 Euro, between 9,530 and 15,000 Euro and not exceeding 20,000 Euro) and household members (for the 2023/2024 heating season).

The Group took an active role in facilitating families to submit applications, with numerous supporting initiatives such as press releases, dissemination of digital content (information video), leaflets and assistance at all counters in the area. In addition, a dedicated section was set up on its website and all municipalities involved in the initiative were directly involved in collecting applications. This allowed customers to apply for the bonus via a method often already used to apply for other benefits. In addition, to ensure the reliability and security of information, access to online forms was made conditional on authentication with a digital signature. The initiative was widely embraced and the bonuses were all disbursed during the year 2023.

## DISTRICT HEATING SAFETY

The Department of Environmental, Territorial and Infrastructure Engineering (DIATI) of the Polytechnic University of Turin 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 co-generation 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.

Iren is constantly striving to ensure efficiency and reliability in the management of the district heating network, including through the adoption of advanced technologies and the preventive maintenance of the infrastructure to ensure uninterrupted service, maintaining high standards of reliability and transparency in interactions with users. To prevent negative impacts, regular inspections and maintenance are carried out to identify and promptly resolve any problems or wear on the network; advanced monitoring systems are used to detect anomalies, leaks or inefficiencies in the network in real time (terrestrial and airborne thermography). In addition, detailed contingency plans were drawn up to respond promptly to critical situations, minimising service impacts, and security measures were taken to protect key infrastructure from external threats, vandalism or sabotage. The effectiveness of the actions is evaluated through continuous monitoring of network performance and through analysis of reports of emergencies or service interruptions and their response times.

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 1,134 km long and 52% of its extension was inspected in 2023.



## Smart solutions



The Group offers integrated energy efficiency solutions for condominiums, businesses, public administrations.

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, design, development and installation of photovoltaic systems.

The proposed solutions are “turnkey”, including consulting services, design, implementation and monitoring, with the possibility of using incentives and customised financial and contractual solutions. For energy upgrades of buildings/plants, in 2023, customers were allowed to use the tax bonuses (superbonus, ecobonus, seisbonus, home bonus) and, limited to the cases provided for in the legislation, to receive the rebate on the invoice or to opt for the assignment of the credit corresponding to the tax deduction.

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 2023, 550 energy upgrading sites of private, public and third sector buildings were managed. The number of sites managed during the year related to private contracts was 500, of which 430 with the use of the 110% Superbonus tax bonus. Some sites also saw energy upgrading of centralised heating systems. Furthermore, the plant and building redevelopment project aimed at increasing the **energy efficiency of 800 properties** in the City of Turin continued, including schools, offices, sports facilities, cultural and religious buildings. A set of interventions (thermal coats, insulation systems, thermal solar and photovoltaic systems, renovation of windows and doors, and replacement of existing technological heating equipment) that will be completed in 2030 with a forecast of energy savings of 33% with respect to the historical consumption of electricity and heat, and an annual saving of approximately 7 million Euro, compared to the costs in 2020, for the City of Turin. The project, which envisages an investment of 110 million Euro supported by Iren and recovered through the energy savings achieved, will also have important implications in terms of allied industries and the local economy.

In order to give greater impetus to **Renewable Energy Communities (REC)** » SEE PAGE 181 as a tool to reduce environmental impacts and contain energy costs, the Group created the “Energy Community Project” organisational unit with the aim of implementing virtuous models based on sharing and broadening the target audience of beneficiaries, including also companies and public administration.

## SMART SOLUTIONS SAFETY

In managing smart solutions activities, the Group works to minimise impacts on the health and safety of customers and communities. Constant controls and checks of potential environmental impacts are envisaged for sites, through the Minimum Environmental Criteria (CAM), i.e. the guiding indications for reducing the environmental impact, from design to construction, intervening on various aspects: consumption of non-renewable raw materials,

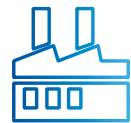
consumption and degradation of land, energy and water consumption and waste production, as well as attention to the working conditions of staff. The activation of a work area must also be preceded by a noise impact assessment. In addition, the Group adopts specific measures to minimise the environmental impact of the service, such as the use of environmentally friendly vehicles and the use of accident-prevention work clothes made of environmentally friendly materials.



With regard to processes and monitoring, the configuration and implementation of the Energy Management System (EMS) platform for energy monitoring began in July 2023. In addition, in December 2023, the new Infocad IT platform was activated for the management of the Turin facilities, which automatically generates maintenance schedules with details of the activities to be performed, guaranteeing control over the scheduling of operations and highlighting any interferences in execution times.

Emergency management (disaster/emergency plan, recovery plan, emergency information and training) is understood as the level of service to the customer in the event of faults and repair work: response times are foreseen for each type of instance as well as 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 takes steps to monitor, evaluate and mitigate 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 and silencers). To verify compliance with the limit values established by legislation, specific Acoustic Impact Assessments are carried out at each energy production site, which certify the level of noise generated and perceivable outside, either as a preventive measure or on already existing situations in the case of:

- construction, alteration or extension of a building work;
- starting a new business;
- submission of an application for the issuance of permits for the construction of new plants, the infrastructure of productive activities or commercial services;
- request by a public body.

In cases where the prescribed limit values are exceeded, special procedures are used that define the operating methods to be adopted to manage noise emissions, in a manner that complies with the provisions of the regulations and authorisation acts, such as the execution of acoustic remediation interventions on the most significant sources to reduce emissions within the legal limits. 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, we implement appropriate measurements to assess the need for specific mitigation measures.

## Emergency management

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Iren Group has formalised and implemented a **Business Continuity Management (BCM)** model that allows the valorisation and protection of company assets guaranteeing business continuity, minimising external and internal impacts.

The main objective of the BCM is to ensure business resilience in the face of unforeseen events by ensuring the continuity of business processes deemed critical. To properly manage business continuity processes and ensure the implementation of appropriate organisational and technological measures, the Group has defined a **Business Continuity Plan (BCP)** Procedure. The BCP defines continuity strategies to ensure the rapid resumption of processes in the event of an interruption, procedures for maintaining the BCM model and staff training.

In addition, the Group has adopted a **Crisis Management Plan or Crisis Plan** with the aim, should an emergency or critical event occur, of providing a structured response that supports the corporate figures involved, containing the damage caused, ensuring business continuity is maintained and defining an action plan that identifies further measures and strategies. The Crisis Management Plan is the documented set of rules and procedures for detecting, declaring, counteracting and managing an emergency or crisis situation, and allows for the timely organisation of initial responses and all necessary actions to contain the event and return to normal operations. The Crisis Manager ensures adequate reporting to the Board of Directors of the Parent Company and the Group Company involved, the Control, Risk and Sustainability Committee, the Board of Statutory Auditors, and the Supervisory Board of the Parent Company and the Group Company involved.

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 management of information and relations with Entities.

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 (on some complex plants, such as waste-to-energy plants), via request and call of on-call technicians. 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 loaded with an 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.

## TERRITORIAL EMERGENCY SUPPORT

During emergencies and natural disasters, Iren Group works to provide support to affected communities, providing resources and infrastructure for the safety and well-being of residents, working closely with local authorities and relief organisations.

In 2023, Iren Group offered significant help to the people affected by the floods in Emilia-Romagna and Tuscany. In Forlì, Faenza and Cesena, where the consequences of the flood were particularly severe, the Group worked to alleviate the hardships: trucks and special vehicles were sent to remove accumulated rubbish and debris from the roads. The primary objective was to clear transit routes and clean up heavily affected public and private areas. The clean-up operations were complex and required careful coordination with the local authorities to ensure that the affected areas were restored to normal as quickly as possible. A developed commitment, with a strong focus on the need to resolve emergencies in compliance with environmental and safety procedures.

In the areas of Tuscany affected by the floods, Iren Group offered active support in the clean-up operations with 12 men and 7 vehicles made available to remove debris and clean up the areas affected by the natural disaster, in over 500 hours of work.

