

E.S.T.R.A. S.p.A.

Registered office in Via Ugo Panziera 16, 59100 Prato (PO)
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Economic and Administrative Index no. 0505831

**DIRECTORS' REPORT ON THE
CONSOLIDATED FINANCIAL STATEMENTS AS OF 31 December 2022**

OFFICERS

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General Manager Paolo Abati
Director Giovanni Grazzini
Director Anna Scrosta
Director Roberta De Francesco

Board of Statutory Auditors

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Alessandro Mannelli
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Independent Auditors

EY S.p.A.

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1. HIGHLIGHTS OF THE YEAR

2022, after a year characterised by significant global economic recovery following the health crisis, was characterised by a slowdown in growth arising from the outbreak of the Russian/Ukrainian conflict. The instability of the geopolitical context and the volatility on the market negatively contributed to economic development, which, already in the latter part of 2021, was marked by difficulties in the procurement of raw materials and the upswing in the price of energy commodities.

The energy crisis, worsened by the deterioration of relations between Russia and Europe, had repercussions especially on the security of procurement, caused by the reduction in supplies of Russian raw materials at European level, with Italy experiencing a reduction in gas imports from Moscow by nearly 52% compared to 2021.

This turbulence, with impacts on the physical availability of the commodity and consequently on the level of liquidity on the markets, notably contributed to the increase in the prices of energy commodities, also influenced by significant speculative pressures.

An important upward trend was observed in 2022 with reference to the price of natural gas on the Virtual Exchange (PSV). The bullish trend, which had already started in the final quarter of 2021, characterised the entire year, peaking in August with € 228.3/MWh, before returning to lower values in the final quarter of the year.

Concerns around difficulties in procurement of the commodity led to a nearly complete interruption in commercial activities for supplies to the ReMi and a significant reduction in trading on the platform (PSV, TTF). The procurement process imposed the need on operators to increase purchases on the electronic markets with contract-regulated trade (EFET) and, at the same time, to address extraordinary financial requirements in terms of bank guarantees, guarantee deposits or pre-payments that the system (shippers and commercial counterparties) required to a greater and greater extent and with an increasingly immediate adjustment.

Regarding the electricity market, however, the price to purchase energy (PUN) continued its upward trend that had started in 2021, culminating in 2022 at € 303.95/MWh, up by 142.3% compared to the previous year. In particular, in Italy the PUN showed a performance strongly linked to the escalation of gas prices, also suffering the consequences of low levels of national hydroelectric supply, in the presence of high levels of drought. The growth of the PUN was particularly significant in the third quarter of the year, in line with the exacerbation of the tensions, the cut in Russian supplies and the consequent surge in gas prices.

In this particularly complex external scenario, the Group managed to operate in full continuity through a careful procurement policy, making recourse to consolidated commercial relations with important sector players and making the most of its own capacities to operate on the electronic markets, faced with an inevitable significant increase in financial commitments.

The energy scenario also had repercussions on commercial policies, especially due to the structural change in offers aimed at customers (with a higher prevalence of indexed formulas than in the past) and specific initiatives in support of customers such as the possibility to request monthly invoicing of use and the payment of bills in instalments.

In 2022, the Estra Group achieved very positive management results, showing solidity, resilience and an ability to adapt to the energy crisis, in a context where the diversification of the Group's business portfolio, characterised by a balancing act between various business units, was an essential element that made it possible to reduce the economic and financial impacts of market turbulence.

Significant signs of confidence in the management policies implemented and appreciation for the creditworthiness of the Group were seen on the capital market. 2022 saw the successful completion on 14/04/2022 of the issue and placement of an unsecured and non-convertible bond loan for € 80 million, with a 5-year bullet, represented by bonds listed on the regulated market managed by the Irish Stock Exchange and, on 15 September 2022, the issue and placement of unsecured and non-convertible senior bond loans with American institutional investors (so-called "US Private Placement") for the amount of \$ 1200 million, 7-year bullet, now for € 70 million.

Both issues are aimed at the partial refinancing of existing debt as well as support for the Group's investment plan, and pursue a strategy of diversification and improvement of the Group's indebtedness, by extending its average duration.

In addition to the aforesaid bond issues, during 2022 the Group carried out other important funding operations with leading credit institutes for € 370 million, for the purpose of refinancing existing debt as well as to support the Group's investment plan and strengthen its liquidity position given the volatility of the markets and consequent higher financing needs of the working capital.

In line with the strategic approach adopted in recent years, the Group continued its constant commitment to generate value in the medium and long term and to consolidate its presence in the sectors of interest, including through external growth operations. In particular, we note the company acquisition of 75% of Bisenzio Ambiente S.r.l., owner of a chemical, physical and biological treatment plant for liquid hazardous and non-hazardous special waste, and of 100% of Ecocentro Toscana S.r.l., active in the treatment and recovery of non-hazardous waste arising mainly from road sweeping, from the cleaning of wastewater and from desanding.

2022 closed with an adjusted gross operating margin (adjusted EBITDA) of € 104.5 million, decreasing by € 7.7 million (-6.9%) compared to 2021 (€ 112.2 million).

Referring to the analysis by business sector for a more in-depth assessment, the decrease mainly refers to the Gas and Electricity Sales SBU, where tensions on the market determined, in particular, a notable increase in balancing expenses in the electricity segment. This reduction was partially offset by the growth in the margins of the energy efficiency sector.

The adjusted net operating result (adjusted EBIT) stood at € 35.4 million, a decrease of € 15.1 million compared to 2021 (€ 50.5 million) after amortisation and write-downs that increased by € 7.4 million compared to 2021, mainly as a result of higher amortisation from the change in the scope of consolidation, with the first consolidation of the income statement of Edma Reti Gas S.r.l. and the business acquisitions of Bisenzio Ambiente S.r.l. and Ecocentro Toscana S.r.l.

The financial management has a negative balance of € 11.2 million compared to € 8.2 million in 2021 as a result of the increase in average debt recorded during the year resulting from the increase in net working capital and rising interest rates.

Adjusted net profit was € 14.1 million (€ 28.6 million in 2021).

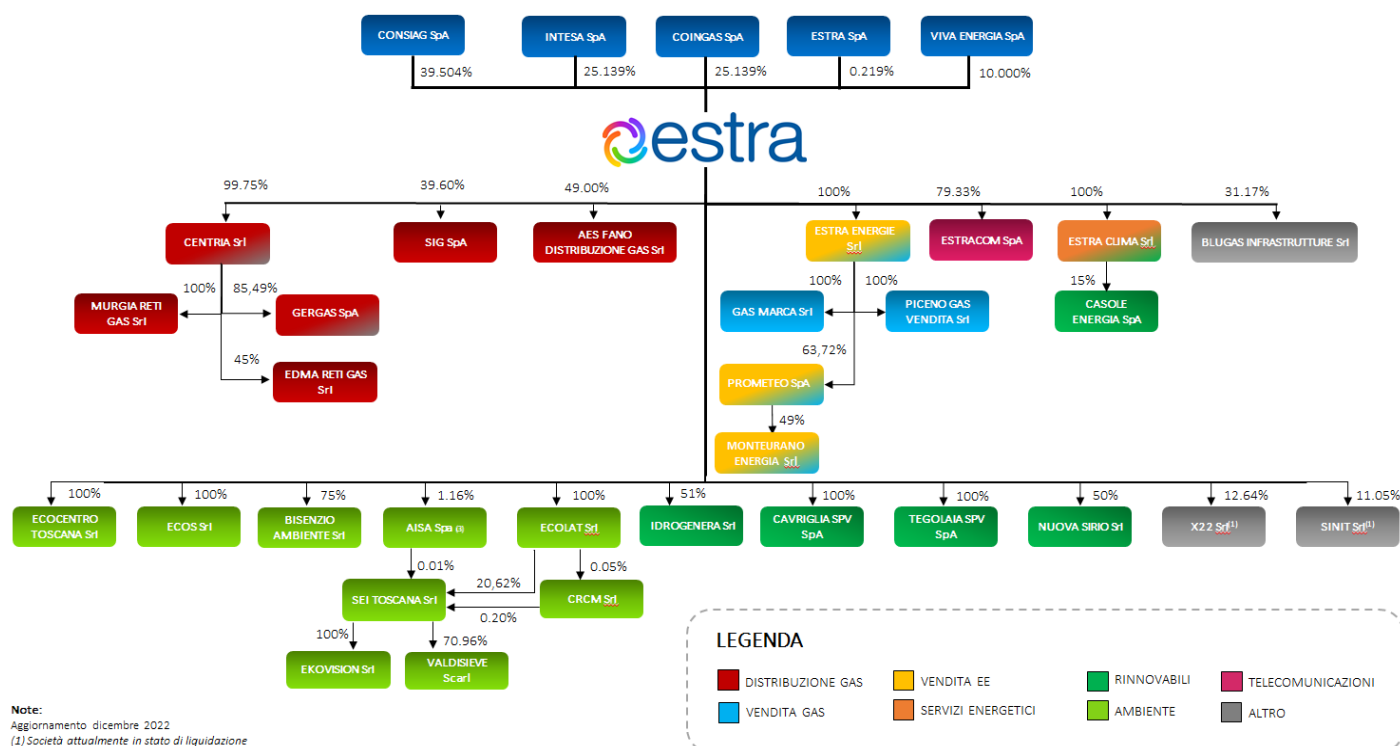
Shareholders' equity at 31 December 2022 amounted to € 423 million (€ 413 million at 31 December 2021). The changes that occurred in the year are mainly attributable to the net profit for the period and to the distribution of dividends.

The absorption of cash for investments and for operations resulted in an increase in net financial debt that went from € 240.1 million in 2021 to € 352 million at 31 December 2022, with the percentage on capital raised rising from 36.8% at 31 December 2021 to 45.4% at 31 December 2022, due to the dynamics illustrated in the balance sheet.

The Group closed 2022 with a significantly stronger liquidity position than in 2021 (€ 345.9 million, up by € 202.8 million), not only to support the investment plan, but to deal with the high price level of natural gas and electricity and the extraordinary volatility recorded on the markets.

2. GROUP STRUCTURE

The chart below includes the companies directly or indirectly controlled by Estra which are part of the Estra Group, with an indication of the equity interests held in each of them.



The Group is structured according to a model that provides for a Parent Company with activities of coordination and centralised management of corporate functions (strategic and organisational planning, financial and budget planning, marketing goals and policies, human resource management policies, strategies and practices, production scheduling, planning and control of business management, IT management), and special purpose entities operating in the following business segments:

- natural gas and electricity sales at the national level;
- natural gas distribution mainly in the regions of central Italy;
- trading of natural gas on Italian and foreign platforms;
- technical and operational management of telecommunication networks and marketing of telecommunication services, technical and operational management of LPG distribution networks and marketing of the same, production of electricity from renewable sources (in particular, photovoltaic), management of district heating plants and heat management, redevelopment and energy efficiency activities, waste selection and storage.

In addition, the Group's activities can be distinguished between regulated or semi-regulated activities, and free-market activities:

- "regulated and semi-regulated activities", that is activities performed only by entities in possession of a concession or authorisation on the basis of which they are performed, until expiry, at economic and contractual conditions which are, entirely or mainly, defined on the basis of criteria established by the competent authority. The Group performs the regulated activity of natural gas distribution and semi-regulated activities of LPG distribution and marketing and production of electricity from renewable sources;
- "free-market activities", that is activities performed by all operators in the sector in possession of the requisites provided for in the applicable legislation, at economic and contractual conditions which are mainly defined on the basis of free negotiation between the parties. The Group performs free-market activities for the sale of natural gas and electricity, natural gas trading, technical and operational management of telecommunication networks and marketing of telecommunication services, management of heating plants owned by third parties and heat management, redevelopment and energy efficiency activities, waste selection, treatment and storage.

The Estra Group operates, through subsidiaries, in joint ventures and associates, mainly in Tuscany, Umbria, Marche, Abruzzo, Molise, Apulia, Campania, Calabria and Sicily operating on a national basis in the sale of natural gas and electricity.

3. SIGNIFICANT EVENTS OF THE YEAR 2022

The following business development initiatives are noted in the scope of the investment strategy in the environmental segment from the perspective of diversifying the Group's business portfolio.

3.1 ACQUISITION OF CONTROL IN BISENZIO AMBIENTE S.R.L.

During 2022, the process to acquire control of the company Bisenzio Ambiente S.r.l. was completed in execution of the investment agreement signed on 6 April 2021 (subsequently amended on 28 February 2022) between Estra S.p.A., Consiag S.p.A. (shareholder with 39.5% of Estra S.p.A.) and Cipeco S.r.l., replacing the original investment agreement of 30 March 2020.

The company Bisenzio Ambiente S.r.l. has as its purpose in particular the management of plants for the storage and chemical, physical and biological treatment of liquid hazardous and non-hazardous special waste and holds, following the contribution made by Cipeco S.r.l. an Integrated Environmental Authorisation (Autorizzazione Integrata Ambientale - A.I.A.) and operates a recently constructed plant for the processing of hazardous and non-hazardous liquid special waste.

Note that:

- on 22 April 2020, Estra S.p.A. acquired 5% of Bisenzio Ambiente through a share capital increase subscription for € 39,000, resolved by the shareholder Cipeco in favour of third parties;
- on 28 April 2021, Estra S.p.A. acquired a 31.8% stake in Bisenzio Ambiente for an amount of € 1,767,000 and Consiag S.p.A. acquired a 4.2% stake for € 233,000.

in 2022, on 31 March 2022 specifically, Estra S.p.A. and Consiag S.p.A. acquired the remaining 54% of the Bisenzio Ambiente share capital for a total of € 2,500 thousand, of which Estra S.p.A. acquired 38.2% and Consiag S.p.A. 15.8%. The consideration is subject to an adjustment mechanism, which could result in an increase of up to € 500,000 should certain applicable conditions eventuate.

As a result of the above, Estra holds 75% of the stakes in the company Bisenzio Ambiente S.r.l., which is therefore fully consolidated from these consolidated financial statements.

For the accounting effects of the business combination, please refer to the specific paragraph in the notes to the financial statements.

3.2 ACQUISITION OF ECOCENTRO TOSCANA S.R.L.

On 14 September 2022, Estra S.p.A. acquired 100% of the shares of Ecocentro Toscana S.r.l. from Ecocentro Tecnologie Ambientali S.r.l.

The company is active in the treatment and recovery of non-hazardous waste mainly from road sweeping, cleaning of wastewater and desanding. The plant is based in the Municipality of Montemurlo (PO) and has been active since 2012. The company has an agreement in place with ATO Centro which is valid until 2037 for a maximum annual quantity of 60,000 tons, of which 47,000 for sweeping dust (core business) and a maximum of 500 for special waste.

The company is based in an owned building located in Montemurlo (PO), Italy.

The acquisition is strategic in light of the plant shortage of this type in Italy and in Tuscany in particular, and allows E.S.T.R.A. to develop in a waste sector with a view to supply chain integration and circular economy.

The price of the acquisition was € 5,515,000, of which € 4,115,000 paid during the year, € 800,000 paid on 28 February 2023, € 600,000 to be paid by 31 December 2023 and € 200,000 by 31 December 2028.

For the accounting effects of the business combination, please refer to the specific paragraph in the notes to the financial statements.

3.3 RATIONALISATION OF EQUITY INVESTMENTS IN COMPANIES OPERATING IN THE NATURAL GAS DISTRIBUTION SECTOR

The commonality of the business sector, the company composition and the geographic position of several of the territories served made it necessary to proceed in 2022 with a corporate restructuring operation within the companies operating in the sector of natural gas distribution through a transfer, to Centria S.r.l., the Group's main activity in this SBU, of the stakes held directly by the Parent Company Estra S.p.A. in Edma Reti Gas S.r.l. (45%) and Gergas S.p.A. (57.80%).

The operation is aimed at pursuing operational and financial efficiency and advantages in terms of planning investments arising from the direct control by the same company, Centria S.r.l.

The restructuring took place through an increase in the share capital of Centria S.r.l. subscribed, on 27 September 2022, entirely by Estra S.p.A., following the waiver of the option right by the shareholder Energie Offida S.r.l. through the transfer of the equity investments held:

- for 45% in Edma Reti Gas S.r.l. for a nominal € 9,511,000, at the value of € 15,893,000;
- for 57.80% in Gergas S.p.A. for a nominal € 1,104,000 at a value of € 24,171,000, which when added to the stake already held by Centria S.r.l., made the latter a shareholder of direct control with a stake of 85.49%.

For the purpose of further capital strengthening of Centria S.r.l., also essential for the financial requirements of the Group given that Centria is the guarantor of the main bond loans and bank loans with Estra S.p.A. as the beneficiary, Estra S.p.A. also subscribed to a share capital increase in cash for € 49,853,000.

Overall, the capital increase of Centria S.r.l. was € 68,378,000 with a share premium of € 0.315 for each euro of capital subscribed.

The operation led to:

- the increase in the stake held by the Group in Centria S.r.l. from 99.65% as at 31 December 2021 to 99.75% as at 31 December 2022;
- the increase in the stake held by the Group in Murgia S.r.l. from 99.65% as at 31 December 2021 to 99.75% as at 31 December 2022;
- the decrease in the stake held by the Group in Edma Reti Gas S.r.l. from 45.00% as at 31 December 2021 to 44.89% as at 31 December 2022;
- the decrease in the stake held by the Group in Gergas S.r.l. from 85.39% as at 31 December 2021 to 85.28% as at 31 December 2022.

Given that these were transfers of stakes already controlled, the operation had no effect on the income statement for 2022.

For the effects on the shareholders' equity of the aforementioned acquisitions or sales of stakes in companies already controlled, please refer to the specific paragraph in the notes to the financial statements.

3.4 BOND ISSUES

Despite the current context of complexity on the energy and financial markets, exacerbated by the conflict between Russia and Ukraine, E.s.tr.a. S.p.A., the Group successfully completed:

- on 14 April 2022, the issue and placement of a non-convertible unsecured bond loan for € 80 million represented by bonds listed on the regulated market managed by the Irish Stock Exchange, where the relative prospectus has been filed.

The loan is guaranteed by the subsidiary Centria S.r.l., entirely subscribed by institutional investors outside of the United States of America. Bonds, issued at a price of 98.509% of nominal value, are unrated, have a duration of 5 years and a fixed coupon of 3.050%. At the same time as the new issue, Estra S.p.A. partially bought back € 30 million of the bond loan of € 50 million outstanding at 31 December 2021, falling due in November 2023 at a price of 100.53% of the nominal value.

- On 15 September 2022, the issue and placement of non-convertible unsecured senior bonds with American institutional investors (so-called "US Private Placement") for the amount of € 70 million. The bonds, issued at par and with a duration of 7 years, admitted to trading on the non-regulated market of the Wiener Börse AG, have a fixed coupon of 4.20% and will be repaid at par in a single tranche at the maturity date.

This issue is part of an uncommitted issue programme of bonds that can be subscribed by the Pricoa Group ("Private Shelf Facility") up to US\$ 125 million, with a 3-year duration. The transaction represents a new and complementary channel of funding and confirms Estra's capacity to fund its activities on the capital market and the interest of investors, including American investors, in supporting the Group's strategic plan.

Both issues are aimed at the partial refinancing of existing debt as well as support for the Group's investment plan, and pursue a strategy of diversification and improvement of the Group's indebtedness, by extending its average duration.

In addition to the aforesaid bond issues, during 2022 the Group carried out other important funding operations with leading credit institutes for € 370 million, for the purpose of refinancing existing debt as well as to support the Group's investment plan and strengthen its liquidity position given the volatility of the markets and consequent higher financing needs of the working capital. In this regard, please refer to the notes and comments on financial debts shown in the notes to the financial statements.

4. CONFLICT BETWEEN RUSSIA AND UKRAINE

In February 2022, relations between Russia and Ukraine deteriorated to the point of erupting in armed conflict. Following the launch of the Russian invasion into Ukraine on 24 February 2022, the United States, European Union and many other countries issued sanctions and controls on exports to Russia and Belarus.

These events have already had a significant impact on the European and global economies, including greater market volatility and significant increases in the prices of electricity, natural gas and raw materials. Nonetheless, the invasion of Ukraine could result in further negative consequences for the European and global economies, such as those resulting from additional sanctions, controls on exports and embargoes, increased regional instability, geo-politic shifts and other negative effects on macro-economic conditions, exchange rates, supply chains (including the supply of oil, natural gas and other raw materials from Russia and Ukraine) and on financial markets.

The most significant effects felt by the Group are the extended volatility and higher levels of natural gas and electricity prices that had already started climbing at the end of 2021 before the conflict began, impacting on the absorption of cash generated by net working capital from sales of natural gas and electricity, which are physiologically impacted by the misalignment in the time frame between collections from customers and payments to suppliers. To address this sudden and extraordinary increase in prices, the Group took swift action to obtain ample increases in bank credit facilities and liquidity.

Note that the Group has no direct supply relations with Russian counterparties, though the reduction in the availability of gas supplies from Russia impacted on the procurement methods of natural gas required for supply to end customers.

The events recorded from the final quarter of 2021 have substantially changed the energy market in Italy and in Europe, outlining very different scenarios compared to the past in terms of procurement.

The Group managed to operate in full continuity through a careful procurement policy, making recourse to consolidated commercial relations with leading wholesale operators and by increasing the quantities of gas purchased for self-supply on the electronic markets.

Furthermore, the Group carried out:

- a reconfiguration of the sales volumes towards clusters of customers with lower margins, such as resellers and industrial customers, also seeking to reduce credit exposure and the related financial requirement;
- the application to the sales contracts of contractual conditions (penalties, payment times, guarantees) aligned with those defined for purchases as far as possible;
- the constant monitoring of the balancing of the gas and electricity portfolios, seeking to minimise the risk of misalignment in purchases and sales as well as price and volumes.

The changing energy scenario also led to commercial impacts, especially due to the structural change in offers aimed at customers, with a higher prevalence of indexed formulas than in the past.

Directors are very carefully monitoring the situation, in consideration of the potential negative impact that this could have on the general economic context, and where possible, identifying risk mitigation measures.

5. MARKET SCENARIO

Macroeconomic context

In 2022, after a year characterised by significant global economic recovery following the health crisis, there was a slowdown in growth arising from the outbreak of the Russian/Ukrainian conflict.

The instability of the geopolitical context and the volatility on the market negatively contributed to economic development, which already in the latter part of 2021 was marked by difficulties in the procurement of raw materials and the upswing in the price of energy commodities.

In general, the international macroeconomic fabric was affected by the upward trend in inflation, caused especially by the high costs of energy and the restrictive approach of the adopted monetary policies. The energy crisis, worsened by the deterioration of relations between Russia and Europe, had repercussions especially on the security of procurement, caused by threatened interruption in supplies of Russian raw materials; as a result, Italy experienced a reduction in gas imports from Moscow by nearly 52% compared to 2021¹ and sought various sources of gas procurement, through agreements and alliances with new partners and commercial routes.

This turbulence notably contributed to the increase in the prices of energy commodities, with a chain reaction on all national production segments and on households. Consequently, in 2022 consumer prices increased on average by 8.1%, mainly caused by the evolution in the energy component².

In this scenario, the OECD estimated that in 2022 the international GDP had grown by 3.1%, recording a contraction of 2.8 percentage points compared to 2021³.

As for international trade, in 2022 the fluctuating trend seen in the previous year continued, with a consistent drop in early 2022, mainly determined by the decrease in trade with overseas in emerging countries like Brazil, China, India and Russia⁴; this trend was also maintained in the second quarter of the year, before increasing in the summer months, when commercial trade increased at a sustained pace⁵. 2022 ended with a slowdown in international trade, leading to assumptions of a possible continuation of this evolution throughout 2023⁶.

On the whole, in 2022 trade reported a positive value of 5.6%, while in the previous year the value stood at 11.2%.

Albeit less intense than 2021, economic growth in most advanced economies was also positive in 2022. In particular, the United Kingdom once again reported a more sustained increase in GDP, equal to 4.4%, despite, according to forecasts, being the G7 country most at risk of entering a recession in the upcoming months⁷, as a result of the high values of inflation and interest rates.

As for the advanced economies, in 2022 the GDP of Japan had the most limited growth, at 1.6% compared to the previous year, whereas the United States observed a 1.8% increase in GDP compared to the previous year (provisional using OECD data)⁸.

The estimates available generally show an increase also in relation to the emerging economies, with the exception of Russia which went strongly against the trend, with a negative growth in GDP of 5.5%, a direct consequence of the impact on the economy of the sanctions imposed following its invasion of Ukraine.

China, which in 2021 had recorded one of the largest expansions in terms of GDP (8.1%), suffered in 2022 from the effect on the economy of its zero-Covid policies and the worsening of trade relations with the West⁹, recording a 3.0% growth in GDP.

A positive trend was also seen in India (GDP 6.6% provisional on OECD data, the highest among emerging economies) and Brazil (GDP 2.% provisional on OECD data)¹⁰.

Estimates on projections for the economy in the Euro Area indicate a 3.3% increase in GDP in 2022 compared to 2021¹¹. Growth took place in every quarter of the year, showing a slowdown in the final part, which only grew by 0.1% compared to the previous quarter. The economic expansion was particularly vigorous during

¹ Ministry for the Environment and Energy Security, Natural Gas Report 2022

² ISTAT - CONSUMER PRICES - DECEMBER 2022

³ *Bollettino economico (Economic Bulletin)* – Bank of Italy 1/2023 page 9

⁴ *Bollettino economico (Economic Bulletin)* – Bank of Italy 3/2022 page 9

⁵ *Bollettino economico (Economic Bulletin)* – Bank of Italy 1/2023, page 8

⁶ *Bollettino economico (Economic Bulletin)* – Bank of Italy 1/2023, page 9

⁷ Press review on S&P Global indications – MILANO FINANZA 12/12/2022

⁸ *Bollettino economico (Economic Bulletin)* – Bank of Italy 1/2023, page 9

⁹ *Il Sole 24 Ore / Economy* – 27/12/2022

¹⁰ *Bollettino economico (Economic Bulletin)* – Bank of Italy 1/2023, page 9

¹¹ *Bollettino economico (Economic Bulletin)* – Bank of Italy 1/2023, page 9

the summer months thanks to the impetus provided to the services sector by the reopening of the economy and the support measures adopted by governments. Nevertheless, the energy crisis and the upward inflationary dynamics caused uncertainty and led to a slowdown in the euro zone's economic activity, causing the GDP to decelerate in the third quarter of 2022¹².

In this context, according to preliminary estimates, Italian GDP in 2022 grew at a rate that was still limited, standing at 3.9%¹³, showing a performance linked, in the first part of the year, to the increase in infections due to the spread of the Omicron variant, the increase in energy costs and the effects of Russia's invasion of Ukraine¹⁴. The expansion was most relevant in the summer months, mainly supported by national demand, whereas it showed weakening towards the end of the year, as a result of the high energy prices and the attenuation of recovery in the trade, transport and accommodation services sectors, which were those hardest hit by the pandemic¹⁵.

Household spending reflected GDP performance during the year: while in the third quarter domestic demand was mainly supported by this spending segment and, to a lesser extent, by investments¹⁶, in the final months of the year consumption weakened, reflecting the low level of consumer confidence¹⁷. On the other hand, the propensity for saving decreased, brought back to values observed before the health crisis. In 2022 various government measures were in place to reduce the prices of energy goods, to mitigate the impact of the inflationary shock on household purchasing power and to prevent the increase in income inequality.

On the other hand, with reference to the Italian labour market, 2022 represented a widely positive employment balance, with 380,000 jobs created (figures higher than pre-health crisis levels) and an observable weakening only towards the end of the year¹⁸. The increase was largely supported by permanent employment contracts: over 410,000 stable jobs were created, while fixed-term contracts remained stationary and apprenticeship contracts dropped by over 50,000 units. Employment increased for men as well as women, while at geographic level the growth was mainly concentrated in the Centre-South of the country¹⁹.

Industrial production in Italy followed a fluctuating trend in 2022, with a negative first quarter, already influenced by the increase in energy costs, and a second quarter in expansion. In conclusion, in the final two quarters of the year, production decreased once more as a result of costs of energy that were still high, and the weakening in demand. In particular, starting from the summer months of 2022, the production segments that saw the sharpest drop were those with the most intense use of energy input, and were affected by the exceptionally high prices²⁰.

With the exception of the final quarter of the year, which reflected the uncertainties around the macroeconomic context, the real estate market in 2022 continued the positive trend that began in mid-2020, maintaining high numbers of purchases and sales of homes as well as high prices²¹.

On the other hand, overseas trade in the first quarter of 2022 saw significantly higher exports, supported by the goods component, inverting the trend compared to the final months of 2021²². The growth was also maintained, albeit in a more moderate manner, in the second quarter of the year, with the volume of sales of goods decreasing. Exports were mainly supported by non-European markets – in particular the United States and China – whereas there was a slowdown in sales in the main partners in the European area²³.

Imports saw a similar trend, showing differences only in the third quarter, with the volumes of goods and services imported growing at a sustained pace in all relevant quarters.

In early 2023, Italy's macroeconomic context continued to improve, positively influenced by the significant reduction in the prices of energy commodities, which slowly returned to values that had not been recorded since October 2021. At the same time, the inflationary pressure slowly began to ease, coming to +10.1% in January 2023 compared to the same period in 2022, mainly owing to the inversion in the trend of regulated energy goods²⁴.

¹² European Central Bank | Eurosystem – Economic projections for the euro area

¹³ ISTAT – Prospects for the Italian economy in 2022-2023

¹⁴ *Bollettino economico (Economic Bulletin)* – Bank of Italy 2/2022, page 24

¹⁵ *Bollettino economico (Economic Bulletin)* – Bank of Italy 1/2023, p. 24

¹⁶ ISTAT – Prospects for the Italian economy in 2022-2023, page 3

¹⁷ *Bollettino economico (Economic Bulletin)* – Bank of Italy 1/2023, pages 29-30

¹⁸ *Il mercato del lavoro: dati e analisi (The labour market: data and analysis)* – Bank of Italy EUROSISTEM – 27 January 2023, p. 1

¹⁹ *Il mercato del lavoro: dati e analisi (The labour market: data and analysis)* – Bank of Italy EUROSISTEM – 27 January 2023, p. 4

²⁰ *Bollettino economico (Economic Bulletin)* – Bank of Italy 2-3-4/2022, *Bollettino economico (Economic Bulletin)* – Bank of Italy 1/2023

²¹ *Bollettino economico (Economic Bulletin)* – Bank of Italy 2-3-4/2022, *Bollettino economico (Economic Bulletin)* – Bank of Italy 1/2023

²² *Bollettino economico (Economic Bulletin)* – Bank of Italy 2/2022, page 33

²³ *Bollettino economico (Economic Bulletin)* – Bank of Italy 1/2023, page 31

²⁴ ISTAT – January 2023

Monetary policy

The recent two-year period was particularly affected by the monetary policy²⁵. Struggling with the pandemic, the main European and international authorities made it their absolute priority to boost the economy. For this reason, the monetary policy in the main European and international countries was highly expansive for some time. The benchmark rates remained at historical highs, flanked by other instruments such as long-term refinancing operations and mass purchase of securities.

This approach was first slowed then inverted in 2022. The rapid post-pandemic recovery and the war in Ukraine caused inflation to grow, bringing it back into the centre of attention. Since the start of the year, global economic activity showed signs of slowdown due to the spread of the Omicron variant of the coronavirus and, subsequently, Russia's invasion of Ukraine. Inflation grew nearly everywhere, continuing to reflect the rising energy prices, the bottlenecks in supply and, especially in the United States, the recovery in demand.

In this global framework characterised by exceptionally high inflation, the uncertainty linked to the conflict in Ukraine and a general weakening in international growth, many advanced economies saw, through conspicuous and repeated increases in the benchmark interest rate, a strong acceleration of the normalisation of the monetary policies that had started at the end of 2021.

In the United States, in the first three quarters of 2022, the monetary policy of the Federal Reserve became more restrictive, accelerating the process of gradual reduction already initiated in 2021. In particular, since March the Fed has always revised upward the target range for the rate on federal funds, bringing it to between 3.0% and 3.25% in September²⁶. In the final quarter of the year alone, though there was still growth, there was a reduction in the rate of increase of the benchmark rates, bringing them to a level between 4.25 and 4.5 percent²⁷.

In the same way, in the United Kingdom, the Bank of Italy continued to apply a restrictive monetary policy through repeated increases in the benchmark interest rate, as well as by launching a selling phase of government securities, which will continue at a pace defined from time to time on the basis of the market conditions.

For the whole of 2021, in the Euro Area the ECB considered keeping up favourable financial conditions as an essential requirement to ensure that the recovery continued. As the months went by, in a scenario characterised by economic stagnation and sharply rising prices, the ECB was also forced to intervene by inverting the expansive trend of the monetary policy. In July 2022, to limit the growing inflationary pressures, purchases of government securities were blocked and interest rates were revised upwards (for the first time in over a decade). In particular, the Governing Council of the ECB decided on an initial increase of 50 basis points in July and a second one of 75 in September, bringing the rate on the main refinancing operations, the rate on the marginal lending facility and the rate on overnight deposits with the Eurosystem to 1.25, 1.50 and 0.75 percent, respectively²⁸.

At the meetings in October and December, the Governing Council of the ECB further increased the official rates, by 75 and 50 basis points respectively, bringing the overall increase since July to 2.5 points, and communicated that they would still increase significantly and at a constant pace to promote a prompt return of inflation back to the mid-term target²⁹. At the meeting in December, the Council finally announced the criteria based on which it would proceed with the normalisation of the amounts in securities held by the Eurosystem for monetary policy purposes. In particular, from early March the Asset Purchase Programme (APP) will be reduced at a measured and predictable pace, whereas the full reinvestment of maturing securities of the Pandemic Emergency Purchase Programme (PEPP) will continue at least until the end of 2024³⁰.

Trends in the energy market

2022 was a complicated year for the oil market, which continued the fluctuating trend of the previous two-year period, initially characterised by the block on economic activities caused by the health crisis and subsequently by a sudden recovery, which translated to an increase in demand and prices. The pressures on

²⁵ The monetary policy is the set of decisions made by the central banks to regulate the supply of money, so its quantity in circulation, and the cost of money itself, i.e. its interest rate. A monetary policy is defined as expansive when, by reducing the interest rates, it strives to stimulate the money supply of banks to businesses, and so investments and the production of goods and services. On the contrary, a monetary policy is restrictive if, by increasing the interest rates, it reduces the supply of money. Restrictive monetary policies aim to reduce inflation or decrease the public deficit and make public finances sustainable.

²⁶ *Bollettino economico (Economic Bulletin)* – Bank of Italy 4/2022

²⁷ *Bollettino economico (Economic Bulletin)* – Bank of Italy 1/2023

²⁸ *Bollettino economico (Economic Bulletin)* – Bank of Italy 4/2022

²⁹ *Bollettino economico (Economic Bulletin)* – Bank of Italy 1/2023

³⁰ *Bollettino economico (Economic Bulletin)* – Bank of Italy 1/2023

the energy markets, indeed before Russia's invasion of Ukraine, also had consequences on the oil market, outlining a year of extreme volatility and rising prices³¹.

While in 2021 demand for oil had seen a rapid recovery, reaching the threshold of 100 million barrels per day in the final quarter of the year, the current uncertainties are affecting the expectations for 2022, which should close at an annual average of 99.4 million barrels/day, a lower result than the previous estimates³². The turbulence in the energy sector affected all fossil fuels, in particular leading to higher oil prices at 100 dollars per barrel in the first half of 2022, before decreasing in the second part of the year³³. This decrease was not only caused by the weakening of economic activities and geopolitical uncertainties, but also the worsening of the Chinese restrictions connected to the rise in coronavirus cases, which fomented fears of new collapses in demand³⁴. The year closed with the Brent around 80 dollars per barrel. This price level also extended to January 2023, proving to be in line with the prices recorded at the start of last year, when these numbers still implied a crescendo of tensions, mainly determined by the imbalance between supply and demand³⁵.

In December 2022, the Council of the European Union set a cap on the price of crude oil coming from or exported by Russia at 60 dollars per barrel, providing for a bi-monthly review of the mechanism to respond to market conditions. This decision was followed by Moscow's ban on selling oil overseas, from 1 February 2023 and for five months, if the sale were to take place according to the rules on the price cap, net of special authorisations³⁶.

The oil price formation dynamics were also heavily impacted by the OPEC Plus decision³⁷ to cut production by 2 million barrels per day until the end of 2023, as a result of the expectations of a fall in global demand. The cut to production levels, the strongest since 2020, was confirmed in December 2022 to address the unstable international situation.

According to the International Energy Agency (IEA), in 2023, crude consumption will reach the record figure of 101.7 million barrels per day (99.7 million in 2022), mainly thanks to the end of anti-Covid restrictions in China. According to the IEA, the main source of the increase was demand for aircraft fuel. Nevertheless, the Agency warns of the possible imbalance between supply and demand in early 2023, arising from western sanctions on Russian oil, with diesel being one of the products at most risk³⁸.

Regarding the electricity market, however, the price to purchase energy (PUN) continued its upward trend that had started in 2021, culminating in 2022 at € 303.95/MWh, up by 142.3% compared to the previous year³⁹. The consequences of the Russian/Ukrainian conflict and the repercussions that this event had on the dynamics for forming the prices of energy commodities impacted the sudden hike in electricity prices on the main European stock markets. In particular, in Italy the PUN showed a performance strongly linked to the escalation of gas prices, also suffering the consequences of low levels of national hydroelectric supply, in the presence of high levels of drought. The growth of the PUN was particularly significant in the third quarter of the year, in line with the exacerbation of the tensions, the cut in Russian supplies and the consequent surge in gas prices. The latter part of the year, on the other hand, recorded a downward trend in electricity prices, linked to the reduction in gas prices.

2022 saw a slight reduction in electricity volumes traded on the Day Ahead Market (DAM) at 289.2 TWh (-0.4% compared to 2021). Over the counter trading on the Electricity Power Exchange (PCE) and nominated on the DAM remained low but at its highest since 2020, at 78.3 TWh, rising by 13.2%. Volumes traded on the Stock Exchange, on the other hand, came to 210.9 TWh, a decrease of 4.7% on 2021⁴⁰.

An important upward trend was observed in 2022 with reference to the price of natural gas on the Virtual Exchange (PSV), which rose to a record € 125.4/MWh (+€78/MWh compared to 2021). The bullish trend, which had already started in the final quarter of 2021, characterised the entire year, peaking in August with € 228.3/MWh, before returning to lower values in the final quarter of the year. The trend was similar to the performance recorded on the main European hubs, where the TTF⁴¹ had reached a record high of € 124.7/MWh in 2022, increasing by € 78/MWh on 2021. The PSV-TTF spread stood at €0.7/MWh, compared to € 0.5/MWh in the previous year.

³¹ International Energy Agency, World Energy Outlook 2022

³² UNEM, Annual Report 2022, page 10

³³ International Energy Agency, World Energy Outlook 2022 - page 3

³⁴ GME Newsletter January 2023 page 1

³⁵ Il Sole 24 Ore – Markets

³⁶ Staffetta Quotidiana (daily bulletin), 03/12/2022 and 28/12/2022

³⁷ The "OPEC Plus" agreement signed at the end of 2016 by 24 countries with the objective of stabilising oil prices, currently involves 21 countries, 11 OPEC members (Saudi Arabia, Nigeria, Iraq, Kuwait, Angola, Ecuador, United Arab Emirates, Algeria, Congo, Gabon and Equatorial Guinea) and 10 non-OPEC countries (Azerbaijan, Bahrain, Brunei, Kazakhstan, Malaysia, Mexico, Oman, Russia, Sudan and South Sudan).

³⁸ Sole 24 Ore – "Oil: IEA, 2023 demand increases to record level of 101.7 million b/d", 18/01/2023

³⁹ GME Newsletter January 2023 page 2

⁴⁰ GME Newsletter January 2023 page 4

⁴¹ The TTF (Title Transfer Facility) is the natural gas trading hub of reference at European level.

Lastly, looking at the prices of energy goods in relation to 2023, in January the PUN on the Italian electricity market fell to their lowest levels since October 2021 to € 174.49/MWh, down by 22.3% on January 2022. This trend benefited directly from the gas prices on the PSV, which were also at their lowest since the same period (€ 69/MWh)⁴².

2023 began with a sharp drop in total demand for gas, which decreased by 22% compared to the same period in the previous year, and to the lowest values for over twenty years for January⁴³. Analysing demand by sector of consumption, the decrease was recorded in terms of both the domestic and industrial segments; nevertheless, with reference to the latter, it should be noted that there was a recovery in daily demand, in line with a downward trend in wholesale prices. With the start of the new year, the reconfiguration of the sources of procurement also continued: in the wake of the trend that began in 2022, Russian imports were exceeded by those from Algeria, Northern Europe, Azerbaijan and the import of LNG ⁴⁴.

Overview of the Italian markets

The natural gas market

NATURAL GAS (Million m³)	Financial year 2022	Changes %
Imports	68,664	-4.2
Domestic production	3,127	+0.1
Delivery from storage	9,152	-18.9
Total issued	80,943	-6
Services and domestic use	28,920	-13.2
Industrial use	11,922	-15.2
Thermoelectric use	25,180	-3.1
Exports, third-party networks and system consumption*	2,964	+2.7
Total demand	68,985	-9.5
Injections into storage	11,958	+21.6
Total drawn down	80,943	-6

* includes linepack variation, losses, consumption and unaccounted for gas

In 2022, natural gas consumption in Italy fell by 9.5% compared to 2021 (a year that recorded the highest level in the last decade⁴⁵), coming to 68,985 million cubic metres⁴⁶, as a direct consequence of the rising prices of commodities and milder temperatures.

The decrease in consumption affected all distribution sectors, with a more notable drop in the industrial segment, which came to 11,922 million cubic metres consumed (-15.2%), followed by the services and domestic use sector at 28,920 million cubic metres (-13.2%), whereas the decrease was less pronounced in thermoelectric with 25,180 million cubic metres (-3.1%). The positive trend in exports and other consumption was confirmed, with 2,964 million cubic metres (+2.7%).

Similar dynamics were also seen in supply, with domestic production remaining unchanged since 2021 with 3,127 million cubic metres (+0.1%), whereas a sharp drop was recorded in imports, which came to 68,664 million cubic metres (-4.2%). The distribution of flows by type and by point of entry was particularly significant and reflected the anomalies caused by the ongoing conflict, with interruptions in Russian supplies and the diversification of the sources of procurement implemented by Italy. Imports via gas pipelines were down in 2022 largely caused by the reduction in flows from Russia to Tarvisio (-61%) and by the decrease in flows from Libya to Gela (-18.6%). On the other hand, flows from Algeria to Mazara increased significantly (+11.3%), and this gas pipeline was the most used in the year in terms of procurement. Imports from Azerbaijan to Melendugno grew by 42%, with the TAP (Trans Adriatic Pipeline) in its second year of operation, and by 242% from Northern Europe to the Gries Pass.

There was a consistent increase in the flows of all regasification terminals, with Cavarzere (VE) at +13% and Livorno (LI) at +162%, their record highs, whereas Panigaglia (SP) grew by 108%⁴⁷.

In 2022, total trades on the gas spot markets (MP-GAS) managed by the GME (Gestore Mercati Energetici - Energy Markets Operator) were at a historical high of 175 TWh, up by 35% compared to 2021, with a monthly

⁴² Staffetta Quotidiana (daily bulletin), 15/02/2023

⁴³ Staffetta Quotidiana (daily bulletin), 01/02/2023 on SNAM and MISE data

⁴⁴ Staffetta Quotidiana (daily bulletin), 01/02/2023 on SNAM and MISE data

⁴⁵ GME Newsletter January 2022

⁴⁶ GME Newsletter January 2023 page 12

⁴⁷ GME Newsletter January 2023, page 12

peak at 42% in July. For the second year in a row, the increase in the volumes was supported by the day-ahead markets.

The gas distribution sector

In the gas distribution sector, in light of the new market context characterised by significant instability, an upward revision to the weighted average cost of capital (WACC) for the natural gas distribution and metering activity was assumed. With resolution 654/2022/R/com of 6 December 2022, the values of the WACC parameters in force in 2022 were confirmed, for which the calculation and update criteria for the period 2022-2027 had been set in terms of resolution 614/2021/R/com of 23 December 2021 (5.6% both for the gas distribution and metering service, down on the previous period when this was at 6.3%).

As for the performance of MTA bidding, the Draft Law (DDL) on Competition, definitively approved on 2 August 2022, could take action on their recovery, currently blocked. The law on competition contains important legislative adjustments that seek to develop the distribution networks of local entities and to accelerate the procedure for carrying out tenders. In particular, the legislative amendments that could speed up the bidding include the possibility to value the owned network of local entities at the VIR, the simplification of the ARERA control procedures on reimbursement amounts and tenders and the reduction of the times available to outgoing operators (60 days) to provide the Contracting Authorities with data in preparation for tenders.

In February 2023, with a view to further impetus for the performance of tenders, the Ministry of Environment and Energy Security (MASE) issued a regulation proposal aimed at amending the tender criteria. The three key topics of the proposal are the reduction of information asymmetries, the promotion of network development works in terms of transition and cost-benefit analysis, and the drive towards technological and green innovation.

In summary, at the end of 2022, the tenders published were still much fewer compared to those initially provided for in the calendar of the Ministry of Economic Development. The updated situation as at 31 December is as follows:

6 ATEMs with calls for tenders published with restricted procedures still active: Varese 2, Lodi 1, Varese 3, Vicenza 3, Vicenza 4, Potenza 2;

3 ATEM with call for tenders published with open procedure still active: Rimini, Biella, Catanzaro - Crotone;

20 ATEMs with calls for tenders revoked, cancelled, suspended: Cremona 2 and 3, Alessandria 2, Turin 3, Udine 1, Perugia 2, Massa Carrara, Udine 3, Venice 1, Lucca, Monza and Brianza 2, Como 1, Bergamo 3, Brescia 1, Trieste, Bergamo 2, Milan 4, Milan 3, Verona 2, Monza Brianza 1, Genoa 2;

8 ATEMs with calls for tenders published with open procedures expired: Belluno (awarded to Italgas, contract signing suspended due to recourse to the Regional Administrative Court), Milan 1 (awarded to UnaReti - A2A Group), Turin 2 (awarded to Italgas), Aosta (awarded to Italgas), Udine 2 (awarded to AcegasApsAmgas spa - Hera Group), Turin 1 (awarded to Italgas), Naples 1 (awarded to 2I Rete Gas), La Spezia (awarded to Italgas);

2 ATEM with calls for tenders published with expired restricted procedures: Prato (deadline for submission of participation application expired on 29/01/21, pending subsequent stage), Turin 5 (deadline for submission of participation application expired on 04/02/22).

The market for electricity and renewable energy sources

In 2022, the demand for electricity in Italy fell by 1% compared to the previous year, recording 316.8 TWh (compared to approximately 320 TWh in 2021).

Electricity Balance Sheet (TWh) ⁴⁸			
Electricity (TWh)	Financial year 2022	Financial year 2021	Changes %
Net production (of which):	276.373	280.045	-1.3
- Thermoelectric	193.287	182.234	6.1
- Hydroelectric	27.959	44.878	-37.7
- Photovoltaic	27.552	24.633	11.8
- Wind	20.358	20.724	-1.8
- Geothermal	5.444	5.535	-1.6
Net import/export balance	42.987	42.79	0.5
Pumping consumption	2.533	2.916	-13.1
Total demand	316.827	319.919	-1.0

⁴⁸ Terna – Monthly Report on the Electrical System (December 2022)

**Total demand= Net production + Foreign balance – Pumping consumption.*

Total net production intended for consumption⁴⁹, recording a decrease of 1.2%, with 273.840 TWh, met 86.73% of the domestic electricity requirement (nearly the same as 2021). The slight contraction in electricity demand is the result of a year that had positive changes in the first part of the year and negative starting from August, as a result of the containment measures on electricity use, rising prices that characterised the energy markets and moderate temperatures recorded in the autumn and winter months⁵⁰.

On the production side, there was a negative trend in relation to hydroelectric generation, which, with 27.959 TWh, was down by 37.7% on the previous year. Wind production also fell with 20.358 TWh (-1.8%), as did geothermal with 5.444 TWh (-1.6%).

The other components recorded an upward trend: thermoelectric production recorded a positive figure, with 193.287 TWh and an increase of 6.1% compared to the previous year. Photovoltaic production also increased, with 27.552 TWh and a positive change of 11.8% compared to 2021.

The energy efficiency market

The Conference of the Parties in Paris (COP21) in 2015, marked the moment when the world became actively concerned about the risks arising from climate change, translating these into the tangible goals discussed by Climate conferences that followed in subsequent years, which mainly looked at the regulation of the carbon market and the alignment of the various interests of countries in the actions that were to be undertaken.

The 27th and most recent Conference of the Parties, attended by 194 delegations, was held in November 2022 in Egypt and invited the Parties to strengthen and revise their emission targets for 2030, in the wake of COP26 in Glasgow and in line with the target of the Paris Agreement to limit the global temperature increase to under 2 °C⁵¹. COP27 ended with the adoption of the “Sharm el-Sheikh Implementation Plan”, which contains the most important results achieved such as the creation of the Loss and Damage Fund to support the most vulnerable countries in dealing with the loss and damage arising from extreme climate events. The central themes of COP27 included the relevance of finance for the climate, already discussed at the Conference in Glasgow, and the launch of the Glasgow Financial Alliance for Net Zero (GFANZ), the initiative that aims to align the climate targets set by the international community with banks, funds and insurance companies.

At European level, the regulatory framework for energy and climate by 2030 is constantly evolving and for years the focus has remained on decarbonisation: in 2018, the European strategic long-term vision (28/11/2018 – COM (2018) 773)⁵² set the European Union the target of achieving climate neutrality by 2050. In 2019, the European Commission presented the strategic communication on the Green Deal, the package of measures intended to transform Europe into the first zero-climate-impact continent, also establishing the requirement for all EU policies and regulations to be consistent with this goal⁵³. Another step towards decarbonisation was made by the approval of the “Fit for 55” package, presented in 2021 and containing a set of proposals aimed at reviewing legislation on the reduction of greenhouse gas emissions and setting an EU-wide target to reduce net greenhouse gas emissions by at least 55% by 2030. The package also takes action on the EU Emissions Trading System⁵⁴, renewable energy and energy efficiency, setting out standards on CO₂ emissions for cars and vans.

With the aim of accessing the funds envisaged as part of the Recovery Fund (also known as Next Generation EU), in 2021 Italy presented its own recovery fund to the European Commission, the National Recovery and Resilience Plan (NRRP). The package of measures in the NRRP has focused on three areas of intervention: digitalisation and innovation; ecological transition; social inclusion⁵⁵. Specifically with regard to the energy efficiency market, Mission 2 of the NRRP “Green revolution and ecological transition” is oriented to making the social and economic fabric more ecological, sustainable and competitive, and falls within the scope of the European Green Deal and objective of achieving climate neutrality by 2050. Approximately 30% of the total resources of the Plan has been assigned to Mission 2, proving the centrality of the topic in European and Italian policy.

At community level, the most recent intervention on the ecological transition and energy efficiency was the REPowerEU: adopted in May 2022, in a highly volatile and delicate geopolitical context, the package is aimed

⁴⁹ Total net production intended for consumption = Total net production – Pumping consumptions.

⁵⁰ Staffetta Quotidiana (daily bulletin)– 23 January 2023, no. 15, page 9

⁵¹ Chamber of Deputies – Dossier no. 4/1, 28 November 2022

⁵² Communication to the Commission of the European Parliament, European Council, European economic and social Committee, Regions Committee and the European Investment Bank.

⁵³ Chamber of Deputies – Dossier no. 4/1, 28 November 2022

⁵⁴ The Emissions Trading System of the European Union (EU ETS) is one of the main tools on which EU policy to combat climate change is based

⁵⁵ Chamber of Deputies - The National Recovery and Resilience Plan (NRRP) – 27 September 2022

at speeding up the transition towards clean energy, alongside the reduction of Europe's dependence on Russian fossil fuels. The Plan targets the role of renewable energies, the increase of energy efficiency and the strengthening of European leadership in the production of green technologies⁵⁶. In particular, compared to the "Fit for 55%", the REPowerEU package envisages an increase in energy from renewable sources (from 40% to 45%) and an increase in energy savings (from 9% to 13%) by 2030⁵⁷. In support of these interventions and support measures, the REPowerEU has allocated € 300 billion (225 in funding and subsidies and 75 in subsidised loans).

In the scope of construction and buildings, 2020 saw the introduction of the so-called "Superbonus", a tax concession that provided a tax deduction of 110% for the expenses incurred from July 2020 until 31 December 2021 for improvements (Art. 119 of Italian Decree Law 34/2020). Extended by the 2021 Budget Law until 2023, the legislative structure of the Superbonus has undergone numerous interventions and reconfigurations, mainly implemented to address the irregularities and fraud found during audits by the Authorities.

The 2023 Budget Law no. 197 of 29 December 2022 introduced new changes with reference to the deadlines and deduction rates of the superbonus, extending its application, in the presence of specific conditions, until 31 December 2023⁵⁸. Based on figures presented by Enea in its 110% Superbonus Report, there were 372,303 certifications under way at 31 January 2023 for approximately € 65 billion in investments eligible for deductions.

In February 2023, following the approval of Decree Law no. 11 of 16 February 2023, the transfer of tax credits relating to building interventions such as the Superbonus came to an end, due to potential negative effects on increases in public debt⁵⁹. Since the entry into force of the decree, with the exception of specific extensions for operations already under way, it is no longer possible to opt for the discount in the invoice or transfer the tax credit.

The Mechanism of White Certificates (EEC) was introduced by Ministerial Decrees in 2001 and has been amended and updated several times over the years. It is an obligatory regime of primary energy saving laid down for electricity and natural gas distributors with more than 50,000 customers. The legislative and regulatory framework related to the market for energy efficiency certificates has undergone significant developments over the years, such as the Interministerial Decree in 2020 that updated the list of projects eligible for the system of White Certificates. The Decree forms part of the actions to consolidate policies promoting energy efficiency, envisaged by the Integrated National Plan for Energy and Climate. In Resolution 270/2020/R/efr, ARERA approved the revision of the tariff contribution to be paid to distributors that fulfil the energy saving obligations in the context of the EEC mechanism⁶⁰.

Italian Ministerial Decree of 21 May 2021 set the national energy savings targets, which must be pursued by electricity gas distribution companies for 2021-2024⁶¹.

More recently, the Directorial Decree of 3 May 2022 updated the list of eligible energy efficiency projects for the mechanism of White Certificates, also approving the Operating Guidelines to promote the identification, definition and presentation of projects, which supplement and replace the previous Operating Guidelines adopted in 2019⁶².

During 2022, the GSE recognised a total of 774,409 EECs: the trend of certificates recognised in 2022 decreased by approximately 31% compared to 2021, a year in which approximately 1.1 million certificates were recognised, confirming the crisis of the White Certificates tool in recent years⁶³. The average price recorded on the organised market in 2022 fell by 3.6%, bringing it to € 257.85/TOE, while the volumes traded on the EEC market once again confirmed the downward trend of the previous year, with a value of 1,750,226 TOE (-9.3%).

Energy efficiency certificates – cumulative data ⁶⁴				
Year	Price (€/TOE)			Volumes traded
	Weighted average	Minimum	Maximum	(TOE)
2022	257.85	240.00	262.50	1,750,226

⁵⁶ GSE Annual White Certificates Report 2022, page 4

⁵⁷ Chamber of Deputies – Dossier no. 4/1, 28 November 2022

⁵⁸ Ministry of the Economy and Finance

⁵⁹ Staffetta Quotidiana (daily bulletin), 17/02/2023

⁶⁰ GSE Annual White Certificates Report 2022

⁶¹ GSE Annual White Certificates Report 2022

⁶² GSE Annual White Certificates Report 2022

⁶³ GSE Annual White Certificates Report 2022; CESEF, Executive Summary Annual Report 2022, page 12

⁶⁴ GSE Annual White Certificates Report 2022

On the other hand, as regards the electric mobility sector, 2022 began with a slowdown in the number of electric cars registered: while 2021 was a very positive year, with 137,000 new electric cars registered, the year just ended suffered a setback, mainly related to the first months of the year. Registrations of electric vehicles in the first six months of 2022 fell by -17% for BEV (Battery Electric Vehicles) and -2% for PHEV (Plug-in Hybrid Electric Vehicles) considering the same period as the previous year⁶⁵. The reasons behind a similar performance are due to the instability of the geopolitical context, the ongoing shortage of raw materials and semi-conductors and the reconfiguration of purchasing incentives: incentives to purchase electric vehicles can be used until 2024, and the Superbonus can be used for the installation of private charging stations until 2025⁶⁶.

With reference to electric charging infrastructure, the stations installed in Italy increased in 2022, recording the highest figure ever reached and an increase of 41% on 2021: 10,748 new charging stations were installed, which brought the charging network to a total of 36,772 stations⁶⁷. In terms of installed power, 88% of the charging stations installed are alternating current (AC) and 12% direct current (DC), confirming the trend of installing stations with increasingly high and ultra-fast power. As for charging infrastructure on the motorway network, in 2022 Italy achieved a total of 496 charging stations for public use, four times as many as in 2021.

With reference to the geographical and territorial distribution, around 58% of the stations are in Northern Italy, 22% Central and 20% in the South and the Islands, whereas more than half of Italian municipalities (58%) do not currently have public charging stations installed in their region. Nevertheless, approximately 99% of the Italian territory has at least one charging station within a 20-km radius and 86% of the territory within a 10-km radius⁶⁸. In 2022, Rome was the top metropolitan city for the number of charging stations, whereas Milan was number one in terms of the extent of the area.

The fourth edition of the "Public charging infrastructure in Italy" report by Motus-E⁶⁹ underlines the relevance, for the purpose of accelerating charging infrastructure in 2023, of the utilisation of the NRRP funds and improved coordination with local administrations. Lastly, the report focuses on the need to establish the National Single Platform, which should contain, within a single database, all information about public infrastructure present at national level.

The telecommunications and digital services market

In the first half of 2022, the telecommunications sector showed solidity at global level, increasing revenue by 3.6% compared to the first half of 2021. These results were supported by Chinese companies, followed by American companies and, lastly, European companies⁷⁰.

With regard to the Italian market, on the other hand, the first half of 2022 saw the main operators continue the downward trend in revenue which has continued since 2020, where turnover fell by 4.6%, influenced by the 3.1% decrease for the mobile network and 5.8% in the landline network segment.

Europe is one of the worst advanced economies for diffusion of the 5G network, stopping at 8% in the third quarter of 2022, against a global average of 11.2%. Italy has results above the European average in relation to the diffusion of the 5G network, with 8.7% and 5.2 million active connections, though it still falls behind Germany (19.6%) and the United Kingdom (17.4%). There is lower diffusion in Spain (7.8%) and France (7%)⁷¹.

According to Assintel (National Association of ICT and Digital Companies) data, investments in ICT, which also includes telecommunications, grew by 5.4% in Italy in 2022 compared to 2021, reaching € 36.3 million. For 2023, they are estimated to exceed 38 billion, confirming the positive trend of investments in the sector⁷². The context is also positive for the digitalisation trend in Italy, which is closely related to the mechanisms contained in the National Recovery and Resilience Plan. The NRRP has dedicated nearly € 50 billion to digital, allocated to Component 1 "Digitalisation, Innovation, Competitiveness, Culture" of Mission 2. Its aim is to directly contribute to the country's digital transformation. According to a survey by the Osservatorio Agenda Digitale (Digital Agenda Observatory) of the School of Management at the Politecnico di Milano, Italy is the most advanced country in Europe for undertaking the digital transformation envisaged in the NRRP, having achieved 30 of the 173 milestones and targets by the end of 2022. The percentage of targets already

⁶⁵ Politecnico di Milano - Smart Mobility Report 2022 page 10

⁶⁶ Politecnico di Milano - Smart Mobility Report 2022

⁶⁷ Motus-E "Public charging infrastructure in Italy"

⁶⁸ Motus-E "Public charging infrastructure in Italy" – December 2022.

⁶⁹ Motus-E is the first association in Italy formed of industry operators, the automotive supply chain, academia and opinion movements to create a system and accelerate the shift towards electric mobility.

⁷⁰ Press release - Mediobanca Study Areas – Report Telco (ed. 2022).

⁷¹ CORCOM on Mediobanca Report, 25/10/2022

⁷² Assintel – The ICT market and the digital evolution in Italy

completed is 17%, against 10% in Spain and France and 0% in Germany⁷³. Nevertheless, despite the efforts and results achieved in relation to implementing the NRRP measures, Italy continues to trail behind in terms of digital maturity⁷⁴, placing 22nd out of 27 European countries for effort and 20th for results. The divide between the regions of the South and the Centre-North plays a large part⁷⁵. The 13 milestones and 27 targets to be carried out in 2023 include the digitalisation of the entire life cycle of public contracts, as well as targets on the times for awarding and managing public tenders⁷⁶.

With regard to the landline network, in 2022 AGCOM did not recorded any change compared to the previous period in 2021, during which there was an increase by 400,000 lines compared to the previous year. The total figure of accesses was therefore 19.98 million. Breaking down this figure, we note that most accesses were via FTTC (Fibre with a mixed copper network), whereas 23.1% referred to accesses via copper, 8.8% via FWA (Fibre on fixed wireless access) and 16.3% on FTTH (fibre). Accesses via the copper network continued their downward trend, recording a negative 6.2 percentage points compared to September 2021. In line with the last two years, other sources (FTTC, FWA, FTTH) also grew in 2022⁷⁷.

Broadband accesses in 2022 exceeded 18.68 million units, increasing by 54 thousand units on an annual basis. ADSL lines continued the downward trend, with a decrease of 26.4% and a drop of 1.1 million accesses, bringing down the number of lines to 3.30 million.

As regards mobile telephony at 30 September 2022, TIM and Vodafone cover a similar market share, with the first operator holding a 28.5% share and the second 27.6% (percentage calculated on total SIMs). Wind Tre is third at 24%. The French operator Iliad continued to grow, having entered the Italian market in 2018, and once again was the fourth operator in Italy with a 8.7% market share⁷⁸.

Total active SIMs in Italy have risen to 107.1 million. This growth was sustained by the "M2M" SIMs⁷⁹, which reached 28.6 million, increasing by 2.8%. "Human" SIMs remained the most prevalent with 78.5 million, a slight increase of 0.8% compared to the same period in 2021⁸⁰.

At the same date, MVOs confirmed growth at 10.9% of the market share per number of total SIMs (11.67 million out of a total of 107.2 million) and 14.8% of total Human SIMs (11.61 million out of a total of 78.5 million).

The environment market

The integrated waste cycle market is characterised by a high degree of complexity and managerial heterogeneity. The waste sector is made up of two main segments: Municipal Waste (MW) of domestic origin and Special Waste (SW) mainly from productive activities. The municipal and special waste chains include different stages: from the collection/pick-up and transport to recycling, treatment, recovery and disposal. Waste sector operators can operate in one, several or all the chain stages.

As regards the municipal waste market, the country is organised into Optimal Territorial Areas (OTAs); most Regions have opted for a regional OTA and in others the size of the areas varies from the provincial to the sub-provincial scale.

The updated Ispra data on the situation in Italy reveal that 29.6 million tons of municipal waste was produced in 2021, up by 2.3% compared to the previous year (approximately +1 million tons). This trend was influenced by the removal of the heavy restrictions associated with the health emergency, which in 2020 had led to a sharp drop in the figure.

The increase was recorded across all macro-geographic areas: North (+1.9%), Centre (+2.5%) and South (+2.9%). In absolute terms, the higher production of municipal waste was in the North (approximately 14.2 million tons), followed by the Centre (9.1 million), and the South at 6.3 million tons. Production increased across all Italian regions, with the exception of Aosta Valley and Emilia Romagna.

⁷³ Il Sole 24 Ore, "Digital and Recovery Plan: Italy in front of Germany, France and Spain" 02/02/2023

⁷⁴ Digital Dictionary: the Digital Maturity Score measures the level of knowledge of certain digital trends and the level of awareness of the most effective conduct in relation to the drivers of digital transformation.

⁷⁵ CORCOM "Digitalisation of public services: Italy at a standstill despite the NRRP" on Digital Agenda Observatory of the School of Management at Politecnico di Milano

⁷⁶ Il Sole 24 Ore, "Digital and Recovery Plan: Italy in front of Germany, France and Spain" 02/02/2023

⁷⁷ AGCOM, Communications Observatory no. 4.2022

⁷⁸ AGCOM, Communications Observatory no. 4.2022

⁷⁹ Machine to machine, referring to SIM cards dedicated exclusively to data traffic, with limited or no human interaction.

⁸⁰ AGCOM, Communications Observatory no. 4.2022

The average pro capita was 502 kilograms (value in line with the pre-pandemic period). Emilia Romagna was the region with the highest numbers at national level (with 641 kilograms per inhabitant), while Basilicata was the region with the lowest (358 kilograms per inhabitant).

In 2021, there were 657 municipal waste management plants operating in Italy (673 in 2020): 349 in the North, 116 in Central Italy and 192 in the South. Of these, 356 are dedicated to treatment of the organic fraction of separate collection, 124 for the mechanical or biological treatment of waste, 126 landfill sites, with the addition of 37 incineration and 14 industrial plants that incinerate municipal waste⁸¹.

Over the years, the increase in separate waste collection has resulted in a growing demand for new treatment plants, especially for the organic fraction, but at national level, there are not sufficient structures to treat the quantities produced.

Over the last few years, the number of processing plants has increased with respect to landfills, in line with the European guidelines to replace dumping in landfills with the recovery of material and energy, contained in the Circular Economy Package, which also sets the target of 65% of separate collection by 2035⁸².

According to the most up-to-date figures available, in 2021, 50% of the waste produced and collected separately was sent to material recovery plants; full recycling, calculated using the new methods established by European regulations, stood at 48.1% and referred to the following fractions: organic, paper and cardboard, glass, metal, plastic and wood.

19% of municipal waste was disposed of in landfills, the equivalent of 5.6 million tons, coming down by 3.4% compared to 2020. This figure is still well off the 10% target set by the European Union, demonstrating the need for an improvement in the quality of separate waste collection, an increase in the recycling rate and the creation of plants used to close the waste cycle. The current situation requires that improvements to the management system are accelerated, especially in certain areas of Italy (regarding waste treatment, only the North is at an advanced stage, maximising the recovery of materials and energy, thanks to the widespread availability of plants) in order to achieve the new challenging targets required by European legislation. Disposal at landfill sites needs to be halved over the next 15 years, the percentage of waste forwarded to material recovery treatments must increase significantly to ensure the targets of 55% for recycling by 2025, 60% by 2030 and 65% by 2035 are achieved⁸³.

Separate waste collection increased again in 2021: approximately 720,000 tons more than in 2020, reaching 64% of national production (from 18.2 million to 19 million tons). The North was the most virtuous area in this activity, with 71%, whereas the Centre and the South stopped at 60.4% and 55.7% respectively. Generally, all macro-geographic areas showed increases in the percentage of separate waste compared to the previous year. In 2021, nearly half of the Italian regions achieved or surpassed the 65% target (Veneto, Sardinia, Lombardy, Trentino Alto Adige, Emilia Romagna, Marche, Friuli Venezia Giulia, Umbria and Piedmont), 3 were very close to the target (Abruzzo, Aosta Valley and Tuscany), whereas Sicily was at the tail-end with 46.9%, despite a strong increasing trend in recent years.⁸⁴ Focusing on Tuscany, there are approximately 50 municipal waste treatment and disposal plants in this region, with this remaining practically unchanged over the last few years.

Organic at 39% of the total, was confirmed as the most collected fraction in Italy. Paper and cardboard represented 19.1% of the total, followed by glass at 11.9% and plastic at 8.8%.

In 2021, 659,000 tons of municipal waste was exported (mainly sent to Austria, Portugal and Spain), and 219,000 tons imported.

Over the last year, the average domestic pro capita cost to manage urban waste was € 194.5 /inhabitant (increasing on the € 185.6/inhabitant in 2020). The Central regions recorded the highest costs with an average of € 230.7/inhabitant, followed by the South with an average of € 202.3/inhabitant and then the North with € 174.6/inhabitant.

From January 2021, as a result of Legislative Decree 116/2020, the definition of municipal waste was also extended to unsorted waste and from the collection of separated waste produced by non-domestic users (such as commercial, professional and craft activities, e.g. museums, schools, hotels, banks, hospitals, clothing stores), when "similar in nature and composition to domestic waste" (i.e. organic, paper and cardboard, plastic, wood, metal, glass, textiles, etc.).

With regard to the Special Waste segment in Italy, the latest data available in the 2022 edition ISPRA Special Waste Report refers to 2020. Figures show that production decreased by 4.5% on the previous year (7 million tons), to reach 147 million tons.⁸⁵ The decrease recorded is mainly due to the Covid-19 health emergency and the resulting lockdowns, which strongly penalised ordinary production activities (industry, craft, services,

⁸¹ Press release Ispra Municipal Waste Report publication edition 2022

⁸² Directive 2018/851/EU

⁸³ "ISPRA Rapporto Rifiuti Urbani 2022" (2022 Municipal Waste Report)

⁸⁴ Press release Ispra Municipal Waste Report publication edition 2022

⁸⁵ ISPRA Special Waste Report 2022 edition

waste treatment and environmental restoration), causing closures of trade and interruptions in the supply chains throughout the national territory.

Non-hazardous waste, representing 93.3% of the total waste produced, decreased by around 6.7 million tons (-4.6%), whereas hazardous waste fell by just over 300,000 tons (-3%). Most of this production was recorded in the North, where the industrial fabric is more developed, with 83.7 million tons (56.9% of the total at national level). Production in Central Italy was at 24.7 million tons (16.8%), and in the South at 38.6 million tons (26.2%).

Among the economic activities that contribute most to the production of special waste, the construction and demolition sector is confirmed as the highest with over 70 million tons (45.1% of the total), followed by waste processing and reclamation activities (over 38 million tons produced accounting for 26.3 % of the total) and manufacturing activities producing 26.7 million tons at just over 18% of the total. Other economic activities account in total for 10.5% of the total of special waste produced (15.5 million tons)⁸⁶.

In respect of special waste management activities (data relating to 2020 update in ISPRA Special Waste Report 2022 edition), this reached 159.8 million tons, of which 150.3 is non-hazardous (94.1% of the total managed) and 9.4 million is hazardous (5.9% of the total managed). There was a 2.9% decrease in the overall waste managed compared to the previous year; in particular, the quantities sent for recovery treatment (from R1 to R3) decreased by 1.2% and quantities sent for disposal by 9.8%.

The recovery of materials was predominant at 70.6% (112.8 million tons), followed by other disposal treatments, representing around 10.3% (16.4 million tons), and landfills at 6.2% (9.9 million tons). Residual quantities were sent to co-incineration (1.1%) and incineration (0.8%).

There are a total of 10,472 special waste management plants (data referring to 2020), of which 5,888 in the North, 1,850 in Central Italy and 2,734 in the South. There are 4,399 plants dedicated to the recovery of materials (42% of national plant assets).⁸⁷

In 2020, over 3.6 million tons were exported (of which 66% non-hazardous and 34% hazardous), faced with over 6.7 million tons imported.

With regard to Tuscany, in 2019, regional production of special waste was at around 9.5 million tons, 6.5% of the national total. 95% (9 million tons) refers to non-hazardous waste and the remaining 4.3 % (406 thousand tons) to hazardous waste. The main types of waste produced referred to construction and demolition operations.⁸⁸ There was a decrease in the total number of plants (755 in 2019 to 733 in 2020), Tuscany remains the region with the highest concentration of plants compared to other regions in central Italy (39.6% of the infrastructure assets in the macro-area)⁸⁹.

Finally, in the environmental reclamation segment, 42 Sites of National Interest (SNIs) are operational at national level⁹⁰. In Tuscany, there are 4,883 sites involved in reclamation procedures, of which 2,123 with procedures closed due to no need for intervention, 499 certified for completed reclamation, while 2,208 sites involved in reclamation procedures are active with a total area of 18,316 ha⁹¹. The contamination of the sites involved derives mainly from industrial activities, waste management and disposal and fuel distribution.

In 2022 the new national strategy for circular economy was approved, a policy document that has identified the actions, objectives and measures to be pursued when defining institutional policies aimed at ensuring an effective transition towards a circular economy. In particular, this strategy seeks to reinforce the market of secondary raw materials (SRM), so that they are competitive in terms of availability, performance and cost compared to virgin raw materials. To this end, the strategy acts on the material purchasing chain (Minimum Environmental Criteria for green purchases in Public Administration), on the criteria for end of waste qualification, on the extended responsibility of the producer, on the role of the consumer and on the dissemination of sharing and "product as service" practices. Furthermore, it is a fundamental tool for the achievement of the climate neutrality objectives and defines a roadmap of actions and measurable targets for 2035.⁹²

In June 2022, the Government also approved the National Waste Management Programme (also referred to as PNGR or Programme for short), which constitutes a strategic tool for guiding the Regions and Autonomous Provinces when planning waste management, over a six-year time frame (2022-2028). The PNGR sets the macro-objectives and defines the criteria and strategic guidelines that must be followed by the Regions and Autonomous Provinces when preparing waste management plans.

⁸⁶ ISPRA Special Waste Report 2022 edition - Summarised data

⁸⁷ ISPRA Special Waste Report 2022 edition - Summarised data

⁸⁸ ISPRA Special Waste Report 2022 edition

⁸⁹ ISPRA Special Waste Report 2022 edition

⁹⁰ ISPRA (<https://www.isprambiente.gov.it/it/attivita/suolo-e-territorio/siti-contaminati/siti-di-interesse-nazionale-sin>) with update in December 2021

⁹¹ Annuario dei dati ambientali (Environmental Data Yearbook) ARPAT 2022

⁹² MITE (<https://www.mite.gov.it/pagina/riforma-1-1-strategia-nazionale-l-economia-circolare>)

With regard to the NRRP, among the measures envisaged relating to the circular economy, we note the investments to build new waste management infrastructure and modernise existing plants, quantified at around € 1.5 billion, as well as the investments for “lighthouse” projects⁹³ for the circular economy, which have received an allocation of around € 600 million.

6. ALTERNATIVE PERFORMANCE MEASURES

The ESTRA Group uses alternative performance measures (APMs) in order to transmit more effectively information on trends in the profitability of the businesses in which it operates, and on its capital and financial situation.

For a correct interpretation of these APMs we can note the following:

- (i) these measures are made up exclusively starting from the Group's historical data and are not indicative of the Group's future performance;
- (ii) the APMs must not be considered as replacements for the measures provided for in the accounting standards of reference (IFRS);
- (iii) the definitions of the measures used by the Group, as they do not come from the accounting standards of reference, may not be the same as those adopted by other companies and may therefore not be comparable with them.

In accordance with the guidelines published on 5 October 2015 by the European Securities and Markets Authority (ESMA/2015/1415), the content and the criterion for determining the APMs used in the present financial statements are explained below.

Economic alternative performance measures

- The income components are classified among **Non-Recurring Items**, if significant, when (i) they derive from events or operations whose occurrence is non-recurring, or from operations or events that do not reoccur frequently in the normal course of the activity, under the terms of CONSOB Resolution number 15519 of 27 July 2006 or (ii) they derive from events or operations not representative of the normal business activity, as in the case of expenses connected with the measurement or disposal of assets and extraordinary financial expenses consequent to redemption and/or early repayment, even if these occurred in previous years or are likely to occur in subsequent ones.
- **Total Revenue** is calculated adding together “Revenue from sales and services” and “Other operating revenue” indicated in the Group's consolidated income statement.
- **Total Adjusted Revenue** corresponds to Total Revenue, defined above, adjusted to exclude non-recurring revenue as defined above.
- **External costs**, calculated adding together costs for “consumption of raw and ancillary materials and goods”, “Costs for services”, “Costs for the use of third-party assets” and “Other operating costs” indicated in the Group's consolidated income statement.
- **Adjusted External Costs** correspond to External Costs, defined above, adjusted to exclude Non-recurring items as defined above.
- The **gross operating margin or EBITDA** is a measure of operating performance and is calculated adding to the Net profit, deriving from Estras consolidated financial statements, the “net profit/(loss) of discontinued operations”, “income tax for the year”, the result of “measurement of equity investments at shareholders' equity”, “gains and losses on exchange rates”, “financial expenses”, “financial income” and “depreciation, amortisation, provisions and impairment losses”, deriving from the Group's consolidated financial statements.
- **Adjusted EBITDA** corresponds to EBITDA, defined above, adjusted to exclude significant non-recurring revenue and costs as defined above. This parameter is not identified as an accounting measure in the context of the EU-IFRS standards and therefore the determination criterion applied by the Group may not be the same as that adopted by other groups. This measure is used as a financial target in internal presentations and in external ones (to analysts and investors) and represents a measure useful for assessing the Group's operating performance (as a whole and at the business unit level), also through a comparison of the operating profit of the period of reference with that of

⁹³ These refer to highly innovative projects for the treatment and recycling of waste originating from strategic chains, such as electrical and electronic equipment, paper and cardboard industry, textiles, plastic.

previous periods. This makes it possible to carry out analyses on the trends and compare the efficiencies achieved in the periods.

- **Adjusted EBIT** corresponds to the Operating profit/(loss), coming from the Group's consolidated financial statements, adjusted to exclude significant non-recurring revenue and costs as defined above. This parameter is not identified as an accounting measure in the context of the EU-IFRS standards and therefore the determination criterion applied by the Group may not be the same as that adopted by other groups.
- **Adjusted net profit** corresponds to the Net profit coming from the Group's consolidated financial statements, adjusted to exclude significant non-recurring revenue and costs as defined above. This parameter is not identified as an accounting measure in the context of the EU-IFRS standards and therefore the determination criterion applied by the Group may not be the same as that adopted by other groups.

Financial alternative performance measures

- **Fixed assets** are determined as the sum of: property, plant and equipment, intangible assets and goodwill, equity investments and other non-current financial assets.
- **Other non-current assets and liabilities** consist of the sum of the items "other non-current assets/liabilities", deferred tax assets/liabilities", "post-employment benefits" and "provisions for risks and charges".
- **Net trade working capital** is defined by the sum of: inventories; trade receivables and payables.
- **Other current assets and liabilities** consists of the sum of the items "tax receivables/payables", "other current assets/liabilities".
- **Net invested capital** is determined by the algebraic sum of "fixed assets", "non-current assets/liabilities", "net trade working capital" "other current assets/liabilities" and "assets held for resale". This measure is used as a financial target in internal presentations (business plans) and in external ones (to analysts and investors) and represents a measure useful for assessing all the Group's current and non-current operating assets and liabilities, as detailed above.
- **Net Financial Position** is a measure of the financial structure. This measure is therefore determined as the sum of the following items: cash and cash equivalents, portion within 12 months of m/l-term loans, portion beyond 12 months of m/l-term loans, short-term financial payables, other current financial assets/liabilities (such as receivable and payable financial instruments). This measure is used as a financial target in internal presentations (business plans) and in external ones (to analysts and investors) and represents a measure useful for assessing the Group's level of financial debt, also through a comparison with previous periods. This makes it possible to carry out analyses on the trends and compare the efficiencies achieved in the periods.
- **Capital raised** is obtained from the sum of the net financial position and shareholders' equity. This measure is used as a financial target in internal presentations (business plans) and in external ones (to analysts and investors) and represents the division of the sources of financing between own and third-party funds and is an indicator of the Group's financial independence and solidity.

Financial and capital indices and ratios

- The solvency ratio is defined as the ratio between total non-current assets and total assets.
- The elasticity ratio is defined as the ratio between total current assets and total assets.
- The availability ratio is defined as the ratio between total non-current assets and total current assets.
- The Net Financial Debt / Equity ratio is the ratio between the net financial position and consolidated shareholders' equity.
- The Net Financial Debt / Adjusted EBITDA ratio is the ratio between the net financial position and Adjusted EBITDA. The NFP/EBITDA index, shown as a multiple of EBITDA, is used as a financial target in internal presentations (business plans) and in external ones (to analysts and investors) and represents a measure of the ability of the operating activities to remunerate the net financial debt.
- The short-term ratio is the ratio between Current Financial Debt and Net Financial Debt.
- The long-term ratio is the ratio between Non-Current Financial Debt and Net Financial Debt.

Rotation indices

- Days sales outstanding are defined as the ratio between Trade receivables and Revenue from sales and services, multiplied by the days of the period of reference.
- Days payable outstanding are defined as the ratio between the sum of Trade payables and the sum of the consumption of raw and ancillary materials and goods, Costs for services, Costs for the use of third-party assets and Other operating costs, multiplied by the days of the period of reference.

Economic performance indices and ratios

- The EBITDA margin is calculated as the ratio between Adjusted EBITDA and Total Adjusted Revenue.
- ROE, that is Return On Equity, is the ratio between net profit and shareholders' equity and is expressed as a percentage. This indicator is used as a financial target in internal presentations (business plans) and in external ones (to analysts and investors) and is intended to measure the profitability obtained by the investors in exchange for risk.
- ROI, that is return on net invested capital, is the ratio between operating profit and net invested capital and is expressed as a percentage. This indicator is used as a financial target in internal presentations (business plans) and in external ones (to analysts and investors) and is intended to measure the ability to produce wealth through operating activities and therefore to remunerate own funds and those of third parties.

7. BUSINESS PERFORMANCE – ECONOMIC DATA

The main income data for the financial years ended 31 December 2022 and 2021 are shown in the table below:

Reported Income Statement (amounts in thousands of euro)	Year ended 31 December				Change Dec 2022 - Dec 2021	
	2022		2021		Absolute	%
	Amount	Proportion	Amount	Proportion		
Total Revenue	1,778,292	100%	1,060,284	100%	718,008	68%
External consumption	(1,626,222)	(91%)	(905,575)	(85%)	(720,647)	80%
Personnel costs	(46,595)	(3%)	(41,856)	(4%)	(4,739)	11%
Portion of income/(expenses) from measurement of non-financial investments using the equity method	-	-%	6,251	1%	(6,251)	(100%)
Gross operating margin (EBITDA)	105,475	6%	119,104	11%	(13,628)	(11%)
Amortisation/depreciation and write-downs	(55,921)	(3%)	(49,007)	(5%)	(6,914)	14%
Provisions	(13,746)	(1%)	(12,646)	(1%)	(1,100)	9%
Operating result	35,808	2%	57,451	5%	(21,643)	(38%)
Financial income and charges	(11,638)	(1%)	(8,032)	(1%)	(3,606)	45%
Measurement of non-financial equity investments using the equity method	(577)	-%	(2,263)	-%	1,686	(75%)
Profit before taxes	23,593	1%	47,156	4%	(23,563)	(50%)
Income taxes for the year	(9,203)	(1%)	(14,218)	(1%)	5,016	(35%)
Net profit/(loss) from continuing operations	14,390	1%	32,938	3%	(18,548)	(56%)
Net profit/(loss) from discontinued operations / assets held for sale	-	-%	-	-%	-	-%
Net profit	14,390	1%	32,938	3%	(18,548)	(56%)
Profit/(loss) of non-controlling interests	(271)	-%	214	-%	(484)	(227%)
Group profit/(loss)	14,661	1%	32,725	3%	(18,064)	(55%)

The table below illustrates the Adjusted Consolidated Revenues, the Adjusted EBITDA, the EBITDA and the Operating Profit (EBIT), for the financial years ended 31 December 2022 and 2021:

Adjusted Income Statement (amounts in thousands of euro)	ADJUSTED Year ended 31 December				Change Dec 2022 - Dec 2021	
	2022		2021		Absolute	%
	Amount	Proportion	Amount	Proportion		
Total Revenue	1,776,856	100%	1,058,488	100%	718,368	68%
External consumption	(1,625,790)	(91%)	(905,423)	(86%)	(720,367)	80%
Personnel costs	(46,595)	(3%)	(41,856)	(4%)	(4,739)	11%
Portion of income/(expenses) from measurement of non-financial investments using the equity method	-	-%	945	-%	(945)	(100%)
Adjusted gross operating margin (Adjusted EBITDA)	104,471	6%	112,154	11%	(7,683)	(7%)
Amortisation/depreciation and write-downs	(55,321)	(3%)	(49,007)	(5%)	(6,314)	13%
Provisions	(13,746)	(1%)	(12,646)	(1%)	(1,100)	9%
Adjusted operating result (Adjusted EBIT)	35,404	2%	50,501	5%	(15,097)	(30%)
Financial income and charges	(11,638)	(1%)	(8,032)	(1%)	(3,606)	45%
Measurement of non-financial equity investments using the equity method	(577)	-%	(163)	-%	(414)	254%
Adjusted gross profit	23,189	1%	42,307	4%	(19,117)	(45%)
Adjusted income taxes for the year	(9,085)	(1%)	(13,741)	(1%)	4,656	(34%)
Net profit/(loss) from continuing operations	14,103	1%	28,566	3%	(14,462)	(51%)
Net profit/(loss) from discontinued operations / assets held for sale	-	-%	-	-%	-	-%
Adjusted net profit/(loss)	14,103	1%	28,566	3%	(14,462)	(51%)
Profit/(loss) of non-controlling interests	(271)	-%	214	-%	(484)	(227%)
Adjusted Group profit/(loss)	14,375	1%	28,352	3%	(13,977)	(49%)

The Group's consolidated income statement 2022 and 2021 was affected by a number of income components which (i) derive from events or operations whose occurrence is non-recurring, or from operations or events that do not reoccur frequently in the normal course of the activity or (ii) derive from events or operations not representative of the normal business activity, even if these occurred in previous years or are likely to occur in subsequent ones, described below in detail.

The composition of elements defined by the Company's management as non-recurring, unusual or not representative of the normal business activity for the financial years ended 31 December 2022 and 2021 is presented below:

	Year ended 31 December	
	2022	2021
IRMA gas distribution	(1,436)	(1,087)
Compensation for damages on unlawful antitrust dispute		(709)
Total non-recurring revenue	(1,436)	(1,796)
Capital losses on disposal of electronic meters	432	
Extraordinary fees on unlawful antitrust dispute		152
Revaluation previous equity investment Edma Reti Gas		(5,305)
Total non-recurring costs and revenue with impact on EBITDA	(1,004)	(6,949)
Write-downs of property, plant and equipment (gas distribution meters)	600	
Total non-recurring costs and revenue with impact on Operating Profit/(Loss) (EBIT)	(404)	(6,949)
Provision for liquidation expenses Sinergie Italiane S.r.l.		2,100
Total non-recurring costs and revenue with impact on Profit before taxes	(404)	(4,849)
Tax effect on non-recurring costs and revenue	118	477
Total non-recurring costs and revenue with impact on Net Result	(286)	(4,372)

In the 2022 financial year, the following non-recurring elements are noted (with a total positive impact on the net result of € 286,000):

- Higher revenue for the IRMA fees (residual amount on foregone amortisations on electronic meters disposed of early) paid to Group companies operating in the distribution of natural gas as a recovery on tariffs for previous years, following ARERA Resolution 737/2022/R/gas of 29 December 2022, ARERA paid a fee to refund the distribution companies related to the IRMA (residual value of the smart meters from the initial installation disposed of early), for € 1,436,000;
- Capital losses realised during the year from the disposal of malfunctioning electronic meters, largely covered by the fee set out in the previous point, for € 432,000;

- Adjustment of the provision for write-downs allocated in previous years to adjust the net carrying amount of malfunctioning electronic gas meters to the recoverable value in the tariff, taking account of the update carried out during the year to the related plan for progressive replacement, for € 600,000.

The adjustments have a fiscal effect of € 118,000 (lower income taxes).

The adjustments almost entirely affected the Group's profit.

In the 2021 financial year, the following non-recurring elements are noted (with a total positive impact on the net result of € 4,372,000):

- Higher revenue for the IRMA (residual amount on foregone amortisations on disposed traditional meters) fees paid to Group companies operating in the distribution of natural gas as a recovery on previous years' tariffs, pursuant to Resolution 559/2021/R/gas of 9 December 2021, for € 1,087 thousand;
- Higher revenue for the compensation for damages agreed by the subsidiary Estracom in 2009-2011, quantified in terms of the judgment handed down by the Court of Rome on 20 May 2021 for € 679,000 plus € 30,000 for the legal costs incurred, in the scope of the dispute brought by Estracom against a leading Italian telecommunications company for conduct representing an abuse of its dominant market position, in breach of Art. 101 and 102 of the Treaty on the Functioning of the European Union (TFUE) and/or unlawful and anti-competitive conduct in breach of Art. 2598 and/or 2043 of the Italian Civil Code;
- Higher costs to pursue legal action in the case referred to in the point above for € 152,000;
- Higher income from the valuation of non-financial investments for the revaluation of the interest previously held in EDMA Reti Gas, following the acquisition of control, for € 5,305,000. Reference is made to the paragraph in the Notes relating to company acquisitions during the period;
- Provision for the relevant portion of expenses estimated to complete the *in bonis* liquidation of the subsidiary Sinergie Italiane S.r.l., for €2,100,000.

The adjustments have a fiscal effect of € 477,000 (lower income taxes).

The adjustments almost entirely affected the Group's profit.

The Group's business model is currently structured on the basis of Strategic Business Units (SBUs) which are attributable to the segments of Sale of Gas and Electricity, the Regulated Market that includes the Distribution of natural Gas and the Distribution and sale of LPG and the "Corporate and Others" SBU, which includes the segments of digital services (telecommunications), energy efficiency (energy services and renewables), waste selection, treatment and storage (environment) and corporate services performed by the parent company. The Gas and Electricity Sales sector also includes trading activity, carried out both for the purpose of improving the purchase and procurement conditions through the optimisation of the Group's assets (natural gas storage and transport capacity and flexibility of the long-term supply contract) ("Industrial portfolio"), and for the purpose of seizing opportunities for short-term additional profit, within predefined risk limits. The division into SBUs reflects the reporting used by the Management for the analysis and planning of the businesses managed.

The table below illustrates total adjusted revenue, including revenue from sales and services and other revenue of each business area of the Estra Group for the financial years ended 31 December 2022 and 2021, with an indication of the significance, in percentage terms, compared to the Group's total consolidated revenue.

Total Adjusted Revenues (amounts in thousands of euro)	Year ended 31 December				Change in the period	
	2022	% of Total Adjusted Revenues	2021	% of Total Adjusted Revenues	2022 vs 2021	%
Sale of natural gas and electricity	1,630,105	92%	935,580	88%	694,524	74%
Regulated Market	121,046	7%	108,535	10%	12,511	12%
Corporate and other business areas	108,638	6%	87,664	8%	20,974	24%
Adjustments and eliminations	(82,933)	(5%)	(73,291)	(7%)	(9,642)	13%
Total Adjusted Revenues	1,776,856	100%	1,058,488	100%	718,368	68%

At 31 December 2022, the Group had achieved revenue of € 1,776.9 million, increasing by 68% compared to 31 December 2021. The change is mainly attributable to the Gas and Electricity Sales SBU and is due to the

increase in the prices of commodities and higher sales to the PSV and GME with the aim of optimising purchases.

Revenue of the Regulated Market SBU rose due to the first economic consolidation of Edma Reti Gas, which offset the reduction in the gas distribution tariffs as established by Arera Resolution 614/21, and higher energy costs. The revenue of the Corporate and Other SBU increased due to the acquisition and consequent consolidation of Bisenzio Ambiente S.r.l. and Ecocentro Toscana S.r.l. operating in the environment segment and due to the development of activities in the energy efficiency segment.

External costs went from € 905.4 million to € 1,625.8 million (+80%), accounting for 91% of revenue (86% in 2021). The main changes were due to the increase in costs for raw materials for € 870 million, mainly related to the increase in energy prices, which offset the reduction of € 150 million in costs for services and other operating expenses, largely due to the reduction in system charges of the companies of the Gas and Electricity Sales SBU with related reduction in revenue to end customers, as a result of legislative measures issued during the year.

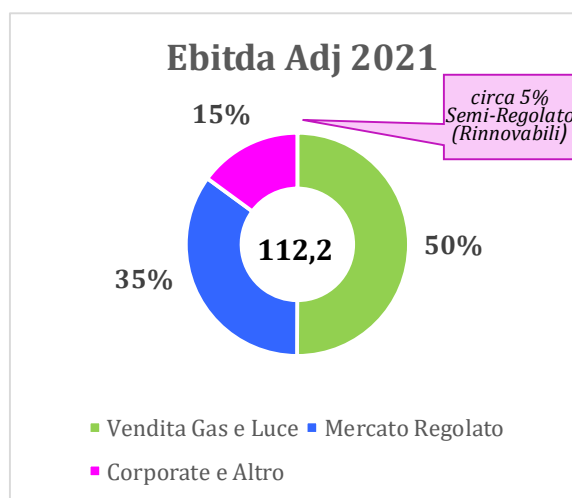
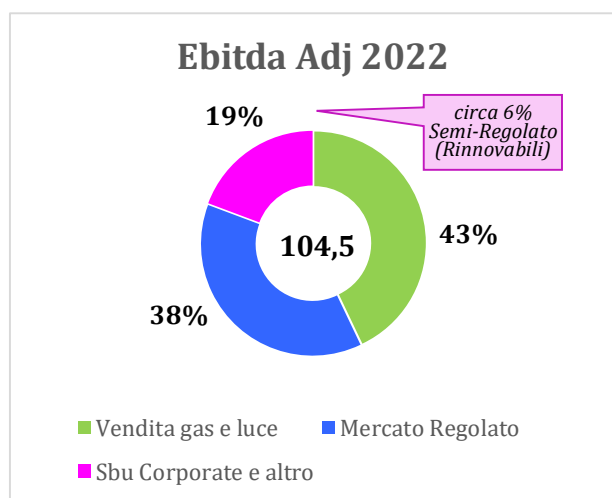
The cost of labour was € 46.6 million compared to € 41.9 million in 2021. The expansion of the company workforce, resulting from the change in the scope of consolidation, increased the cost of labour by € 3.7 million.

Income from the measurement of non-financial nature equity investments for € 945,000 in 2021 was related to the year result of the company Edma Reti Gas Srl, fully consolidated from 1 January 2022.

The adjusted EBITDA was € 104.5 million, down by € 7.7 million (-6.9%) compared to the previous year. The expansion of the scope of consolidation accounted for € 2.9 million on the consolidated adjusted EBITDA. Other main changes were related to lower margins of the Gas and Electricity Sales SBU due to the trend in prices on the energy markets during 2022, which led to a reduction in the results of the electricity segment and to a positive performance on the energy efficiency segment.

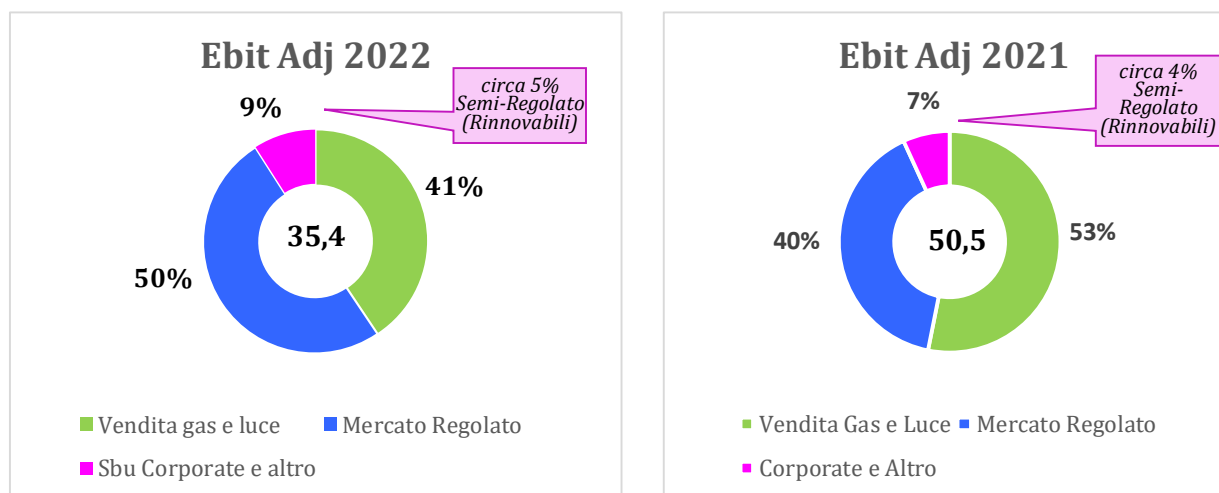
Details are provided below on the breakdown of EBITDA among the various SBUs for years ended 31 December 2022 and 2021, which shows a lower percentage incidence on adjusted EBITDA for the Gas and Electricity Sales SBU, which went from 50% to 43%, the growth from 35% to 38% of the percentage incidence on adjusted EBITDA of the Regulated Market SBU, and the increase from 15% to 19% of the Corporate and Other SBU.

For further details, please see the chapter on the business performance by Strategic Business Unit.



Amortisation/depreciation and write-downs amounted to € 55.3 million (€ 49.0 million at 31 December 2021). The change is almost entirely due to the change in the scope of consolidation. Provisions increased from € 12.6 million to € 13.7 million and are mainly attributable to the Sales SBU.

As a result of the reduced gross operating margin and the increase in amortisation, the adjusted operating profit went from € 50.5 million in 2021 to € 35.4 million in 2022 with a negative change of € 15.1 million (-29.9%).



The financial management has a negative balance of € 11.2 million compared to € 8.2 million in 2021 as a result of the increase in average debt recorded during the year resulting from the increase in net working capital and rising interest rates.

The adjusted profit before taxes came out at € 23.3 million (€ 42.3 million in 2021).

Income taxes amounted to € 9.1 million with a tax rate of 39.1%, up compared to the 32.5% in 2021.

Adjusted net profit was € 14.1 million (€ 28.6 million in 2021).

8. BUSINESS PERFORMANCE - STATEMENT OF FINANCIAL POSITION

The main financial position data at 31 December 2022 and 2021 are provided below.

8.1 2022 FINANCIAL MEASURES COMPARED WITH 2021

Reclassified Balance Sheet (amounts in thousands of euro)	Year ended 31 December 2022		Year ended 31 December 2021		Change Dec 2022 - Dec 2021	
	Amount	Proportion	Amount	Proportion	Absolute	%
Intangible fixed assets	534,216	69%	527,889	81%	6,327	1%
Property, plant and equipment	141,147	18%	108,524	17%	32,623	30%
Equity investments and non-current financial assets	36,429	5%	34,000	5%	2,429	7%
Fixed assets	711,792	92%	670,413	103%	41,379	6%
Other non-current assets and liabilities	(16,432)	(2%)	(12,451)	(2%)	(3,981)	32%
Net working sales capital	56,689	7%	39,398	6%	17,291	44%
Other current assets and liabilities	23,163	3%	(44,224)	(7%)	67,387	(152%)
Assets and Liabilities held for sale	-	-%	11	-%	(11)	(100%)
Net Invested Capital	775,212	100%	653,147	100%	122,065	19%
Shareholders' Equity	423,249	55%	413,025	63%	10,224	2%
Net current financial debt	(162,119)	(21%)	62,720	10%	(224,839)	(358%)
Non-current financial debt	514,082	66%	177,402	27%	336,680	190%
Net Financial Debt	351,963	45%	240,122	37%	111,841	47%
Total sources of financing	775,212	100%	653,147	100%	122,065	19%

(*) For a better understanding of the data, the extraordinary items relating to credit notes to be received from suppliers for gas settlement and the credit notes to be received from gas distribution companies for a total of € 96.1 million and regarding the Gas and Electricity Sales SBU have been reclassified from "Other current assets and liabilities" to "Net working sales capital".

Fixed assets went from € 670.4 million at 31 December 2021 to € 711.8 million at 31 December 2022 due to amortisation/depreciation in the period and investments in tangible fixed assets, intangible assets and equity investments (including the assets consolidated due to company acquisitions) for € 95.5 million as detailed below:

Investments per operating sector	2022	2021	Changes	Changes %
Regulated Market	32,188	27,200	4,988	18%
Gas and Electricity Sales	11,769	7,283	4,486	62%
Corporate and Others	51,537	24,333	27,204	112%
Total investments	95,493	58,816	36,678	62%

The increase in fixed assets is mainly due to the M&A operations in the sector and the revamping of plants in the environment segment (Corporate and Other SBU). Investments for customer acquisitions in gas and electricity also grew due to more intense commercial activity.

Investments in the Regulated Market mainly referred to extending the networks and replacing the traditional meters with electronic meters in the gas distribution operations.

The Corporate sector recorded a decrease in investments in the digital segment for implementing FTTH networks upon conclusion of the agreement for the concession to IRU of the various infrastructure.

Non-current liabilities increased due to higher long-term deferred income related to investments for IRU rentals for the FTTH network in the digital sector (telecommunications) and the change in the scope of consolidation.

Commercial working capital increased from € 39.4 million to € 56.7 million. This change was mainly due to: *i)* an increase in inventories for € 27.4 million owing mostly to the price effect; *ii)* an increase in net trade receivables for € 17.7 million in the energy efficiency segment, for redevelopment works on properties from the 110% superbonus; *iii)* a decrease in net trade receivables for € 8.1 million in the Gas and Electricity Sales SBU, as a result of the increase in the prices of commodities and significant receivables for settlements, offset by the reduction in volumes in the final quarter of the reporting year in the wholesale and business segment and operations to optimise cash flow through transfer without recourse of receivables from the public administration or industrial customers and rescheduling of trade payables; *iv)* an increase of € 21.2 million in net trade payables on the regulated market for regulatory changes to reduce so-called system charges invoiced by the sales companies.

Other current assets and liabilities increased significantly by € 67 million. The change is mostly due to: *i)* higher receivables for gas and electricity excise duty related to the decrease in volumes sold following payments on account determined on the basis of the turnover of the previous year and *ii)* significant receivables accrued from CSEA, relating to amounts due in application of the equalisation mechanism to the restriction of total distribution revenue for subsidiaries operating in the sector and for contributions relative to reaching the energy saving targets, as well as the effects of the measures introduced by the Government in autumn 2021, in order to contain energy tariffs. These measures involved bringing the majority of system charges to zero and the expansion of the gas and electricity social bonuses, with a resulting tariff reduction, not affecting market operators, which led to the onset of a relevant receivable from the Energy and Environmental Services Fund.

Net invested capital amounted to € 775 million, increasing by 18.7% compared to 31 December 2021.

Shareholders' equity at 31 December 2022 amounted to € 423 million (€ 413 million at 31 December 2021). The changes that occurred in the year are mainly attributable to the net profit for the period and to the distribution of dividends. Shareholders' equity represented 54.6% of the financing sources, compared to the 63.2% for the year ended 31 December 2021.

The absorption of cash for investments and for operations resulted in an increase in net financial debt that went from € 240.1 million in 2021 to € 352 million at 31 December 2022, with the percentage on capital raised rising from 36.8% at 31 December 2021 to 45.4% at 31 December 2022.

8.2 FINANCIAL STRUCTURE 2022 COMPARED WITH 2021

On 4 March 2021, the European Securities and Markets Authority (ESMA) published the Guidelines on disclosure obligations pursuant to Regulation EU 2017/1129 (so-called "Prospectus Regulation").

In its "Warning Notice" no. 5/21" of 29 April 2021, CONSOB stated its intention to ensure its supervisory practices on net financial positions complied the aforementioned ESMA Guidelines. More specifically, CONSOB states that the prospectuses it had approved, as from 5 May 2021, needed to comply with the aforementioned ESMA Guidelines.

Therefore based on the new provisions, as from 5 May 2021, listed issuers needed to present a new prospectus in the Notes to annual and interim financial statements, regarding debt, which was to be drawn up according to the specifications in paragraphs 175 and following of the aforementioned ESMA Guidelines.

In this respect, the ESMA Guidelines include the following main amendments to the debt prospectus:

- a. reference is no longer made to the "Net financial position", but to "Total financial debt";
- b. in the scope of non-current financial debt, trade payables and other non-current debt must be included, i.e. non-remunerated debt, which presents a significant component of implicit or explicit financing;
- c. in the scope of current financial debt, the current portion of non-current financial debt must be specified.

The composition of net financial debt at 31 December 2022 and 2021 is shown below. This derives from the consolidated financial statements for the years ended on the same dates:

Financial debt (amounts in thousands of euro)		2022.12	2021.12
A.	Cash and cash equivalents	345,872	143,107
B.	Cash equivalents		
C.	Other current financial assets	25,442	36,257
	- <i>current derivative financial instruments</i>	18,096	26,827
	- <i>Receivables from banks</i>	7,346	9,430
D.	Cash and cash equivalents (A) + (B) + (C)	371,314	179,365
E.	Current financial payables (including debt instruments, but excluding the current portion of non-current financial debt)	202,997	235,939
	- <i>current financial debt</i>	44,681	34,891
	- <i>current derivative financial instruments</i>	12,632	33,876
	- <i>bank debts</i>	125,782	70,304
	- <i>bonds issued</i>	19,902	96,868
F.	Current portion of non-current financial debt	6,198	6,145
	- <i>payables to other lenders for financial leases</i>	375	363
	- <i>payables to other lenders for operating leases</i>	4,388	4,347
	- <i>payables to shareholders for loans</i>	1,435	1,435
G.	Current financial debt (E) + (F)	209,195	242,085
H.	Net current financial debt (G) - (D)	(162,118)	62,720
I.	Non-current financial debt (excluding the current portion and debt instruments)	27,040	21,236
	- <i>payables to other lenders for financial leases</i>	3,663	4,038
	- <i>payables to other lenders for operating leases</i>	18,442	11,829
	- <i>payables to shareholders for loans</i>	4,935	5,370
J.	Debt instruments	487,043	156,166
	Non-current bank debts	341,603	106,649
	Bonds issued	145,439	49,516
K.	Trade payables and other non-current debt	-	-
L.	Non-current financial debt (I) + (J) + (K)	514,082	177,402
O.	Total financial debt (H) + (L)	351,963	240,122

At 31 December 2022, net financial debt was € 351.9 million, down on the € 111.8 million at 31 December 2021, owing mainly to cash flow from operations absorbed by the increase in the net working capital of the sale of natural gas and electricity due to extraordinary trends on the energy markets in the current year, in addition to significant investments for the period and the distribution of dividends.

The main changes refer to the liquidity and non-current financial debt resulting from significant medium/long-term borrowings finalised in the year for the refinancing of payables coming due and support for the investment plan, as well as 18-36 month facilities in support of higher financing needs of the working capital.

8.3 MAIN FINANCIAL MEASURES 2022 AND 2021

The main financial measures are presented below on the basis of the consolidated financial statements at 31 December 2022 and 2021:

Consolidated financial measures	Year ended 31 December	
	2022	2021
Solvency ratio (total non-current assets / total assets)	41.9%	53.6%
Elasticity ratio (total current assets / total assets)	58.1%	46.4%
Availability ratio (total non-current assets / total current assets)	72.0%	115.4%
Net Financial Debt /Equity Ratio - (Leverage)	0.8	0.6
Net Financial Debt /Adjusted EBITDA Ratio	3.4	2.1
Short-term Financial Debt Ratio/Net financial debt	(0.5)	0.3
Long-term Financial Debt Ratio/Net financial debt	1.5	0.7

The main economic measures are presented below on the basis of the adjusted results of the consolidated financial statements at 31 December 2022 and 2021:

Economic measures	Year ended 31 December	
	2022	2021
EBITDA margin (Adjusted EBITDA/Revenue)	5.9%	10.6%
ROE (Adjusted net profit/Shareholders' equity)	3.3%	6.9%
ROI (Adjusted EBIT/Net invested capital)	4.6%	7.7%

9. BUSINESS PERFORMANCE – ANALYSIS BY STRATEGIC BUSINESS UNIT (SBU)

Below are the adjusted income statements for the strategic business units for the financial years ended 31 December 2022 and 2021:

2022 business segments (amounts in thousands of euro)	Regulated Market	Gas and electricity sales	Corporate and Others	Adjustments and eliminations	Total
Total Revenue	121,046	1,630,105	108,638	(82,933)	1,776,856
External costs	(63,317)	(1,574,534)	(70,854)	82,915	(1,625,789)
Personnel costs	(18,245)	(10,744)	(17,625)	18	(46,595)
Portion of profit/(loss) from non-financial associates and joint ventures					
Gross operating margin (EBITDA)	39,485	44,827	20,158	-	104,471
Amortisation/ depreciation	(21,632)	(17,246)	(16,442)	-	(55,321)
Provisions	(32)	(13,208)	(506)	-	(13,746)
Operating Income (EBIT)	17,821	14,373	3,210	-	35,404

2021 business segments (amounts in thousands of euro)	Regulated Market	Gas and electricity sales	Corporate and Others	Adjustments and eliminations	Total
Total Revenue	108,535	935,580	87,664	(73,291)	1,058,488
External costs	(54,804)	(867,756)	(56,155)	73,292	(905,423)
Personnel costs	(15,406)	(11,692)	(14,758)	-	(41,856)
Portion of profit/(loss) from non-financial associates and joint ventures	945			-	945
Gross operating margin (EBITDA)	39,271	56,132	16,752	-	112,155
Amortisation/ depreciation	(18,951)	(17,252)	(12,805)	-	(49,007)
Provisions	(100)	(12,046)	(500)	-	(12,646)
Operating Income (EBIT)	20,220	26,834	3,447	-	50,502

9.1 REGULATED MARKET

The table below presents the main economic data related to the Estra Group's activity of distribution of natural gas for the financial years ended 31 December 2022 and 2021.

Regulated Market	Year ended 31 December				Change in the period	
Income statement of the operating segment (amounts in thousands of euro)	2022	% of Total Revenue	2021	% of Total Revenue	2022 vs 2021	%
Total Revenue	121,046	100%	108,535	100%	12,511	12%
External costs	(63,317)	(52%)	(54,804)	(50%)	(8,513)	16%
Personnel costs	(18,245)	(15%)	(15,406)	(14%)	(2,839)	18%
Income/(expenses) from equity investments of a non-financial nature	-	-%	945	1%	(945)	(100%)
Gross operating margin (EBITDA)	39,485	33%	39,271	36%	214	1%
Amortisation/depreciation and write-downs	(21,632)	(18%)	(18,951)	(17%)	(2,682)	14%
Provisions	(32)	-%	(100)	-%	68	(68%)
Operating Income (EBIT)	17,821	15%	20,220	17%	(2,400)	(12%)

Trend of 2022 compared to 2021

At 31 December 2022, the Regulated Market SBU recorded revenue for € 121 million, up by € 12.5 million compared to 2021 (+12%). The change is attributable for € 18 million to the consolidation of Edma Reti, which offsets the decrease relating to lower revenue eligible for regulatory purposes following the reduction in the weighted average cost of capital (WACC) as per ARERA Resolution (- € 2.3 million of revenue from gas distribution tariff compared to 2021). Lower revenues were recorded for trading in energy efficiency certificates (-€ 3.3 million) with a corresponding change in purchase costs.

EBITDA amounted to € 39.5 million, slightly up compared to € 39.1 million in 2021. The consolidation of Edma Reti contributed € 3.8 million to the EBITDA. Other changes are mainly due to lower tariff revenues, the increase in energy costs and the increase of the service from the parent company for implementation of the new management system.

Amortisation increased by € 2.7 million due entirely to the change in the scope of consolidation.

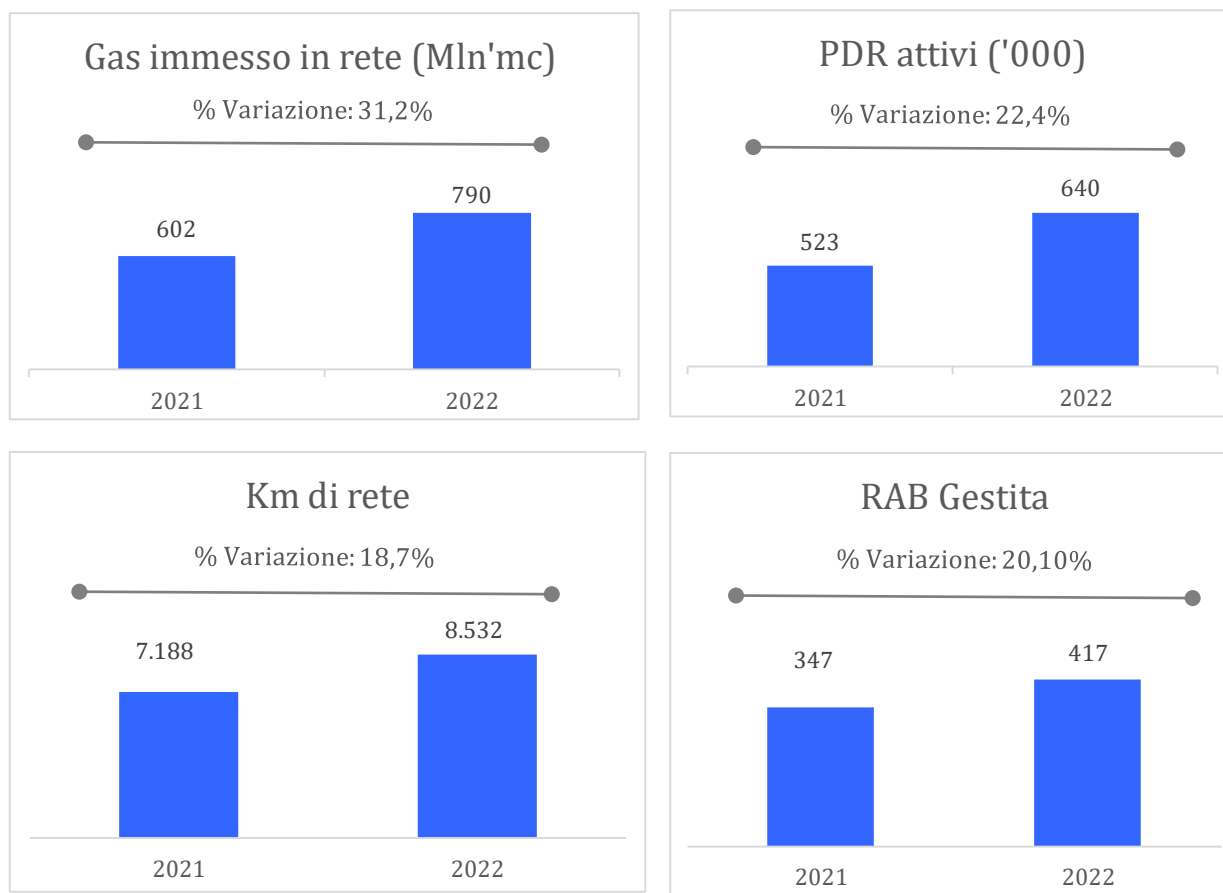
The operating result was € 17.8 million, with a decrease of € 2.4 million compared to 2021.

The consolidation of Edma Reti Gas contributed to the increase in the main operating indicators related to gas introduced into the grid, active PoDs and the extended Gas Distribution service.

Of note, there are 5,000 LPG customers serviced by around 140 kilometres of channel networks.

The change in the scope of consolidation and the investments realised on networks, plants in the meter segment relating to the replacement of traditional meters with electronic meters kept the Regulatory Asset Base (RAB) growing. This indicator determines the net invested capital for the purposes of Arera determining tariffs.

The RAB managed in 2022 was € 417 million (€ 347 million in 2021).



9.2 GAS AND ELECTRICITY SALES

The table below presents the main economic data related to the Estra Group's Sale of Gas and Electricity activity for the financial years ended 31 December 2022 and 2021.

Gas and electricity sales	Year ended 31 December				Change in the period	
Income statement of the operating segment (amounts in thousands of euro)	2022	% of Total Revenue	2021	% of Total Revenue	2022 vs 2021	%
Total Revenue	1,630,105	100%	935,580	100%	694,524	74%
External costs	(1,574,534)	(97%)	(867,756)	(93%)	(706,778)	81%
Personnel costs	(10,744)	(1%)	(11,692)	(1%)	949	(8%)
Gross operating margin (EBITDA)	44,827	3%	56,132	6%	(11,305)	(20%)
Amortisation/depreciation and write-downs	(17,246)	(1%)	(17,252)	(2%)	5	-%
Provisions	(13,208)	(1%)	(12,046)	(1%)	(1,162)	10%
Operating Income (EBIT)	14,373	1%	26,834	3%	(12,461)	(46%)

The revenue from the Gas and Electricity Sales segment recorded an increase of € 694.5 million compared to 2021 (+74%) mainly as a result of:

- the increase in natural gas and electricity revenue from the notable increase in the prices of raw materials with an effect of around € 700 million, partially offset by lower volumes sold to the wholesale and business segment with a negative effect on the revenue for around € 74 million;
- an increase in sales on the PSV, GME and for balancing operations with revenues that went from € 93 million in 2021 to € 329 million in 2022;
- a decrease in gas distribution pass-through components and electricity transport and dispatching for € 169 million as per regulatory changes intended to reduce the sales tariffs to end customers;
- the slight increase in ancillary revenue in respect of customers for approximately € 0.5 million.

Gas segment revenue represents 79% of the SBU's revenues (76% in 2021).

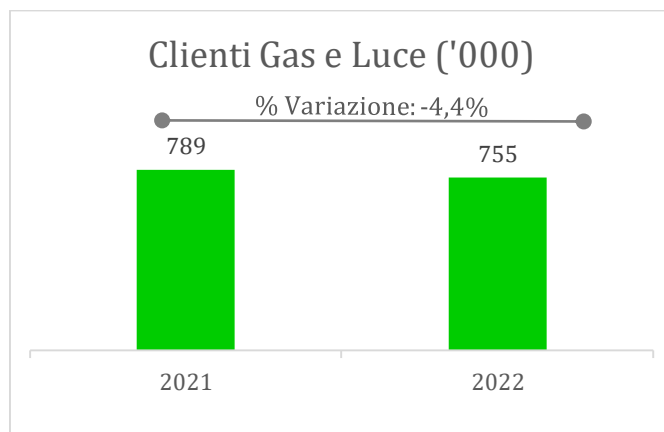
The EBITDA of the Gas and Electricity Sales SBU was € 44.8 million, down from the € 56.1 million in 2021. The decrease is attributable to the dynamics found in the context of the electricity market which recorded a significant increase in imbalance charges. Lower margins in the electricity segment were partly offset by better gas margins, which had been affected in 2021 by lower margins resulting from the tensions on the supply chain at the end of the year, with repercussions on several counterparties with which the Group operated. Also note higher operating costs due to the monthly invoicing of consumption introduced in 2022 and an increase in service costs from the parent company for the implementation of the new management system and for the centralised management at the holding of the Group's sales area.

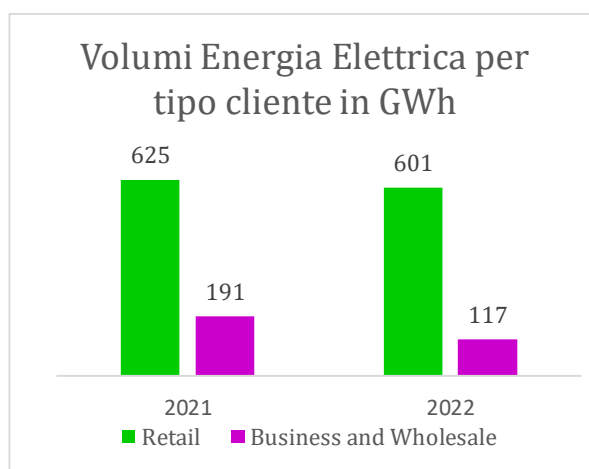
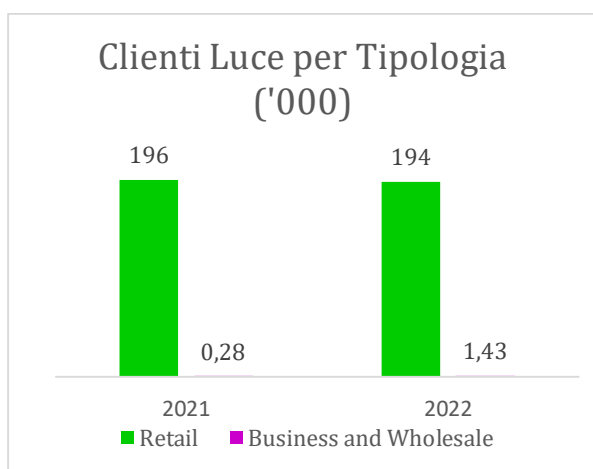
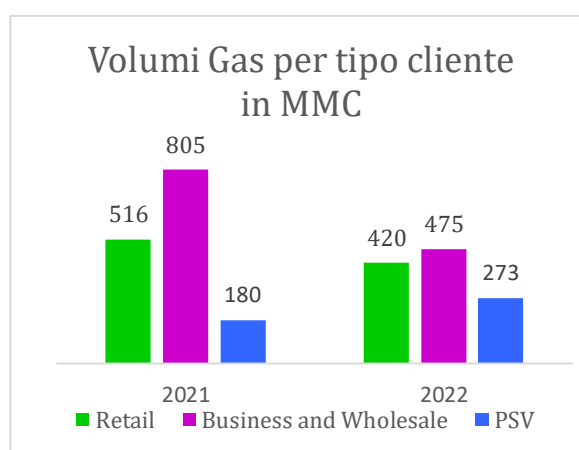
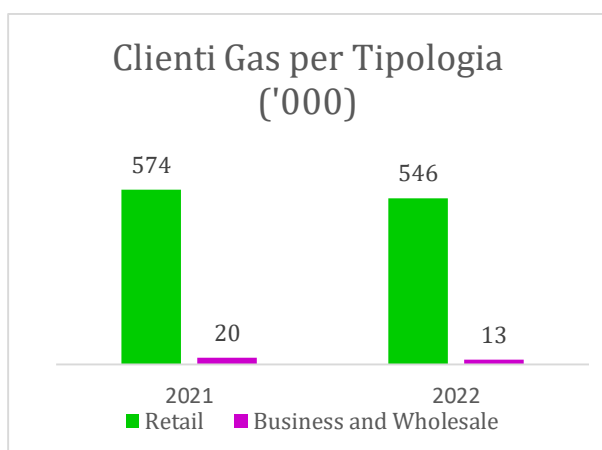
Amortisation and write-downs amounted to € 17.3 million, and were stable on the previous year's figures.

Provisions increased slightly from € 12 million to € 13.2 million with no significant effects from the energy crisis on the performance of collections.

The operating result was € 14.4 million (€ 26.8 million in 2021).

At 31 December 2022, there were 755,000 less gas and electricity customers compared to the figure at 31 December 2021.





9.3 CORPORATE AND OTHER ACTIVITIES

The segment "Corporate and Other Activities" includes digital services (telecommunications), energy efficiency (electricity and renewables), environment services, and the activities performed by the holding in terms of coordination and centralised management of corporate business functions for the other Group companies.

The table below presents the main economic data related to the Estra Group's other SBUs for the financial years ended 31 December 2022 and 2021.

Corporate and Others	Year ended 31 December				Change in the period	
Income statement of the operating segment (amounts in thousands of euro)	2022	% of Total Revenue	2021	% of Total Revenue	2022 vs 2021	%
Total Revenue	108,638	100%	87,664	100%	20,974	24%
External costs	(70,854)	(65%)	(56,155)	(64%)	(14,700)	26%
Personnel costs	(17,625)	(16%)	(14,758)	(17%)	(2,868)	19%
Gross operating margin (EBITDA)	20,158	19%	16,752	19%	3,406	20%
Amortisation/depreciation and write-downs	(16,442)	(15%)	(12,805)	(15%)	(3,638)	28%
Provisions	(506)	-%	(500)	(1%)	(6)	>100%
Operating Income (EBIT)	3,210	3%	3,447	4%	(237)	>100%

The Corporate and other activities sector recorded a significant increase in revenue for € 21 million (+24% compared to 31 December 2021). The change in the scope of consolidation in the environment segment contributed to higher revenues for around € 2.5 million. Other changes were due to: i) more energy efficiency

works, especially on condominiums; *ii*) higher revenues on cogeneration services related to the increase in energy prices, and *iii*) increase in revenue in the digital segment.

The Parent Company's revenue also increased due to more activities carried out for the subsidiaries (+€ 7 million), mainly relating to the centralised management of the group's commercial activities and the implementation of the new IT management system.

At 31 December 2022, EBITDA for the Corporate and Others SBU was at € 20.2 million compared to € 16.8 million in 2021. The change referred mainly to higher margins in the energy efficiency segment and the result of the management of services by the parent company partially offset by the lower results in the environment segment.

Amortisations increased, going from € 12.8 million to € 16.4 million as a result of the change in the scope of consolidation.

Ebit was € 3.2 million (€ 3.4 in 2021).

10. TRANSACTIONS WITH RELATED PARTIES

Estra and the Group companies carry out transactions with related parties based on principles of transparency and correctness. These transactions generally relate to services provided to all customers (supply of gas, electricity, heat, etc.) and are governed by contracts and conditions normally applied in these situations.

If they are not services of the current type, the transactions are in any case governed on the basis of the normal conditions applied on the market.

The information on financial and economic transactions with related-party shareholders and associate companies are presented in the notes to the statements (note "Related parties").

11. RECONCILIATION BETWEEN THE GROUP PROFIT/(LOSS) FOR THE PERIOD AND SHAREHOLDERS' EQUITY WITH THE ANALOGOUS FIGURES OF THE PARENT COMPANY

The reconciliation statement between the Group profit/(loss) for the period and shareholders' equity is presented below with the analogous figures of the parent company under the terms of Communication no. DEM/6064293 of 28-7-2006.

(thousands of euro)	Financial year 2022	
	Group profit for the year	Total shareholders' equity
Shareholders' equity and profit for the year as shown in the holding company's financial statements	23,129	424,961
Income and elimination of book value of fully consolidated companies	22,165	86,744
Reversal of write-downs of equity investments	1,237	2,854
Elimination of effects on intercompany capital gains	4,143	(109,556)
Consolidation Accounts, Equity Method	(830)	1,942
Other	-	189
Depreciation/amortisation of consolidation differences	(6,730)	(37,673)
Elimination of effects of intercompany mergers	2,301	12,072
Elimination of intercompany dividends	(30,754)	(1,953)
Group profit for the year and shareholders' equity as shown in the consolidated financial statements	14,661	379,580
Profit and shareholders' equity attributable to minority interests	(271)	43,669
Profit for the year and shareholders' equity as shown in the consolidated financial statements	14,390	423,249

12. SIGNIFICANT EVENTS AFTER THE REPORTING DATE

We can note the following significant events that occurred after the end of the year:

12.1 ACQUISITION OF CONTROL IN MONTE URANO ENERGIA S.R.L.

On 13 January, through the subsidiary Prometeo S.p.A., the Group completed the acquisition of 100% of the stakes in the company Monte Urano Energie S.r.l., taking up the 51% stake in the share capital held by the Municipality of Monte Urano for € 840,000.

The company has around 3,000 natural gas customers and 800 electricity customers.

12.2 CHANGE IN THE CORPORATE STRUCTURE OF ESTRA S.p.A.

With deed dated 26 January 2023, the merger by incorporation of Consiag S.p.A., Publiservizi S.p.A. and Acqua Toscana S.p.A. into Alia Servizi Ambientali S.p.A. was completed, with effect from 1 February 2023.

As a result of the incorporation of Consiag S.p.A., Alia Servizi Ambientali S.p.A. took over title of the 39.50% stake in the share capital of Estras S.p.A. as well as all assets, liabilities and dealings of any kind in place.

Alia Servizi Ambientali S.p.A., concession holder of the integrated management service of municipal and similar waste, pursuant to Art. 26, paragraph 6 of Tuscany Regional Law no. 61/2007, for the respective area of the ATO Central Tuscany, is controlled by the Municipalities of Florence (37.1%), Prato (18.1%), Pistoia (5.54%), Empoli (3.4%) and other Tuscan municipalities (35.9%).

13. BUSINESS OUTLOOK

Albeit in a context that remains complex, mainly due to the ongoing conflict between Russia and Ukraine and the uncertainty and volatility on the energy market with their economic and social effects, Estras will continue its constant efforts in 2023 to generate medium and long-term value and growth in all business areas, with organic development policies and industrial operations, focusing on improvement targets for its own operating performance, through an integrated and synergistic approach between business units. In continuity with the previous year, the strategic approach will follow three long-term trajectories: sustainability strategy, digital strategy, and human strategy.

In addition to the implementation of its strategies, the Group's results may be affected by further possible changes in the reference context such as, in particular, any new tariff measures issued by the Regulatory Authority, changes in the geopolitical and market context, trends in consumption, supplies, pricing and the policies for the procurement of commodities, as well as developments in the conflict between Russia and Ukraine.

With specific reference to the energy sector, at national level 2023 began with a strong drop in total gas demand, which fell by 22% compared to the same period in the previous year. The decrease was recorded in terms of both the domestic and industrial segments; nevertheless, with reference to the latter, it should be noted that there was a recovery in daily demand, in line with a downward trend in wholesale prices. With the start of the new year, the reconfiguration of the sources of procurement also continued: in the wake of the trend that began in 2022, Russian imports were exceeded by new sources of procurement (in particular, Algeria, Northern Europe, Azerbaijan and the import of LNG).

14. INDUSTRY REGULATIONS

The following is a summary of the highlights of legislative changes in 2022 in relation to the various areas of Estras Group business.

Transversal issues

2022 stood out for the notable increase in the prices of energy commodities, influenced by international geopolitical instability. The legislative measures adopted during the year just ended therefore aimed

primarily to contain costs and support businesses and households. The main measures adopted, relating to issues of interest to the Estra Group, are included in the various sections of the report; the main measures that these refer to are outlined below.

“SUPPORT DECREE TER” (DECREE LAW NO. 4 OF 27 JANUARY 2022, CONVERSION LAW NO. 25 OF 28 MARCH 2022) Contains urgent measures on support for businesses and economic operators, employment, health and regional services, associated with the COVID-19 emergency, as well as to contain the effects of price increases in the electricity sector. In the interest of the energy sector, the decree mainly acts to: reduce system charges; contribute to reducing the costs of electricity for vital life support equipment; make an extraordinary contribution in the form of a tax credit in favour of energy-intensive companies; create measures for the electricity produced by renewable source plants. Art. 15-bis of Decree Law no. 4/2022 and consequent implementing measures impacted in particular upon the energy producers using renewable sources and introduced into our legislation a two-way offsetting mechanism on the price of energy, in reference to the electricity introduced into the grid, borne by renewable source electricity producers on the assumption that they would be making excess profit. The mechanism introduced by art. 15-bis entails the drawdown of the difference between the prices effectively obtained (by selling the energy on the electricity market or as a result of bilateral contracts) and the average benchmark prices determined on the basis of the energy introduced into the network, in the period between 1.2.2022 and 31.12.2022, by the following plants:

- photovoltaic plants with power of more than 20 kW eligible for the Energy Account incentives “not dependent on market prices”;
- plants with power of more than 20 kW supplied by solar, hydroelectric, geothermal and wind power, provided “they do not access incentive mechanisms” and “became operational prior to 1.1.2010”.

CONSTITUTIONAL LAW NO. 1 OF 11 FEBRUARY 2022 - Contains amendments to articles 9 and 41 of the Constitution on Environmental Protection. The following paragraph was added to art. 9 of the Constitution: “Protects the environment, biodiversity and ecosystems, including in the interest of future generations. The national law governs the methods and forms of animal protection”, whereas the following amendments were made to article 41: a) under the second paragraph, after the word: “harm”, the following words were added: “to health, to the environment”; b) under the third paragraph, finally, the following words were added: “and environmental”. The new text of art. 41 now reads: “Private economic initiative is free. It cannot be conducted in conflict with social utility or in such a manner that could cause harm to health, to the environment, to safety, to freedom, to human dignity. The law determines the programmes and the appropriate checks so that public and private economic activity shall be directed and coordinated for social and environmental purposes.”

“ENERGY” DECREE (DECREE LAW NO. 17 OF 1 MARCH 2022 - CONVERSION LAW NO. 34 OF 27 APRIL 2022) Contains urgent measures to contain the costs of electricity and natural gas, for the development of renewable energies and for the relaunch of industrial policies. In particular, in terms of energy the decree provides for measures regarding the zeroing of system charges for the electricity sector; the application of VAT at 5% on methane gas used for domestic and industrial purposes; the reduction of the rates relating to general system charges for the gas sector; the strengthening of the electricity and gas social bonus; an extraordinary contribution, in the form of a tax credit, in favour of energy-intensive companies and those with high consumption of methane gas.

“PRICE-CUTTING” DECREE (DECREE LAW NO. 21 OF 21 MARCH 2022, CONVERSION LAW NO. 51 OF 20 MAY 2022) Contains urgent measures to counter the economic and humanitarian effects of the crisis in Ukraine”. Furthermore, the decree contains measures on energy and gas prices, the payment of energy bills in instalments, extraordinary contribution against rising bills. It supports businesses and provides for the reduction of excise duty on fuel.

DECREE LAW NO. 24 OF 24 MARCH 2022 – Contains urgent provisions to overcome the measures to counter the spread of the COVID-19 epidemic, resulting from the end of the state of emergency. The decree provides for new methods of managing positive Covid-19 cases and in particular a new regulation on self-monitoring, the obligation on masks, the obligation on green passes and vaccination, forms of access to agile working.

DECREE LAW NO. 36 OF 30 APRIL 2022 (CONVERSION LAW NO. 79 OF 29 JUNE 2022) The decree contains urgent measures for the implementation of the National Recovery and Resilience Plan (NRRP) in order to accelerate the achievement of specific NRRP targets, through the simplification of administrative procedures regarding projects expiring on 30 June 2022.

“SAVE THE SEAS” LAW (LAW NO. 60 OF 17 MAY 2022) – Contains provisions for the recovery of waste from the sea and waterways and for the promotion of the circular economy. The law aims to prevent the dumping of waste at sea and introduces a regulation that rules out offence by those that collect waste at sea, to be disposed of once they reach shore. The law allows fishermen to bring to port the plastic that they accidentally recover at sea with nets while fishing.

“AID” DECREE (DECREE LAW NO. 50 OF 17 MAY 2022 – CONVERSION LAW NO. 91 OF 15 JULY 2022) Contains urgent measures on national energy policies, business productivity and attracting investments, in addition to social policies and the crisis in Ukraine. With reference to the energy sector, the decree limits prices for end consumers, providing for measures such as those relating to the electricity and gas social bonus, the increase in tax credits in favour of businesses for the purchase of electricity and natural gas, to incentivise the production of energy, with provisions on authorisation procedures for renewable source energy plants and provisions on environmental impact assessments (VIA), and to ensure the security of supplies. The decree also provides for support measures for businesses and tax and financial policies and, lastly, contains measures on the environment and public contracts.

CIRCULAR NO. 20 OF 16 JUNE 2022 – VAT RATES AND TAX CREDITS IN THE GAS SECTOR. The circular contains initial clarifications on the VAT rate to be applied to supplies of methane gas for combustion or for transport in addition to the tax benefits intended to support, among other things, non-energy-intensive companies in relation to expenses incurred for natural gas, contained in Decree Law 17/2022 (Energy Decree) and in Decree Law 21/2022 (Price-cutting Decree or Ukraine Decree).

DECREE LAW NO. 68 OF 16 JUNE 2022 (CONVERSION LAW NO. 108 OF 5 AUGUST 2022) Contains urgent provisions for the safety and development of infrastructure, transport and sustainable mobility, as well as large events and for the functioning of the Ministry for Infrastructure and Sustainable Mobility.

LAW NO. 78 OF 21 JUNE 2022 – DELEGATION TO THE GOVERNMENT IN RELATION TO PUBLIC CONTRACTS. The review of the current public contracts code is one of the efforts made by the Government for the implementation of the NRRP. The law delegates powers to the Government to adopt, within six months from the date of entry into force of the delegating law, one or more legislative decrees relating to the regulation of public contracts and to rationalise, reorganise and simplify the current regulations on public contracts.

LAW NO. 79 OF 29 JUNE 2022 – CONVERSION INTO LAW OF DECREE LAW 36/2022 (NRRP BIS D.L.) – The law contains additional provisions for implementation of the NRRP. The provisions of interest include those that make amendments to the Contracts Code.

LAW NO. 91 OF 15 JULY 2022 – “Urgent measures on national energy policies, business productivity and attracting investments, in addition to social policies and the crisis in Ukraine” This law introduced further measures in favour of works, businesses and families to cope with the economic effects of the ongoing crisis, with particular regard to energy, with measures to reduce its cost, to further simplify the authorisation procedures for the creation of new plants and to upgrade national energy production, to protect businesses, with measures to ensure liquidity to the businesses affected by the crisis in Ukraine and to ensure productivity and appeal of investments; with regard to employment, social policies and services for citizens, regional bodies, with measures to support Regions, Provinces and Municipalities. The measures set out by the decree include those to address the increase in the prices of materials used in works contracts.

LAW NO. 127 OF 4 AUGUST 2022 – Delegation to the Government for transposition of European directives and the implementation of other legislative deeds of the European Union – European Delegated Law 2021. The decree contains delegating provisions regarding the transposition of 14 European directives included in annex A and the adjustment of national legislation to 22 European regulations and one recommendation.

LAW NO. 118 OF 5 AUGUST 2022 – ANNUAL LAW ON COMPETITION AND MARKET This is one of the main measures associated with the 2022-2024 budget mechanism and one of the reforms envisaged by the NRRP, containing, among other things, provisions on local public services, local public transport, maritime concession fees, waste. We can note that art. 6 of Law 118/22, which sets out several amendments to the current regulations on concessions of natural gas distribution, provides for public tenders by minimum territorial areas, as a single form of awarding the gas distribution public service, but has recorded a significant delay in the performance of Area tenders.

“AID DECREE BIS” (DECREE LAW NO. 115 OF 9 AUGUST 2022 – CONVERSION LAW NO. 142 OF 21 SEPTEMBER 2022) Contains urgent measures on energy, water emergency, social and industrial policies. The measures of greatest interest include: suspension of the unilateral amendments to electricity and natural gas supply contracts until 30 April 2030; zeroing of general system charges in the electricity sector for the fourth quarter of 2022; reduction of VAT and general charges in the gas sector for the fourth quarter of 2022; extraordinary contribution, in the form of a tax credit, in favour of businesses for the purchase of electricity and natural gas; provisions on excise duty and value added tax on certain fuels; tax measures for company welfare.

“AID DECREE TER” (DECREE LAW NO. 144 OF 23 SEPTEMBER 2022 – CONVERSION LAW NO. 175 OF 17 NOVEMBER 2022) Contains additional urgent measures on national energy policy, business productivity, social policies and for the realisation of the National Recovery and Resilience Plan (NRRP). The decree aims to contain the effects arising from the increase in the cost of energy and to support the economy and employment.

“AID DECREE QUATER” (DECREE LAW NO. 176 OF 18 NOVEMBER 2022) Contains urgent measures to support the energy sector and public finance. The decree intervenes on electricity, natural gas and fuel and sets out provisions on payment methods, energy efficiency incentives and acceleration of procedures.

LEGISLATIVE DECREE NO. 201 OF 23 DECEMBER 2022 – REORGANISATION OF LOCAL PUBLIC SERVICES OF ECONOMIC SIGNIFICANCE The decree complies with the obligation assumed by Italy towards the European Union in its National Recovery and Resilience Plan, in the context of which, with reference to local public services, the aim is to strengthen recourse to the principle of competition, to limit direct awards, to separate the management functions from control functions, to establish a principle of proportionality of the duration of contracts.

EUROPEAN FRAMEWORK

LAW NO. 238 OF 23 DECEMBER 2021 – Provisions for compliance with the obligations arising from Italy's membership of the European Union – European Law 2019-2020 Published in the Official Gazette of the Republic of Italy (GURI) on 17 January 2022, it contains provisions for the compliance with the obligations arising from Italy's membership of the EU.

The various measures introduced by the decree, which shall enter into force from 1 February 2022, include the amendment to the Public Contracts Code (Legislative Decree 50/16, as amended).

“REPOWEREU” PACKAGE

Announced on 18 May 2022 by the European Commission, the package, which aims to reduce EU demand for Russian gas by two thirds by the end of 2022 and to zero it by 2027, focuses on the volatility of the prices of commodities and on the supply issues arising from the Russian/Ukrainian conflict. The Plan is part of the “Fit for 55” package and includes three main actions: 1) diversified sources of supply; 2) increased production of electricity from renewable sources; 3) reduced demand for gas through energy efficiency and savings.

EUROPEAN TAXONOMY – INCLUSION OF THE GAS AND NUCLEAR SECTORS

The European Parliament voted to include activities in the gas and nuclear sectors in the European taxonomy, i.e. the classification system that establishes a list of environmentally sustainable activities.

REGULATION (EU) 2022/1854 OF 7 OCTOBER 2022

The Regulation sets out a series of targeted and limited exceptional measures to address the increase in the prices of commodities and energy products. The measures are aimed at: i) reducing the use of electricity; ii) introducing a cap on certain revenues; iii) allowing Member States to set electricity supply prices for SMEs; iv) establishing rules for a temporary solidarity contribution.

2023 BUDGET LAW (LAW NO. 197 OF 29 DECEMBER 2022)

Package against rising energy costs

On the whole, the 2023 budget law allocates € 21 billion to combat rising energy costs, i.e. two thirds of the total sums allocated.

- For the 1st quarter of the year, extra costs in bills were eliminated and the tax credits were confirmed and the percentages increased: for small companies and activities like restaurants, bars and commercial businesses, the tax credit for the purchase of electricity and natural gas rose from 30% to 35%, whereas for energy-intensive and gas-intensive companies it will rise from 40% to 45%.

- A reduced rate of 10% will be applied to pellets and 5% for consumption linked to district heating related to the first quarter of the year. A tax credit is envisaged for the purchase of fuel by agricultural and fishing companies.
- The Energy Authority may suspend gas interruptions for defaulting large businesses until 31/01/2023.
- The VAT reduction to 5% for provisions of thermal energy produced with methane gas is extended for the first quarter.

Superbonus

- The possibility of utilisation of the increased deduction rate at 110% has been limited, while the reconfiguration of the bonus from 110% to 90% is confirmed from 1 January 2023. The 110% rate can still be maintained in the event of:
 - works carried out by property owners up to 4 apartments for which the CILAS (Superbonus sworn notice of work commencement) has been submitted at 25 November;
 - works carried out by condominiums for which the shareholders' resolution that approved the execution of the works was adopted by 18 November and the CILAS submitted by 31 December 2022.
- Bonus for green furniture and domestic appliances: extension of the 50% deduction for the purchase of green furniture and large domestic appliances. The cap for 2023 has been increased to €8,000.

Earnings from excess profits of energy companies

In 2023, a temporary "solidarity contribution" was established for 50% of the 2022 income that exceeds the average of overall income achieved in 2018-2021 by at least 10%. The amount of the contribution cannot exceed 25% of the shareholders' equity at the close of the financial period prior to the current period as at 1 January 2022. The tax on excess profits will apply to companies that generate at least 75% of their revenues from activities in the sectors of energy, gas and oil product production and resale.

Income and tax support

- Social bonus for bills. The mechanism for vulnerable families is confirmed that allows them to receive the social bonus for bills, with an increase in the income (ISEE) threshold from € 12,000 to € 15,000.
- Tax wedge cut. Contribution exemption of 2% for income up to € 35,000 and of 3% for income up to € 25,000.
- Incentives for permanent contracts. Incentives, between 1 January and 31 December 2023, for permanent contracts with a threshold of contributions up to € 8,000 for woman and young people who already have a temporary contract and for recipients of universal basic income.
- Flat tax. Introduction for self-employed workers of an incremental flat tax at 15% with a 5% exemption and a cap of € 40,000. Flat tax extended to 15% for self-employed workers and VAT numbers with revenues up to € 85,000.

Businesses

- In order to promote investment in industry and tourism, the development contracts were refinanced in 2023-2027 with a total allocation of € 4 billion. Refinanced the new capital goods measure ("Nuova Sabatini") with € 150 million to incentivise investments in capital goods and the SME Guarantee Fund.

Plastic tax and sugar tax

The entry into force of the Plastic Tax and Sugar Tax deferred to 1 January 2024.

Natural gas sales

RESOLUTION 13 January 2022 - 3/2022/R/GAS. Urgent provisions on exercise of the default service on natural gas transport networks. The resolution contains urgent provisions on exercise of the transport default service and activation of last resort services.

RESOLUTION 18 January 2022 - 13/2022/R/GAS. Approval of the proposed updates to the Network Code for the company Snam Rete Gas S.p.A. and amendments to the TISG. Approval of the proposed updates to the Network Code for the company Snam Rete Gas S.p.A. and amendments to the TISG.

RESOLUTION 30 MARCH 2022 - 147/2022/R/GAS Update of the QVD component of the economic conditions for the natural gas protection service. The resolution defines the values of the QVD component

to cover the costs of marketing the natural gas sales service to customers who use the protection service in force from 1 January 2022.

RESOLUTION 30 MARCH – 144/2022/R/GAS - Update, for the quarter 1 April - 30 June 2022, of the economic conditions of supply of natural gas for the protection service. Amendments to the TIVG. The resolution updates, for the quarter from 1 April - 30 June 2022, the economic conditions of supply of natural gas for the protection service and makes amendments to the TIVG.

RESOLUTION 30 MARCH 2022 - 148/2022/R/GAS Urgent and extraordinary measures in favour of consumers in relation to the exceptional situation of tension in gas market operations. Urgent and exceptional measures to protect consumers.

RESOLUTION 13 APRIL 2022 - 176/2022/R/GAS Determination of the CCR components and of the single variable CRVos fee, as from 1 October 2022 until 30 September 2023. The resolution approves the amounts for the CCR components under article 6bis of the TIVG and CRVOS pursuant to article 36.1 of the RTTG for the next thermal year.

RESOLUTION 21 JUNE 2022 - 269/2022/R/GAS Review of the regulations of the metering service with adjustment of billing to end customers in the natural gas sector. With this resolution, the Energy Authority amended the regulations on metering in relation to expected output and performance of the service provided via smart meters (operation, frequency of collection and time details of metering data, frequency of access to metering data, indemnities for end customers and sellers) and introduced adjustments to billing obligations.

RESOLUTION 29 JULY 2022 – 374/2022/R/GAS - Urgent amendments to the TIVG: new method of determining the economic conditions of supply of natural gas for the protection service as from 1 October 2022. The resolution amends the method of determining the economic conditions of supply of natural gas for the protection service as from 1 October 2022. The additional dramatic rise in wholesale energy prices, linked to the conflict in Ukraine and the reduction in gas flows implemented by Russia, led the Authority to introduce measures to protect consumers and guarantee the continuity of supplies. From 1 October, the method of updating the costs of the gas commodity for households who are still under the protection conditions will change.

RESOLUTION 29 JULY 2022 - 372/2022/R/GAS Adjustment of the conditions for providing the last resort service and natural gas distribution default service. The resolution adjusts the conditions for providing the last resort supply service and the natural gas distribution default service and implements specific equalisation mechanisms for service operators.

RESOLUTION 20 SEPTEMBER 2022 - 436/2022/R/GAS Refinement of the functional guidelines on the new method of determining the economic conditions of supply of natural gas for the protection service from 1 October 2022, amendments to the TIVG, to Authority resolution 374/2022/R/gas and changes to billing periods. With this resolution, ARERA confirmed, while introducing certain refinements, the change from 1 October to the calculation methods for the raw material component in the gas protection services with transition to indexation at the PSV, as envisaged by resolution 374/2022/R/gas.

RESOLUTION 29 SEPTEMBER 2022 - 464/2022/R/GAS Amendments to Authority resolutions 436/2022/R/gas and 374/2022/R/gas. The resolution in question makes amendments to point 3 of resolution 436/2022/R/gas, providing that, in cases where bills are issued containing an advance estimate of the value of the CMEM component, the estimated value of the aforesaid component must be set at the value of the CMEM component in the previous month, determined pursuant to article 6 of the TIVG as amended by resolution 374/2022/R/gas. Point 4 of resolution 436/2022/R/gas is also amended, adding that the end customers, in cases where the billing frequency is changed by the operator, must be informed with a specific communication that must be received before the first bill where the billing frequency has been changed.

RESOLUTION 2 NOVEMBER 2022 - 541/2022/R/GAS Implementing provisions for recognition of discounts for companies with high natural gas consumption pursuant to the Decree of the Ministry of Ecological Transition no. 541 of 21 December 2021. This resolution governed the operating methods for recognition of discounts to gas-intensive companies pursuant to the Decree of the Ministry of Ecological Transition no. 541 of 21 December 2021.

RESOLUTION 8 NOVEMBER 2022 - 555/2022/R/GAS Additional provisions on reform of the processes of conferment of capacity at the points of delivery of the transport network and amendments to the TISG and TIVG. The resolution approves additional provisions on reform of the conferments of transport capacity, as well as amendments and/or supplements to the TISG and TIVG.

RESOLUTION 29 NOVEMBER 2022 - 639/2022/R/GAS Advance on amounts relating to the default reintegration mechanisms for the transport default service, the distribution default service and the last resort supply service. Amendments to the TIVG. This resolution defines specific provisions for the provision of advances on the amounts recognised as part of the offsetting mechanisms of the defaulting charges envisaged for each last resort gas service and makes amendments to the TIVG.

RESOLUTION 16 December 2022 - 690/2022/R/GAS. ADDITIONAL URGENT PROVISIONS ON TRANSPORT DEFAULT SERVICE IN RELATION TO END CUSTOMERS DIRECTLY CONNECTED TO THE TRANSPORT NETWORK. With this resolution additional urgent provisions were adopted on the transport default service, in relation to the detachment of end customers directly connected to the transport network. The resolution suspends the procedures for interrupting supply to the customers in question until 31 December 2022 and establishes that, in derogation of the deadline of 60 days of provision of the default service, this can be provided until 31 March 2023 for customers that regularly make payment or whose receivables are fully covered by suitable guarantees.

Electricity sales

RESOLUTION 25 January 2022 – 29/2022/R/EEL. Amendments related to the time frames of the annual session of participation in the mechanism pursuant to Authority resolution 32/2021/R/eel. The resolution makes updates to the mechanism for recognising the general system charges not collected by end customers and already paid to distribution companies, providing, on the one hand, for the postponement of the deadline for publishing the templates for the submission of applications by the Energy and Environmental Services Fund and, on the other, setting strict deadlines for the submission of participation applications.

RESOLUTION 31 January 2022 – 35/2022/R/EEL. Urgent provisions on tariff components destined to cover the general charges of the electricity sector and for the first quarter of 2022. The resolution provides for the cancellation of the rates on general electricity system changes for the first quarter of 2022 for all types of users, in implementation of the Support Decree Ter Law.

RESOLUTION 4 MARCH 2022 - 83/2022/R/EEL. Urgent amendments and supplements to the methodology for defining the capacity market exercise price, pursuant to Authority resolution 363/2019/R/eel. With this resolution, ARERA made urgent amendments and supplements to resolution 363/2019/R/eel, in relation to the method for determining the exercise price set out by article 9 of resolution ARG/elt 98/11, to take account, among other things, of the effects on the markets arising from the international crisis.

RESOLUTION 22 March 2022 – 123/2022/R/EEL. Approval of the proposed amendments to the transmission, dispatching, development and network security code, in implementation of the reform of the regulations on imbalances, and additional amendments to the dispatching regulation. With this resolution, the Authority approved the amendments to the Terna Network Code, in implementation of the regulations on imbalances set out by resolution 523/2021/R/eel, also introducing additional amendments to the structure of the dispatching regulation.

RESOLUTION 29 March 2022 – 132/2022/R/EEL. Amendments to the incentive system for the purpose of reducing dispatching costs. This resolution revised, in light of the market context, several elements of the incentive scheme adopted with resolution 597/2021/R/eel, in order to promote the adoption of all necessary measures to minimise dispatching costs and the resulting considerations paid by end customers and to increase the resources available for dispatching to the benefit of the security of the system.

RESOLUTION 10 May 2022 – 208/2022/R/EEL. Provisions for the incremental protection services to micro-companies in the electricity sector as per Law No. 124 of 4 August 2017 (annual law for the market and competition). With this resolution, ARERA defined the regulations for the incremental protection service and its assignment methods, for the purpose of ensuring continuity of supply to micro-

businesses connected via low voltage that will find themselves without a contract under free market conditions from 1 January 2023.

RESOLUTION 14 JUNE 2022 - 258/2022/R/COM - Update of the dates of entry into operation of the provisions on the standardisation of the offer code in the electricity and natural gas sectors and on population and update of the offer code in the Official Central Register (RCU) of the IIS. This resolution updates the dates of entry into operation of the provisions on the standardisation of the offer code in the electricity and natural gas sectors and on population and update of the offer code in the Official Central Register (RCU), pursuant to resolution 135/2022/R/com.

RESOLUTION 21 June 2022 - 266/2022/R/EEL. Implementation of article 15-bis of Decree Law no. 4 of 27 January 2022, on measures for the electricity produced by renewable source plants. With this resolution, the Energy Authority governed the methods for the identification, collection and transfer to consumers of the drawdown on "excess profits" of electrical renewables envisaged by Decree Law 4/22 of last January.

RESOLUTION 28 June 2022 - 275/2022/R/EEL. Making use of the Energy Services Operator - GSE S.p.A., to carry out checks on fuel mix disclosure and offers of energy produced from renewable sources and approval of the related regulations. The resolution launched a programme of checks related to the fuel mix declared by electricity sales companies to be carried out through use of the GSE. These checks will mainly be document-based.

RESOLUTION 02 August 2022 - 394/2022/R/eel. Completion of the regulation of the incremental protection services to micro-businesses in the electricity sector as per Law no. 124 of 4 August 2017 and amendments to Annex A to Authority resolution 208/2022/R/eel. The resolution completes the rules for the awarding of the incremental protection services to micro-businesses, setting the amount for the CSem fee, the initial value of the current price and the related reduction levels between the rounds in addition to amounts for the maximum ceiling to be applied to the offers formulated under auction, including the percentage increase for the ceiling at the time of repair auctions.

RESOLUTION 8 SEPTEMBER 2022 - 419/2022/R/EEL. Deferral of the time frames for carrying out competitive procedures for the awarding of the incremental protection services to micro-businesses in the electricity sector as per Law no. 124 of 4 August 2017 and amendments to resolution 208/2022/R/eel. With this resolution, the decision was taken to defer the time frames for carrying out tenders for the awarding of the incremental protection services to micro-businesses in the electricity sector (initially envisaged from 12 September), due to the cyber attack that shut down the GSE systems and those of Acquirente Unico that depend on them.

RESOLUTION 27 September 2022 - 452/2022/R/EEL. Urgent decisions on essential resources for the security of the electricity system. Amendments and supplements to the reference regulations. This resolution aimed to amend the measurement criteria for natural gas as part of the regulations on essential resources for the security of the electricity system, following the adoption of new methods for determining the economic conditions for supply of natural gas for the protection system from 1 October 2022.

RESOLUTION 4 OCTOBER 2022 - 473/2022/R/EEL. Urgent measures on load profiling adjustment. The resolution, which follows up on consultation document 412/2022/R/EEL, brings forward the economic regulation of load profiling for the first six months of 2022 as part of the SEM1 adjustment session planned during the current year.

RESOLUTION 15 November 2022 - 585/2022/R/EEL. First population of the list of parties registered for the sale of electricity to end customers pursuant to Ministerial Decree 25 August 2022. With this resolution, ARERA requested that AU, as the operator of the IIS, send to the Ministry of Ecological Transition the information present in the Single Central Register of the Integrated Information System relating to electricity sales companies shown as certified commercial counterparties in the IIS at the date of entry into force of the ministerial decree containing the list of parties registered for the sale of electricity to end customers. This gave the green light to the first creation of the anticipated list of sellers authorised to sell electricity.

RESOLUTION 15 November 2022 - 586/2022/R/EEL. Review of the time frames for activating the incremental protection services for micro-businesses in the electricity sector as per Law no. 124 of 4 August 2017 and regulation of the transition period. Amendments to Authority resolution

208/2022/R/eel, related Annexes A, B and C, and Authority resolution 454/2022/R/eel. This resolution sought to postpone the activation date of the incremental protection services for micro-businesses until 1 April 2023.

RESOLUTION 29 November 2022 – 638/2022/R/EEL. Provisions on centralisation in the IIS of supply suspension services due to default and subsequent reactivation, in the electricity sector. This resolution contains provisions on centralisation in the IIS of requests for activation, deactivation, suspension due to default and reactivation in the electricity sector.

Natural gas and electricity sales

There follows a description of the main regulatory changes that have simultaneously affected sales of natural gas and electricity.

RESOLUTION 15 March 2022 - 102/2022/R/COM. Provisions on database disclosure obligations of operators in sectors within the remit of the Regulatory Authority for Energy Networks and the Environment (ARERA) – Integrated Text on Operator Database (TIAO). The resolution contains provisions for the approval of the Integrated Text on database disclosure obligations for operators in sectors within the remit of the Regulatory Authority for Energy Networks and the Environment (ARERA) (TIAO), in order to merge the relevant measures that have become stratified over time and thus facilitate their identification and understanding.

RESOLUTION 29 March 2022 - 135/2022/R/COM. Provisions on standardisation of the offer code in the electricity and natural gas sectors and on population and update of the offer code in the Official Central Register (RCU) of the IIS

RESOLUTION 30 March 2022 - 141/2022/R/COM. Update, from 1 April 2022, of the tariff components destined to cover the general expenses and of further components of electrical sector and the gas sector. Provisions referring to the Energy and Environmental Services Fund. Measures referring to electricity and gas bonus

RESOLUTION 26 April 2022 - 188/2022/R/COM. Resolution on preliminary provisions for the purpose of implementing the provisions of article 6 of Decree Law no. 21 of 21 March 2022 on increasing the ISEE (income) threshold for access to electricity and gas social bonuses. The measure contains initial implementing provisions for the Ukraine Bis Decree Law on increasing the ISEE (income) threshold for access to the electricity and gas bonuses.

RESOLUTION 10 May 2022 - 209/2022/R/COM. Amendment and integration of the Rules on Bills 2.0: conclusion of the first group of measures and initial implementation of Legislative Decree no. 210/2021 on bills and billing information. With this resolution, the Energy Authority amended and integrated the Rules on Bills 2.0, upon conclusion of an initial group of measures and initial implementation of the relevant provisions contained in Legislative Decree 210/2021 referring to the electricity market.

RESOLUTION 10 May 2022 - 210/2022/R/COM. Conclusion of the provisions relating to urgent measures associated with the Covid-19 epidemic in relation to credit ratings and adjustments to Authority resolution 32/2021/R/eel. With this resolution, the Authority governed the conclusion of the measures introduced with resolution 248/2020/R/com and extended with resolution 81/2021/R/com aimed at the management of the rating guarantee in electricity transport and natural gas distribution contracts in the cases of downgrades related to the COVID-19 emergency.

RESOLUTION 31 May 2022 - 241/2022/R/COM. Extension of provisions on instalment-based payments for domestic customers pursuant to Authority resolution 636/2021/R/com. This measure extends until 30 June 2022 the provisions on instalment-based payments for domestic customers pursuant to resolution 636/2021/R/com implementing the provisions of article 6-bis of Decree Law no. 21 of 21 March 2022, converted with amendments by Law no. 51 of 20 May 2022.

RESOLUTION 28 June 2022 - 289/2022/R/COM. Adjustment of the disclosure obligations of the Code of commercial conduct to the advantage of final customers of the retail market. This measure provides for the adjustment of the Code of Commercial Conduct to the provisions of Legislative Decree 210/2021 for electricity supplies in relation to the contractual rights of end customers; this measure also provides for the

monthly update of the estimated spending on offers at variable price and protection services present in the Comparability Sheets for electricity and natural gas supplies.

RESOLUTION 29 June 2022 - 295/2022/R/COM. Update, from 1 July 2022, of the tariff components destined to cover the general expenses and of further components of electrical sector and the gas sector. Provisions referring to the Energy and Environmental Services Fund regarding the electricity and gas bonus and amendment of the deadline for concluding the procedure set out by Authority resolution 41/2022/R/gas. With this resolution, ARERA changed the components of the general system charges, zeroing them for both the electricity and gas sectors for general users. Additionally, as in the previous quarter, for gas it used an additional tariff component (offsetting of the marketing costs, UG2) to bring possible increases to zero.

RESOLUTION 29 JULY - 373/2022/R/COM. Implementation of the provisions of article 2, paragraph 3-bis of Decree Law no. 50 of 17 May 2022 ("Aid" Decree) coordinated with Conversion Law no. 91 of 15 July 2022. This Resolution, implementing the Aid D.L., defines the minimum contents of the communication that sellers must send to companies applying for tax credits in addition to the sanctions in the event of non-compliance.

RESOLUTION 02 August 2022 - 380/2022/R/COM. Implementation of the provisions of article 6 of Decree Law no. 21 of 21 March 2022, converted with amendments by Law no. 51 of 20 May 2022, and of article 1, paragraph 2 of Decree Law no. 50 of 17 May 2022, converted with amendments by Law no. 91 of 15 July 2022, regarding access to and recognition of the electricity and gas social bonuses due to economic hardship for the year 2022. The resolution approves the application methods for recognising the 2022 electricity and gas bonuses to eligible customers, taking account of the provisions of Decree Law 21/22 and Decree Law 50/22 as converted into law.

RESOLUTION 29 September 2022 - 462/2022/R/COM. Update, from 1 October 2022, of the tariff components destined to cover the general expenses and of further components of electrical sector and the gas sector. Provisions on TIVG. Measures referring to electricity and gas bonus, amendments to the RTTG, provisions referring to the Energy and Environmental Services Fund. Update of the rates of the electricity and gas sector general charges. Update to TIVG and RTTG components. Provisions referring to the social bonuses and to the Energy and Environmental Services Fund.

RESOLUTION 4 OCTOBER 2022 - 474/2022/R/COM. Implementation of the provisions of article 6, paragraph 5 of Decree Law no. 115 of 9 August 2022 ("Aid Decree bis") coordinated with Conversion Law no. 142 of 21 September 2022. This Resolution, implementing the Aid Decree bis, in line with Authority resolution 373/2022, defines the minimum contents of the communication that sellers must send to sales companies applying for tax credits in addition to the sanctions in the event of non-compliance.

RESOLUTION 11 October 2022 - 489/2022/R/COM. Launch of procedure for the definition of provisions for the removal of the natural gas protection service and conditions of supply of natural gas to vulnerable customers. This resolution launches a procedure intended to define: the methods of removal of the gas protection service for customers supplied therein pursuant to Law no. 124 of 4 August 2017; the methods of identification of vulnerable natural gas customers as well as the conditions for supply of natural gas that must be offered to them by the sellers on the free market and by operators of the last resort service and the adjustment of the provisions of the Commercial Code of Conduct and the Regulations on the operation of the Offers Portal in the context resulting from the imminent removal of the natural gas protection service and from the prospect of greater protection.

RESOLUTION 29 November 2022 - 619/2022/R/COM. Launch of procedure for the review of the methods for determining the amounts of the electricity and gas social bonuses. The resolution provides for the start of the procedure for the review of the methods for determining the amounts of the electricity social bonus due to economic hardship and of the gas social bonus and contains urgent provisions for the extraordinary review of the supplementary offsetting component (CCI) of the gas social bonuses applicable from 1 December 2022

RESOLUTION 29 NOVEMBER 2022 - 637/2022/R/COM Supplement to Bills 2.0: further increased transparency and systematisation of Authority communications. Following on from the consultation document 441/2022/R/com, the resolution provides for the review of the Rules on Bills 2.0 in order to further increase the transparency of the bills of electricity end customers, increase the availability of the

document of the detailed elements and define new measures intended for the rationalisation and systematisation of Authority communications.

RESOLUTION 6 DECEMBER 2022 - 652/2022/E/COM. Determination, pursuant to Authority resolution 592/2021/R/com, of the penalties borne by operators of the end sale of electricity and gas that did not send to the Authority, within the required deadline, the average prices applied in the first half of 2022. The resolution contains the determination of the penalties borne by the sellers of electricity and natural gas due to the failure to send to the Authority the average prices applied to customers or adequate justification for such failure.

RESOLUTION 6 DECEMBER 2022 - 669/2022/R/COM. Implementation of the provisions pursuant to article 1, paragraph 5 of Decree Law no. 144 of 23 September 2022 ("Aid Decree ter") coordinated with conversion law no. 175 of 17 November 2022 and pursuant to article 1, paragraph 5 of Decree Law no. 176 of 18 November 2022 ("Aid Decree quater"). With this deliberation, in implementation of the provisions of the Aid Decree ter. and of the Aid Decree quater, in line with the Authority resolutions 373/2022 and 474/2022, the minimum contents were defined for communication regarding the tax credit for the purchase of electricity and natural gas in the fourth quarter of 2022 that sellers must send to the applicant customer businesses, within 60 days from the deadline for the period for which the tax credit is due, in addition to the sanctions in the event of non-compliance. Communications between sellers and companies must take place via certified electronic mail or with another traceable method identified by the seller. Compliance may be ascertained through inspections, and any sanction for non-compliance may reach a maximum of 2% of the turnover realised by the seller in the last financial period ended before the launch of the sanction process or, failing this, of the last available turnover, taking account of the level of non-compliance.

Natural gas distribution

RESOLUTION 23 December 2021 - 614/2021/R/COM. Capital remuneration rate for invested capital for infrastructure services in the electricity and gas sectors for the period 2022-2027: criteria for determining and updating. The document sets the criteria for determining the WACC for the second regulatory period.

RESOLUTION 28 December 2021 - 620/2021/R/GAS. Update of the tariffs for the gas distribution and metering services, for the year 2022. The resolution approves the obligatory tariffs for the natural gas distribution, metering and marketing services and the amounts of bi-monthly equalisation in advance related to the natural gas distribution service for the year 2022.

RESOLUTION 25 January 2022 - 24/2022/R/GAS. Recognition of costs for remote reading/management and concentrators of natural gas metering systems, for the years 2017-2019. The resolution establishes the amounts of the annual operating costs incurred by certain gas distribution companies for the years 2017-2019 and relating to the remote reading/management systems and concentrators.

RESOLUTION 8 FEBRUARY 2022 - 44/2022/R/GAS. Launch of procedure for the adjustment of the conditions for providing the last resort service and natural gas distribution default service. The resolution launches a procedure intended to adjust the conditions for providing the last resort service and natural gas distribution default service.

RESOLUTION 30 March 2022 - 141/2022/R/COM. Update, from 1 April 2022, of the tariff components destined to cover the general expenses and of further components of electrical sector and the gas sector. Provisions referring to the Energy and Environmental Services Fund. Measures referring to electricity and gas bonus. The resolution determines the quarterly update of the general charges and additional electricity and gas sector components. Measures referring to the social bonuses.

RESOLUTION 5 APRIL 2022 - 154/2022/R/GAS. Determination of final reference rates for gas distribution and measurement services for the year 2021. Changes to RTDG. The resolution determines the final reference rates for gas distribution and metering services for the year 2021, calculated on the basis of the balance sheet data for the year 2020.

RESOLUTION 12 April 2022 - 171/2022/R/GAS. Advance on bonuses related to recoveries of security of the natural gas distribution service for the year 2019. The resolution provides, for the year 2019, for a recognition in advance on the net overall amount of the bonuses for the year 2019.

RESOLUTION 26 April 2022 - 179/2022/R/GAS. Update to the directives for connections of biomethane plants to the natural gas networks. The resolution updates the directives for connections of biomethane plants to the natural gas networks.

RESOLUTION 3 MAY 2022 - 194/2022/R/GAS. Determination of provisional tariffs for gas distribution and metering services and redetermination of bi-monthly advance equalisation amounts related to the natural gas distribution service, for the year 2022. The resolution approves the provisional tariffs for gas distribution and metering services for the year 2022 and redetermines the bi-monthly advance equalisation amounts related to the same year, 2022.

RESOLUTION 31 May 2022 - 231/2022/R/COM. Update to the verification methods of commercial quality data of the distribution, metering and sales services of electricity and natural gas and contractual quality data of the integrated water service. This resolution concluded the process of updating the verification procedures of commercial and contractual quality data by providing for the application of the "statistics method" in the "additional control" and extending it to the TIQV.

RESOLUTION 21 June 2022 - 269/2022/R/GAS. Review of the regulations of the metering service with adjustment of billing to end customers in the natural gas sector. The resolution determines the output and performance of the metering service provided via smart meters in the natural gas sector (operation, frequency of collection and time details of metering data, frequency of access to metering data, indemnities for end customers and sellers), in addition to adjustments to billing obligations.

RESOLUTION 28 June 2022 - 282/2022/R/GAS. Update of the interest rate for determining the redemption to the outgoing managers of the one-off sums for the coverage of the tender costs for relying on the natural gas distribution service. The updated measure, with validity for the 2019-2021 three-year period and for the 2022-2025 three-year period, the interest rate, to be applied for the determination of the redemption to the outgoing managers of the amounts for the coverage of the tender costs, equal to the cost of the debt capital in post-tax nominal terms, determined in line with the provisions of the 2022-2027 TIWACC, equal to 3.59%.

RESOLUTION 28 June 2022 - 292/2022/R/EFR. Determining a tariff contribution to be paid to distributors in the scope of the energy efficiency certificates mechanisms for the obligation year 2021. Pursuant to resolution 270/2020, the resolution determined the tariff contribution to be paid to distributors complying with their energy saving obligations in the scope of the EEC for the obligation year 2021.

RESOLUTION 29 June 2022 - 295/2022/R/COM. Update, from 1 July 2022, of the tariff components destined to cover the general expenses and of further components of electrical sector and the gas sector. Provisions referring to the Energy and Environmental Services Fund regarding the electricity and gas bonus and amendment of the deadline for concluding the procedure set out by Authority resolution 41/2022/R/gas. The measure updates the general system charges for the electricity and gas sectors for the third quarter of 2022.

RESOLUTION 2 AUGUST 2022 386/2022/R/GAS. Introduction of a mechanism to raise awareness among distribution companies on the management of the in-out delta. The measure introduces a mechanism to raise awareness among the distribution companies on the volumes to cover the difference between the quantities introduced at the points of exit of the transport network interconnected with distribution networks and the quantities withdrawn by end customers (deltaIO).

RESOLUTION 4 OCTOBER 2022 469/2022/E/GAS. Approval of a programme of inspections on natural gas distribution and metering tariffs. The resolution provides for the performance of two inspections on tariffs at natural gas distribution companies.

RESOLUTION 15 November 2022 - 570/2022/R/GAS. Launch of a procedure for the implementation of the measures envisaged by Law no. 118 of 5 August 2022 (annual law for the market and competition), on tenders for the awarding of the natural gas distribution service.
Launch of a procedure for the implementation of the measures envisaged by Law no. 118 of 5 August 2022

(annual law for the market and competition), on tenders for the awarding of the natural gas distribution service.

RESOLUTION 15 November 2022 - 569/2022/R/GAS. Formal notice to comply with the communication obligations for gas distribution service security and continuity data relating to the year 2021. The measure orders several companies to provide data from the year 2021, relating to security and continuity pursuant to article 38 of resolution 569/2019/gas.

RESOLUTION 29 November 2022 - 639/2022/R/GAS. Advance on amounts relating to the default reintegration mechanisms for the transport default service, the distribution default service and the last resort supply service. Amendments to the TIVG. The resolution defines specific provisions for the provision of advances on the amounts recognised as part of the offsetting mechanisms of the defaulting charges envisaged for each last resort gas service and makes amendments to the TIVG

RESOLUTION 01 December 2022 - 649/2022/R/GAS. Provisions referring to the technical interruptibility of withdrawals from the natural gas transport and distribution network, for the 2022/2023 thermal year, pursuant to Ministerial Decree of 21 October 2022. This measure defined the implementing methods of the technical interruptibility service of natural gas withdrawals pursuant to article 1 of decree 21 October 2022 of the Ministry of Ecological Transition, now the Ministry of Environment and Energy Security.

RESOLUTION 6 DECEMBER 2022 654/2022/R/GAS. Verification of the activation of the trigger mechanism pursuant to article 8 of the 2022-2027 TIWACC for the year 2023 and correction of a material error in the 2022-2027 TIWACC. The measure confirms the values of the WACC parameters shared by all infrastructure services of the electricity and gas sectors shown in Table 1 of the 2022-2027 TIWACC and proceeds to update Tables 2 and 3 of the 2022-2027 TIWACC for 2023, confirming the values in force in 2022.

RESOLUTION 22 December 2022 - 714/2022/R/GAS. Update to the provisions on determination of the reimbursement amount of the natural gas distribution networks in implementation of the annual law for the market and competition. Update to the provisions on determination of the reimbursement amount of the natural gas distribution networks in implementation of the Annual Law for the Market and Competition

RESOLUTION 29 December 2022 - 737/2022/R/GAS. Interim update to the tariff regulation of the gas distribution and metering services, for the 2023-2025 three-year period. Approval of the RTDG for the 2023-2025 three-year period and amendments to the Standard Network Code for the gas distribution service

RESOLUTION 29 December 2022 - 736/2022/R/GAS. Update of the tariffs for the gas distribution and metering services, for the year 2023

Supply, transportation and storage of natural gas

Transport of natural gas

RESOLUTION 24 MAY 2022 - 225/2022/R/GAS Entry into force of the reform of the processes of conferment of capacity at the points of exit and delivery of the transport network. The resolution provides for the postponement of the entry into force referred to under point 6.2 of resolution 147/2019/R/gas, until 1 October 2023.

RESOLUTION 23 September 2022 - 440/2022/R/GAS. Urgent provisions on transport default service and conferment of transport capacity. The measures approves integrations to the regulations on the transport default service in order to take account of the critical issues detected regarding the execution of the service from 1 October 2022. Furthermore, this measure is intended to extend the conferment procedures of transport capacity for the 2022/2023 thermal year.

RESOLUTION 13 October 2022 - 493/2022/R/GAS. Urgent provisions on natural gas transport service. The measure set outs provisions that make it possible to extend on a monthly basis the capacity conferment

in relation to withdrawals for which the transport default service would otherwise have been activated or continued.

RESOLUTION 18 October 2022 - 504/2022/R/GAS. Approval of a proposed update to the network code of Gasdotti Italia S.p.A. This measure approves a proposed amendment to the Network Code of Gasdotti Italia S.p.A. regarding guarantees.

Natural gas storage

RESOLUTION 8 MARCH 2022 - 97/2022/R/GAS. Urgent provisions on transport fees and offer of short-term storage capacity

RESOLUTION 15 MARCH 2022 - 110/2022/R/GAS Urgent provisions for the conferment of storage capacity for thermal year 2022/2023. The measure defines functional provisions on the allocation and management of the storage service in application of the Decree of the Ministry of Ecological Transition 14 March 2022.

RESOLUTION 8 APRIL 2022 - 165/2022/R/GAS. Urgent provisions for the conferment of the storage capacity pursuant to the Decree of the Ministry of Ecological Transition no. 138 of 1 April 2022. Urgent provisions for the conferment of the storage capacity pursuant to the Decree of the Ministry of Ecological Transition no. 138 of 1 April 2022.

RESOLUTION 27 April 2022 - 189/2022/R/GAS. Additional urgent provisions for the conferment of the storage capacity pursuant to the Decree of the Ministry of Ecological Transition no. 138 of 1 April 2022. The measure defines provisions for the conferment of storage capacity for thermal year 2022/ 2023 by introducing a two-way contract for difference in line with the provisions of Decree of the Ministry of Ecological Transition no. 138 of 1 April 2022.

RESOLUTION 24 June 2022 - 274/2022/R/GAS. Additional urgent measures for the conferment of the natural gas storage service capacity pursuant to the Decree of the Ministry of Ecological Transition no. 253 of 22 June 2022. The measure defines provisions for the purpose of filling storage pursuant to Decree of the Ministry of Ecological Transition of 22 June 2022.

RESOLUTION 21 July 2022 - 349/2022/R/GAS. Additional urgent measures for the natural gas storage service pursuant to Decree of the Ministry of Ecological Transition no. 253 of 22 June 2022, integrating the provisions of Authority resolution 274/2022/R/gas. The measure provides for the advance of resources in addition to those identified in point 4 of resolution 274/2022/R/gas, in favour of the balancing entity for the purpose of carrying out the last resort filling service.

RESOLUTION 2 AUGUST 2022 - 384/2022/R/GAS. Determining the business revenue for the storage service relating to 2023. The measure approves the proposed business revenues for the storage service for the year 2023, pursuant to the RTSG (Annex A to Authority resolution of 23 October 2019, 419/2019/R/GAS).

RESOLUTION 23 September 2022 - 442/2022/R/GAS. Additional urgent measures for the natural gas storage service pursuant to Decree of the Ministry of Ecological Transition no. 253 of 22 June 2022, integrating the provisions of Authority resolution 274/2022/R/gas. The measure provides for the advance of resources in addition to those identified in point 4 of resolution 274/2022/R/gas, in favour of the balancing entity for the purpose of carrying out the last resort filling service.

RESOLUTION 22 November 2022 - 614/2022/R/GAS. Urgent measures for the settlement of economic items deriving from execution of two-way contracts for difference and for the spot sale of gas introduced into storage through the last resort filling service pursuant to Ministerial Decrees no. 253 of 22 June 2022 and no. 287 of 20 July 2022. The resolution defines the methods of settling economic items relating to the execution of two-way contracts for difference (CD2V); as well as the offer methods through spot products of quantities of gas introduced into storage in the context of the last resort storage service.

RESOLUTION 22 November 2022 - 607/2022/R/GAS. Approval of a proposed amendment to the Storage Code of the company Stogit S.p.A. on integration of short-term services and guarantee instruments for access to the storage service. The resolution approves a proposed amendment to the Storage Code of the company Stogit S.p.A. on integration of the short-term services and guarantee instruments.

Renewable energy systems

ITALIAN LEGISLATIVE DECREE 17/2022 OF 1 MARCH 2022 (SO-CALLED "ENERGY" DECREE) - "Urgent measures to contain the costs of electricity and natural gas, for the development of renewable energies and for the relaunch of industrial policies" The decree contains measures on energy, in order to tackle the increase in the costs of energy products, and introduces a series of discounts for households and economic operators. The decree introduces simplification measures for the installation of renewable source plants and on electrical infrastructure. The decree also established the SME renewables fund with a provision of € 267 million to promote self-consumption.

ITALIAN LEGISLATIVE DECREE 50/2022 OF 17/03/2022 (SO-CALLED "AID" DECREE) - "Urgent measures on national energy policies, business productivity and attracting investments, in addition to social policies and the crisis in Ukraine". The decree aims to incentivise energy production and ensure the security of supplies and regulates regasification facilities and the simplification of authorisation procedures for renewable source electricity production plants.

ITALIAN LEGISLATIVE DECREE 21/2022 OF 21/03/2022 - Urgent measures to counter the economic and humanitarian effects of the crisis in Ukraine - Provides for urgent measures to increase the production of electricity from biogas, allowing plants that produce electricity from biogas already in operation to fully utilise their installed technical capacity through additional production in relation to the plant's rated output.

ITALIAN LEGISLATIVE DECREE 4/2022 OF 28/03/2022 - Urgent measures on support for businesses and economic operators, employment, health and regional services, associated with the COVID-19 emergency, as well as to contain the effects of price increases in the electricity sector.

The decree contains measures on electricity produced by renewable source plants: provisions intended to introduce an offsetting mechanism for renewable source generation plants that receive fixed bonuses and became operational before 2010 and do not receive incentives.

RESOLUTION 266/2022/R/eel OF 21 JUNE 2022 - The measure aims to implement article 15-bis of Decree Law no. 4 of 27 January 2022, which introduced, for the period between 1 February and 31 December 2022, a two-way offsetting mechanism on the price of electricity introduced by certain types of production plants powered by renewable sources.

RESOLUTION 8/11/2022 - 557/2022/R/eel - Methods for obtaining the discounts pursuant to Decree of the Ministry of Ecological Transition of 21 September 2022 on electricity from renewable sources withdrawn from electrolysis plants for the production of green hydrogen. The measure defines the procedural methods for the repayment of the variable parts, expressed in c€/kWh, of the tariff component to cover the general charges pertaining to the electricity system in the case of electricity withdrawn by the operators of electrolysis plants for the production of hydrogen that meet the requirements set out in article 3 of Ministerial Decree of 21 September 2022.

Energy and Energy Efficiency Services

LAW NO. 73 OF 28 MARCH 2022 - CONVERTING THE SO-CALLED "SUPPORT DECREE TER" - Urgent measures on support for businesses and economic operators, employment, health and regional services, associated with the COVID-19 emergency, as well as to contain the effects of price increases in the electricity sector. Introduces measures to combat fraud in the sector of tax benefits for construction.

DECREE LAW NO. 68/2022 - Urgent provisions for the safety and development of infrastructure, transport and sustainable mobility, as well as large events and for the functioning of the Ministry for Infrastructure and Sustainable Mobility.

RESOLUTION 28/06/2022 - 292/2022/R/EFR - Determining a tariff contribution to be paid to distributors in the scope of the energy efficiency certificates mechanisms for the obligation year 2021. Pursuant to resolution 270/2020, the resolution determined the tariff contribution to be paid to distributors complying with their energy saving obligations in the scope of the EEC for the obligation year 2021.

RESOLUTION 4 OCTOBER 2022 477/2022/R/TLR - Provisions on simplified withdrawal from inefficient district heating and cooling systems. The decree defines the methods for simplified withdrawal

from inefficient district heating systems, as part Art. 34, paragraph 2 of Legislative Decree no. 199 of 8 November 2021.

DECREE LAW 176/2022 OF 18/11/2022 (SO-CALLED "AID DECREE QUATER") – Containing urgent measures to support the energy sector and public finance. The percentage of the deduction recognised in 2023 is revised downward for measures falling under the regulations of the so-called superbonus, from 110 to 90 percent. The regulation provides for specific cases in which the discount with the rate at 110% is still possible.

2023 BUDGET LAW (LAW NO. 197 OF 29 DECEMBER 2022) - Measures on the 110% Superbonus

- The possibility of utilisation of the increased deduction rate at 110% has been limited, while the reconfiguration of the bonus from 110% to 90% is confirmed from 1 January 2023. The 110% rate can still be maintained in the event of:
 - works carried out by property owners with up to 4 apartments for which the CILAS (Superbonus sworn notice of work commencement) has been submitted at 25 November;
 - works carried out by condominiums for which the shareholders' resolution that approved the execution of the works was adopted by 18 November and the CILAS submitted by 31 December 2022.
- Bonus for green furniture and domestic appliances: extension of the 50% deduction for the purchase of green furniture and large domestic appliances. The cap for 2023 has been increased to €8,000.

Telecommunications

RESOLUTION NO. 67/22/CONS OF 3 MARCH 2022 – GUIDELINES FOR CONDITIONS ON WHOLESALE ACCESS TO THE HIGH-BANDWIDTH NETWORKS IN RECEIPT OF PUBLIC GRANTS – INTEGRATION FOR 5G NETWORKS. The Guidelines define: i) the minimum set of services for wholesale access to the subsidised network infrastructure that recipients of the public grant must offer; ii) the related prices to be applied; iii) the procedure for the approval of the price list of the services offered by the successful tenderer (Price List); iv) the application methods of the principle of non-discrimination; v) other conditions.

RESOLUTION 452/22/CONS OF 21 December 2022. With this resolution, the guidelines on development of digital infrastructure and electronic communication services were approved, pursuant to article 23 of the 2021 annual law for the market and competition.

ANNUAL LAW FOR THE MARKET AND COMPETITION OF 5 AUGUST 2022 – The new Competition Law contains two articles on telecommunications. Chapter VI sets out provisions on competition, development of digital infrastructure and electronic communication services.

DECREE LAW NO. 21 OF 21 MARCH 2022 containing urgent measures to counter the economic and humanitarian effects of the crisis in Ukraine. Redefines the special powers on national defence and security – golden powers – and, specifically, article 28 determines a redefinition of the special powers on high-bandwidth electronic communication based on 5G and cloud technology.

EUROPEAN FRAMEWORK

The European Parliament approved two new regulations, with the purpose of creating a single legislative framework, applicable across the entire territory of the European Union, capable of regulating an open and competitive digital market:

- **DSA - Data Service Act.** The DSA applies to digital services that place consumers in contact with goods, services or content, setting new obligations on transparency and responsibility of platforms in relation to users, with new measures to counter illegal online content and the obligation for platforms to react swiftly, by improving traceability and controls.
- **DMA - Data Market Act.** Defines new rules for major online platforms ("gatekeepers") with the purpose of ensuring a fairer commercial environment and more services for consumers. The full release, with no extensions, is envisaged from May.

Environment

RESOLUTION 15/2022/R/RIF OF 18 JANUARY 2022 – Approval of the Consolidated Act for the regulation of quality of the municipal waste management service, with the introduction from 1 January 2023 of minimum and standardised obligations on contractual and technical quality and for all management, with the additional provision of quality indicators and related differentiated general standards.

RESOLUTION 68/2022/R/RIF OF 22 FEBRUARY 2022 – Definition of the WACC for the 2022-2025 period at 5.6% for the collection service (adjusted during tariff preparations for the years 2024-2025) and at 6.0% for the treatment service.

MINISTERIAL DECREE 257/2022 OF 24 JUNE 2022 - Approval of the National Waste Management Programme (PNGR). The National Waste Management Programme aims to provide a coordination tool for Regions and Autonomous Provinces in waste planning and management, preordained to guide public policies and incentivise private initiatives for the development of a sustainable and circular economy.

MINISTERIAL DECREE 259/2022 OF 24 JUNE 2022 – Approved the National Strategy for Circular Economy, as a policy document aimed at identifying the actions, objectives and measures intended to be pursued when defining institutional policies aimed at ensuring an effective transition towards a circular economy (Achieved Milestone M2C1-1)

LAW 118/2022 OF 5 AUGUST 2022 (“Annual Law for the Market and Competition”) - Amended the regulations on the public/private decision relating to **municipal waste from non-domestic users disposed of outside of the public service**.

RESOLUTION 413/2022/R/RIF OF 6 SEPTEMBER 2022 - Technical and quality standards pertaining to the waste disposal and recovery activity, with definition of minimum quality levels and acquisition of information about management costs, the characteristics of the flows and any other appropriate element for an assessment of the activity in question, and their incidence on the fees applied to the end user.

MINISTERIAL DECREE 342/2022 OF 19 SEPTEMBER 2022 – Adoption of the schedule for implementing the priority measures included in the National Strategy for Circular Economy, electively implemented by 2026, in line with the time frame of reference of the NRRP.

MINISTERIAL DECREE 152/2022 OF 27 SEPTEMBER 2022 – The measure sets out the specific criteria according to which inert waste from construction and demolition activities and other inert waste of mineral origin subject to recovery cease qualifying as waste, according to the general rules set out by article 184-ter of Legislative Decree 152/2006.

EXECUTIVE DECREE 180/2022 OF 30 SEPTEMBER 2022 - Established the Observatory for Circular Economy at the Sustainable Development Department of the Ministry of Ecological Transition.⁹⁴

EXECUTIVE DECREE 192/2022 OF 18 OCTOBER 2022 – Integration of the composition of the Observatory for Circular Economy.

⁹⁴ The Observatory for Circular Economy is tasked with: a) monitoring the implementation status of the measures defined in the National Strategy for Circular Economy, identifying any obstacles and proposing initiatives intended to resolve them; b) guaranteeing discussion with social partners and with the most representative trade associations through involvement in thematic round tables and consultation on policy documents; c) carrying out effective communication and disclosure in relation to the public administration, public and private operators and citizens for the promotion of initiatives intended to achieve the objectives; d) preparing summary documents on the implementation status of the measures and on any critical issues including for the purposes of updating and integrating the Strategy; e) monitoring, defining and quantifying the interim targets of the measures contained in the National Strategy for Circular Economy; g) providing guidelines for the integration or annual update of the schedule of the Strategy, based on the achievement of the envisaged objectives.

15. RISKS AND UNCERTAINTIES

Pursuant to Art. 2428 paragraph 2, section 6-bis) of the Italian Civil Code, as amended by Italian Legislative Decree no. 394/03, the information required is shown below.

- ***Risk related to legislation and regulations***

The Group operates in a strongly regulated sector. Among the risk factors in its operations is therefore the not always foreseeable constant evolution of the laws and regulations applying to the electricity in natural gas sectors as well as the sectors involved in operating environmental services and the production of energy from renewable sources. The effects of changes in the regulatory framework, for example, can involve market operating methods, tariff plans, the quality of service levels required and obligations of a technical-operational nature. Regulatory changes resulting in conditions that are unfavourable for sector operators can have negative effects on the Group's financial position in terms of lower revenue, reduced margins and/or the abandonment of initiatives already in progress. Given these risk factors, the Group adopts a policy of monitoring and managing legislative risk, in order to mitigate as much as possible its effects, through an articulated monitoring on several levels which provides for collaborative dialogue with the institutions and the government and regulatory organizations of the sector, the active participation in associations and work groups established within these entities, and examination of legislative changes and the provisions issued by the sector Authority.

Moreover, constant dialogue is held with business units interested in the legislative changes, in order to appropriately assess potential impacts. Some of the main areas on which legislative changes focus are listed below:

- the laws regarding assignment of concessions for the gas and electricity distribution service;
- the regulation of economically significant local public services;
- changes in the market regulations regarding Green Certificates;
- the issues set forth in the European Union's Third Energy Package.

- ***Risks associated with the expiry of gas distribution concessions/contracts held by Estra and other Group companies***

With the exception of trading of natural gas, the performance of these activities in Italy is subject to concessions or authorisations. In particular:

- the natural gas distribution activities, and the technical/operational management of LPG distribution networks are performed on the basis of concessions issued by local public authorities;
- the sale of natural gas and electricity, the sale of LPG, the production of electricity from renewable sources, the technical/operational management of telecommunication networks and marketing of telecommunication services, the management of heating plants owned by third parties (in particular, heat management services) and heat management, energy redevelopment and efficiency activities are carried out subordinately to obtaining specific authorisations from the authorities competent each time.

Therefore, the Group is exposed to risks connected with the award, maintenance and loss of concessions and authorisations and with expired concessions.

In particular:

- Risks connected with the award, maintenance and loss of concessions and with expired concessions**

It cannot be guaranteed that the concessions that the Group holds will be granted to the Group again when they expire, or that any renewals will be obtained at economic conditions equal to the existing ones. In addition the Group may need to obtain further concessions, permits and/or authorisations, the procedures of which are often long, costly, complex and with unforeseeable results.

- Risks connected with the award, maintenance and loss of authorisations**

The activities of sale of natural gas and electricity, sale of LPG and management of photovoltaic plants for electricity production are carried out by the Group subordinately to obtaining specific authorisations from the authorities competent each time. These authorisations are granted on the basis of possession of certain requisites necessary for performing the service. It cannot be guaranteed that the authorisations obtained by the Group will not subsequently be revoked by the competent authorities. In addition the Group may need to obtain further authorisations, the procedures of which are often long, costly, complex and with unforeseeable results.

In particular, with reference to the gas distribution sector, we can note that most of the concessions that the Group holds derive from direct awards by single Municipalities or were awarded through public tender procedures organised by single Municipalities that today have expired.

With reference to expired concessions, the Group's activity continues in a regime of *prorogatio* and therefore the duration of the concession relationship is considered extended up to the moment in which the new tendering procedure is organised. During this period of prorogatio, the existing relationships between granting party and concession holder remain in force and therefore the concession holder of the service (i) remains obliged to continue the management of the service, limited to ordinary administration, up to the date on which the new award comes into effect, (ii) continues to receive the related tariff and (iii) is obliged to pay the fee to the granting entity.

Furthermore, outgoing operators fulfil all the obligations arising from the concession, including the payment of a concession fee payable to the granting entity.

With reference to the methods of renewing concessions, starting from the adoption of Italian Legislative Decree no. 164/2000 (the so-called Letta Decree) and of the related implementing decrees, the new awards for natural gas distribution will be assigned through public tender procedures, organised for Minimum Territorial Areas (Ambiti Territoriali Minimi - "ATEMs") by the lead Municipality identified as contracting authority by the granting entities.

Italian Ministerial Decree 226/2011 defined the methods for performing the tender procedures organised by the ATEMs, also laying down the terms for the publication of the related call for tenders and the terms laid down so that, on the one hand, the Region responsible, after giving notice to subjects in default specifying a peremptory term to comply, will force the launch of the tender procedure, and, on the other, the MED will intervene in order to ensure that the procedure is launched. As of today, for most of the expired natural gas distribution concessions the terms provided for in Italian Ministerial Decree 226/2011 for the issue by the contracting authorities of new calls for tenders have also expired.

In the light of the above, it is not possible to determine the dates of publication by the ATEMs of calls for tenders for the renewal of the concessions nor for the award of any new concessions with respect to those that the Group holds. It cannot be guaranteed that the Group will be awarded the new contracts, nor that, if awarded, they will be at economic conditions equivalent to the existing ones.

Non-renewal of the concessions held by the Group or not obtaining new concessions could have negative effects on the business and prospects of Estra and the Group and on their economic and financial situation and equity.

In addition, even if the Group manages to win a new concession, the times for taking over the same following the completion of the tender procedure could be very long, owing also to appeals that could be lodged by the other operators that take part in the procedure, with negative effects on the business and prospects of the Group and on its economic and financial situation and equity.

- ***Risks associated with malfunctioning and/or breakdowns of the network and plant infrastructures***

In the operating sectors of Group companies the normal provision of services depends on properly functioning infrastructures (such as electricity and natural gas transport/distribution networks) and plants (storage, thermoelectric plants, waste-to-energy plants, etc.). Any suspension or restrictions in the operation of these infrastructures (for example, caused by human error, natural disaster, terrorist act, sabotage, judicial/administrative orders) could lead to total or partial stoppage of activities performed by Estra and the other Group companies, or could increase the costs of conducting such activities.

- ***Risks related to White Certificates***

Based on applicable legislation, the Group needs to achieve specific annual energy saving targets, as determined in the Ministry of Economic Development Decree for the four-year period from 2021 to 2024. Should the Group not obtain a sufficient number of "White certificates" to achieve the relevant annual target, these need to be acquired on the market. In addition, if the required number of "White certificates" is not submitted to ARERA, it will be subject to sanctions imposed by ARERA, and will have to purchase the missing number of "white certificates". The market price of "white certificates" rose considerably in recent months. To comply with its energy saving obligations, the Group intends producing "white certificates" directly or acquiring them on the market to achieve its annual target. If the number of "white certificates" produced directly by the Group is less than expected and/or if the price of "white certificates" should continue to increase in the future, the Group will incur higher costs which could negatively impact its business.

- ***Risks relating to quality standards***

The Group is obliged to comply with certain quality standards relating to the sale of natural gas and electricity to end users, as well as certain standards referring to safety, continuity and commercial quality with regard to the distribution of natural gas. Failure to comply with these standards could involve the Group paying claims to end users, sanctions and/or fines. Even though the Group believes that it currently complies with the relative quality and safety standards, any future breach of these standards could negatively impact on the business, financial conditions and operating results of the Group.

- ***Risks arising from the approval of new tariff systems***

On the basis of the current tariff system, the Group's revenue are partly updated in accordance with criteria predetermined by ARERA - Autorità di Regolazione per Energia Reti e Ambiente - Regulatory Authority for Energy Networks and the Environment (formerly AEEGSI). We cannot exclude the industry regulatory authorities' approval of new legislation and/or regulations, which may, possibly negatively, affect the Group's revenue.

- ***Risk related to competition***

The Group operates in a competitive scenario that places it in competition with Italian and multinational entities, some of which can avail of much greater financial resources. Despite the Group considering it has a competitive edge deriving from its strong local roots if - following expansion of the number of direct competitors - it is unable to retain its competitive strength on the market, it could record a drop in customers and/or see its margins decline, with subsequent negative effects on its activities and growth prospects, as well as on its financial position.

- ***Risks associated with future consumer trends***

With reference to the gas distribution business, on the basis of the current tariff system, the Group's revenue is partly updated annually in accordance with criteria predetermined by ARERA - Regulatory Authority for Energy Networks and the Environment, which reflect an implicit rate of annual growth of the volumes of natural gas put into the transport network. However, the amounts of natural gas introduced into the Italian transport network depend on factors beyond the Group's control, such as the price of natural gas compared to other fuels, electricity sector development, economic growth, climatic changes, environmental laws, the continuing availability of natural gas imported from abroad and the availability of sufficient transport capacity through import pipelines. With regard to gas and electricity sales, a negative trend or slow growth in the demand for gas and electricity could have an impact in terms of lower sales volumes of gas and electricity for the Group, subsequently reflected in a decrease in the Group's overall sales margins. Among the activities implemented in this respect, the Group monitors both the electricity load profile and gas consumption trends, at Italian and international macroeconomic scenario levels, based on updates published by the leading economic and financial forecast agencies. The analysis of such data aims to give an indication as far in advance as possible of potential electricity and gas demand trends, and consequently optimise sales accordingly. In addition, the adoption of a marketing diversification strategy counteracts, up to a point, any adverse market situation.

- ***Risks related to renewable energies***

The Group's renewable energies business is exposed to the risk that the generation of electricity from renewable sources may be interrupted due to events beyond the Group's control, such as natural disasters, fires, breakdowns or malfunctioning of control equipment or systems, plant manufacturing defects, damage, theft and other exceptional events. Any interruption could result in reduced revenue for the Group and could involve incurring extraordinary costs to resume the production process.

The Group's failure to comply with legislation requiring authorisations and permits or the failure to respect deadlines and the conditions envisaged by the relative authorisations and permits could result in penalties or require the Group to repay incentives and/or not qualify for additional incentives.

Furthermore, due to the intrinsic nature of the sources used in this sector related to the climate conditions at the sites where the wind and photovoltaic facilities are located, the generation of electricity could be subjected to high levels of volatility. Even though the Group has positioned its facilities in different locations throughout Italy in order to take advantage of different climatic conditions, revenue from the generation of electricity could come down, even significantly.

- ***Risks related to seasons and weather conditions***

The Group's activities are influenced by weather conditions like average temperatures that impact on overall consumption requirements. Significant changes in meteorological conditions from year to year could influence the demand for natural gas and electricity, which is typically higher in the colder winters (need for heating) and hot summers (need for air conditioning). Sudden meteorological changes could cause a significant change to normal demand and impact the Group's production from certain renewable sources. This could impact negatively on the Group's business, operating results and financial position.

- ***Environmental risks associated with Group activities***

The activities of Estrada and other Group companies are subject to Italian and EU regulations on environmental protection and on health and safety, and every activity is performed in compliance with these regulations and with any authorisations requested and obtained. Though Estrada's business activities are conducted in compliance with environmental and safety laws, it cannot be excluded however that this and other Group companies might incur costs or be held liable for environmental protection-related situations.

- ***Liquidity Risk***

Liquidity risk is defined as the risk that Estrada and the Group may be unable to meet its payment obligations when they fall due. The Group's liquidity could be damaged by inability to sell products and services, unexpected cash outflows, the obligation to pay more guarantees or inability to access the capital markets. This situation may arise due to circumstances beyond the control of the Group, such as a general market disruption or an operational problem affecting the Group or third parties, or even the perception among market participants that the Group or other participants market are experiencing a more severe liquidity risk. The liquidity crisis and loss of confidence in financial institutions can increase the cost of financing the Group and hinder access to some of its traditional sources of liquidity. Further information is contained in note no. 13 "Objectives and criteria of financial risk management".

- ***Risks associated with debt***

Estrada and the Group obtains its financial resources mainly through traditional banking channels and using traditional instruments such as medium/long-term borrowings, mortgages, short-term bank loans and credit facilities, and cash inflows from operations as part of trade relations with borrowers for services provided and with lenders for the purchase of goods and services. The net debt of the Group is affected by the seasonality of the business carried out and consequently undergoes significant fluctuations during the year. Debt refinancing risks are managed by monitoring loan maturities and coordinating borrowings with types of investments, in terms of the liquidity of assets in which the Group companies invest. Estrada and the Group enjoy a high standing with the banking system, as confirmed by the B1.1 credit rating assigned by the Cerved Rating Agency after an assessment of the company's creditworthiness. It remains implicit, however, that there is no guarantee that in future Estrada and the Group will be able to obtain funding with the same methods, terms and conditions granted thus far. This situation could arise due to circumstances beyond Estrada's control, such as general disruption of the reference market.

The existing bonds and loans provide for specific obligations that the Group has undertaken to observe.

In addition, some of the loan contracts signed and bond loans issued by the Group also provide for the Group having to observe, for the entire duration of the loan, certain capital-financial ratios, observance of which is verified, in general, every year (that is with reference to the reporting date of each financial year on the basis of the figures in the related consolidated financial statements or separate financial statements of the borrowing Group company). Failure to comply with these parameters could result in the execution of the acceleration clause and an earlier repayment obligation arising for the debtor.

These existing loan contracts also provide for a series of default events (in some cases, referable also to companies that are part of the Group).

The Group's ability to fulfil its obligations under the terms of the existing bank loan conditions depends on the Group's future operating and financial performance, which are in turn linked to the Group's ability to implement successfully its business strategy and to other economic, financial, competitive and legislative factors that are out of the Group's control.

The Group must therefore continue to allocate part of its cash flows to serving the financial debts, reducing the financial resources usable for the operating activity and/or for investments and also affecting its ability to distribute dividends.

At 31 December 2022, the Group was observing the financial parameters provided for in the existing loan contracts. Further information is contained in note no. 13 "Objectives and criteria of financial risk management".

- ***Risks associated with interest rates***

Estra and the Group are exposed to fluctuations in interest rates, especially as regards the extent of financial charges associated with borrowings. They mitigate the risk deriving from floating-rate loans through investments and the use of funds essentially indexed to short-term rates. In addition, the interest rate risk management policy pursues the aim of limiting such volatility by identifying a mix of fixed rate and floating rate medium/long-term loans and the use of IRS contracts signed with financial counterparties of primary standing and which limit interest rate fluctuations. Taking into account the active interest rate risk monitoring policies, any future rise in interest rates should not have particularly negative effects on the financial position of Estra and the Group.

Further information is contained in note no. 13 "Objectives and criteria of financial risk management".

- ***Risks associated with exchange rates***

At present there is no exposure to risks associated with changes in foreign exchange rates that could have a significant impact on the financial position of Estra and the Group, except as regards the amount reported under commodity price risk.

- ***Risks associated with commodity prices***

In reference to the characteristics of its operating sector, the Group is exposed to commodity price risk, i.e. the market risk associated with changes in energy raw materials prices (electricity and natural gas) and the related exchange rate, given that its purchases and sales are affected by price fluctuations in energy commodities, either directly or through indexing formulas. This risk was recently exacerbated by the significant increase in the price of natural gas on European markets, and the relative shortfall in supplies which occurred in September 2021. More specifically, increased prices and shortfalls in supply could result in the Group not receiving deliveries of natural gas from its suppliers that operate on the basis of supply agreements with predefined pricing, exposing the Group to the risk of having to purchase additional volumes of natural gas on the spot market at much higher prices.

Group policy is designed to minimise the risk associated with fluctuating commodity prices by aligning the indexing of commodity purchases with commodity sales, the vertical exploitation of the various business chains and recourse to financial markets for hedging purposes.

- ***Risks associated with transactions with Group companies***

The Group has maintained, and still maintains, commercial relations with investee companies and associates. In particular, the main transactions carried out with related parties are attributable to: (i) service contracts in being with Group companies, including those not controlled, and with the shareholders Consiag, Coingas and Intesa; (ii) recharging of costs for personnel seconded by Estra Group companies to the shareholders Consiag and Intesa; (iii) rental contracts for the company offices of Prato, Arezzo and Siena, respectively from the shareholders Consiag, Coingas and Intesa; (iv) loan contracts with Consiag and Coingas; and (v) service contracts with EDMA Reti Gas.

Although the Group believes that the conditions provided for and effectively applied with respect to related party transactions are in line with normal market conditions, there is no guarantee that, if operations to which the related party transactions refer were concluded with third parties, the same would have negotiated and signed the related contracts, or performed the aforesaid operations, with the same conditions and methods.

Further information is contained in note no. 14 "Related parties".

- ***Risks arising from current judicial proceedings***

Estra and the Group are involved in a number of civil, administrative (mainly related to ARERA (formerly AEEGSI) resolutions/decisions or to public service concessions), tax and labour law proceedings (both as plaintiff and as defendant), relating to ordinary operations in the natural gas distribution sector and the sale of natural gas and electricity, and which are immaterial to the value of Estra and/or the Group. In the presence of current commitments resulting from past events, that could be of a legal or contractual nature or are the result of conduct that could lead to an obligation, Estra and the Group have made reasonable allocations to

specific provisions for liabilities and charges over the years that are indicated among liabilities in the financial statements.

- ***Operational risk***

Operational risk is the risk of losses caused by errors, infringements, interruptions, damages caused by internal processes, employees or systems or caused by external events. Estra and the Group companies, which in any case have developed specific procedures and operating instructions designed to mitigate and reduce operating risks, are however exposed to many kinds of operational risk, including the risk of fraud by employees and external parties, the risk of unauthorised transactions by employees or the risk of operating errors, including those resulting from faults or malfunction of the IT or telecommunications systems. The systems and methods for managing operational risk are designed to guarantee that such risks associated with corporate activities are appropriately kept under control. Any disruption or fault on these systems could have a negative impact on the financial position and operating results of Estra and the Group. These factors, especially during economic and financial crises, could result in the company or Group suffering losses, increased borrowing costs, impairment of assets held, with a potential negative impact on the liquidity of Estra and the Group and on its financial soundness. Italian Legislative Decree 231/2001 introduced the regime of corporate administrative liability of entities to Italian law for certain offences committed in their interest or to their benefit by persons holding senior office positions or persons under their direction and supervision. In order to prevent commission of the offences contemplated in the Decree, Estra has adopted its own organisational, management and control model. The Model forms part of a more wide-ranging policy pursued by Estra and the Group to promote fairness and transparency in conducting its business activities and in its relations with third parties, which includes the Code of Ethics already adopted. Estra has also established a Supervisory Board, with independent powers of initiative and control, assigned to supervision of the functions of and compliance with the Model and to promote its constant updating. The monitoring by the Oversight Committee and the Model adopted make it possible to mitigate the exposure to risks of an operational nature.

- ***Risks associated with losses on receivables***

The credit risk of Estra and the Group is mainly attributable to the total trade receivables deriving from gas and electricity sales, which are not particularly concentrated as they are spread across a vast number of counterparties such as retail, business and public entities. In conducting its business activities the Group is exposed to the risk that, as a result of the financial position of the obligated party, the receivables may not be paid when due. Consequently the risks are attributable to the increase in the seniority of receivables, insolvency risk and the risk of an increase in receivables subject to bankruptcy proceedings with subsequent impairment that could result in the cancellation, wholly or in part, from the financial statements.

The occurrence of these events is more likely during times of economic recessions or if prices should increase significantly for the commodities sold by the Group (such as the increase in the price of natural gas recorded as from September 2021), which could impact on the ability of Group customers to pay timeously.

The Group adopts a policy of centralised credit management aimed at governing the assessment of customers' creditworthiness and other financial assets of the same, the monitoring of expected recovery flows, the issue of payment reminders, the granting, if considered necessary or opportune, of extended credit conditions, the request for bank or insurance sureties, the transfer of receivables of discontinued customers to external credit recovery companies and the management of legal disputes involving receivables related to the services provided. The payment terms generally applied to customers are governed by legislation and the standards of the free market; in the event of non-payment, default interest is applied in the amount indicated in the supply contracts and established by the current legislation. Provisions for the impairment of receivables reflect the best estimate of credit risk.

The default of one or more customers or counterparties significant for the Group or any increase in the default rate of customers or counterparties in general could have negative effects on the Group's business and prospects and on its economic, capital and financial situation.

Further information is contained in note no. 13 "Objectives and criteria of financial risk management".

- ***Risks associated with acquisitions carried out by the Group***

Although in preparation for the finalising of operations to purchase companies or business units the Company provides for the performance of due diligence activities on the operation, it cannot be excluded that in future there may emerge liabilities not covered by the contractual guarantees and/or that the transferors will not be able to comply with any requests for compensation.

- ***Risks related to joint ventures and partnerships***

In recent years, the Group has established various partnerships and may initiate additional joint ventures or partnerships with the same or other parties in the future. The possible benefits or expected returns from these joint ventures and partnerships could be difficult to achieve or could be less positive than what the Group originally estimated. Furthermore, these investments are intrinsically risky, because the Group may not be able to exercise full authority in managing the joint venture or partnership and on the company decisions that are taken. In addition, joint ventures and partnerships run the risk of difficulties arising when integrating human resources, technologies and products.

- ***Risks associated with impairment related to goodwill and to intangible assets with a finite useful life***

Following business combinations completed over time, in accordance with the IFRS standards, the Group has recognised in the assets goodwill related to the companies acquired, understood as the surplus of the cost of acquisition compared to the assets and liabilities acquired, and of intangible assets with a finite useful life, in particular gas and electricity customer portfolios, deriving from the business combinations.

If the macroeconomic and financial context changes in a way not in line with the estimates and assumptions formulated on assessment or if the Group finds in future a worsening of its ability to generate cash flows and economic results compared to the forecasts and estimates on which the impairment tests are based, it could become necessary to make adjustments to the carrying amount of the intangible assets recognised in the Group's consolidated financial statements, with the consequent need to book write-downs to the income statement, with negative effects on the Group's assets and prospects and on its economic, capital and financial situation.

Further information is available in Note no. 10.1.4 "Impairment tests".

- ***Risks associated with the failed or delayed implementation of the industrial strategy***

The Group intends to pursue a strategy of growth and development, focused in particular on its core businesses – the sale and distribution of gas and electricity, telecommunications and energy services. If the Group is unable to effectively implement its strategy or implement it within agreed time frames, or if the basic assumptions underlying the strategy do not prove to be correct, the Group's ability to increase its revenue and profitability could be affected and this could have an adverse effect on the Group's business and growth prospects, as well as on its economic and financial position.

- ***Information technology risks***

Estra and Group activities are managed through complex IT systems that support the main corporate operational, administrative and commercial processes. The inadequacy or failure to update these information systems according to the requirements of the business, their potential unavailability, the inappropriate handling of aspects relating to confidentiality and integrity of the information, represent potential risk factors to which the Group is exposed.

The inadequacy or failure to update these information systems according to the requirements of the business, their potential unavailability, the inappropriate handling of aspects relating to confidentiality and integrity of the information, could entail negative effects on the Group's assets and prospects and on its economic, capital and financial situation.

- ***Cyber Security risks***

In a context of continual technological evolution the subject of cyber security assumes increasing significance together with the associated need to protect the IT systems against attacks that can lead to theft, loss or compromising of data and information with consequent impacts on business operations and the Group's reputation.

For this Estra has provided for, in its organisation, within the structure of the information systems, specific monitoring focused on cyber security and performs periodic activities to test the vulnerability of the systems. In addition Estra, EstraCom and Centria have obtained UNI CEI ISO/IEC 27001 certification.

- ***Risks associated with insurance cover***

The Group companies carry out activities that may expose them to the risk of suffering or causing damage that is sometimes is difficult to predict and/or quantify. Although the administrative bodies have acted to

take out insurance policies appropriate to the business carried on, in the case of events that for any reason are not covered by insurance or are capable of causing damage of an amount in excess of the cover, the Group companies would be liable for the charges, with consequent adverse effects on the economic and financial position.

- ***Risk relating to the coronavirus pandemic***

The outbreak of the health crisis from the spread of COVID-19, also known as the coronavirus, classified as a pandemic by the World Health Organisation (WHO) on 11 March 2020, could continue for an undetermined amount of time with significant health, social and economic consequences throughout the world, including in Italy where the Group operates. Besides a worsening of the global macroeconomic scenario and risk of deterioration in the credit profile of a significant number of countries (including Italy), the pandemic has already resulted in many business activities slowing down significantly.

Despite the macroeconomic scenario having recorded a significant improvement during 2021 thanks to the success of the anti COVID-19 vaccination campaign, which allowed economies to gradually reopen and most production activities to resume, certain production activities and consumer behaviour have still not returned to pre-pandemic normal levels, and at the same time, the risks of possible slowdowns persist due to new variants of the virus, which could impact on the economy's growth trajectory and recovery in energy demand. The COVID-19 pandemic and government responses have had and continue to have a serious impact on global economic conditions, including: (i) significant fluctuations and volatility on financial markets; (ii) the temporary closure of many businesses, with the consequent loss in income and increase in unemployment; and (iii) the introduction of social distancing.

The consequences of the coronavirus pandemic could impact on the business environment, legal, tax and regulatory frameworks. If the pandemic persists, the negative impact on the global economic could worsen. Should this be the case, it is difficult to foresee the impact that this situation could have on the Group's activities, operations, financial conditions and results.

To the extent that the COVID-19 pandemic could negatively impact on the Group's activities, operating results and financial conditions, it could also result in increasing some of the risks referred to above.

- ***Risks related to climate change***

The Group is exposed to risks resulting from climate change, and in particular:

- The risk of increased frequency in extreme intensity natural events in the places where the Group operates, which could result in infrastructure becoming unavailable for extended time frames, with possible service interruptions and consequent negative repercussions for revenue and costs (for example, for recovery or insurance);
- The emerging risk that higher average temperatures in the areas serviced could have a negative impact on gas volumes distributed or sold and the number of operating delivery serviced or supply customers, with negative repercussions for revenue.

Furthermore, changes to the Italian and EU legislative and regulatory context regarding greenhouse gas with the aim of limiting emissions, changes in technology and uncertainty around the role of natural gas in the future energy mix, could have a negative impact on domestic and industrial demand for natural gas, impacting negatively on costs, revenue and investment levels.

The Group has put in place measures to mitigate these risks, which include:

- Operational counter measures such as ongoing upgrading and maintenance on the natural gas distribution network or trial projects in the scope of monitoring the above;
- Active participation in consultations initiated by Government or European sector associations on energy issues;
- Implementing energy efficiency projects, promoting sustainable mobility, extending its commercial offering for the supply of electricity to domestic customers and businesses from a green perspective and other actions to mitigate environmental impacts, which are detailed in the Non-Financial Statement;
- Rebalancing the customer portfolio between sale of natural gas and electricity;
- Business diversification, ensuring the Group has a presence in the telecommunication and environmental sectors.

- ***Risks related to the conflict between Russia and Ukraine***

Reference is made to the paragraph outlining the significant events after the reporting period, which to the extent that they may negatively impact on the Group's activities, operating results and financial position, could increase some of the risks referred to above.

16. USE OF FINANCIAL INSTRUMENTS

The Group holds financial derivative instruments in the following categories:

- Non-current financial hedging derivatives, referable mainly to Interest Rate Swap (IRS) contracts hedging the risk of unfavourable changes in interest rates on long-term loans;
- Commodity Swaps entered into for the purpose of financial hedging on prices indices for the volumes sold, in order to limit the price risk deriving from specific operations for gas purchase at fixed price and resale at variable price (or vice versa) at different times;
- futures contracts on commodities purchased or sold that provide for physical delivery of the gas in subsequent years.

For more information on the objectives and criteria of financial risk management (Interest rate risk, sensitivity to the interest rate, credit risk, liquidity risk, default and covenant risk) please see the related paragraph in the notes to the statements.

17. NON-FINANCIAL DECLARATION

2022 is the sixth year of application of Italian Legislative Decree 254/2016, which imposes a number of disclosure obligations involving non-financial information for large entities of public interest. Estra, having issued on 28 November 2016, an unsecured and non-convertible bond loan on the regulated market of the Dublin Stock Exchange and having the dimensional characteristics in terms of employees, balance sheet and net revenue above the thresholds provided for in Art. 2 section 1, is subject to application of Italian Legislative Decree no. 254 of 30 December 2016.

The non-financial statement contains the information on environmental and social subjects, and on matters related to the personnel, to respect for human rights, and to combating active and passive corruption significant for understanding the company's performance, its results, its situation and the impact of its activity.

The Estra Group, in accordance with the provisions of article 5, paragraph 3, letter b, of Italian Legislative Decree 254/2016, has prepared the consolidated non-financial statement which constitutes a distinct report with respect to that on operations of the consolidated financial statements.

The 2022 consolidated non-financial statement drawn up according to the GRI "core" reporting standard, approved by the Board of Directors on 27 April 2023, is available on the Group's website."

18. THE MAIN CHARACTERISTICS OF THE EXISTING RISK MANAGEMENT AND INTERNAL CONTROL SYSTEM IN RELATION TO THE PROCESS OF FINANCIAL DISCLOSURE, ALSO CONSOLIDATED (DISCLOSURE UNDER THE TERMS OF ART. 123-BIS SECTION 2(B) OF ITALIAN LEGISLATIVE DECREE 58/98)

The completeness, correctness and promptness of the financial disclosure is ensured by the adoption of an effective and efficient Group internal control system, the subject of constant improvement and adjustment to the evolution of the corporate activities, the legislative framework and the economic and social context.

The Group has adopted accounting and administrative procedures, inspired by the Internal Control System for Financial Reporting governed by Law 262/05, which is being constantly updated and monitored and is currently being adjusted following the adoption of the new accounting and administrative information system.

The system used for the formation of the 2022 financial statements comprises:

- identification of the controls that reside in the management processes overseeing the risks on financial disclosure;

- definition of the information flows that must run between the Estra Group's units and the Administration and Financial Statements area;
- codification of the tasks, responsibilities and deadlines of the units tasked with preparing the accounting documents;
- the procedures that define the operating methods adopted by Estra and by the Group companies for the main administrative/accounting processes and for preparing the corporate accounting documents.

As integral parts of the internal control system as a whole, the following components must also be considered:

- the Code of Ethics, containing the principles and general rules that characterise the organisation and that are in keeping with the business and market context;
- the organisation, management and control model adopted in order to ensure the prevention of the crimes contemplated by Italian Legislative Decree 231/2001;
- the rules that govern the activity of the company and the Group in terms of HSE (quality, environment and safety).

The Company has achieved a significant level of maturity in the completion of the process to define the integrated risk management model, which is based on standards recognised at the international level in the field of Enterprise Risk Management (ERM) developed according to the Reference Model generally accepted at the international level in the field of internal control, issued by the Committee of Sponsoring Organizations of the Treadway Commission (known as CoSO Report).

This ERM model is aimed at supporting the Management in identifying the main business risks and the methods through which they are managed, and at defining the methods through which to organise the monitoring system protecting against the aforesaid risks.

The Integrated Control and Risk Management System, integrated into the organisational and governing structures, helps to guarantee business conditions in line with the company objectives, in that it makes it possible to identify, assess, manage and monitor the main risks in relation to their ability to influence the achievement of those objectives.

The architecture of the Integrated Control System is formed of three distinct elements, namely:

- the first line, formed of the risk owners of the operating functions, who are the main parties responsible for the internal control and risk management process, must establish and maintain the structures and appropriate processes for internal control and risk management, ensure compliance with the legislation of references, the regulations and the ethical principles and maintain constant dialogue with the governing body, as well as report the forecast, effective or expected results associated with the Group's objectives;
- the second line, formed of company management, provides specific complementary expertise, support and monitoring activities in the management of risk categories, through the development and continuous implementation of the risk management processes at every company level and through analyses and reports on the adequacy and effectiveness of those processes;
- the third line is formed of the Internal Audit function, directly responsible in relation to the governance body. This function is independent to the responsibilities of the management team, it provides objective and independent assurance as well as support and advice to management and to the governing body on the adequacy and effectiveness of the governance and risk management structure (first and second line), reports violations of the independence and objectiveness of the governing body and proceeds to implement the necessary prevention measures.

The risk management framework is structured through the risk model, which identifies the types of existing and emerging risks to which the Group is potentially exposed and is subject to periodic review, the Group's risk appetite, which defines the level of acceptable risk in line with the risk management strategy, and the risk management activities, which ensure an effective oversight of the universe of risks to which the Group is potentially exposed and their management.

The Board of Directors approves the risk policies and measurement parameters, performs a role of guidance and assessment of the adequacy of the internal control and risk management system. The risk management function and the risk owners support the Board of Directors in proposing possible corrective measures and appropriate management strategies.

19. ORGANISATION OF INFORMATION TECHNOLOGY SYSTEMS

The project to replace the current SAP-based ERP (Enterprise Resource Planning) system with NET@SUITE went live on 1 June 2022.

The new information system, which not only integrates all classic company functions typical of an ERP but also the functions of CRM (Customer Relationship Management) and is integrated by a Business Intelligence programme called Qlik-Sense, is currently used for the Group companies Centria S.r.l., Estra Energie S.r.l. and Prometeo S.p.A. On the other hand, the remaining Group companies are still managed by the previous information systems (mainly SAP) with a view to a gradual migration over to the new platform during 2023 and 2024.

NET@SUITE is formed of the following modules:

- **Sales System Modules:** modules for the management of energy (gas and electricity) customers on a standard ORACLE database. The NETA-SIU module enables complete management of all activities related to customer relations (front-office, invoicing, printing of bills, post-invoicing, meter reading forwarding, etc.) and, through parametrisation functions, it can be configured on specific services of the company. Commercial information system for the management of the gas and energy sales companies. The system is formed of the following integrated native modules:
 - Net@CRM: Module assigned to the management of relational and operational CRM processes, contact and contract management, available to both the Front Office and Back Office channels;
 - Net@SIU: Module assigned to the management of typical functions of the “metering-to-cash” process, i.e. capable of covering business processes pertaining to invoicing, reading management, collection management, arrears and credit recovery, credit management, tax obligations, accounting;
 - Net@hermes: Module assigned to the management of communication with the distribution companies and with Acquirente Unico (Integrated Information System), according to the regulated layouts and in the various methods of communication envisaged (file exchange, A2A);
 - Net@Web: Module that offers a set of self-care services for end customers (display supplies, invoices, insert readings, bill payment, contract requests, etc.), for the web, app and mobile channels;
 - Net@4Sales: Module assigned to the management of acquisition campaigns or contact with end customers, used by the sales force (Agents, Agencies);
 - Net@UDD: Module that enables the management of resellers by “Dispatching Users” (DU): provides specific functions to manage the business of resellers, in terms of communication management as well as management of invoicing and reporting processes;
 - Net@SI: Module that oversees management of CMOR indemnities (incoming and outgoing) and the interaction with the AU Compensation System, for the gas and electricity sales companies (incoming and outgoing) in case of defaulting customers who switched out or are terminated.
- **Distribution system modules:** modules for the management and control processes of the typical procedures of gas distribution companies. The system is formed of the following integrated native modules:
 - Net@2D: software module assigned to the management of the typical processes of a distribution company (gas segment), such as: User requests for distribution regulated by communication standards; meter activity; invoicing; metering; arrears. Net@2D also includes the integrated component with the IIS (Net@SII and Net@Pdc) assigned to the management of communication with Acquirente Unico, according to the layouts envisaged by the technical specifications issued by AU itself, in the envisaged methods of communication (file exchange, delivery points);
 - Net@MDM: software module of Net@Suite assigned to manage the integration of Net@2D with the SAC, but also to allow for a more complete and efficient management of daily metering data, in terms of archiving, validation and selection for transmission to Net@2D;
 - Net@Portal: software module of Net@SUITE assigned to the management of communication with Distribution Users, according to the layouts regulated by the communication standards introduced by Decree Law 185/08, as amended (csv/xml format);
 - Net@A2A: software module assigned to the management of communication with Distribution Users according to the layouts regulated by the communication standards

introduced by Decree Law 185/08, as amended, through the application-to-application channel. Database Management: Points of delivery, end customers, sales companies, metering units, plants, networks;

- Geocall: either basic Geocall module or mobile Geocall module.

The system is interfaced with the SAC of the Terranova platform for the management of remotely read meters interfaced to NETA.

- **Accounting system modules:** modules for accounting and administrative management. The system is formed of the following integrated native modules:
 - Net@SIA: Software module of Net@SUITE assigned to the management of Administrative and Tax processes. The module provides for the management of: Tax Documents or Balance Sheet and Consolidated Financial Statements or Assets or Tax Communications;
 - Net@SIL: Software module of Net@SUITE assigned to the management of the procurement process and management of inventories. The module provides for the management of Tenders or Order Proposals or Supplier Register or Purchase Orders or Inventories;
 - Net@CoAn: Software module of Net@SUITE assigned to the management of the Management Control process. The module provides for the management of Final Balances and Reporting or Budget and Variance Reporting;
 - Net@SIGL: Software module of Net@SUITE assigned to the management of accounting of works under contract, already integrated natively with Net@SIAL for the recording of monthly SAL/upon reaching an amount.
- **Cross modules:**
 - Net@INF: infrastructure platform of Net@SUITE that governs all aspects of management and tracking of accesses and the infrastructure services used by the various application components (e.g. workflow services, reporting, scheduling, etc.).

Besides the NETA application indicated above other specialised software programmes are used. A group of these programmes is connected to the NETA system through specific Connectors, such as ARXIVAR, document software for the electronic storage of documents coming into the company and for logging.

Other programmes are interfaced with the NETA system through ETL (Extract, Transform, Load, with reference to data in files), technology such as TLQ for the management of treasury flows with banks, integrated with NETA or HR module ADP + Microntel on a dedicated platform for the production of payslips and for managing the personnel.

For waste management, specific software was purchased for this sector such as I-Smart by Computer Solution for the operational management of waste, and Infinity by Zucchetti for integrated accounting with I-Smart.

20. PERSONNEL AND TRAINING

The average workforce in 2022, taking into account seconded personnel, was 857 employees. The table below shows the numbers by category and the comparison with 2021:

Position	31/12/2022	31/12/2021
Managers	24	23
Office workers and middle managers	629	584
Manual workers	204	170
Total	857	776

855 units were employed at 31 December 2022.

Most of the Group companies apply the gas and water National Collective Labour Agreement (CCNL). In this regard we can note that on 30 September 2022, Filctem Cgil, Femca Cisl, Uiltec Uil and the representatives of the employer associations ANFIDA, ANIGAS, IGAS, ASSOGAS and UTILITALIA signed a draft agreement for renewal of the gas and water CCNL 2022 – 2024. The main changes in the agreement concern: economic treatment, contracts and contractual dumping, reform of the grading system, contractual welfare and availability.

The human capital of the Estra Group represents the essential intangible foundation of the company's performance and the primary source of its competitive edge. Therefore, employees are considered a key resource in which to invest.

Nowadays, the development of organisational knowledge is the key to the unique ability to produce innovation according to a continuous incremental process, which is the model that the Estra Group implements for the development of its personnel. This is also why the company promotes a wide range of training services aimed at personnel, in addition to compulsory training courses.

Training is a fundamental driver to increase the Group's human capital and to encourage the professional growth of individuals on the basis of their abilities and aspirations. More prepared and competent personnel are able to provide higher quality services while promoting the foundations for a healthy internal climate and greater efficiency.

Total number and average number of training hours (excluding agency staff)

	2022	2021
Total number of training hours	28,953	29,117
Average number of training hours per worker	34	37

The training was organised and planned by the Human Resources Service and carried out both in and out of the company offices, with the support of internal/external trainers, also making use of professional funds. Unlike 2021, in 2022 more than 50% of the training hours provided to employees were held in person. The online method still continues to be heavily used and appreciated for its excellent flexibility.

21. QUALITY, ENVIRONMENT AND SAFETY

To achieve the objectives set on the subject of quality, data protection, environment and safety, during financial year 2022 Estra S.p.A. and the group companies Estra Energie, Prometeo and Estracom focused their activity, through concrete actions, on optimising their management system, via an Integrated System at company level, regarding the UNI EN ISO 9001:2015, UNI EN ISO 14001:2015, UNI ISO 45001:18 and UNI CEI ISO/IEC 27001:2013 certifications.

During 2022, internal audits and inspections were regularly carried out, managed by the certification body, according to the process of recertification and/or maintaining of the systems defined below, with a positive outcome.

The certifications for each company are detailed below:

- **Estra S.p.A.** - adoption of an integrated system for UNI EN ISO 9001:2015, UNI EN ISO 14001:2015; UNI EN ISO 45001:18 and UNI CEI ISO/IEC 27001:2013 standards;
- **Estra Energie** - adoption of an integrated system for UNI EN ISO 9001:2015, UNI EN ISO 14001:2015 and UNI EN ISO 45001:18;
- **Prometeo** - adoption of an integrated system for UNI EN ISO 9001:2015, UNI EN ISO 14001:2015 and UNI EN ISO 45001:18;
- **Estracom** - adoption of an integrated system for UNI EN ISO 9001:2015, UNI EN ISO 14001:2015; UNI EN ISO 45001:18 and UNI CEI ISO/IEC 27001:2013 standards, with an extension of the 27017 and 27018 guidelines;
- **Centria** - adoption of an integrated system for UNI EN ISO 9001:2015; UNI EN ISO 14001:2015; EMAS Regulation; UNI EN ISO 45001:18; UNI CEI ISO/IEC 27001:2017; SA 8000:2014; as well as UNI CEI EN ISO 50001:2011; UNI EN ISO 3834-2:2006; UNI 11024:2017; UNI EN ISO 18295, UNI ISO 55001:2015; ISO IEC 17025:2018;
- **Estra Clima** - adoption of an integrated system for UNI EN ISO 9001:2015; UNI EN ISO 14001:2015; UNI EN ISO 45001:18; as well as UNI CEI 11352:2014; Regulation (EC) 303-2008;
- **Gergas** - adoption of an integrated standard for UNI EN ISO 9001:2015, UNI EN ISO 14001:2015; UNI EN ISO 45001:18;
- **Murgia Reti Gas** - adoption of a management system UNI EN ISO 9001:2015, UNI EN ISO 45001:18;

- **Edma Reti Gas** – adoption of an integrated system for UNI EN ISO 9001:2015; UNI EN ISO 14001:2015; EMAS Regulation; UNI EN ISO 45001:18;
- **Ecolat** - adoption of the standards UNI EN ISO 9001:2015, UNI EN ISO 14001:2015; UNI EN ISO 45001:18;
- **Ecos** - adoption of the standards UNI EN ISO 14001:2015; EMAS Regulation; UNI EN ISO 45001:18;
- **Bisenzio Ambiente** - adoption of the standards UNI EN ISO 9001:2015, UNI EN ISO 14001:2015.

Mandatory information on personnel

There were no:

- fatal work accidents involving personnel enrolled in the employee register, for which corporate responsibility was positively established;
- serious accidents at work that resulted in serious or very serious injury to personnel enrolled in the employee register, for which corporate responsibility was positively established;
- charges in respect of occupational diseases of employees or former employees and anti-mobbing actions for which the company was declared ultimately responsible.

Mandatory information on environment

There were no:

- damage caused to the environment where the company was found guilty in the final judgement;
- definitive sanctions or penalties imposed on the company for environmental offences or damage.

Information on the preparation and/or updating of the privacy policy document

In 2022, the Estra Privacy Function, on instructions from the Data Controller Estra S.p.A. continued the updates required to guarantee compliance with Regulation (EU) 679/2016 and to keep the Privacy Governance Model updated.

The continuous management and maintenance activities were structured into multiple initiatives and actions carried out at the same time; the Privacy structure is involved in management of the system according to the Deming cycle (PDCA, Plan-Do-Check-Act).

In particular, the actions carried out are briefly as follows:

- updating and verifying company processes in relation to the areas and services of the Controller including in light of any changes in the company functions, and at the same time updating the Processing Register, a document aimed at tracking the processing carried out by the Controller and any Processors and containing the purpose of the processing, a description of the categories of data subjects and personal data, the recipients and a general description of the security measures;
- updating and keeping of the Controller and Processor's Register for the Processing of Data, combined with the preparation and formulation on the Privacy management platform, also from the perspective of new company changes occurring during 2022:
 - surveying of the "Privacy Organisational Structure", with consequent interventions by the Privacy Function, in case of amendment, recruitment or termination of personnel or company structures, with identification of organisational and functional responsibilities;
 - verification and monitoring of the "Designations and Authorisations for the processing of personal data for Company employees/administrators", specifying the processing and data operations linked to the professional roles involved;
 - verification of the "pre-assessment of privacy risks", identifying the levels of risk associated with the activities carried out;
 - "Revision and Verification of Information Notices", pursuant to Regulation (EU) 2016/679;
 - "Catalogue of Company Assets", with relative assignment of Company resources;
 - "Management and verification of suppliers" in relation to personal data processing with preparation of a "deed to appoint an external processor";
- support activity, in conjunction with the Information Systems function, in managing IT security;
- updating, checking and preparing the appointments as External Processors, pursuant to Art. 28 of GDPR for the Controller's suppliers and any sub-suppliers;

- the control, verification and update if necessary of the appointments and parties authorised for processing including based on the changes resulting from the adoption of new company structures or changes to company structures;
- also based on the new company structure, planning to review roles, responsibilities and instructions given by the Controller to the Process Owner, authorised persons (formerly persons in charge of processing) and persons required by the Regulation (external processors, internal contact persons, joint Controllers for processing, Sub-Controllers), assigned to cover an “active” role during the planning, execution and monitoring stages of data processing;
- the monitoring and possible management of privacy requests from data subjects pursuant to Regulation (EU) 679/2016;
- issue of opinions and directives on the impact of privacy on company processes underway or being planned (Privacy by Design);
- identifying responsibilities and issuing of relevant operating procedures/instructions to manage possible personal data breaches;

Action was also undertaken, resulting in:

- Training on personal data processing for clerical workers via the iSpring e-learning platform. The training content was prepared and formulated directly by the Estra Group's Privacy Function;
- An update to the Privacy Organisational Model (POM) formed of procedures that govern the processes impacting upon the company organisation's activity in terms of privacy. The model is available in the company Intranet made available to employees “<http://myestra.estra.local/>” under the Privacy section. The POM was approved on 27 December 2022 by the Board of Directors of the Controller, which mandated all Group companies to proceed with the approval in their respective Boards of Directors.

22. RESEARCH AND DEVELOPMENT

Innovation and research in the Estra Group have great relevance in strategic choices and in defining the products and services offered by the Group.

In particular, the Group is investing in research, development and innovation for optimisation, operational efficiency and the introduction of innovative technologies in its processes and products.

In financial year 2022 the Group performed various research activities in several business segments, also in partnership with Universities, Research Institutes and specialised software production companies.

For a description of the most important initiatives carried out in 2022 please see the Non-Financial Statement.

23. FURTHER INFORMATION

Treasury shares and shares of parent companies

The Group holds 500,000 treasury shares, through Estra S.p.A., with a nominal value of € 500,000.

The Group does not own any shares/stakes of parent companies, directly or indirectly, or through a trustee.

Company offices

Estra S.p.A. has its registered office and administrative headquarters in Prato at Via Ugo Panziera, 16 and administrative secondary offices in Arezzo at Via Igino Cocchi, 14 and in Siena at Via Toselli 9/A.

The registered, administrative and operating offices of the Group companies are mainly distributed among these offices.

Prato, 27 April 2023

for the Board of Directors
General Manager
Paolo Abati

E.S.T.R.A. S.p.A.

Registered office in Via Ugo Panziera, 16- Prato (PO)
Fully paid-up share capital € 228,334,000.00
Tax code and Prato Companies Register number 02149060978,
Economic and Administrative Index no. 0505831

CONSOLIDATED FINANCIAL STATEMENTS AT 31 December 2022

OFFICERS

Board of Directors

Chairman and CEO Alessandro Piazzì
General Manager Paolo Abati
Director Giovanni Grazzini
Director Anna Scrosta
Director Roberta De Francesco

Board of Statutory Auditors

Rita Pelagotti (*Chairperson*)
Alessandro Mannelli
Michele Pietrucci

Independent Auditors

EY S.p.A.

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Consolidated financial statements schedules

Consolidated Income Statement

Consolidated Income Statement		Year ended 31 December			
		2022		2021	
		of which with related parties		of which with related parties	
(amounts in thousands of euro)	Notes	Amount	(note 15)	Amount	(note 15)
Revenue from sale of goods and services	8.1.1	1,766,057	3,918	1,046,433	1,058
Other operating revenue	8.1.2	12,235	305	13,851	348
Raw materials, ancillary materials and goods	8.2.1	(1,516,584)		(646,760)	
Costs for services	8.2.2	(103,187)	1,102	(250,065)	(542)
Personnel costs	8.2.4	(46,595)	594	(41,856)	516
Depreciation, amortisation, provisions and write-downs	8.2.5	(69,667)		(61,653)	
Other operating costs	8.2.6	(8,890)	3	(11,665)	(8)
Income/(expenses) from commodity risk management	8.3	2,439		2,915	
Portion of income/(expenses) from measurement of non-financial investments using the equity method	8.4	-		6,251	
Operating profit/(loss)		35,808	5,922	57,451	1,372
Financial income	8.5	2,694	292	1,971	249
Financial expenses	8.6	(14,329)	(193)	(9,995)	(409)
Gains or losses on currency conversions		(3)		(7)	
Portion of income/(expenses) from valuation of financial investments using the equity method	8.7	(577)		(2,263)	
Profit before taxes		23,593	6,021	47,157	1,212
Income taxes for the year	8.8	(9,203)		(14,218)	
Net profit/(loss) from continuing operations		14,390	6,021	32,939	1,212
Net profit/(loss) from discontinued operations / assets held for sale	8.9	-		-	
Net profit		14,390	6,021	32,939	1,212
Profit/(loss) of non-controlling interests		(271)		214	
Group profit/(loss)		14,661		32,725	

Earnings per share (Note 11)	Year ended 31 December	
	2022	2021
Basic earnings per share ordinary shares	0.06	0.14
Diluted earnings per share ordinary shares	0.06	0.14

Earnings per share from continuing operations (Note 11)	Year ended 31 December	
	2022	2021
Basic earnings per share ordinary shares	0.06	0.14
Diluted earnings per share ordinary shares	0.06	0.14

Income components deriving from non-recurring transactions pursuant to CONSOB Resolution number 15519 dated 27 July 2006, which defines them as “income components (positive and/or negative) deriving from events or transactions occurring on a non-recurring basis, or from transactions or facts that are not frequently repeated in the usual course of activities, are recognised under Note 8.10 “Significant non-recurring, atypical and/or unusual transactions”.

Consolidated Statement of other Comprehensive Income

Consolidated Statement of other Comprehensive Income (amounts in thousands of euro)	Notes	Year ended 31 December	
		2022	2021
Net profit		14,390	32,939
of which:			
<i>Profit/(loss) of non-controlling interests</i>		<i>(271)</i>	<i>214</i>
<i>Group profit/(loss)</i>		<i>14,661</i>	<i>32,725</i>
Other comprehensive income components that will subsequently be reclassified under profit/loss for the year (net of taxes)			
Change in cash flow hedge reserve	9.1	8,571	(10,461)
- <i>Gains (losses) for the year from measurement</i>		<i>11,278</i>	<i>(13,764)</i>
- <i>Taxes</i>		<i>(2,707)</i>	<i>3,303</i>
Total other comprehensive income components that will subsequently be reclassified under profit/loss for the year (net of taxes)		8,571	(10,461)
Other comprehensive income components that will not subsequently be reclassified under profit/loss for the year (net of taxes)			
Actuarial gains/(losses)	9.2	1,254	(124)
- <i>Actuarial gains/(losses)</i>		<i>1,650</i>	<i>(163)</i>
- <i>Taxes</i>		<i>(396)</i>	<i>39</i>
Total other comprehensive income components that will not subsequently be reclassified under profit/loss for the year (net of taxes):		1,254	(124)
Total other comprehensive income components net of taxes	9	9,825	(10,585)
of which:			
<i>related to minority interests</i>		<i>85</i>	<i>1</i>
<i>related to the Group</i>		<i>9,740</i>	<i>(10,586)</i>
Result of comprehensive income statement		24,216	22,354
of which:			
<i>Net comprehensive result minority interests</i>		<i>(186)</i>	<i>215</i>
<i>Net comprehensive result Group</i>		<i>24,401</i>	<i>22,139</i>

Statement of consolidated financial position

Statement of consolidated financial position	Notes	Year ended 31 December			
		2022		2021	
		of which with related parties (note 14)		of which with related parties (note 14)	
(amounts in thousands of euro)		Amount		Amount	
Property, plant and equipment	10.1.1	141,147		108,524	
Goodwill	10.1.3	35,496		35,496	
Intangible assets	10.1.5	498,719		492,392	
Equity investments	10.1.6	24,139	24,139	20,082	20,082
Other non-current financial assets	10.1.7	12,289	2,184	13,919	7,561
Other non-current assets	10.1.8	3,137	522	2,369	524
Deferred tax assets	10.1.9	69,991		70,649	
NON-CURRENT ASSETS		784,919	26,845	743,431	28,167
Inventories	10.2.1	41,166		13,814	
Trade receivables	10.2.2	442,369	8,155	405,857	6,115
Current tax assets	10.2.3	7,181		2,395	
Other current assets	10.2.4	228,533		42,576	
Other current financial assets	10.2.5	25,442		36,257	
Cash and cash equivalents	10.2.6	345,872		143,107	
CURRENT ASSETS		1,090,564	8,155	644,007	6,115
Assets held for sale	10.2.7	-		42	42
TOTAL ASSETS		1,875,483	35,000	1,387,480	34,324
Share capital		228,334		228,334	
Reserves		136,585		110,230	
Group profit (loss) for the year		14,661		32,725	
Total Group Shareholders' Equity		379,580		371,289	
Capital and reserves attributable to non-controlling interests		43,940		41,522	
Profit (loss) attributable to non-controlling interests		(271)		214	
Total Shareholders' Equity attributable to non-controlling interests		43,669		41,736	
TOTAL SHAREHOLDERS' EQUITY	10.3	423,249		413,025	
Provisions for risks and charges	10.4.1	11,053		10,645	
Employee severance indemnity	10.4.2	7,634		9,340	
Non-current portion of medium/long-term loans	10.4.3	514,082	13,107	177,402	10,043
Deferred tax liabilities	10.4.4	27,516		24,603	
Other non-current liabilities	10.4.5	17,211		15,709	
Contractual liabilities	10.4.6	26,145		25,172	
NON-CURRENT LIABILITIES		603,642	13,107	262,871	10,043
Current portion of medium/long-term loans	10.4.3	151,882	3,493	173,318	3,506
Short-term borrowings	10.5.1	44,681		34,891	
Trade payables	10.5.2	522,953	593	380,273	1,818
Contractual liabilities	10.4.6	944		900	
Current tax liabilities	10.5.3	2,411		3,573	
Other current liabilities	10.5.4	113,088	16,000	84,721	17,500
Other current financial liabilities	10.2.5	12,632		33,876	
CURRENT LIABILITIES		848,591	20,086	711,552	22,824
Liabilities directly associated with assets held for sale	10.2.7	-		32	32
TOTAL LIABILITIES and Shareholders' Equity		1,875,483	33,193	1,387,480	32,899

Statement of changes to consolidated shareholders' equity

Statement of changes to consolidated shareholders' equity (Note 10.3) (thousands of Euro)	Share capital	Share premium reserve	Legal reserve	Cash flow hedge reserve	IAS 19 reserve	Other reserves	Group net result	Group shareholders' equity	Shareholders' equity attributable to non-controlling interests	Total Shareholders' Equity
Balances at 1 January 2021	228,334	26,156	9,927	3,942	(64)	27,360	70,175	365,830	26,547	392,377
Allocation of 2020 profit - Consolidated profit for the previous year - Dividends			482			52,193	(52,675) (17,500)	(17,500)	(1,468)	(18,968)
Other changes						821		821	16,441	17,262
Result of income statement Other comprehensive income				(10,461)	(125)		32,725	32,725 (10,586)	214 1	32,939 (10,585)
Balances at 31 December 2021	228,334	26,156	10,409	(6,519)	(189)	80,374	32,725	371,290	41,735	413,025
Allocation of 2021 profit - Consolidated profit for the previous year - Dividends			886			15,839	(16,725) (16,000)	(16,000)	(1,014)	(17,014)
Other changes						(111)		(111)	3,133	3,022
Result of income statement Other comprehensive income				8,571	1,169		14,661	14,661 9,740	(270) 85	14,391 9,825
Balances at 31 December 2022	228,334	26,156	11,295	2,052	980	96,102	14,661	379,580	43,669	423,249

Consolidated cash flow statement

Consolidated cash flow statement (amounts in thousands of euro)	Notes	Year ended 31 December	
		2022	2021
Profit (loss) for the year		14,390	32,939
Income taxes	8.8	9,203	14,218
Interest expense (income)	8.5- 8.6	11,635	8,024
(Gains) Losses from the sale of assets	8.2.5 - 8.2.1	933	1,111
Profit for the year before taxes, interest, dividends and (gains)/losses		36,161	56,292
Depreciation/amortisation of tangible and intangible assets	8.2.4	55,321	49,007
Write-downs of tangible and intangible assets	8.2.4	600	-
Portion of contributions to financing for investments	8.1.2	(2,544)	(766)
Fair value changes recognised in operating profit/(loss)	8.3	2,224	3,084
Write-downs (revaluations) of investments	8.4 - 8.7	577	(6,088)
Write-down of other financial assets	8.9	-	2,100
Employee severance indemnity provision	8.2.3	499	476
Allocations/(reversals) to provisions for risks and other allocations	8.2.4 - 8.2.5	1,419	1,365
Cash flows before changes in net working capital and other assets and liabilities		94,257	105,470
Changes to trade receivables	10.2.2	(34,853)	(165,692)
Changes to inventories	10.2.1	(27,326)	4,811
Changes to trade payables	10.5.2	141,041	201,951
Changes in other current assets and liabilities	10.2.4 - 10.5.4	(153,645)	9,869
Change in current tax assets and liabilities	10.2.3 - 10.5.3	1,042	(1,678)
Change in employee severance indemnity (net of allocation)	10.4.2	(643)	(471)
Cash flows after changes in net working capital and other changes		19,873	154,260
Interest received		2,694	1,971
Interest paid		(14,114)	(9,037)
Taxes paid		(19,742)	(10,851)
Utilisation of provisions		(1,011)	(1,022)
A Cash flows from operating activities		(12,300)	135,321
of which with related parties		534	(127)
Investments in tangible assets	10.1.1	(5,906)	(10,043)
Investments in intangible assets	10.1.5	(47,534)	(38,432)
Divestment of tangible and intangible assets	10.1.1 - 10.1.5	(5,237)	1,511
(Investments)/divestments of equity investments	10.1.6	(6,521)	(6,811)
Dividends received from equity-accounted companies	10.1.6	81	415
Divestments of assets held for sale/ disposal		11	(11)
(Acquisition) or disposal of subsidiaries net of cash and cash equivalents	7.2	(7,271)	1,653
Other changes from investment activities		-	-
B Cash flows from investment activities		(72,377)	(51,718)
of which with related parties		-	-
Increases/(decreases) in non-current financial assets and liabilities	10.1.7 - 10.4.6	1,629	(2,349)
Increases/(decreases) in current financial assets and liabilities	10.2.5	(1,375)	(15,712)
Increases/(decreases) in other non-current assets and liabilities	10.1.8 - 10.4.5	1,708	11,512
Increase (decrease) in short-term bank loans	10.5.1	587	(1,601)
Opening of new bank loans	10.4.3	519,700	12,000
Opening of new shareholder loans	10.4.3	1,000	-
Repayment of bank loans	10.4.3	(78,673)	(89,204)
Buy back bond loans	10.4.3	(127,200)	-
Repayment of shareholder loans	10.4.3	(1,435)	(1,435)
Repayment of other lenders	10.4.3	(363)	(352)
Repayment of lease liabilities	10.4.3	(4,776)	(5,062)
Opening loan expenses	10.4.3	(6,687)	(35)
Other changes	10.3	16	(39)
Capital increase payments in subsidiaries of third-party shareholders	10.3	1,825	-
Payment of dividends to Parent Company shareholders	10.3	(17,500)	(7,000)
Payment of dividends to third parties	10.3	(1,014)	(1,468)
C Cash flows from financing activities		287,442	(100,744)
of which with related parties		(10,686)	(12,663)
Increase (decrease) in liquidity (A+B+C)		202,765	(17,142)
E Cash and cash equivalents at 1 January		143,107	160,249
F Cash and cash equivalents at 31 December		345,872	143,107

Notes

1. Corporate information

Estra S.p.A. Energia Servizi Territorio Ambiente and “Estra S.p.A.” for short (hereinafter “ESTRA” or “Estra”) is a joint stock company, registered in the Companies Register of Prato, with registered and administrative offices in Via Ugo Panziera, 16 in Prato, and administrative offices in Via Toselli, 9/a in Siena and in Via Igino Cocchi, 14 in Arezzo.

The activities of the Company and its subsidiaries are detailed in Note 4 [Business Segments](#), whereas information on the Group structure is found in Note 6 [Group information](#). Information on the Group’s interaction with related parties is provided in Note 15 [Transactions with related parties](#).

The consolidated financial statements for the year ended 31 December 2022 were submitted for the approval of the Company’s Board of Directors on 27/04/2023.

2. Significant accounting policies

2.1 Basis of preparation

The Group Consolidated Financial Statements were prepared in accordance with the International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB) and approved by the European Commission, integrating the relative interpretations of the International Financial Reporting Standards Interpretations Committee (IFRS IC), previously known as the Standing Interpretations Committee (Sic), as well as the measures implemented by Art. 9 of Italian Legislative Decree no. 38/2005.

The Consolidated Financial Statements are denoted in thousands of Euro, and all figures are rounded off to thousands of Euro, unless specified otherwise.

The general principle in the preparation of these Consolidated Financial Statements is based on cost, except for assets and liabilities linked to trading and derivative instruments, measured at fair value.

The preparation of the Consolidated Financial Statements required management to use estimates; the main areas characterised by more significant estimates and assumptions, together with those impacting significantly on the situations presented, are detailed in the paragraph “Significant accounting estimates”.

2.2 Financial statements schedules

Individual income statement items are classified according to their nature. We believe that this method, which is also followed by our main competitors and is in line with international practice, provides the best representation of the company’s results.

As permitted by the revised IAS 1, the comprehensive income statement is presented in a separate document to the income statement, distinguishing between components that are reclassified or not in the income statement. The other components of the comprehensive income statement are also stated separately in the statement of changes to shareholders’ equity.

The statement of financial position shows the distinction between current and non-current assets and liabilities, as detailed below. The cash flow statement is prepared using the indirect method, as permitted by IAS 7.

2.3 Consolidation criteria

The Consolidated Financial Statements include the financial statements of Estra S.p.A and its subsidiaries at 31 December 2022 and 2021.

Control is achieved when the Group is exposed or is entitled to variable returns, deriving from its relationship with the investee entity, and at the same time, has the ability to impact these returns by exercising its authority over said entity.

Specifically, the Group controls a subsidiary if and only if, the Group has:

- power over the investment entity (or holds valid rights that confer the effective ability to manage the significant activities of the investment entity);
- exposure or rights to variable returns deriving from the relationship with the investment entity;
- the ability to exercise its power over the investment entity so as to impact on the extent of its returns.

Generally, there is the assumption that a majority of voting rights confers control. In support of this assumption and when the Group holds less than a majority of voting rights (or similar rights), the Group considers all the relevant facts and circumstances to ascertain whether it controls the investment entity, including:

- Contract agreements with others holding voting rights;
- Rights deriving from contract agreements;
- Group voting rights and potential voting rights.

The Group reconsiders whether it has control or not when facts and circumstances indicate that changes have intervened in one or more of the three aspects significant for the purposes of defining control. The consolidation of a subsidiary begins when the Group obtains control and ceases once the Group loses this control. Assets, liabilities, revenue and costs for the subsidiary acquired or discontinued over the period are included in the consolidated financial statements from the date on which the Group obtains control, until the date when the Group no longer exercises control over the company.

Profit (loss) for the period and each of the other comprehensive income statement items are attributed to the Parent Company shareholders and minority interests, even if this implies that the minority interests have a negative balance. Where necessary, the appropriate adjustments are made to the financial statements of subsidiaries, to ensure they conform with the Group's accounting policies. All assets and liabilities, shareholders' equity, revenue, costs and intragroup financial flows relating to transactions between group entities are completely eliminated during the consolidation phase.

Changes to equity investments in a subsidiary that do not result in a loss of control are recognised under shareholders' equity.

If the Group should lose control of a subsidiary, the relevant assets (including goodwill), liabilities, minority interests and other shareholders' equity items must be eliminated, whereas any profit or loss is recorded in the income statement. The equity investment still held is then recognised at fair value. Similarly, in the event of acquiring control, any equity investment already held will be revalued at the corresponding fair value, with any profit or loss recognised in the income statement.

2.4 Summary of main accounting criteria

a) Business combinations and goodwill

Business combinations are stated using the acquisition method. The acquisition cost is determined as the sum of the transferred fee measured at fair value at the acquisition date, and the amount for the minority interest in the acquired entity. For every business combination, the Group defines whether to measure the minority interest in the acquired entity at fair value, or in proportion to the portion of minority interest in the net assets identified in the acquired entity. Acquisition costs are recognised in the period and classified under administrative expenses. When the Group acquires a business, it classifies or designates the financial assets acquired or the liabilities undertaken in accordance with contract conditions, economic and other pertinent conditions at the acquisition date. This includes checking to see whether an incorporated derivative should be separated from the primary contract.

If the business combination is implemented over different stages, the equity investment held previously is measured at fair value at the acquisition date and any resulting profit or loss is recorded in the income statement.

Any potential fee to be recognised, is recorded by the purchaser at fair value at the acquisition date. The change in fair value of the potential fee classified as an asset or liability, as a financial instrument falling in the scope of IFRS 9 Financial Instruments: recognition and measurement, must be recognised in the income statement.

Goodwill is initially recognised at cost, represented by the surplus of the combined fees paid and the amount recorded for minority interests in respect of the net acquired assets identified and liabilities undertaken by the Group. If the fair value of the net acquired assets exceeds the combination of the fee paid, the Group checks once again whether it correctly identified all the assets acquired and all liabilities undertaken, and reviews the procedures used to determine the amounts to recognise at the acquisition date. If the new assessment once again shows a fair value for the net acquired assets that is higher than the fee, the difference (profit) is recognised in the income statement.

After the initial statement, goodwill is measured at cost, net of accumulated impairment losses. For the purposes of checking the impairment, goodwill acquired in a business combination is allocated at the date of acquisition to each cash-generating unit in the Group which expects benefits from the combination synergies, regardless of whether other assets or liabilities from the acquired entity are allocated to these units.

If the goodwill is allocated to a cash-generating unit and the entity disposes of part of this unit's assets, the goodwill associated with the discontinued assets is included in the asset's carrying value when determining the gain or loss from the disposal. Goodwill associated with discontinued assets is determined on the basis of the values relative to the discontinued assets and the portion retained by the cash-generating unit.

b) Equity investments in associates and joint ventures

An associate is a company in which the Group exercises significant influence. Significant influence is intended as the power to participate in determining the company's financial and management policies, without having control or joint control.

A joint venture is an arrangement of joint control, whereby the parties holding joint control hold rights over the net assets in the arrangement. Joint control is intended as the sharing of an arrangement's control on the basis of a contract, which exists solely when decisions on the significant assets require unanimous consent by all parties sharing control.

The considerations made to determine significant influence or joint control are similar to those needed to determine control over subsidiaries.

The Group's equity investments in associates and joint ventures are measured using the equity method.

Based on the equity method, an investment in an associate or joint venture is initially recognised at cost. The investment's carrying value increases or decreases to record the portion of the participant's share of the gains and losses realised after the acquisition date. Goodwill pertinent to the associate or joint venture is included in the equity investment's carrying value and is not subject to separate impairment testing.

The year's statement of profit and loss reflects the portion of results from associates and joint ventures attributable to the Group. Any change in other items of the comprehensive income statement relating to that associate is recognised in the Group's comprehensive income statement. In addition, should an associate or joint venture record a change that is charged directly to shareholders' equity, the Group recognises its portion, where applicable, in the statement of changes to shareholders' equity. Unrealised profits and losses deriving from transactions between the Group and associates or joint ventures are eliminated in proportion to the shareholding in the associates or joint ventures.

The portion of the result from associates and joint ventures attributable to the Group represents the result net of taxes and the portion due to the associates' or joint ventures' other shareholders and is recognised in the Income statement before or after the operating result is recognised in relation to the correlation that exists between the associate's assets and those of the entity preparing the financial statements.

The financial statements for associates and joint ventures are prepared at the same reporting date as the Group. Where necessary, the Group may adjust these to bring them in line with Group accounting policies.

Subsequently to applying the equity method, the Group assesses whether to recognise an impairment in its equity investment in the associates or joint ventures. At each reporting date, the Group assesses whether there are any objective signs that equity investments in associates or joint ventures have undergone impairment. In this case, the Group calculates the loss as the difference between the recoverable value of the associate or joint

venture and the recognised value of the latter in its own financial statements, recognising this difference in the Income Statement under “attributable share of profit/(loss) of associates and joint ventures”.

On losing the significant influence over an associate or joint control over a joint venture, the Group assesses and records the remaining equity investment at fair value. The difference between the carrying value for the equity investment at the date of losing significant influence or joint control, and the fair value of the residual equity investment and fees received, is recognised in the income statement.

c) Current/non-current classification

Assets and liabilities in the Group’s financial statements are classified on a current/non-current basis.

An asset is current when:

- one can suppose that it will be realised, or is held for sale or consumption through the normal operating cycle;
- it is held mainly for the purpose of trading;
- one can suppose that it will be realised within twelve months from the close of the financial period; or
- it comprises cash or cash equivalents, unless it is forbidden for these to be exchanged or utilised to extinguish a liability for at least twelve months from the close of the financial period.

A liability is current when:

- it is expected to be extinguished in the normal operating cycle;
- it is held mainly for the purpose of trading;
- it must be extinguished within twelve months from the close of the financial period; or
- the entity does not have an unconditional right to defer the settlement of the liability for at least twelve months from the close of the period.

Deferred and prepaid tax assets and liabilities are classified under non-current assets and liabilities.

d) Fair value measurement

The Group measures financial instruments such as derivatives and commodity trading futures contracts at fair value at each reporting date. A summary is provided below of the notes relating to the fair value of financial instruments, and the notes referring to fair value:

- Measurement methods, discretionary assessments and significant accounting estimates: Note 3 [Discretionary assessments and significant accounting estimates](#);
- Quantitative information on the fair value measurement hierarchy: Note 10.5.5 [Financial instruments and measurement at fair value](#);
- Financial Instruments (including those measured at amortised cost): Note 10.5.5 [Financial instruments and measurement at fair value](#);

Fair value is the price that would be received to sell an asset, or would be paid to transfer a liability, in a regular transaction between market participants at the measurement date. The fair value measurement supposes that the sales transaction for the asset or transfer of the liability takes place:

- in the principal market for the asset or liability;
or
- in the absence of a principal market, in the most advantageous market for the asset or liability.

The principal market or most advantageous market must be accessible to the Group.

The fair value of an asset or liability is valued by adopting the assumptions that market participants would use in determining the price for the asset or liability, presuming that they are acting to satisfy their own economic interests in the best way possible.

A fair value measurement of a non-financial asset considers the ability of a market participant to generate economic benefits, making maximum and best use of the asset or selling it to another market participant that would make the maximum and best use thereof.

The Group uses valuation techniques that have been adapted to its circumstances, and where there is sufficient data available to measure the fair value, by maximising the use of relevant observable inputs, and minimising the use of unobservable inputs.

All assets and liabilities measured at fair value or recognised in the financial statements are classified according to the fair value hierarchy, as follows:

- Level 1 - quoted prices (without adjustment) in active markets for identical assets or liabilities that the entity can access at the measurement date;
- Level 2 – Inputs other than quoted market prices included within Level 1 that are observable for the asset or liability, either directly or indirectly;
- Level 3 – valuation techniques where input data is unobservable for the asset or liability.

The fair value measurement is classified entirely at the same fair value hierarchy level where the input at the lowest hierarchy level used for the valuation, is classified.

For assets and liabilities recognised at fair value on a recurring basis in the financial statements, the Group determines whether transfers have occurred between the hierarchy levels, by reviewing the classification (based on the lowest level input, which is significant for the fair value measurement in its entirety) at each reporting date.

The Group determines the criteria and procedures for the measurement of recurring fair value such as derivatives and commodity trading futures contracts, and for non-recurring measurements, such as assets held for sale.

For the purposes of fair value disclosures, the Group determines the asset and liability classes based on the nature, characteristics and risks of the asset or liability and the fair value hierarchy level referred to above.

e) Revenue from disposal of goods and services

The ESTRA Group operates primarily in the sale of gas and electricity sector and in the gas distribution sector.

The Group considers whether there are other promises contained in the contract, which represent performance obligations, and to which a portion of the transaction fee needs to be allocated (for example, guarantees, customer loyalty plans). In determining the price for a sales transaction, the Group considers the effects resulting from a variable fee, significant financing components, non-monetary fees, and fees payable to the customer (if applicable).

If the promised fee in the contract includes a variable amount, the Group estimates the amount for the fee, to which it will be entitled in exchange for the transfer of the goods to the customer.

The variable fee is estimated at the time of signing the contract, and its recognition is not possible until it becomes highly probable that when the uncertainty associated with the variable fee is subsequently resolved, there will not be a significant reduction recognised in the cumulative revenue amount already recognised.

The following specific criteria need to be followed for the purposes of recognising revenue:

1. Sale of goods

Revenue is recognised when the entity has transferred control of the goods to the buyer, which generally occurs on the date of delivery of the goods.

Revenue from the sale of electricity and gas is recognised and accounted for at the time of providing the supply, recorded according to a predetermined calendar for consumption readings, and at the end of the period, includes the estimate for the supply of gas and electricity provided to final customers and not yet invoiced at 31 December. Revenue for the sale of electricity and gas is recognised and stated at the time of supply and includes the allocation for supplies rendered but not yet invoiced.

2. Provision of services

Revenue from distribution is recognised on the basis of the tariffs approved by the Italian Regulatory Authority for Electricity, Gas and Water [ARERA], and are subject to equalisation at the end of the period to reflect the remuneration approved by the Authority against the investments made, according to the accrual principle.

Revenue referring to the provision of services is recognised on the basis of the service rendered in accordance with the relative contracts.

3. Revenue from trading

Revenue from trading in natural gas is recognised as follows:

- Revenue from trading transactions that meet the so-called “own use exemption” is recognised at the time of provision, and stated separately from the relative costs to purchase the gas;
- Revenue deriving from trading transactions that do not meet the so-called “own use exemption”, but which envisage the physical delivery of the gas sold. In these circumstances, the Group only obtains control of the gas temporarily and instrumentally on the signing of the contracts. The transactions are put in place with various counterparties, in respect of whom there is a distinct credit risk. Moreover, the fee paid to the Group in these contracts is determined in order to maximise the margin from the transaction as a whole. This revenue is recognised net of the relevant purchase cost in the income statement under “expenses and income from commodity risk management”.

The sales and purchase obligations at the reporting date, in respect of which the delivery of the physical gas has not yet occurred, are measured at fair value through profit & loss in accordance with IFRS 9, and recorded in the income statement under “expenses and income from commodity risk management”. See also note n) on derivative instruments in this regard.

4. Contractual assets

Contract assets represent the entity’s right to obtain the fee agreed on against the transfer of control of the goods or services to the customer.

If the Group fulfils its obligation by transferring the goods or services to the customer prior to the latter paying the fee or prior to payment being due, the entity must record an asset deriving from a contract, excluding the amounts presented as credits.

5. Trade receivables

For the Group, a receivable represents the unconditional right to receive the fee (i.e. all that is needed is for the time to lapse so that payment of the fee may be received). Reference is made to the paragraph on standards in section p) Financial instruments - initial recognition and subsequent measurement.

6. Contractual liabilities

Contract-based liabilities represent an obligation to transfer goods or services to the customer, where the Group has already received the fee (or where a portion of the fee is outstanding). If the customer pays the fee before the Group has transferred control of the goods or services, the liability arising from the contract is recognised when payment is made or (if earlier), when is it due. Liabilities deriving from contracts are recognised as revenue when the Group satisfies the performance obligations in the relevant contract.

7. Costs of obtaining a contract

The Group pays commissions to acquire contracts via indirect sales channels. IFRS 15 requires that certain criteria must be met to record the incremental costs to obtain a contract and the costs incurred to execute the contract with the customer, under assets. Any capitalised costs to obtain contracts must be amortised on a straight line basis, based on the transfer of the goods or services by the entity to the customer. Incremental costs to obtain a contract and the costs to fulfil a contract are recorded as assets pursuant to IFRS 15.128, and the closing asset balance, amortisation amounts and any losses for impairment during the period are stated separately. Nonetheless, IFRS 15 does not make any stipulation regarding the classification of these assets and the relevant amortisation. Without a standard that deals specifically with the classification and presentation of costs to obtain contracts, the Group has adopted the general IAS 8 standard to select the appropriate accounting treatment. According to this standard, incremental costs to obtain a contract and the costs incurred to fulfil a contract, must be considered separately for recognition in the financial statements.

The Group has chosen a distinctive class of intangible assets in the statements of consolidated financial position, and the relevant amortisation in the same item relating to intangible assets amortisation in the scope of applying IAS 38 - Intangible assets.

f) Interest income

In the case of all financial instruments measured at amortised cost and interest-bearing financial assets classified as held for sale, interest income is recorded by using the effective interest rate (EIR), which is the rate discounting future collections, estimated across the financial instrument's expected life or a shorter time frame, where necessary, in relation to the financial asset's net carrying value. Interest income is classified under financial income in the income statement.

g) Dividends

Dividends are recognised when the Group is entitled to receive payment, which generally corresponds with the time the Shareholders' Meeting approves the distribution.

h) Public grants

Public grants are recorded when there is reasonable certainty that the grants will effectively be received, and that all the relevant conditions have been met. Grants relating to cost components are recognised as revenue on a straight line basis over the financial periods, so that they are commensurate to the cost they intend offsetting. The grant related to an asset is recognised as revenue, and stated in equal portions across the reference asset's expected useful life.

When the Group receives a non-monetary grant, the asset and relative contribution are recorded at nominal value, and stated in the income statement in equal portions across the reference asset's useful life.

i) Income taxes***i) Current taxes***

Current tax assets and liabilities are measured at the amount that is expected to be recovered or paid to the tax authorities. The rates and tax regulations used to calculate the amount are those issued, or effectively in force at the reporting date.

Current taxes referring to items recognised directly under shareholders' equity are also recognised at equity and not in the income statement. Management periodically reviews the position taken on the tax returns, and in cases where tax regulations are subject to interpretation, and where appropriate, makes the necessary provisions.

ii) Deferred taxes

Deferred taxes are calculated by applying the liability method to the temporary differences at the reporting date between the tax asset and liability figures and the corresponding carrying value.

Deferred tax liabilities are recognised for all temporary taxable differences, except for:

- deferred tax liabilities deriving from the initial recognition of goodwill or an asset or liability in a transaction not representing a business combination, which at the time of the transaction, does not affect the accounting or tax balance;
- the reversal of taxable temporary differences related to equity investments in subsidiaries, associates and joint ventures, may be controlled, and it is probable that the reversal will not occur in the foreseeable future.

A deferred tax asset is recognised for deductible temporary differences, unused tax losses and unused tax credits to the extent that it is probable that future taxable profit will be available against which the deductible temporary differences and carried tax losses and credit can be utilised, unless:

- the deferred tax liabilities related to the temporary deductible differences derives from the initial recognition of goodwill or an asset or liability in a transaction not representing a business combination, which at the time of the transaction, does not influence the balance sheet or tax balance;
- In respect of deductible temporary differences associated with investments in subsidiaries, associates and joint ventures, deferred tax assets are recognised only to the extent that it is probable that the temporary differences will reverse in the foreseeable future and taxable profit will be available against which the temporary differences can be utilized.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the period when the asset is realised or the liability is settled, based on tax rates that have been enacted or substantively enacted by the end of the reporting period.

Deferred taxes referring to items recognised off the income statement are also recognised in the income statement, and therefore in shareholders' equity or the comprehensive income statement, according to the item they refer to.

Deferred tax assets and liabilities are offset where there is a legal basis, which allows for the offsetting of current tax assets and liabilities, and the deferred taxes refer to the same tax payer and same tax authorities.

Tax benefits gained as a result of a business combination, but which do not meet the criteria for separate recognition at the acquisition date, are subsequently recognised at the time when new information is obtained regarding the changes in facts and circumstances. The adjustment is recognised by reducing goodwill (up to the goodwill's value), in the event it was recorded during the measurement stage, or in the income statement, if recognised afterwards.

iii) Uncertainty on treatments for income tax purposes

In the definition of uncertainty it is considered whether a given tax treatment will be acceptable to the Tax Authority. If it is considered probable that the tax authority will accept the tax treatment (the term probable is understood as “more probable than not”), the Group recognises and measures its current or deferred tax assets and liabilities applying the rules of IAS 12.

Conversely, if there is uncertainty on treatments for income tax purposes, the Group reflects the effect of this uncertainty making use of the method that best provides for resolution of the uncertain tax treatment. The Group decides whether to take into consideration each uncertain tax treatment separately or jointly with one or more uncertain tax treatments, choosing the approach that best provides for the solution of the uncertainty. In assessing whether and in what way the uncertainty affects the tax treatment, the Group assumes that the Tax Authority will or will not accept an uncertain tax treatment presuming that the same, in the audit stage, will check the amounts that it has the right to examine and that it will be completely cognisant of all the related information. When it concludes that it is not probable that the tax authority will accept an uncertain tax treatment, the Group reflects the effect of this uncertainty in determining the current and deferred taxes, using the method of the expected value or the most probable amount, according to which method better provides for the solution of the uncertainty.

The Group makes significant use of professional judgement in identifying the solution of the uncertainties on treatments for income tax purposes and re-examines the judgements and estimates made in the presence of a change in the facts and circumstances that modify its forecasts on the acceptability of a certain tax treatment or the estimates made on the effects of the uncertainty, or both.

As the uncertain tax positions refer to the definition of income taxes, the Group presents uncertain tax assets/liabilities as current or deferred taxes.

j) Indirect taxes

Costs, revenue, assets and liabilities are recognised net of indirect taxes, such as value-added tax, except for:

- tax applied to the purchase of goods and services is not deductible; in this case this is recognised as part of the asset's purchase cost or part of the cost recorded in the income statement;
- trade receivables and payables include the applicable indirect tax.

The net amount of indirect tax that needs to be recovered or paid to the tax authorities is included among receivables or payables.

k) Non-current assets held for sale, disposal groups and discontinued operations

Non-current assets held for sale, disposal groups and discontinued operations, where the carrying amount will be recovered principally through a sale transaction instead of through continuing use are measured at the lower of the carrying amount and fair value less costs to sell. More specifically, a disposal group is a group of assets and directly associated liabilities, which are to be disposed of in a single transaction. Discontinued operations on the other hand, comprise a significant component of a group, such as for example, a major line of business or geographical area of operations, or a subsidiary acquired exclusively with a view to resale. In accordance with IFRS standards, data relating to non-current assets held for sale, disposal groups and discontinued operations are presented in two specific items of the financial statements: assets held for sale and liabilities directly associated to assets held for sale.

Non-current assets held for sale are not subject to amortisation and are measured at the lower of the carrying amount and relative fair value, less the sale costs; any difference between the carrying value and fair value reduced by the sales expenses is charged to the income statement as a write-down.

With sole reference to discontinued operations, the net economic results obtained pending the disposal process, the capital gains/losses deriving from the disposal itself and the corresponding comparative data for the period/previous period are presented under a specific item in the income statement: profit (loss) from discontinued assets/ held for sale.

l) Distribution of dividends and distribution of assets other than cash and cash equivalents

The Company records a liability against the distribution of cash or other assets other than cash and cash equivalents when the distribution is appropriately authorised, and is no longer at the Company's discretion. Based on Italian Company law, distribution is authorised when it is approved by shareholders. The corresponding amount is recognised in shareholders' equity.

The distribution of assets other than cash and cash equivalents, which do not refer to the distribution of a non-monetary asset controlled by the latter prior and after distribution, are measured at the fair value of the assets to distribute; the recalculation of fair value is recorded directly under shareholders' equity.

At the time of the dividend payment, any difference between the carrying value of the distributed assets and the carrying value of the payable dividend is recognised in the income statement.

m) Property, plant and equipment

Property, plant and equipment are entered at purchase or production cost inclusive of ancillary expenses, or at the amount based on an expert's appraisal of the company's assets in the case of business acquisitions, and is shown net of depreciation and any impairment. Production costs includes the direct and indirect costs for the portion reasonably attributable to the asset (for example: personnel costs, transport, customs duties, expenses to prepare installation premises, testing costs, notary and land register costs).

This cost also includes the costs to replace machinery and installations at the time they are incurred, provided they comply with recognition criteria. Where the periodic replacement of significant parts of plants and machinery is necessary, the Group depreciates these separately based on their specific useful life. Likewise, with major overhauls, the costs are included in the plant or machinery's carrying amount, as in the case of replacement, where the recognition criteria are met. All costs for repairs and maintenance are recognised in the income statement when they are incurred. The effective cost of dismantling and removing an asset at the end of its use is included in the asset's cost, should the recognition criteria be met for a provision.

The carrying amount of intangible assets is subject to a test to assess whether there has been any impairment, in particular when events or changes indicate that the carrying amount cannot be recovered (for further details, reference is made to the note "Impairment of non-current assets").

Amortisation begins when the asset is available for use. Assets under construction include the costs relating to the tangible asset that is not yet available for use. Tangible assets are depreciated on a straight-line basis annually, using economic and technical rates deemed representative of the assets' residual useful lives.

The table below provides the depreciation rates that were considered when depreciating assets.

Relating to gas distribution:

Category	Depreciation period
Land	not subject to depreciation
Industrial buildings	50 years
Urban networks and connections	50 years
Connections	40 years
Stations	10 years
Tanks and storage facilities	10 years
Facilities for remote operations	10 years
Metering equipment	10 years

Relating to other specific Group business sectors:

Category	Depreciation period
Heat - District heating network	30 years
Heat - Thermoelectric Plants	25 years
Heat - Heat management facilities under concession	7-9 years (contractual term)
Telephony - Conduits	40 years
Telephony - Optical and copper cables	20 years
Telephony - SDH node, networking, access and video surveillance equipment	8 years
Telephony - Hardware and mobile phones	5 years
Renewable energy - photovoltaic plants	20 years
Waste selection - Plant	25 years

With regard to the remaining asset categories, the depreciation rates applied are the following:

Category	Depreciation period
Lightweight constructions	10 years
Electronic machines	5 years
Furniture	8 years
Equipment	10 years
Industrial vehicles	5 years
Other vehicles	4 years

The carrying value of buildings, plants and machinery and any other significant component initially recorded, are eliminated at the time of disposal (i.e. the date when the purchaser obtains control thereof) or when no future economic benefit is expected from their use or disposal. The gain/loss emerging at the time of the asset's accounting elimination (calculated as the difference between the asset's carrying value and net fee) is recorded in the income statement.

The residual values, useful lives and depreciation methods for buildings, plants and machinery are reviewed at each reporting date, and corrected prospectively where appropriate.

n) Leases

At the time of signing a contract, the Group assesses whether or not it contains a lease. In other words, whether the contract confers the right of use of an identified asset over a period of time, in exchange for a fee.

The Group only operates as a lessee, adopting a single model to recognise and measure all leases, excluding short-term leases and the leases for low-value assets. The Group recognises liabilities relating to lease payments and assets for the right of use, which represents the right to utilise the asset underlying the contract.

Right-of-use assets

The Group recognises right-of-use assets from the date the lease starts (i.e. the date when the underlying asset is available for use). Right-of-use assets are measured at cost, net of cumulative amortisations and impairments, and adjusted for any redetermined lease liabilities. The cost of the right-of-use assets includes the amount for the recognised lease liabilities, the initial direct costs incurred and lease payments made at the start date or prior to the start, net of any incentives received. Right-of-use assets are amortised in equal portions from the effective date until the end of the assets' useful life, corresponding to its right of use, or if earlier, at the end of the lease term.

If the lease transfers ownership of the underlying asset to the lessee at the end of the lease term, or if the cost of the asset corresponding to the right of use reflects the fact that the lessee will exercise the option to purchase, the lessee shall amortise the asset consisting of the right-of-use from the effective date until the end of the underlying asset's useful life.

Right-of-use assets are subject to impairment. Reference is made to the section "Impairment of non-financial assets".

Lease related liabilities

At the effective date of the lease, the Group recognises the lease liability, measuring it at the current value of the payments in respect of the lease that are unpaid at that date. The payments include the fixed payments (including basic fixed payments), net of any lease incentives to be received, the variable lease payments that are dependent on an index or rate, and the amounts to be paid by way of a guarantee or residual value. Lease payments also include the exercise price of the purchase option, if the lessee is reasonably certain that this option will be exercised by the Group, and the payment of any penalties to terminate the lease, if the lease term takes into account the Group exercising the option to terminate the lease.

Variable lease payments that are not dependant on an index or rate are recognised as costs over the period (unless there were incurred to produce inventories) when the event or the condition generating the payment occurred.

o) Financial expenses

Financial expenses directly attributable to the acquisition, construction or production of an asset that requires quite a long time before it becomes available for use, are capitalised on the cost of the asset. All financial expenses are recognised among the costs relating to the period in which they were incurred. Financial expenses comprise interest and the other costs that an entity may support to obtain the funding.

p) Intangible assets

Intangible assets acquired separately are initially recorded at cost, whereas those acquired via business combinations are recognised at fair value on the acquisition date. After initial recognition, intangible assets are recorded net of the accumulated amortisation and any impairments. Internally produced intangible assets, excluding development costs, are not capitalised and are recorded in the income statement in the period they were incurred.

The useful life of intangible assets is measured as limited or indefinite.

Intangible assets with a limited life are amortised over their useful life and are subject to impairment testing, at any time there are indications that there may be possible losses in value. The amortisation period and method for an intangible asset with a limited life are reviewed at least at the end of each period. Changes in the expected useful life or ways in which future economic benefits associated with the asset will be realised, are recognised by changes to the amortisation period or method, as the case may be, and are considered as accounting estimate changes. Amortisations of intangible assets with a limited life are recognised in the income statement under the cost category relating to the function of the intangible asset.

Intangible assets with an indefinite life are not amortised, but are subject to annual impairment testing, both at individual level and at the cash-generating unit level. The assessment of the indefinite life is reviewed annually to determine whether this allocation is sustainable, otherwise the change from the indefinite useful life to limited useful life is applied on a prospective basis.

Gains or losses deriving from the elimination of an intangible asset are measured by the difference between the net revenue from the disposal (at the date when the purchaser gains control) and the carrying amount of the intangible asset, and are recognised in the Income Statement in the period in which the elimination takes place.

Gains or losses deriving from the sale of an intangible asset are determined as the difference between the disposal value and the carrying amount of the asset, and are recognised in the income statement at the moment when the risks and benefits associated with ownership of the asset are transferred to the purchaser.

Patents and licences

These are represented by identifiable, discernible assets under the company's control, which can generate future economic benefits; these rights are amortised across the relevant useful lives.

Service concession agreements

IFRIC 12 stipulates that when specific characteristics exist at the time of the concession, the infrastructure used to provide public services on a concession basis are recognised as intangible assets and/or as financial assets according to whether the concessionaire is entitled to a fee from the customer for the service provided and/or is entitled to receive this from the granting public entity.

The concession arrangements in place with granting entities and relating to the Group's gas distribution are recognised according to IFRIC 12, by applying the intangible asset model, because the underlying concessionary relationships do not guarantee the unconditional right in favour of the concessionaire to receive cash, or other financial assets.

Given that most of the work is tendered externally and that with the construction carried out internally, no separate distinction is made between the project margin and benefits recognised in the service remuneration tariff, this infrastructure is recorded on the basis of costs effectively supported, net of any contributions made by entities and/or private customers.

During the construction phase, the Group records a contract asset when the right to a fee in kind is not subject to performance risks.

Amortisations are calculated on the basis of what is stipulated in the respective agreements/concessions, taking into consideration the provisions under applicable legislation on concessions for gas distribution, and in particular: i) consistently for the lesser period between the economic-technical life of the assets under concession and the term of the concession itself, when on expiry, no compensation is paid to the outgoing manager (Reimbursement Value, or "RV"); ii) based on the economic-technical life of individual assets, when on the concessions' expiry, the assets are not freely transferable.

a) Financial instruments - Recognition and measurement

A financial instrument is any contract that gives rise to a financial asset for an entity and a to financial liability or an equity instrument for another entity.

b) Financial assets

Initial recognition and measurement

At the time of initial recognition, financial assets are classified based on the subsequent measurement method, i.e. at amortised cost, fair value recognised in profit and loss OCI and at fair value recognised in the income statement.

The classification of financial assets at the time of initial recognition depends on the characteristics of the contract cash flows for the financial assets and the business model the Group uses to manage them. Except for trade receivables that do not contain a significant financing component or where the Group has applied a practical expedient, the Group initially measures a financial asset at its fair value plus the transaction costs in the case of a financial asset not at fair value recognised in the income statement. Trade receivables that do not include a significant financing component or where the Group has applied a practical expedient are measured at the transaction price.

In order for a financial asset to be classified and measured at amortised cost or at fair value through OCI, it must generate cash flows that depend solely on the principal and interest on the principal amount to be repaid (i.e. solely payments of principal and interest or SPPI). This assessment is referred to as a SPPI test and is conducted at instrument level. Financial assets with cash flows that do not meet the requisites indicated above (e.g. SPPI) are classified and measured at fair value through profit or loss.

The Group's business model for managing financial assets refers to the way in which it manages its financial assets to generate cash flows. The business model determines whether the cash flows will derive from the collection of contract-based financial flows, from the sale of financial assets or both.

Financial assets classified and measured at amortised cost are held in the context of a business model whose objective is the possession of financial assets for the purpose of collecting contractual cash flows, while financial assets classified and measured at fair value through OCI are held in the context of a business model whose objective is achieved both through collecting contractual cash flows and through sale of the financial assets.

The purchase or sale of a financial asset that requires delivery within a time period generally set according to regulations or market practice (i.e. regular way trade) is recognised at the trade date, i.e. the date on which the Group has undertaken to buy or sell the asset.

Subsequent measurement

For the purposes of subsequent measurement, financial assets are classified into four categories:

- Financial assets at amortised cost (debt instruments);
- Financial assets at fair value recorded in the comprehensive income statement with reclassification of accumulated profit and loss (debt instruments);
- Financial assets at fair value recorded in the comprehensive income statement without the reversal of profit and loss accumulated at the time of elimination (capital representative instruments);
- Financial assets at fair value recognised in the income statement.

Financial assets at amortised cost (debt instruments)

Financial assets at amortised cost are subsequently measured using the effective interest criterion and are subject to impairment. Profit and loss are recorded in the Income Statement when the asset is eliminated, amended or revalued.

The Group's financial assets at amortised cost include trade receivables, a loan to an associate, a loan to a director included in other non-current financial assets.

Financial assets at fair value through OCI (debt instruments)

For assets from debt instruments measured at fair value through OCI, the interest income, the changes owing to exchange differences and write-downs, together with write-backs, are recognised in the income statement and are calculated in the same way as financial assets measured at amortised cost. The remaining fair value changes are recognised in OCI. At the moment of elimination, the cumulative fair value change recognised in OCI is reclassified in the income statement.

The Group's assets from debt instruments measured at fair value through OCI include investments in listed debt instruments included in other non-current financial assets.

Investments in equity instruments

At the moment of initial recognition, the Group may irrevocably choose to classify its investments in shares as equity instruments recognised at fair value through OCI when they meet the definition of equity instruments under the terms of IAS 32 "Financial Instruments: Presentation" and are not held for trading. The classification is determined for each individual instrument.

Gains and losses made on these financial assets are never booked to the Income Statement. Dividends are recognised as other revenue in the income statement when the right to payment has been resolved, except when the Group benefits from this income as a recovery of part of the cost of the financial asset, in which case these gains are recognised in OCI. Equity instruments recognised at fair value through OCI are not subject to impairment tests.

Financial assets at fair value recognised in the income statement

Financial instruments at fair value with changes recorded in the income statement are recognised in the statement of financial position at fair value and the net changes in fair value recorded in the profit and loss statement for the period.

This category includes derivative instruments and listed equity investments that the Group has not chosen irrevocably to classify at fair value through OCI. Dividends on listed equity investments are recognised as other income in the statement of profit/(loss) for the year when the right to payment has been established.

Embedded derivatives contained in a non-derivative hybrid contract, in a financial liability or a non-financial principal contract, are separated from the principal contract and recognised as separate derivatives, if: their economic characteristics and the associated risks are strictly related to those of the principal contract; a separate instrument with the same conditions of the embedded derivative would satisfy the definition of a derivative; and the hybrid contract is not measured at fair value in the income statement. Embedded derivatives are measured at fair value, with changes in fair value recorded in the income statement. A redetermination occurs only when a

change in the contract conditions significantly changes the cash flows otherwise expected or when a financial asset is reclassified to a different category from fair value through profit or loss.

Derecognition

A financial asset (or, where applicable, part of a financial asset or part of a group of similar financial assets) is derecognised firstly (i.e. removed from the Group's statement of financial position) when:

- the rights to receive cash flows from the asset are extinguished, or
- the Group has transferred to a third party the right to receive cash flows from the asset or has assumed the contractual obligation to pay them entirely and without delay and (a) has substantially transferred all the risks and benefits of ownership of the financial asset; or (b) has not transferred nor substantially kept all the risks and benefits of the asset, but has transferred control thereof.

If the Group has transferred the rights to receive cash flows from an asset or has signed an agreement on the basis of which it maintains the contractual rights to receive the cash flows of the financial asset, but assumes a contractual obligation to pay the cash flows to one or more beneficiaries (pass-through), it assesses whether and to what extent it has kept the risks and benefits related to possession. If it has not either transferred or substantially kept all the risks and benefits of the asset or has not lost control thereof, the asset continues to be recognised in the Group's financial statements to the extent of its residual involvement in the said asset. In this case, the Group also recognises an associated liability. The asset transferred and the associated liability are measured so as to reflect the rights and obligations that remain pertinent to the Group.

When the residual involvement of the entity is a guarantee on the asset transferred, the involvement is measured on the basis of the lower between the amount of the asset and the maximum amount of the price received that the entity may have to repay.

Impairment

The Group records a write-down for expected loss (expected credit loss or ECL) for all financial assets represented by debt instruments not held at fair value recorded in the income statement. ECLs are based on the difference between the contract financial flows payable according to the contract and all the financial flows that the Group expects to receive, discounted to an approximation of the original effective interest rate. Expected cash flows include financial flows deriving from the execution of collateral or other credit guarantees that form an integral part of the contract conditions.

Expected losses are recognised over two stages. With regard to credit exposures where there has been no significant increase in credit risk from the initial recognition, losses on credit are recorded as they derive from the estimate of default events that are possible within the next 12-month period (12-month ECL). With regard to credit exposures where there has been a significant increase in credit risk from the initial recognition, the expected losses referring to residual period of exposure are fully recorded, regardless of the time when the default event is expected to occur ("Lifetime ECL").

For trade receivables and contract based assets, the Group applies a simplified approach to the calculation of expected losses. The Group does not therefore monitor changes in credit risk, but fully records the expected loss at each reporting date. The Group has prepared a matrix system based on historic information, which is revised in view of forecast elements with reference to specific types of debtors and their economic context, and is used as a tool to determine expected losses.

For assets represented by debt instruments measured at fair value through OCI, the Group applies the simplified approach permitted for assets with low credit risk. At each reporting date, the Group assesses whether it believes that the debt instrument has a low credit risk using all the available information that can be obtained without excessive costs or efforts. In carrying out this assessment, the Group monitors the creditworthiness of the debt instrument. In addition, the Group assumes that there has been a significant increase in credit risk when contractual payment are past due for more than 60 days.

A financial asset is eliminated when there is no reasonable expectation of recovering the contract-based financial flows.

c) Financial liabilities

Initial recognition assessment

Financial liabilities are classified, at the moment of initial recognition, among financial liabilities at fair value through profit or loss, among loans and financing, or among derivatives designated as hedging instruments.

All financial liabilities are recognised initially at fair value to which are added, in the case of loans, financing and payables, the transaction costs directly attributable to them.

The Group's financial liabilities include trade payables and other payables, loans and financing, including current account overdrafts and derivative financial instruments.

Subsequent measurement

For the purposes of subsequent measurement financial liabilities are classified into two categories:

- Financial liabilities at fair value through profit or loss
- Financial liabilities at amortised cost (financing and loans)

Financial liabilities at fair value through profit or loss

Financial liabilities at fair value through profit or loss include liabilities held for trading and financial liabilities initially recognised at fair value through profit or loss.

Liabilities held for trading are all those assumed with the intention of extinguishing them or transferring them in the short term. This category includes in addition derivative financial instruments subscribed by the Group that are not designated as hedging instruments in a hedging relationship defined by IFRS 9. Embedded derivatives, separated from the main contract, are classified as financial instruments held for trading, unless they are designated as effective hedging instruments.

Gains or losses on liabilities held for trading are recognised in the statement of profit/(loss) for the year.

Financial liabilities are designated at fair value through profit or loss from the date of first recognition, only if the criteria of IFRS 9 are met.

Financial liabilities at amortised cost (financing and loans)

This is the category most significant for the Group. After initial recognition, loans are measured with the amortised cost criterion using the effective interest rate method. The gains and losses are accounted for in the income statement when the liability is extinguished, as well as through the amortisation process.

The amortised cost is calculated recognising the premium on acquisition and the fees and costs that are an integral part of the effective interest rate. The amortisation at the effective interest rate is included among financial expenses in the statement of profit/(loss).

This category generally includes interest-bearing loans and receivables.

Derecognition

A financial liability is derecognised when the obligation underlying the liability is extinguished, cancelled or fulfilled. When an existing financial liability is replaced by another from the same provider, with substantially different conditions, or the conditions of an existing liability are substantially amended, this exchange or amendment is treated as an accounting derecognition of the original liability, accompanied by the recognition of a new liability, with any differences in the carrying amounts recorded in the statement of profit/(loss) for the year.

Offsetting of financial instruments

A financial asset and a financial liability can be offset and the net balance presented in the statement of financial position, if there is a current legal right to offset the amounts recognised in the accounts and there is the intention to extinguish the net residue, or to realise the asset and at the same time extinguish the liability.

d) Derivative financial instruments and hedge accounting

Initial recognition and subsequent measurement

The Group uses derivative financial instruments including: currency forward contracts, interest rate swaps and forward contracts for the purchase of commodities to hedge, respectively, its exchange rate risks, interest rate risks and commodity price risks. These derivative financial instruments are initially recognised at fair value at the date in which the derivative contract is signed and, subsequently, they are measured at fair value. Derivatives are accounted for as financial assets when the fair value is positive and as financial liabilities when the fair value is negative.

For hedge accounting purposes, hedges are of three types:

- fair value hedges in the case of hedging of the exposure against changes in the fair value of the asset or liability recognised or irrevocable commitment not recognised;
- cash flow hedges in the case of hedging of the exposure against changes in the cash flows attributable to a particular risk associated with all the assets or liabilities recognised or with a highly probable planned operation or the foreign currency risk on irrevocable commitment not recognised;
- hedging of a net investment in a foreign operation.

At the beginning of a hedging operation, the Group designates and formally documents the hedging relationship, to which it intends to apply hedge accounting, its risk management objectives and the strategy pursued.

The hedging relationship meets the criteria of admissibility for hedge accounting if it meets all the following hedging effectiveness requirements:

- there is an economic relationship between the hedged item and the hedging instrument;
- the effect of credit risk does not prevail over the changes in value resulting from the said economic relationship;
- the hedging ratio of the economic relationship is the same as that resulting from the quantity of the hedged item that the Group effectively hedges and from the quantity of the hedging instrument that the Group uses effectively to hedge this quantity of hedged item.

The operations that meet all the qualifying criteria for hedge accounting are accounted for as follows:

Fair value hedges

The change in fair value of hedging derivatives is recognised in the statement of profit/(loss) for the year among other costs. The change in fair value of the hedged item attributable to the risk hedged is recognised as part of the carrying amount of the hedged item and is also recognised in the statement of profit/(loss) for the year among other costs.

As regards fair value hedges referred to items accounted for according to the criterion of amortised cost, each adjustment of the carrying amount is amortised in the statement of profit/(loss) for the year along the residual period of the hedging using the effective interest rate (EIR) method. The amortisation thus determined can begin as soon as there is an adjustment but cannot extend beyond the date in which the hedged item ceases to be adjusted as a result of the changes in fair value attributable to the risk hedged.

If the hedged item is derecognised, the unamortised fair value is recognised immediately in the statement of profit/(loss) for the year.

When an unrecognised irrevocable commitment is designated as a hedged item, the subsequent cumulative changes in its fair value attributable to the risk hedged are accounted for as assets or liabilities and the corresponding gains or losses recognised in the statement of profit/(loss) for the year.

Cash flow hedges

The portion of gain or loss on the hedged instrument, related to the part of effective hedging, is recognised in the statement of other comprehensive income in the "cash flow hedge" reserve, while the ineffective part is recognised directly in the statement of profit/(loss) for the year. The cash flow hedge reserve is adjusted to the lower between the cumulative gain or loss on the hedging instrument and the cumulative change in the fair value of the hedged item.

The Group uses forward currency contracts to hedge its exposure to exchange rate risk related both to planned transactions and to commitments already established; in the same way, it uses forward commodity contracts to hedge against the volatility of commodity prices. The ineffective part of forward currency contracts is recognised in other costs and the ineffective part of forward commodity contracts is recognised among other operating costs or income.

The Group designates only the spot component of forward contracts as a hedging instrument. The forward component is cumulatively recognised in OCI in a separate item.

The amounts accumulated among other comprehensive income are accounted for, according to the nature of the underlying hedged transaction. If the hedged operation subsequently entails the recognition of a non-financial component, the amount accumulated in shareholders' equity is removed from the separate component of shareholders' equity and included in the cost value or other carrying amount of the hedged asset or liability. This is not considered a reclassification of the items recognised in OCI for the period. This is valid also in the case of a hedged planned operation of a non-financial asset or a non-financial liability that subsequently becomes an irrevocable commitment to which the accounting of fair value hedging operations applies.

For any other cash flow hedging, the amount accumulated in OCI is reclassified to the income statement as an adjustment from reclassification in the same period or in the periods during which the hedged cash flows impact the income statement.

If the cash flow hedge accounting is interrupted, the amount accumulated in OCI must remain such if it is expected that the hedged future cash flows will occur. Otherwise, the amount must immediately be reclassified in profit/(loss) for the year as a reclassification adjustment. After the suspension, once the hedged cash flow occurs, any remaining amount accumulated in OCI must be accounted for according to the nature of the underlying transaction as described above.

At each reporting date, hedging financial instruments are subjected to an efficiency test to check if the cover has the requirements to qualify as effective hedging and to be recognised according to hedge accounting standards.

The derivative financial instruments used are measured at fair value in relation to the market forward curve at the reporting date, when the underlying of the derivative is traded on markets that present official and liquid forward price listings. In the case that the market does not present forward listings, provisional price curves are used, based on evaluation techniques.

The Group holds financial derivative instruments in the following categories:

- Non-current financial derivative hedging instruments, referring mainly to Interest Rate Swap (IRS) contracts to hedge the risk of unfavourable interest rates on loans or long-term leasing plans. The effective portion of changes in the fair value of derivatives is directly recognised in shareholders' equity under a specific equity provision called the "Cash flow hedge reserve", whereas the ineffective portion is recorded in the income statement. Amounts that are directly recognised in shareholders' equity are reflected in the comprehensive income statement.
- Commodity Swaps entered into for the purpose of hedging price indices for volumes sold, in order to limit price risk deriving from specific gas purchase transactions at a fixed price and resale at a variable price (or vice versa) at different times. Derivative changes in fair value that meet the IFRS 9 requirements to qualify as hedging instruments are recognised in a specific shareholders' equity reserve, called the "Cash flow hedge reserve". Changes to the fair value that do not meet the conditions, including formal ones, required by IFRS 9 to qualify as hedging instruments are recognised in the Income Statement.
- Commodity forward contracts to buy or sell that provide for the physical delivery of gas in subsequent periods. Their measurement depends on the classification of the instrument in one of the following categories:
 - Forward contracts used in gas trading, falling within the scope of application of IFRS 9 as "contracts entered into for trading, speculative and hedging purposes". These financial instruments are measured at fair value at the reporting date with recording of the effects in the income statement under "Expenses/(income) from commodity risk management";
 - Forward contracts used in the marketing of gas, not falling within the scope of application of IFRS 9, because they have been entered into to optimise the Group's own procurement and sales portfolio ("own use"). These financial instruments are recognised at the time of the physical delivery of the underlying commodity.

Further information is contained in the paragraph of the notes to the statements "Objectives and criteria for financial risk management - Risks associated with commodity prices".

e) Inventories

Inventories were recorded at the lower of the acquisition cost or production cost, including any ancillary costs, and the estimated realizable value based on market prices. The cost configuration adopted is that of the weighted average cost. Any obsolete or slow-moving inventories were written down on the basis of their possible use or implementation.

Gas storage inventories held for trading were measured at fair value, in relation to the official listings on the reference market at the valuation date.

f) Environmental securities: White certificates

The Group only holds Energy Efficiency Certificates (EECs) for own-use, i.e. in relation to its own requirements (Industrial Portfolio), whereas it holds no units/certificates for trading purposes (Trading Portfolio).

EECs held for own-use ("Industrial Portfolio") acquired to meet requirements, (determined in relation to the obligations accrued at year end), are recognised under current assets at fair value based on their expected realisable value.

Furthermore, a "Risk Provision" is allocated, for EECs that have not yet been acquired (to meet the year obligation) for the difference between the contribution value and market value of the EECs. The provision is recorded under "Other operating costs".

Accounting treatment according to the IFRS is the "Net liabilities approach", based on which the EEC purchase costs are recognised under "Other operating costs" at the time of purchase, whereas the contribution (ARERA/GSE) relating to cancelled EECs is recorded under "Other revenue and income" at the time of effective collection. The EECs in the portfolio at the reporting date are valued based on the contribution value recognised by ARERA/GSE for the current year, and are recognised under "Other revenue and income" and "Receivables from CCSE" [Electricity Equalisation Fund].

g) Losses in value for non-current assets

At each reporting date, the Group assesses whether losses in value indicators exist in relation to non-current assets. In this case, or in the cases where an annual impairment test is required, the Group estimates the recoverable value. The recoverable value is the higher between the asset or cash-generating unit's fair value, net of sales costs, and its value in use. The recoverable value is determined per individual asset, except when this asset generates cash that is not largely independent from what is generated from other assets or groups of assets. If the carrying value an asset is higher than its recoverable value, the asset has lost value and is consequently written down to its recoverable value.

In determining the value of use, the Group discounts estimated future financial flows to current value using a discount rate that reflects the market valuation for the current value of money and specific asset risks. Recent transactions on the market are considered when determining the fair value net of sales costs. If it is not possible to identify these transactions, an appropriate valuation model is used.

The Group bases its impairment test on detailed budgets and provisional calculations, prepared separately for each of the Group's cash-generating units allocated individual assets. A long-term growth rate is calculated in these budgets and provisional calculations to project future cash flows beyond the last year included in the plan. Value impairments of assets in use are posted to the income statement in the cost categories consistent with the function of the asset which has shown the value impairment.

For assets other than goodwill, at each reporting date, the Group assesses any indications of a loss (or reduction) in value previously recorded, and where these indicators exist, estimates the asset's or CGU's recoverable value. The value of an asset that was previously written down can only be restored if there were changes in the assumptions on which the recoverable value calculation was based, subsequent to the recording of the last impairment. The recovery in value cannot exceed the carrying value that would have been determined, net of amortisations, had no impairment been recognised in previous periods.

Goodwill is subject to impairment testing at least once a year (at 31 December), and with greater frequency, when circumstances indicate that the entry value could be subject to a loss in value.

The impairment is determined by valuing the recoverable value for the cash-generating unit (or group of cash-generating units) that the goodwill refers to. An impairment loss is recognised when the recoverable value for a cash-generating unit is lower than the cash-generating unit's carrying value that the goodwill was allocated to. The loss in value for goodwill cannot be recovered in future periods.

h) Cash and cash equivalents and short-term deposits

Cash and cash equivalents include cash in hand and short-term deposits falling due within three months, which are not subject to significant risks of changes in value.

For the purposes of representation in the consolidated cash flow statement, cash and cash equivalents are represented by cash as defined above, net of bank overdrafts, as these are considered an integral part of the Group's liquidity management.

i) Provisions for risks and charges

Provisions for risks and charges are carried out when the Group must meet a current obligation (legal or implicit) resulting from a past event, when it is probable that resources must be disbursed to meet this obligation, and it is possible to reliably estimate the amount. When the Group considers that a risks and charges provision will be partly or entirely recovered (as in the case of risks covered by insurance policies), the indemnity is recorded separately and distinctly under assets, if and only if, it is reasonably certain. In this case, the cost of any provision is presented in the income statement, net of the amount recognised for the indemnity.

If the effect of the value of money over time is significant, provisions are discounted using a before tax discount rate, which, where appropriate, reflects the liabilities' specific risks. When the liability is discounted, the increase in the provision due to the passage of time is recorded as a financial expense.

j) Post-employment benefits

The employee severance indemnity (TFR) and pension funds are determined applying an actuarial methodology; the amount for the rights accrued in the period by employees is charged to the income statement under labour costs, whereas the figurative financial expense that the company would incur if it requested funding from the market for an amount equalling the severance pay indemnity is recorded under net financial income (expenses). The actuarial gains and losses that reflect the effects of the changes in the actuarial assumptions are recorded in the comprehensive income statement, taking into account employee's remaining average working life.

Based on Finance Law no. 296 of 27 December 2006, for the purposes of IAS 19, only liabilities relating to the severance indemnities accrued that have remained with the company were valued, because the accruing portions are paid to a separate entity (Complementary pension or National Pension Fund INPS). Consequent to these payments, the company will have no further obligations related to work provided in future by the employee.

Benefits guaranteed to employees and awarded concurrently or subsequent to their termination of employment, based on definite benefit plans (discounts on electricity, healthcare, other benefits) or long-term benefits (loyalty bonus) are recognised in the period when the right accrues.

Liabilities related to definite benefit programmes, net of any assets servicing the plan, are determined by independent actuaries based on actuarial assumptions, and are recorded in relation to the work needed to obtain the benefits.

2.5 Changes to accounting standards and disclosure

The Group has applied the standards or changes for the first that had come into effect from 1 January 2022. The Group has not adopted in advance any new standards, interpretations or amendments issued but not yet in force.

Onerous contracts – Costs of Fulfilling a Contract – Amendments to IAS 37

An onerous contract is a contract in which the unavoidable costs (i.e. the costs that the Group cannot avoid since they are part of a contract) required to meet the obligations assumed exceed the economic benefits expected to be received under the contract.

The amendment specifies that when determining whether a contract is onerous or generates losses, an entity must consider the costs directly referring to the contract for the supply of goods or services which include both incremental costs (i.e. the cost of direct labour and materials) as well as costs directly attributable to the contractual activities (i.e. depreciation of the equipment used to fulfil the contract as well as the costs for the management and supervision of the contract). General and administrative expenses are not directly related to a contract and are excluded, unless these are explicitly attributable to the counterparty on the basis of the contract.

The Group has not recorded any effects since the adoption of the amendments to IAS 37.

Reference to the Conceptual Framework – Amendments to IFRS 3

The amendments aim to replace references to the Framework for the Preparation and Presentation of Financial Statements with references to the Conceptual Framework for Financial Reporting published in March 2018, without any significant changes to the standard's requirements.

The amendment has added an exception to the IFRS 3 measurement criteria to avoid the risk of potential "day after" losses or profits "arising from liabilities and potential liabilities that would fall within the scope of IAS 37 Provisions, Contingent Liabilities and Contingent Assets or IFRIC 21 Levies, if contracted separately. The exception requires that entities apply the requirements of IAS 37 or IFRIC 21, rather than the Conceptual Framework, to determine whether an actual obligation exists at the acquisition date.

The amendment also added a new paragraph to IFRS 3 to clarify that potential assets do not qualify as assets that can be recognised at the acquisition date.

In accordance with the transition rules, the Group applies the amendment prospectively, i.e. to business combinations occurring after the start of the year in which the amendment is applied for the first time (date of first application). These amendments had no impact on the consolidated financial statements of the Group since no potential assets, liabilities or potential liabilities were recognised within the scope for these amendments.

Property, Plant and Equipment: Proceeds before Intended Use – Amendments to IAS 16

The amendments prohibit entities from deducting the cost of an item of property, plant and equipment, any proceeds from selling items produced while bringing that asset to the location and condition necessary for it to be capable of operating in the manner intended by management. The entity recognises proceeds from the sale of these products and the costs to produce said products in the Income Statement.

In accordance with the transition rules, the Group applies the amendment retrospectively only for the elements of property, plant and machinery that became operational after or at the start of the comparative year to the year in which the amendment is applied for the first time (date of first application).

These amendments had no impact on the consolidated financial statements of the Group since no sales were made related to such elements of property, plant and machinery, before they became operational before or after the start of the previous comparative period.

IFRS 1 First-time Adoption of International Financial Reporting Standards – Subsidiary as a first-time adopter

This amendment allows a subsidiary that chooses to apply paragraph D16(a) of IFRS 1 to recognise the cumulative translation differences on the basis of the amounts recognised by the parent company, considering the IFRS transition date by the parent company, if no adjustments have been made to the consolidation procedures and for the effects of the business combination in which the parent company acquired the subsidiary. This amendment also applies to associates or joint ventures that choose to apply paragraph D16(a) of IFRS 1.

This amendment had no impact on the consolidated financial statements of the Group since it is not a first-time adopter.

IFRS 9 Financial Instruments – Fees in the ‘10 per cent’ test for derecognition of financial liabilities

The amendment clarifies which fees a company must include when assessing whether the terms of a new or modified financial liability are substantially different from the terms of the original financial liability. These fees only include those paid or received between the debtor and lender, including the fees paid or received by the debtor or lender on behalf of others. A similar amendment has not been proposed for IAS 39 Financial Instruments: Recognition and Measurement.

In accordance with the transition rules, the Group applies the amendment to the financial liabilities that were changed or traded after or at the start of the year in which the amendment is applied for the first time (date of first application). This amendment had no impact on the consolidated financial statements of the Group since no changes were made to the Group’s financial liabilities in the six-month period.

IAS 41 Agriculture – Taxation in fair value measurements

The amendment eliminates the requirements in paragraph 22 of IAS 41 referring to the exclusion of cash flows for taxation, when the fair value of an asset is measured for the purpose of IAS 41. This amendment had no impact on the consolidated financial statements of the Group since the Group does not hold assets within the scope of IAS 41 at the reporting date.

3. Discretionary assessments and significant accounting estimates

In terms of IFRS-EU, the preparation of the Group’s financial statements requires directors to make discretionary assessments, estimates and assumptions that influence the figures for income, costs, assets and liabilities and the relevant disclosures, including potential liabilities. Management’s estimates and opinions are based on prior experience and on all other aspects deemed reasonable in that case; they are adopted when the carrying value for assets and liabilities is not easy to discern from other sources. The final results may therefore differ from those estimates. Estimates and assumptions are revised periodically, and the effects of any changes are reflected in the income statement, where the revision refers only to that financial period. Where these changes involve both current and future financial periods, the change is recognised in the period when the revision was made and in the relevant future periods.

To provide a better understanding of the financial statements, note 3.2 “Significant accounting estimates” hereunder shows the main items affected by the use of accounting estimates and that include a significant component of opinions by management, highlighting the main assumptions used in the assessment process, in accordance with the aforementioned international accounting standards. The critical nature of these assessments lies in fact with the recourse made to assumptions and/or professional opinions relating to issues that are by nature uncertain.

Changes to the conditions underlying the assumptions and opinions adopted could impact significantly on subsequent results.

Additional information relating to the Group’s exposure to risks and uncertainties is provided in the following paragraphs:

- Capital management;
- Objectives and criteria for financial risk management;
- Disclosure on sensitivity analysis.

3.1 Discretionary assessments

In applying the Group’s accounting standards, directors have taken decisions based on the following discretionary assessments (excluding those that involve estimates), with a significant effect on the figures recorded in the financial statements.

(i) Control of an entity in which the Group holds less than the majority of shares

On 30 July 2021, the shareholders meeting of Viva Servizi S.p.A., a shareholder of Estra S.p.A., approved the partial spin-off aimed at transferring the following shares into a newly formed company Viva Energia S.p.A.:

- shares held by Viva Servizi in Estra S.p.A., corresponding to 10% of its share capital;
- shares held by Viva Servizi in Edma Reti Gas S.r.l., the company operating in the distribution of natural gas in 15 municipalities located in the province of Ancona (in Le Marche), of which Estra S.p.A., through Centria S.r.l., holds 45%, for this transaction please refer to the description in section "Acquisitions of additional interests in companies already controlled". The shares involved in the spin-off represent 55% of Edma Reti Gas share capital.

In this context, Estra S.p.A. and Viva Servizi S.p.A. agreed on certain amendments to the Edma Reti Gas by-laws, which were approved by the Shareholders' Meeting on 28 October 2021, drawing up a new shareholders' agreement that assigned Estra the majority of the Board of Directors of Edma Reti Gas and based on the set voting quorum, the option to exercise decision-making powers on the investee's financial, management and strategic policies, thus conferring de facto control of Edma Reti Gas to Estra S.p.A. Consequently, the company was fully consolidated from 31 December 2021.

(ii) Identification of Cash Generating Units (CGU)

In applying the provisions of IAS 36 "Impairment of Assets", goodwill recognised in the financial statements based on business combination operations is allocated to individual CGUs or groups of CGUs, in that they are expected to benefit from the combination. A CGU represents the smallest group of assets that generates cash flows that are largely independent.

In the process to identify the CGUs, management has taken into account the specific nature of the asset and business it belongs to (territorial area, business area, reference regulations, etc.), checking that the cash flows deriving from a group of assets is strictly independent and autonomous from those deriving from other assets (or groups of assets).

The assets included in each CGU are also identified on the basis of the procedures management uses to manage and monitor them in the scope of the business model adopted. More specifically, the following CGUs were identified:

- * Sale of Gas and Electricity CGU
- * Centria Regulated Market CGU
- * Gergas Regulated Market CGU
- * Murgia Regulated Market CGU
- * Edma Reti Gas Regulated Market CGU

In addition, other CGUs were identified that overlap with individual companies falling in the scope of IFRS 8 as "Other SBUs", as specified in Note 4 "Business Segments".

3.2 Significant accounting estimates

The application of generally accepted accounting standards for the preparation of the financial statements, requires that Management makes accounting estimates based on complex and/or subjective judgement, past experience and assumptions deemed reasonable and realistic on the basis of information known at the time of the estimate. The use of these estimates influence the value of assets and liabilities and the information related to potential assets and liabilities at the financial statements date, as well as the income and expense amounts in the reference period. Final results could differ from the estimates made, due to the uncertainties characterising the assumptions and conditions generating the estimates. The main accounting estimates which are considered critical included in the process to prepare the financial statements are shown below, in that they are highly dependent on subjective opinions, assumptions and estimates on issues that by their nature are uncertain. Any

changes to the conditions on which the opinions, assumptions and estimates adopted are based, could impact significantly on subsequent results.

(i) Impairment of non-financial assets

An impairment is recorded in the value of a non-financial asset when events or changes in circumstances lead to the assumption that the carrying amount is not recoverable. The events that could determine a loss in an asset's value are changes to business plans, regulatory changes, a high turnover of customers, changes in market prices, reduced usage of plants. The decision whether to proceed with an impairment and quantification thereof depends on Management's assessments made on complex and highly uncertain aspects, which include future pricing trends, the impact of inflation, the customer drop-out or defection rate (churn rate).

The impairment occurs when the asset or cash generating unit's carrying value exceeds its recoverable value, which is the higher between its fair value less sales costs and its use value. Fair value less sales costs is the amount obtained from the sale of an asset or cash generating unit in a free transaction between cognisant and available parties, less the disposal costs. In determining this fair value, Management may also use technical reports prepared by third parties, especially with regard to the industrial value (RIV) of assets under concession. The calculation for the use value is based on the discounted cash flow model. The cash flows deriving from the forecast plans that are based on accurate estimates and do not include restructuring activities to which the Group has not yet committed or significant future investments that will increase the value of the assets making up the cash generating unit subject to the assessment. The recoverable value depends significantly on the discount rate used in the discounted cash flow model, as well as the expected cash flows in the future and growth rate used for the extrapolation. The key assumptions used to determine the recoverable value for the different cash generating units, including a sensitivity analysis test, are detailed in the following notes Impairment test pursuant to IAS 36 on the goodwill value (10.1.4 Impairment test pursuant to IAS 36 on the goodwill value) and Impairment test pursuant to IAS 36 on the value of property, plant and equipment (10.1.2 Impairment test pursuant to IAS 36 on the value of property, plant and equipment).

Possible changes in the underlying assumptions on which these calculations are based could produce different recoverable values. The analysis of each of the groups of non-financial assets is unique and requires the company management to use estimates and hypotheses considered prudent and reasonable in relation to the specific circumstances. In line with its business model, the Group also assessed whether the topics linked to climate change have impacted on the reasonable and sustainable hypotheses used to estimate the projections of the financial flows.

(ii) Business combinations

The recognition of business combination operations implies allocating the difference between the purchase cost and net carrying value to the assets and liabilities of the acquired business. For most assets and liabilities, the allocation of the difference is done by recording assets and liabilities at their fair value. If it is positive, the non-attributable portion is recognised in goodwill and if negative in the income statement. The allocation of the price paid on a provisional basis is subject to review/updating within the 12 months after the acquisition, with due regard for any new information on the facts and circumstances that existed at the acquisition date. In the allocation process, the Group bases itself on available information, and on external assessments for the more significant business combinations; the allocation process also requires an overall assessment to be made by Management, which is also made in relation to available information.

(iii) Amortisation/ depreciation

Amortisations/depreciations are calculated on the basis of the asset's estimated useful life, the residual concession term, the drop-out or defection rate (churn rate). Useful life is determined by Directors, with the help of technical experts at the time of recording the asset in the financial statements; the assessment regarding the useful life term is based on historic experience, market conditions, forecasts on future events that could impact on the useful life, including changes in technology. The Group periodically reviews changes in technology and the sector, the customer churn rate, the expenses for dismantling/closing, and the recovery value to update the residual useful life. This periodic update could involve a change to the amortisation/depreciation period, and therefore also the depreciation rate for future periods.

With regard to the term for concessions relating to the distribution of natural gas, Italian Legislative Decree no. 164/00 (Letta Decree) stipulated that all concessions must be put out to tender within the expiry of the so-called “transitory period”, and that the new concession term could not exceed twelve years. On the outgoing operator’s expiry of the concessions, a set indemnity is paid based on industrial estimate criteria, against the transfer of the distribution networks. In so far as the estimates conducted by directors are concerned when determining the depreciation/amortisation criteria, the assets’ net carrying value on expiry of the concession should not be higher than the residual industrial value (RIV).

(iv) Defined benefit plans

The cost of defined benefit pension plans after employment and the current value of the defined benefit obligation are determined by using actuarial assessments. The actuarial assessment involves calculations using various assumptions that can differ from effective future developments. These assumptions include determining the discount rate, future salary increases, the mortality rates, and future pension increases. Due to the complexity of this assessment and its long-term nature, these estimates are especially sensitive to changes in the assumptions. All assumptions are reviewed on an annual basis.

The discount rate represents the parameter subject to the greatest variations. In determining the appropriate discount rate, directors use the corporate bond interest rate as a reference, in currencies consistent with the currencies for the defined benefit obligations, that are assigned a minimum AA rating by internationally recognised rating agencies and with average expiries corresponding to the expected term of the defined benefit obligation. Obligations are subject to an additional qualitative analysis and those that present a credit spread that is deemed excessive are eliminated from the obligations population on which the discount rate was calculated, because they do not represent a high-quality category of obligations.

The mortality rate is based on tables available for the specific mortality of each country. These mortality tables tend to vary only at intervals in relation to demographic changes. Future salary increases and pension increases are based on the expected inflation rate for each country. Additional information is provided in Note Employee severance indemnity.

(v) Fair value of financial instruments

When the fair value of an asset or liability in the statements of financial position cannot be measured on the basis of listing on an active market, the fair value is determined by using different valuation techniques, including the discounted cash flow model. The inputs used in this model are taken from observable markets, where possible, but should this not be possible, a certain level of estimation is required to define fair values. Estimates include considerations on variables such as liquidity risk and credit risk, if deemed relevant. Changes in the assumptions in these aspects could have an impact on the fair value of the financial instruments recorded.

(vi) Provisions for risks and write-downs

Provisions for risks are done on the basis of expectations of actual events, which according to available information and the support of lawyers and consultants assisting the Group, are deemed to be reasonably certain.

The recoverability of receivables recorded for the sale of electricity and gas, together with the need to record any write-downs in these, are the result of an assessment process by Company Management, involving complex and/or subjective opinions. The calculation is based on analyses by customer cluster, supplemented by specific analytical assessments, using a matrix for measuring the expected losses (provision matrix). The impairment percentages are determined on the basis of historical analyses conducted referring to losses on amounts payable by customers, in relation to the age of the receivable, the creditworthiness of the counterparty where available, average collection times and the status of the receivable (active, discontinued) and the historic trend of the uniform individual class taking into consideration and current information that could affect the expectations and estimates of loss on receivables. Receivable positions of the most significant amounts are analysed and, if appropriate, specifically written down.

(vii) Revenue recognition

Revenue from the sale of electricity and gas to business, retail and domestic customers is recognised and stated at the time of providing the supply, recorded according to a predetermined calendar for consumption readings, and include the estimate for the supply of gas and electricity provided to end customers and not yet invoiced at 31 December. This estimate is obtained as the difference between consumption (effective or estimated based on the customers' historic consumption and other factors that could influence consumption, such as weather conditions) already invoiced by the end of the financial period and the total quantity released into the distribution network, determined by taking as a reference the volumes allocated by the national distributor and the internal customer consumption forecasts; the estimate is recorded in specific provisions for invoices to be issued. The volumes distributed and allocated are communicated by distributors and transporters, both nationally and locally, and are subject to potential revisions in subsequent years as provided for in the relevant regulations. The amount of gas and electricity volumes released into the network and not yet invoiced, obtained in this way, is measured according to the type of customer, based on the proportion of the respective volumes already invoiced during the period and on the related average tariff in force during the period.

The provision for revenue from invoices to be issued for the sale of gas and electricity to final customers is therefore the outcome of a complex estimate based both on distributed and allocated volumes, subject to adjustments, as well as internal consumption forecasts, and is influenced by the professional judgement of Company Management. Please see note 10.2.2 Trade receivables for further information.

(viii) Estimates on Lease agreements as lessee

Starting from 1 January 2019, following application of IFRS16, the following significant accounting estimates were made, as a Group in its capacity as lessee:

- **Lease term:** the identification of the term of the rental contract is a very significant issue which entails the use of assumptions in particular for the assessment of the effects of renewal options at the end of the non-cancellable period. For the definition of the term of the lease the Group, in fact, considered the presence of renewal and cancellation options held respectively by the lessee, the lessor or both. In the presence of renewal options exercisable by both contractual parties it considered the existence or non-existence of significant economic disincentives in rejecting the renewal request as required by paragraph B34 of IFRS 16. In the presence of options exercisable by only one of the two parties it considered paragraph B35 of IFRS 16.
With reference to the company offices, the application of the above, taking into account the specific facts and circumstances and the estimate on the exercise of the option being reasonably certain, entailed that a term up to the third renewal provided for in the contract was considered. This was based on the fact of not being able to consider reasonably certain the renewal beyond the third period or, at least, at the same conditions.
- After the starting date of the contract, the Group reviews the term of the same if there occurs a significant event or a significant change in the circumstances which, depending on the Group's intentions, has an effect on the lessee's reasonable certainty of exercising an option not previously included in its determination of the term of the lease or of not exercising an option previously included in its determination of the term of the lease. In June 2019, the IFRS Interpretation Committee began to discuss the topic of the lease term (project: Lease Term and Useful Life of Leasehold Improvements). In November 2019, a decision was published which clarifies how the concepts of non-cancellable period, lease term (considered for the purposes of recognition of the liability) and enforceable period (useful for identifying the moment in which the contract no longer generates enforceable rights and obligations) should be read and correlated together for the purposes of applying IFRS 16. The decision clarified that for the purposes of identifying the enforceable period a lessee must consider the contractual moment in which both parties involved can exercise their right to terminate the contract without incurring more than an insignificant penalty. The concept of penalty must not have a merely contractual meaning but should be seen considering all the economic aspects of the contract. Once the enforceable period has been identified, the lessor assesses in the presence of renewal or cancellability options for what period it is reasonably certain to control the right of use of the asset and therefore determines the lease term. At the date of preparation of these consolidated financial statements, the Group considered these discussions and conclusions and will continue to monitor the evolution over time.

- Definition of the discount rate: as in most rental contracts entered into by the Group, there is no implicit interest rate, the Group calculated an Incremental Borrowing Rate (IBR) that is the interest rate that the Company will have to pay to obtain a loan, with a similar term and guarantees, necessary to obtain an asset of a value similar to the asset consisting of the right of use in a similar economic context.

The discount rate used to measure the value of the liabilities related to leasing contracts was calculated taking into consideration the country risk, the currency, the lease term, and the Group's credit risk. The discount rates used to measure the value of the liabilities related to leasing contracts in which the Group operates as lessee are in a range between 1.5% and 3.7%.

Russian/Ukrainian conflict and macroeconomic context

The Estra Group is closely monitoring the current macroeconomic scenario and the recent events of international politics, paying particular attention to the evolution of the geopolitical scenarios and the legislation of reference. In this regard, the ESMA, with Public Statement on 28 October 2022 "European common enforcement priorities for 2022 annual financial reports", highlighted the need to ensure the right level of transparency in financial communication, so that it can adequately reflect the current impact and, where possible, foreseeable impact of the current macroeconomic scenario and of the conflict on companies' financial situation, performance and cash flow.

Despite the presence of a highly volatile macroeconomic scenario and slow economic growth, characterised by very high worldwide inflation, restrictive monetary policies by the central banks (in stark juxtaposition to the accommodating strategies adopted during Covid-19) and sharply rising benchmark rates, in addition to a critical geopolitical situation resulting from the continuation of the conflict between Russia and Ukraine and the ongoing tensions on the commodities market, which are triggering negative effects on the progress of recovery post-Covid-19, the Group continues to focus on the realisation of its industrial strategies and, to date, no elements require an in-depth analysis of the validity of the assumption of going concern.

We also note that E.s.tr.a. S.p.A. and its subsidiaries do not have offices or relevant activities located in the regions affected by the conflict.

Climate change

Awareness of climate change and its effects determines an increased need for information in the management report. Though there is no international accounting standard that governs how the impacts of climate change should be considered when preparing the financial statements, the IASB has issued several documents to support IFRS adopters in satisfying this request for information from interested parties. Equally, the ESMA, in its European Common Enforcement Priorities of 28 October 2022, highlighted that issuers, when preparing financial statements drafted according to international accounting standards, should consider climate risks to the extent they are relevant, regardless of whether or not said risks are explicitly envisaged by the accounting standards of reference. The Estra Group mainly describes its considerations of actions attributable to mitigating the effects of climate change in the paragraph "Risks related to climate change" in the Management Report.

4. Business segments

For management purposes, the Group is organised into *strategic business units* ("SBU"), based on the products and services provided, and qualifying as business segments in terms of IFRS 8, as detailed below:

(i) Regulated Market

The SBU's activity includes the technical and operational management of the natural gas distribution network.

(ii) Natural gas and electricity sales

The SBU's activity is represented by the sale of methane gas and electricity on the wholesale and retail markets. Sales area support is provided by the gas and electricity procurement, dispatching, storage and logistics activities.

The segment also includes trading activity, carried out both for the purpose of improving the purchase and procurement conditions through optimisation of the Group's assets (natural gas storage and transport capacity and flexibility of the long-term supply contract) ("Industrial portfolio"), and for the purpose, within predefined risk limits, of seizing opportunities for short-term additional profit.

(iii) Corporate and other sectors

The "Corporate and other sectors" SBU includes:

- the technical and operational management of telecommunications networks and their marketing (this also includes activities related to video surveillance services, data transmission, telephony and internet access);
- the provision and exploitation of plants producing energy from renewable sources with particular reference to solar, wind and biomass sources;
- the management of heating systems owned by third parties (heat management services) and facility management;
- the marketing of liquid propane gas;
- the activity of waste selection, treatment and storage;
- the holding company's activities in terms of management and logistics support provided to other companies in the Group.

The other sectors have different economic characteristics, organisational criteria and performance, but do not exceed the quantitative thresholds such as to make separate disclosure necessary.

The Group operates entirely in Italy.

Directors separately assess the results achieved by business segments so as to make decisions regarding the allocation of resources and monitor performance. Sector performance is measured on the basis of results, which are assessed consistently with the result in the consolidated financial statements.

The Group's financial management (including costs and expenses on funding) and income taxes are managed at Group level, and are not allocated to operating sectors.

The transfer price between business segments is negotiated internally on the same basis as transactions with third parties.

Directors separately monitor only the activities of the operating sector, whereas liabilities are monitored at Group level.

A comparative analysis of the economic data per business segment is provided below for the 2022 and 2021 financial periods:

Economic values per segment

Business segments	Regulated Market		Gas and electricity sales		Corporate and Others		Adjustments and eliminations		Total	
	Year ended 31 December		Year ended 31 December		Year ended 31 December		Year ended 31 December		Year ended 31 December	
(amounts in thousands of euro)	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
Total Revenue	122,482	109,622	1,630,105	935,580	108,638	88,373	(82,933)	(73,291)	1,778,292	1,060,284
External costs	(63,749)	(54,804)	(1,576,972)	(870,671)	(70,854)	(56,306)	82,915	73,291	(1,628,660)	(908,490)
Personnel costs	(18,245)	(15,406)	(10,744)	(11,692)	(17,625)	(14,758)	18		(46,595)	(41,856)
Income/(expenses) from commodity risk management			2,439	2,915					2,439	2,915
Portion of profit/(loss) from non-financial associates and joint ventures		6251								6251
Gross operating margin (EBITDA)	40,489	45,663	44,827	56,132	20,158	17,309	-	-	105,475	119,104
Amortisation/depreciation and write-downs	(22,232)	(18,950)	(17,246)	(17,252)	(16,442)	(12,805)			(55,921)	(49,007)
Provisions	(32)	(100)	(13,208)	(12,046)	(506)	(500)			(13,746)	(12,646)
Operating Income (EBIT)	18,225	26,613	14,373	26,834	3,210	4,004	-	-	35,808	57,451

Asset values per segment

Business segments	Regulated Market		Gas and electricity sales		Corporate and Others		Adjustments and eliminations		Total	
	Year ended 31 December		Year ended 31 December		Year ended 31 December		Year ended 31 December		Year ended 31 December	
(amounts in thousands of euro)	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
Non-current assets	445,190	391,875	162,442	165,478	179,929	186,083	(2,642)	(5)	784,919	743,431
Current assets	445,190	54,093	833,670	428,253	248,661	200,951	(72,367)	(39,290)	1,090,564	644,007
Assets held for sale						42				42
Total assets	890,380	445,968	996,112	593,731	428,590	387,076	(75,009)	(39,295)	1,875,483	1,387,480

Investments and business combinations per segment

Investments per operating sector (amounts in thousands of euro)	Regulated Market		Gas and electricity sales		Corporate and Others		Total	
	Year ended 31 December		Year ended 31 December		Year ended 31 December		Year ended 31 December	
	2022	2021	2022	2021	2022	2021	2022	2021
Investments in intangible assets	31,892	26,479	10,682	6,386	4,960	5,567	47,534	38,432
Investments in intangible assets deriving from business combinations		42,422			145	19	145	42,441
Total investments (including business combinations) in intangible assets	31,892	68,901	10,682	6,386	5,105	5,586	47,679	80,873
Investments in tangible assets	296	720	1,087	897	5,105	10,066	13,874	11,683
Investments in tangible assets deriving from business combinations		980			29,015	4,291	29,015	5,271
Total investments (including business combinations) in property, plant and equipment	296	1700	1,087	897	41,506	14,357	42,889	16,954
Total	32,188	70,601	11,769	7,283	46,611	19,943	90,568	97,827

Reconciliation of result

(amounts in thousands of euro)	Year ended 31 December	
	2022	2021
Result for sectors (net of adjustments and eliminations)	35,808	57,451
Financial income	2,694	1,971
Financial expenses	(14,329)	(9,995)
Gains or losses on currency conversions	(3)	(6)
Portion of income/(expenses) from valuation of financial investments using the equity method	(577)	(2,263)
FINANCIAL MANAGEMENT	(12,215)	(10,294)
PROFIT BEFORE TAXES	23,593	47,157
Income taxes for the year	(9,203)	(14,218)
NET PROFIT/(LOSS) FOR THE YEAR	14,390	32,939

5. Capital management

For the purposes of Group capital management, this includes share capital issued, the share premium reserve, all other capital reserves attributable to the Parent Company's shareholders and the third party shareholders' equity. The main objective in capital management is to maximise value for shareholders. The Group manages the asset structure based on economic conditions and the requirements of financial covenants.

The Group controls the asset structure using a gearing ratio, referring to the ratio between net financial debt and consolidated shareholders' equity. The Group's policy requires that this ratio remains below 1. The Group includes under net financial debt, cash and cash equivalents, receivables and payables to credit institutions, payables to bondholders, leasing companies and shareholder loans, excluding discontinued operations. Also excluded are financial assets and liabilities deriving from the fair value measurement of derivative contracts and trading on commodities.

(amounts in thousands of euro)	Year ended 31 December	
	2022	2021
Cash and cash equivalents ⁽¹⁾	(345,872)	(143,107)
Current financial receivables ⁽²⁾	(25,442)	(36,257)
Current financial debt ⁽³⁾	209,195	242,085
Net current financial debt	(162,119)	62,720
Non-current financial debt ⁽⁴⁾	514,082	177,402
D Total financial debt	351,963	240,122
E Shareholders' equity	423,249	413,025
D/E Leverage	0.83	0.58

(1) Equal to the item Cash and cash equivalents; (2) Equal to the item Other current financial assets; (3) Equal to the sum of the items Current portion of medium/long-term loans, Short-term borrowings and Other current financial liabilities; (4) Equal to the item Non-current portion of medium/long-term loans

In order to achieve this objective, the Group's capital management aims, *inter alia*, to ensure that covenants associated with interest-bearing loans and bond loans are respected, as these define the asset structure requirements. Violations of covenants would entitle banks/lenders to ask for the immediate repayment of loans and funding.

Based on the information in the financial statements at 31 December 2022, there were no violations of covenants associated with funding and loans during the current period.

Please see paragraph [Liquidity Risk](#) for additional information.

6. Information on the Group

Consolidation scope

The table below shows the consolidation scope at 31 December 2022 compared with the consolidation scope at 31 December 2021:

		31/12/2022					31/12/2021			
Company name	Registered office	Primary activity	Portion attributable to the Group	Share of direct control	Share of indirect control	Notes	Portion attributable to the Group	Share of direct control	Share of indirect control	Notes
Parent company										
E.S.T.R.A. S.p.A.		Holding								
Fully consolidated subsidiaries										
ESTRACOM S.p.A.	Prato (PO)	Telecommunications	79.33%	79.33%			79.33%	79.33%		
Estra Clima S.r.l.	Prato (PO)	Heat management	100.00%	100.00%			100.00%	100.00%		
E.S.T.R.A. Energie S.r.l.	Siena (SI)	Gas and electricity sales	100.00%	100.00%			100.00%	100.00%		
Gergas S.p.A.	Grosseto (GR)	Gas distribution	85.28%		85.49%	(3)	85.39%	57.80%	27.69%	(3)
Centria S.r.l.	Arezzo (AR)	Gas distribution	99.75%	99.75%			99.65%	99.65%		
Prometeo S.p.A.	Osimo (AN)	Gas and electricity sales	63.72%		63.72%	(1)	63.72%		63.72%	(1)
Piceno Gas S.r.l.	Ascoli Piceno (AP)	Gas sales	100.00%		100.00%	(1)	100.00%		100.00%	(1)
Cavriglia SPV S.p.A.	Prato (PO)	Renewable energies	100.00%	100.00%			100.00%	100.00%		
Tegolaia SPV S.p.A.	Fano (PU)	Renewable energies	100.00%	100.00%			100.00%	100.00%		
Gas Marca S.r.l.	Civitanova Marche (MC)	Gas sales	100.00%		100.00%	(1)	100.00%		100.00%	(1)
Idrogena S.r.l.	Prato (PO)	Renewable energies	51.00%	51.00%			51.00%	51.00%		
Ecolat S.r.l.	Grosseto (GR)	Waste management	100.00%	100.00%			100.00%	100.00%		
Murgia Reti Gas S.r.l.	Arezzo (AR)	Gas distribution	99.75%		100.00%	(3)	99.65%		100.00%	(3)
Ecos S.r.l.	Barberino Tavarnelle (FI)	Waste management	100.00%	100.00%			100.00%	100.00%		
EDMA Reti Gas S.r.l.	Ancona (AN)	Gas distribution	44.89%		45.00%	(3)	45.00%	45.00%		
Bisenzio Ambiente S.r.l.	Campi Bisenzio(FI)	Waste management	75.00%	75.00%						
Eocentro Toscana S.r.l.	Lallio (BG)	Waste management	100.00%	100.00%						
Equity consolidated joint ventures										
Nuova Sirio S.r.l.	Siena (SI)	Renewable energies	50.00%	50.00%			50.00%	50.00%		
Companies held for sale/disposal										
Sin.It. S.r.l.	Milan (MI)	Gas sales	11.63%	11.63%			11.05%	11.05%		
Metropolitan city of Venice I Smart City S.r.l.	Pinerolo (TO)	Energy services	0.1%		0.1%	(4)	30.00%		30.00%	(4)
Metropolitan city of Venice II Smart City S.r.l.	Pinerolo (TO)	Energy services	0.1%		0.1%	(4)	30.00%		30.00%	(4)
Equity-consolidated associates										
Blugas Infrastrutture S.r.l.	Cremona	Gas storage	31.17%	31.17%			31.17%	31.17%		
SIG S.p.A.	Ancona (AN)	Gas distribution	39.60%	39.60%			38.70%	38.70%		
A.E.S. Fano Distribuzione Gas S.r.l.	Fano (PU)	Gas distribution	49.00%	49.00%			49.00%	49.00%		
Monte Urano S.r.l.	Rome (RM)	Gas sales	27.70%		49.00%	(2)	27.70%		49.00%	(2)
Sei Toscana S.r.l.	Siena (SI)	Waste management	20.62%		20.62%	(5)	19.99%		19.99%	(5)
Notes										
(1) through Estra Energie Srl										
(2) through Prometeo S.r.l.										
(3) through Centria										
(4) through Estra Clima S.r.l.										
(5) through Ecolat S.r.l.										

The following changes occurred during the period in the consolidation scope:

Fully consolidated subsidiaries

- Changes in the percentages of the Group holding in Centria S.r.l., Gergas S.p.A., EDMA Reti Gas S.r.l. resulting from the transfer to Centria S.r.l. of the shares held by Estra S.p.A. in EDMA Reti Gas S.r.l. Murgia S.r.l. and Gergas S.p.A., as described in the paragraph "Business combinations and corporate sales and acquisitions and disposals of non-controlling interests" below:
 - o increase in the stake held by the Group in Centria S.r.l. from 99.65% as at 31 December 2021 to 99.75% as at 31 December 2022;
 - o increase in the stake held by the Group in Murgia S.r.l. from 99.65% as at 31 December 2021 to 99.75% as at 31 December 2022;
 - o decrease in the stake held by the Group in Edma Reti Gas S.r.l. from 45.00% as at 31 December 2021 to 44.89% as at 31 December 2022.

The accounting effects, recognised in equity as required by IFRS 10.B96, were an increase in the shareholders' equity for € 117 thousand.

With reference to Edma Reti Gas S.r.l., acquired by the Group in late 2021, the income statement of the subsidiary has been fully consolidated in these consolidated financial statements. The subsidiary was measured at equity until 31/12/2021 (determining a revaluation of € 946,000 in 2021) and, given the non-financial nature of the investment and the management and operational role played by the Group, the portion of the subsidiary's profit attributable to the Group was recorded in the Income Statement before the operating profit.

- Entry into the perimeter of fully-consolidated companies of Bisenzio Ambiente S.r.l., following the increase in the equity investment held by Estra from 36.80% at 31 December 2021 to 75% at 31 December 2022 with acquisition of control, as described in the paragraph "Business combinations and disposals of assets, and acquisition and disposal of non-controlling interests" below;
- Entry into the perimeter of fully-consolidated companies of Ecocentro Toscana S.r.l., following purchase of 100% of the company's shares by Estra S.p.A., as described in the paragraph "Business combinations and disposals of assets, and acquisition and disposal of non-controlling interests" below.

Companies held for sale/disposal

- Decrease from 30% to 0.1% of stakes in companies held for sale/disposal included Metropolitan City of Venice I and Metropolitan City of Venice II established on 30/03/2021, with a 30% stake held by Estra Clima, for the execution of works, supply of materials and equipment needed and provision of services for the management and maintenance of the public lighting system in 14 municipalities in the metropolitan city area of Venice.
In December 2021, shareholders were unable to reach agreement on the funding methods to adopt for the project and a stalemate resulted, following which Estra Clima, as envisaged by the shareholders' agreements in these circumstances, sold 29.9% of its shareholding in both companies at the beginning of 2022 at the subscription value, keeping only a residual stake of 0.1% (to be held until the final approval of the works executed, which are also intended for sale);
- The incremental acquisition of 0.58% of Sinergie Italiane S.r.l. at the price of € 12,000 on 7 February 2022, as part of a settlement agreement that saw the exit of TEA S.p.A. from the shareholder structure with recognition of the equity investment held by the remaining shareholders to a proportional extent.

Equity-consolidated associates

- Increase in the percentage of the Group's stake in SIG S.r.l. from 38.70% to 39.60% following the acquisition of an incremental stake by Estra S.p.A.;
- Increase in the percentage of the Group's stake in Sei Toscana S.r.l. from 19.99% as at 31 December 2021 to 20.62% as at 31 December 2022 following participation by Ecolat in the capital increase carried out by the company on 22 February 2022, with a pro-rata subscription of the shares not taken up.

Reference is made to the Note on equity investments.

7. Business combinations and disposals of assets, and acquisition and disposal of non-controlling interests

7.1 Acquisition of control in Bisenzio Ambiente S.r.l.

During 2022, the process to acquire control of the company Bisenzio Ambiente S.r.l. was completed in execution of the investment agreement signed on 6 April 2021 (subsequently amended on 28 February 2022) between Estra S.p.A., Consiag S.p.A. (shareholder with 39.5% of Estra S.p.A.) and Cipeco S.r.l., replacing the original investment agreement of 30 March 2020.

The company Bisenzio Ambiente S.r.l. has as its purpose in particular the management of plants for the storage and chemical, physical and biological treatment of liquid hazardous and non-hazardous special waste and holds, following the contribution made by Cipeco S.r.l. an Integrated Environmental Authorisation (Autorizzazione Integrata Ambientale - A.I.A.) and operates a recently constructed plant for the processing of hazardous and non-hazardous liquid special waste,.

Note that:

- on 22 April 2020, Estra S.p.A. acquired 5% of Bisenzio Ambiente through a share capital increase subscription for € 39,000, resolved by the shareholder Cipeco in favour of third parties;
- on 28 April 2021, Estra S.p.A. acquired a 31.8% stake in Bisenzio Ambiente for an amount of € 1,767,000 and Consiag S.p.A. acquired a 4.2% stake for € 233,000

in 2022, on 31 March 2022 specifically, Estra S.p.A. and Consiag S.p.A. acquired the remaining 54% of the Bisenzio Ambiente share capital for a total of € 2,500 thousand, of which Estra S.p.A. acquired 38.2% and Consiag S.p.A. 15.8%. The consideration is subject to an adjustment mechanism, which could result in an increase of up to € 500,000 should certain applicable conditions eventuate.

As a result of the above, Estra holds 75% of the stakes in the company Bisenzio Ambiente S.r.l., which is therefore fully consolidated from these consolidated financial statements.

The subsidiary was measured at equity until 31/12/2021. The accounting of the business combination operation also generated an upward adjustment for € 484,000, referring to the restatement of the 36.80% shareholding at fair value, which was already held prior to the acquisition, recognised in the item "impairment of financial assets".

The fair value of identifiable assets and liabilities at the acquisition date was as follows:

Balance Sheet	Fair value
NON-CURRENT ASSETS	
Property, plant and equipment	20,262
Intangible assets	145
Deferred tax assets	36
	20,443
CURRENT ASSETS	
Inventories	26
Trade receivables	287
Other current assets	13
Cash and cash equivalents	8
	334
TOTAL ASSETS	20,777
NON-CURRENT LIABILITIES	
Non-current portion of medium/long-term loans	3,225
Employee severance indemnity	50
Deferred tax liabilities	2,514
	5,789

Balance Sheet	Fair value
CURRENT LIABILITIES	
Current portion of medium/long-term loans	237
Short-term borrowings	9,586
Trade payables	262
Current tax liabilities	56
Other current liabilities	83
	10,223
TOTAL LIABILITIES	16,012
TOTAL NET IDENTIFIABLE ASSETS	4,765
Non-controlling interest measured at fair value	1,191
Price of the acquisition	3,574

At the acquisition date, the company showed net identifiable assets expressed as a carrying amount for a negative value of € 1,444,000, arising from the losses in 2020 and 2021 associated with the start-up phase of the plant, slowed by the Covid-19 health emergency and subsequent slow recovery of the industrial sector and carried forward by postponing the adoption of the measures envisaged by the civil code, by the closure of the fifth subsequent financial period, as permitted by Art. 6 of Decree Law 23/2020. This capital deficit was minimised during the year through capital increase payments by the shareholders for a total of €7,300,000, of which €5,475,000 carried out by Estra S.p.A. for its own stake in the share capital of 75%.

The measurement process carried out during allocation of the price paid led, compared to the book values recognised in the financial statements of the acquired entity, to the recognition at fair value of the waste treatment plant for € 16,933,000 gross of deferred tax liabilities of € 2,514,000. The fair value of the plant was determined on the basis of the provisional cash flows expected from the asset, as described in paragraph 10.1.2 "Impairment tests pursuant to IAS 36 on the value of property, plant and equipment".

The aggregation also led to the recognition as at 1 January 2022 among the property, plant and equipment, of the right of use of the property where the plant is located for a value of € 3,329,000, on the basis of a lease agreement until 2032, recording the liabilities related to payments in accordance with IFRS 16.

The accounting for the operation in these consolidated financial statements was determined provisionally, owing to the temporary nature of the values assignable to the assets and liabilities of the company acquired and will be made definitive and possibly adjusted within the term of twelve months from the acquisition date, as provided for in IFRS 3 B67.

From the acquisition date, Bisenzio Ambiente S.r.l. has contributed, net of infragroup eliminations, to the Group's 2022 revenue for € 944,000, negatively to the operating profit for € 2,928,000 and to the Group's net profit negatively for € 2,791,000.

7.2 Acquisition of Ecocentro Toscana S.r.l.

On 14 September 2022, Estra S.p.A. acquired 100% of the shares of Ecocentro Toscana S.r.l. from Ecocentro Tecnologie Ambientali S.r.l.

The company is active in the treatment and recovery of non-hazardous waste mainly from road sweeping, cleaning of wastewater and desanding. The plant is based in the Municipality of Montemurlo (PO) and has been active since 2012. The company has an agreement in place with ATO Centro which is valid until 2037 for a maximum annual quantity of 60,000 tons, of which 47,000 for sweeping dust (core business) and a maximum of 500 for special waste.

The acquisition is strategic in light of the plant shortage of this type in Italy and in Tuscany in particular, and allows E.S.T.R.A. to develop in a waste sector with a view to supply chain integration and circular economy.

The price of the acquisition was € 5,515,000, of which € 4,115,000 paid during the year, € 800,000 paid on 28 February 2023, € 400,000 to be paid by 31 December 2023 and € 200,000 by 31 December 2028.

The fair value of identifiable assets and liabilities at the acquisition date was as follows:

Balance Sheet	Fair value
NON-CURRENT ASSETS	
Property, plant and equipment	8,754
Equity investments	1
Deferred tax assets	69
	8,823
CURRENT ASSETS	
Trade receivables	1,372
Current tax assets	104
Other current assets	32
Cash and cash equivalents	4
	1,512
TOTAL ASSETS	10,335
NON-CURRENT LIABILITIES	
Non-current portion of medium/long-term loans	707
Employee severance indemnity	38
Deferred tax liabilities	1,525
	2,270
CURRENT LIABILITIES	
Current portion of medium/long-term loans	500
Short-term borrowings	445
Trade payables	1,377
Current tax liabilities	125
Other current liabilities	103
	2,550
TOTAL LIABILITIES	4,820
TOTAL NET IDENTIFIABLE ASSETS	5,515
Price of the acquisition	5,515

The measurement process carried out during allocation of the price paid led, compared to the book values recognised in the financial statements of the acquired entity, to the recognition at fair value of the waste treatment plant for € 8,754,000 gross of deferred tax liabilities of € 1,524,000. The fair value of the plant was determined on the basis of the provisional cash flows expected from the asset.

For the value in use, the current value of estimated future cash flows was considered, which supposes that they will derive from the asset's continued use until 2043. The value in use was determined using the Discounted Cash Flow method, which estimates future cash flows and their discounting based on an appropriate discount rate.

Cash flow estimates reflect Estra's best estimates of the main assumptions underlying the plant operations for the period 2023-2043, assuming an extension of the current expiry of the integrated environmental authorisation (2030).

The discount rate used to reflect the current market valuations with reference to the present value of money and specific risks associated with the asset, was estimated consistently with the considered cash flows, using the weighted average cost of capital (WACC) after tax of 8.06%

The accounting for the operation in these consolidated financial statements was determined provisionally, owing to the temporary nature of the values assignable to the assets and liabilities of the company acquired and will be made definitive and possibly adjusted within the term of twelve months from the acquisition date, as provided for in IFRS 3 B67.

From the acquisition date, Ecocentro Toscana S.r.l. has contributed, net of infragroup eliminations, to the Group's 2022 revenue for € 1,523,000, negatively to the operating profit for € 81,000 and to the Group's net profit negatively for € 54,000.

If the combination had been effective from the beginning of the year, the income statement in the consolidated financial statements at 31 December 2022 would have presented higher revenue for € 3,735 thousand, a lower operating result for € 489 thousand, and a lower net income of € 323 thousand.

7.3 Acquisitions of additional interests in companies already controlled

Several changes were made during the year to the percentages held by the Group in companies already controlled as at 31 December 2021 (Centria S.r.l., Murgia S.r.l., Gergas S.p.A. and Edma Reti Gas S.r.l.) as a result of a share capital increase in Centria S.r.l., fully subscribed, on 27 September 2022, by Estrà S.p.A., following waiver of the option right by the Shareholder Energie Offida S.r.l., through transfer of the investments held:

- for 45% in Edma Reti Gas S.r.l. for a nominal € 9,511,000, at the value of € 15,893,000;
- for 57.80% in Gergas S.p.A. for a nominal € 1,104,000 at a value of € 24,171,000, which when added to the stake already held by Centria S.r.l., made the latter a shareholder of direct control with a stake of 85.49%.

The transaction was aimed at the corporate restructuring in the context of the companies operating in the natural gas distribution sector through transfer, to Centria S.r.l., the Group's main activity in this SBU, of the investments held directly by the Parent Company Estrà S.p.A. in Edma Reti Gas S.r.l. and Gergas S.p.A., and at the achievement of operational and financial efficiencies and advantages in terms of planning the investments arising from the direct control by the same company Centria S.r.l.

For the purpose of further capital strengthening of Centria S.r.l., also essential for the financial requirements of the Group given that Centria is the guarantor of the main bond loans and bank loans with Estrà S.p.A. as the beneficiary, Estrà S.p.A. also subscribed to a share capital increase in cash for € 49,853,000.

The operation led to:

- the increase in the stake held by the Group in Centria S.r.l. from 99.65% as at 31 December 2021 to 99.75% as at 31 December 2022;
- the increase in the stake held by the Group in Murgia S.r.l. from 99.65% as at 31 December 2021 to 99.75% as at 31 December 2022;
- the decrease in the stake held by the Group in Edma Reti Gas S.r.l. from 45.00% as at 31 December 2021 to 44.89% as at 31 December 2022;
- the decrease in the stake held by the Group in Gergas S.r.l. from 85.39% as at 31 December 2021 to 85.28% as at 31 December 2022.

The accounting effects, recognised in equity as required by IFRS 10.B96, were an increase in the shareholders' equity for € 117 thousand.

7.4 Subsidiaries with significant non-controlling interests

Details are provided below of the subsidiaries with significant non-controlling interests. The economic-financial data is based on balances prior to intercompany eliminations.

Portion of shareholding interest held by non-controlling shareholders:

Company name (Fully consolidated subsidiaries)	Registered office	Currency	Primary activity	% of Non-Controlling Interests 2022	% of Non-Controlling Interests 2021
Prometeo S.p.A.	Osimo (AN)	Euro	Gas and electricity sales	36.28%	43.47%
Edma Reti Gas S.r.l.	Ancona (AN)	Euro	Distribution of natural gas	55.11%	44.89%

As described above, although third parties hold 55.11% of the minority stakes in Edma Reti Gas S.r.l., they do not control the company by virtue of the amendments agreed by Estrà S.p.A. and Viva Servizi S.p.A. to the Edma Reti Gas by-laws, and approved by the Shareholders' Meeting on 28 October 2021, in addition to the drawing up of a shareholders' agreement that assigned Estrà the majority of the Board of Directors of Edma Reti Gas and based on the set voting quorum, the option to exercise decision-making powers on the investee's financial, management and strategic policies, thus conferring de facto control of Edma Reti Gas to Estrà S.p.A. Consequently, the company was fully consolidated from 31 December 2021.

Prometeo S.p.A.

Income statement (thousands of Euro)	2022	2021
Operating revenue		
Revenue from contracts with customers	228,143	142,223
Other operating revenue	3,258	762
	231,402	142,985
Operating costs		
Raw materials, ancillary materials and goods	(204,849)	(87,996)
Costs for services	(14,862)	(44,028)
Personnel costs	(1,710)	(2,240)
Depreciation, amortisation, provisions and write-downs	(5,760)	(6,780)
Other operating costs	(3,013)	4
	(230,195)	(141,040)
OPERATING PROFIT/(LOSS)	1,206	1,945
Financial income	192	180
Financial expenses	(682)	(127)
FINANCIAL MANAGEMENT	(490)	53
PROFIT BEFORE TAXES	716	1,998
Income taxes for the year	386	821
NET PROFIT/(LOSS) FOR THE YEAR	330	1,117

Balance Sheet (thousands of Euro)	2022	2021
NON-CURRENT ASSETS		
Property, plant and equipment	453	573
Goodwill	4484	5,191
Intangible assets	2269	3,394
Equity investments	1071	1,071
Other non-current assets	2684	47
Deferred tax assets	4004	3,585
	14,966	13,861
CURRENT ASSETS		
Trade receivables	65,504	61,133
Current tax assets	3,535	1,379
Other current assets	2,596	1,130
Cash and cash equivalents	10,083	6,529
	81,718	70,171
TOTAL ASSETS	96,684	84,032
TOTAL SHAREHOLDERS' EQUITY	15,373	16,144
NON-CURRENT LIABILITIES		
Provisions for risks and charges	306	289
Employee severance indemnity	413	475
Non-current portion of medium/long-term loans	6,720	1,800
	7,439	2,564
CURRENT LIABILITIES		
Current portion of medium/long-term loans	129	965
Short-term borrowings	8	9
Trade payables	65,931	56,594
Current tax liabilities	499	3,197
Other current liabilities	7,304	4,559
	73,872	65,324
TOTAL LIABILITIES and SE	96,684	84,032

Edma Reti Gas S.r.l.

Income statement (thousands of Euro)	2022
Operating revenue	
Revenue from contracts with customers	16,953
Other operating revenue	1,118
	18,071
Operating costs	
Raw materials, ancillary materials and goods	(1,691)
Costs for services	(8,057)
Personnel costs	(3,064)
Depreciation, amortisation, provisions and write-downs	(2,514)
Other operating costs	(1,086)
	(16,412)
OPERATING PROFIT/(LOSS)	1,659
Financial income	2
Financial expenses	(107)
FINANCIAL MANAGEMENT	(106)
PROFIT BEFORE TAXES	1,554
Income taxes for the year	389
NET PROFIT/(LOSS) FOR THE YEAR	1,165

Balance Sheet (thousands of Euro)	2022
NON-CURRENT ASSETS	
Property, plant and equipment	801
Intangible assets	45,065
Deferred tax assets	1,470
	47,336
CURRENT ASSETS	
Inventories	1,367
Trade receivables	91
Current tax assets	784
Other current assets	7,761
Current financial assets	9,979
Cash and cash equivalents	242
	20,225
TOTAL ASSETS	67,561
TOTAL SHAREHOLDERS' EQUITY	36,027
NON-CURRENT LIABILITIES	
Provisions for risks and charges	1,324
Employee severance indemnity	455
Non-current portion of medium/long-term loans	2,896
Non-current contractual liabilities	2,257
	6,932
CURRENT LIABILITIES	
Current portion of medium/long-term loans	916
Short-term borrowings	11
Trade payables	16,632
Current tax liabilities	129
Other current liabilities	6,850
Current contractual liabilities	64
	24,602
TOTAL LIABILITIES and SE	67,561

8. Notes on the main income statement items

8.1 Revenue

In the financial periods ended 31 December 2022 and 31 December 2021, revenue amounted to € 1,778,292,000 and € 1,060,284,000 respectively. The table below shows the breakdown between revenue from contracts with customers and other operating revenue:

(amounts in thousands of euro)	Year ended 31 December	
	2022	2021
Revenue from sale of goods and services	1,766,057	1,046,433
Other operating revenue	12,235	13,851
Total revenue	1,778,292	1,060,284

8.1.1 Revenue from sale of goods and services

The table below shows the breakdown of the revenue flows from the sale of Group goods and services for the year ended 31 December 2022 compared to the year ended 31 December 2021:

(amounts in thousands of euro)	Year ended 31 December	
	2022	2021
Revenue from methane gas distribution	59,087	41,401
Equalisation methane gas distribution	(7,855)	(10,428)
Revenue from sales and distribution of LPG	2,862	3,152
Revenue from sales of methane gas	1,279,883	696,313
Revenue from sales of electricity	333,400	227,408
Revenue from telecommunication services	6,337	5,642
Revenue from selection and conferment of waste	13,675	9,629
Revenue from buildings' energy efficiency	27,774	23,430
Revenue from other Group operations	19,488	17,918
Increases in non-current assets from in-house production	27,438	25,397
Current portion of contributions received	2,759	2,217
Revenue from post meter services and ancillary services	1,209	4,354
Revenue from sale of goods and services	1,766,057	1,046,433

The main changes refer to "Revenue from sales of methane gas", which recorded an increase of € 583,570,000 due to the increase in the price of raw materials, partly offset by lower volumes sold.

The item "Revenue from sales of electricity" records an increase of € 105,992,000 primarily due to the increase in the price of the commodity and the higher electricity volumes sold to end customers.

The item "Revenue from methane gas distribution" records an increase of € 17,686,000 primarily due to the change in the scope following the full consolidation of the company Edma Reti Gas S.r.l.

The item "Revenue from selection and conferment of waste" recorded an increase of € 4,046,000 mainly as a result of the acquisition of the companies Bisenzio Ambiente S.r.l. and Ecocentro Toscana S.r.l.

The item "Revenue from buildings' energy efficiency" refers to the revenue of the subsidiary Estrada Clima S.r.l. for specific works on energy efficiency, higher in 2022 due to the execution of more incentivised "110 bonus" works for contractors by the Relaunch Decree of 19 May 2020 and also granted for 2022.

The item “Revenue from other Group operations” mainly referred to:

- Parent Company revenue for existing service contracts with Shareholders, associates and companies subject to joint control (€ 911,000);
- Revenue from the subsidiary Estra Clima S.r.l. core activity of heat management and maintenance (€ 11,776,000);
- revenue for electricity production from the photovoltaic systems located in Cavriglia (AR) for € 5,300,000;

The item “increases from in-house production”: refers primarily to the in-house costs for the work on the networks under concession.

Revenue from the sale of methane gas and electricity at 31 December 2022 and 2021 both includes the provision for the estimate on the electricity and gas supplies provided to final customers and not yet invoiced at 31 December. This estimate is obtained as the difference between consumption (effective or estimated based on the customers’ historic consumption and other factors that could influence consumption, such as weather conditions) already invoiced by the end of the financial period and the total quantity released into the distribution network, determined by taking as a reference the volumes allocated by the national distributor and the internal customer consumption forecasts; the estimate is recorded in specific provisions for invoices to be issued.

A list is provided below of the Group’s revenue from contracts with customers for the year ended 31 December 2022, according to operating sector:

Year ended 31 December 2022 (amounts in thousands of euro)	Business segments			
	Total	Regulated Market	Gas and electricity sales	Corporate and Others
Revenue from methane gas distribution	59,087	59,087		
Equalisation methane gas distribution	(7,855)	(7,855)		
Revenue from sales and distribution of LPG	2,862	2,862		
Revenue from sales of methane gas	1,279,883		1,279,883	
Revenue from sales of electricity	333,400		333,400	
Revenue from telecommunication services	6,337			6,337
Revenue from selection and conferment of waste	13,675			13,675
Revenue from buildings’ energy efficiency	27,774			27,774
Revenue from other Group operations	19,488			19,488
Increases in non-current assets from in-house production	27,438	27,438		
Current portion of contributions received	2,759	1,012		1,747
Revenue from post meter services and ancillary services	1,209		1,209	
Revenue from sale of goods and services	1,766,057	82,544	1,614,492	69,021
Adjustments and eliminations	(71,545)	(31,167)	(10,295)	(30,082)
Total revenue gross of adjustments and eliminations between business segments	1,694,513	51,377	1,604,197	38,939

The Group operates only in Italy.

As indicated in the main accounting standards applied, the Group mainly recognises revenue over a time frame consistent with the transfer of control of the goods and services provided.

The main performance obligations are those specific to the business sector and refer to the transfer of control of commodities to end customers, and the transportation and distribution costs for these, when the distribution network is managed based on applicable concessions and legislation.

The market conditions applied are in line with sector practices and applicable legislation.

The Group has the option of invoicing customers for the amounts corresponding to the performance provided.

With regard to the time frame for recognising revenue from connection contributions, these are consistent with the useful life of the corresponding assets recognised by the Group where this is a consistent legal obligation to provide the service.

8.1.2 Other operating revenue

The table below shows the breakdown of the Group's operating revenue for the year ended 31 December 2022, compared with the year ended 31 December 2021:

(amounts in thousands of euro)	Year ended 31 December	
	2022	2021
Energy Efficiency Certificates	2,323	5,490
Release of risk provisions	144	181
Other revenue	9,765	8,101
Gains extra-feature management	3	79
Other operating revenue	12,235	13,851

The item "Energy Efficiency Certificates" contains the value of said certificates relative to the year 2022 as the tariff contribution pursuant to the ARERA resolutions, which had decreased on the previous year due to less certificates acquired.

The item refers to the contribution provided by ARERA for the EECs acquired from 1 January to 31 December, net of those sold. With Resolution 292/2022/R/efr of 28 June 2022, ARERA published the value of the tariff contribution of € 250.00/TEE, and the additional fee of € 3.44/TEE, payable to distributors in the scope of the energy efficiency certificates for the obligation year 2021. Therefore, the contribution for certificates acquired from 1 January until 31 May 2022 (date when obligation year 2021 closed) was € 250/EEC (no. 3,867 EEC), with the addition of the additional fee of € 3.44/EEC on the 7,539 EEC acquired during the 2021 obligation year (from 1 June 2021 until 31 May 2022). The additional fee was fully recognised in 2022 (also regarding the EEC acquired previously) because this contribution had not been certain before and its amount had not been known. An estimate of the contribution was made for the certificates acquired from 1 June 2022, keeping to the amount of € 250/EEC (i.e. the maximum ceiling identified by the Authority with Resolution 270/2020/R/efr of 14 July 2020) as the average cost was higher; the expectation is therefore for a contribution of the same maximum value. Compared to 2021, there is a significant reduction in revenues from the EEC, due to the lower number of EEC acquired (approximately 10,000 EEC less).

It is noted that the "virtual" certificates, namely those purchased directly from the GME, do not lead to the recognition of costs and revenue, but only the recording (among costs) of the amount withheld by the GME at the time of disbursement of the contribution for the obligation year 2021.

The item "Other operating revenue" refers mainly to i) recharging of costs incurred by the Parent Company on behalf of associates and joint ventures and ii) ancillary revenue related to gas distribution as indemnities to the sales company, revenue for document checks, refund of default expenses, work debited to third parties, ancillary services invoiced with the transmission and security incentives.

With regard to the security incentives for € 2,471,000 in 2022 and € 1,983,000 in 2021, it is noted that revenue was recorded in the year when the incentive interventions were incurred, even though they are definitively recognised by the Authority in an appropriate resolution after the close of the period. During 2022 and 2021, the Group was able to conduct estimates more precisely and promptly, and overcome uncertainties regarding interpretations on the recognition of said amounts, making it possible to accurately quantify the incentives that had not yet been resolved. The Group's ability to provide estimates is corroborated by the subsequent Arera recognition, diverging only slightly from the amounts estimated and allocated.

More specifically, the following extraordinary items are noted.

The following was recognised in the 2022 financial statements:

- revenue of € 1,436,000 for the IRMA fees (residual amount on foregone amortisations on electronic meters disposed of early) paid to Group companies operating in the distribution of natural gas as a recovery on tariffs for previous years, following ARERA Resolution 737/2022/R/gas of 29 December 2022, ARERA paid a fee to refund the distribution companies related to the IRMA (residual value of the smart meters from the initial installation disposed of early);

The following was recognised in the 2021 financial statements:

- revenue of € 1,087,000 for the IRMA fees (residual amount on foregone amortisations) paid by ARERA pursuant to Resolution 559/2021/R/gas of 9 December 2021, to Group companies operating in the distribution of natural gas as a recovery on tariffs for the G4 and G6 traditional metering units that were replaced in application of the Smart Meter Directives. The resolution reformulated the reference tariffs for the tariff years from 2015 to 2020, in application of the new regulations relating to the new methods for declaring the disposal of the G4 and G6 traditional metering units that were replaced by smart meters;
- revenue for the compensation for damages agreed by the subsidiary Estracom in 2009-2011, quantified in terms of the judgment handed down by the Court of Rome on 20 May 2021 for € 679,000 plus € 30,000 for the legal costs incurred, in the scope of the dispute brought by Estracom against a leading Italian telecommunications company for conduct representing an abuse of its dominant market position, in breach of Art. 101 and 102 of the Treaty on the Functioning of the European Union (TFUE) and/or unlawful and anti-competitive conduct in breach of Art. 2598 and/or 2043 of the Italian Civil Code.

8.2 Operating costs

In the financial years ended 31 December 2022 and 31 December 2021, operating costs amounted to € 1,744,923,000 and € 1,011,999,000 respectively. The following table shows the breakdown of operating costs.

(amounts in thousands of euro)	Year ended 31 December	
	2022	2021
Raw materials, consumables and goods for resale	1,516,584	646,760
Costs for services	103,187	250,065
Personnel costs	46,595	41,856
Depreciation, amortisation, provisions, write-downs	69,667	61,653
Other operating costs	8,890	11,665
Operating costs	1,744,923	1,011,999

8.2.1 Purchase of raw and ancillary materials, consumables and goods for resale

The costs to purchase raw and ancillary materials, consumables and goods amounted to € 1,516,584,000 for the year ended 31 December 2022 and to € 646,760,000 for the year ended 31 December 2021.

(amounts in thousands of euro)	Year ended 31 December	
	2022	2021
Purchase of raw and ancillary materials, consumables and goods	1,537,963	642,017
Changes in inventories	(21,142)	4,811
	1,516,821	646,828
<i>minus:</i>		
- increases from in-house production	(237)	(68)
Purchase of raw and ancillary materials, consumables and goods	1,516,584	646,760

The costs for the purchase of raw and ancillary materials, consumables and goods for the provision of natural gas and electricity to final customers in 2022 increased compared to 2021, in relation to revenue trends.

The most significant component in this item refers to the gas purchase, transport and storage costs for € 1,235,388,000 (€ 492,197,000 in 2021) and the costs to purchase electricity for € 282,438,000 (€ 134,485,000 in 2021), a significant increase due to the strong upswing in prices recorded on the energy markets compared to the previous year.

Similar dynamics were recorded in reference to the change in net inventories of natural gas.

8.2.2 Costs for services

The table below shows the breakdown of the Group's costs for services for the year ended 31 December 2022, compared with the year ended 31 December 2021:

(amounts in thousands of euro)	Year ended 31 December	
	2022	2021
Costs for gas distribution to users	(35,321)	101,702
Costs for electricity transport and dispatching	40,395	65,612
Cost for the renovation of third party plants and for tenders and maintenance	28,552	31,279
Expenses for gas concessions	13,695	9,174
Professional fees	9,786	7,288
Costs for waste transport and disposal	8,644	5,796
Insurance	2,142	1,568
Technical, fiscal, administrative and notary fees and consulting services	9,108	8,388
Costs related to customer management and for the printing and delivery of bills	4,309	4,278
Telecommunications services	3,092	2,745
Costs for advertising and sponsoring the Group's products	2,513	2,922
Various rentals and leases	1,795	1,301
Other costs for services	17,054	11,685
minus:		
- increases from in-house production	(2,579)	(3,676)
Costs for services	103,187	250,065

The main change in costs for services is related to the item "Costs for gas distribution to users", which decreased by € 137,023,000, with a negative balance as at 31 December 2022 of € 35,321,000. This change was due:

- to the legislative provisions that, to combat rising energy bills caused by sudden increases in the prices of energy commodities, as early as October 2021 and extending into the following quarters of 2022, introduced the cancellation of the general system expenses for the gas sector related to specific users and significantly reduced the components of gas distribution;
- to the increase, in 2022, of the gas and electricity social bonuses credited to certain categories of end customers. In particular, the legislation provided for the expansion to the pool of users eligible for discounts, the increase (especially in the final quarter of 2022) of the unit value of the applicable social bonuses and the introduction of an additional negative rate of the Ug2c component, from April 2022, as envisaged by Arera resolution 148/2022/R/gas.

A similar change was recorded in the costs for electricity transport and dispatching came down in 2022 compared to the previous period, due to the decrease in tariffs for the transport component.

Expenses for gas concessions refer to the fees paid by the Group to Municipalities that awarded the natural gas distribution and metering service. The item recorded an increase in 2022 primarily due to the change in the scope following the full consolidation of the company Edma Reti Gas S.r.l.

The item "Costs for waste transport and disposal" recorded an increase of € 2,848,000 mainly as a result of the acquisition of the companies Bisenzio Ambiente S.r.l. and Ecocentro Toscana S.r.l. correlating to revenue performance.

The higher costs for professional fees and consulting mainly related to costs incurred for the performance of practices related to energy efficiency measures by the subsidiary Estra Clima S.r.l. correlating to revenue performance.

The item various rentals and leases is mainly related to costs for the rental of short-term assets or where the underlying asset is of modest value and for which the Group availed itself of the exemptions granted by IFRS 16 and therefore did not recognise the financial liability and the related right of use. The leasing instalments are therefore recognised in the income statement on a straight-line basis for the duration of the respective contracts.

8.2.3 Personnel costs

The table below shows the breakdown of the Group's personnel costs for the year ended 31 December 2022, compared with the year ended 31 December 2021:

(amounts in thousands of euro)	Year ended 31 December	
	2022	2021
Wages and salaries	33,681	30,269
Social security contributions	11,030	10,017
Employee severance indemnity	2,085	1,890
Other costs	133	137
Seconded personnel from third parties	165	63
minus:		
- increases from in-house production	(499)	(520)
Personnel costs	46,595	41,856

The increase is attributable to the higher numbers of staff resulting from the acquisition of the companies Bisenzio Ambiente S.r.l. and Ecocentro Toscana S.r.l. with an average workforce of 11 and 2 individuals respectively, and as a result of the change in scope following the full consolidation of the company Edma Reti Gas S.r.l. with an average workforce of 56 individuals and salary increases required by the National Collective Labour Agreement (CCNL).

8.2.4 Depreciation, amortisation, provisions and write-downs

The table below shows the breakdown of the Group's depreciation, amortisation, provisions and write-downs for the year ended t 31 December 2022, compared with the year ended 31 December 2021:

(amounts in thousands of euro)	Year ended 31 December	
	2022	2021
Amortisation of intangible assets	39,776	36,436
Depreciation of tangible assets	15,546	12,571
Write-down of intangible assets	600	-
Write-down of trade receivables	13,642	12,549
Other provisions	103	97
Depreciation, amortisation, provisions and write-downs	69,667	61,653

For details of items relating to depreciation, amortization and write-downs of trade receivables, reference is made to the tables describing tangible assets, intangible assets and provisions for write-downs shown in the notes to the financial statements.

With regard to impairment of property, plant and equipment and intangible assets please see the notes "Impairment tests pursuant to IAS 36" and "Intangible Assets".

8.2.5 Other operating costs

The table below shows the breakdown of the Group's operating costs for the year ended 31 December 2022, compared with the year ended 31 December 2021:

(amounts in thousands of euro)	Year ended 31 December	
	2022	2021
Other operating expenses	3,459	3,056
Various indirect taxes	1,598	1,431
Purchase of Energy Efficiency Certificates	2,312	5,490
Membership fees	585	577
Losses on disposals	936	1,111
Other operating costs	8,890	11,665

The item "Purchase of Energy Efficiency Certificates" refers to the costs incurred to obtain energy saving certificates to fulfil the obligation imposed for 2022. With reference to the decrease in the item, please see the comments on revenue from energy efficiency certificates.

The capital losses on disposals originated mainly from *i)* the activity of replacing traditional meters according to the obligations imposed by ARERA and *ii)* the activity of replacing electronic meters that were not working. With reference to the disposals pursuant to point *i)* for € 426,000, we note that the QA component in the VRT refunding the distribution companies will continue to be recognised in the transmission tariffs for certain calibres;

With reference to the disposals pursuant to point *ii)*, for € 432,000, we note that with Resolution 737/2022/R/gas of 29 December 2022, ARERA paid a fee to refund the distribution companies related to the IRMA (residual value of the smart meters from the initial installation disposed of early). The effect, to restore the capital losses realised in the current and previous years, for € 1,436,000, was recognised in other revenue in these consolidated financial statements.

8.3 Income and expenses from commodity risk management

The item refers, as well as to the result of the natural gas trading activity, also to the change in fair value of financial derivatives (commodity swaps) used for the purpose of optimising the industrial portfolio and not accounted for as cash flow hedges. With reference to the latter please see what is explained in the paragraph IFRS 9 Financial Instruments – Implementation of Hedge Accounting above.

The table shows a breakdown of the item:

(amounts in thousands of euro)	Year ended 31 December	
	2022	2021
Margin of gas trading activity	1,921	838
Change in fair value of commodity swaps used in the marketing of electricity	995	(995)
Change in fair value of commodity swaps used in the marketing of gas	(477)	3,072
Total expenses from commodity risk management	2,439	2,915

Additional information is available in the Note "Financial Instruments and measurements at fair value".

8.4 Portion of income/expenses from valuation of non-financial investments using the equity method

This item, only appearing in the comparative year as at 31 December 2021 for € 6,251,000, referred to the valuation of Estra's equity investment in the joint venture EDMA Reti Gas S.r.l. Given the non-financial nature of the investment and the management and operational role played by the Group, the portion of the subsidiary's profit attributable to the Group is recorded in the income statement before the operating profit.

In particular:

- The subsidiary was measured at equity until 31/12/2021 and had determined a revaluation of € 946,000;

- The acquisition of control in 2021 had generated an upward adjustment for € 5,305,000, referring to the restatement of the 45% shareholding at fair value, which was already held prior to the acquisition.

8.5 Financial income

In the financial periods ended 31 December 2022 and 31 December 2021, financial income amounted to € 2,694,000 and € 1,971,000 respectively. The breakdown is as follows:

(amounts in thousands of euro)	Year ended 31 December	
	2022	2021
Income from associates	257	249
Various income from others	2,437	1,440
Revaluation IRS derivatives	-	282
Financial income	2,694	1,971

Income from associates and joint ventures accrued on receivables recorded under financial assets for the loans granted to the latter.

“Other income” refers mainly to the effects of the financial discounting of the tax credits purchased following the application of the discount in the invoice for energy efficiency measures carried out by the subsidiary Estra Clima S.r.l. for € 921,000 (€ 207,000 as at 31 December 2021); to the interest income from delayed payments charged to customers for € 1,319,000 (€ 906,000 as at 31 December 2021) and to interest income accrued on bank and postal current accounts for € 105,000 (€ 162,000 as at 31 December 2021).

8.6 Financial expenses

In the financial periods ended 31 December 2022 and 31 December 2021, financial expenses amounted to € 14,329,000 and € 9,995,000 respectively. The breakdown is as follows:

(amounts in thousands of euro)	Year ended 31 December	
	2022	2021
Interest payable on current bank accounts	785	38
Interest payable on loans and financial transactions	5,463	3,700
Interest payable on bonds	6,260	5,426
Other interest payable	779	198
Interest on arrears	4	11
Interest on employee severance costs	155	45
Interest payable on Shareholder loans	193	236
Interest payable on leases IFRS 16	690	341
Financial expenses	14,329	9,995

The increase in the item compared to the previous year is linked to the higher level of gross average debt in the year, as well as higher interest rates.

Interest on loans and bond loans comprises expenses related to the measurement at amortised cost.

8.7 Portion of income/expenses from measurement of financial equity investments using the equity method

In the years ended 31 December 2022 and 31 December 2021, the measurement of financial equity investments using the equity method resulted in expenses of € 577,000 in 2022 and expenses of € 2,263,000 in 2021. The item refers to the measurement of associates and companies subject to joint control of a financial nature. Reference in this regard is made to the corresponding asset item in the Balance Sheet.

8.8 Income taxes for the year

In the financial periods ended 31 December 2022 and 31 December 2021, income taxes for the year amounted to € 9,203 thousand and € 14,218 thousand respectively:

(amounts in thousands of euro)	Year ended 31 December	
	2022	2021
Current taxes	12,110	16,006
Taxation of previous years	565	59
Current taxes	12,675	16,065
Deferred tax assets	(1,703)	(204)
Deferred taxes	(1,769)	(1,643)
Taxes for the year	9,203	14,218

With regard to current taxes, it is noted that the Group has chosen to adopt the national tax consolidation regime, the rules of which are contained in articles 117 to 129 of Italian Presidential Decree no. 917/1986. This optional regime envisages that the holding company is responsible for calculating a single taxable income for the entire Group, corresponding to the algebraic sum of net incomes of the companies covered, and consequently a single income tax payable for the Group companies.

In each fiscal year companies recording a loss have the right to receive as loss compensation an amount equal to the IRES tax rate applicable in that fiscal year, multiplied by the loss in question. Companies recording a surplus of interest expense or excess ROL have the right, if the surplus is used, to receive compensation equal to an agreed percentage of the lower taxes calculated on the surplus used.

The scope of consolidation includes the following companies held for above 50%: Estraclima S.r.l., Centria S.r.l., Estraclima Energie S.r.l., Gergas S.p.A., Estracom S.p.A. and Ecos S.r.l.

8.9 Significant, non-recurring, atypical and/or unusual transactions

Both the Income Statements for 2022 and 2021 were impacted by extraordinary components, detailed in the comment on the Group's economic performance in the Report on Operations.

9. Notes on the main comprehensive income statement items

9.1 Change in cash flow hedge reserve

In the financial periods ended 31 December 2022 and 31 December 2021, the change in the cash flow hedge reserve was positive for € 8,571,000 and negative for € 10,461,000.

The item represents the component of comprehensive income incorporating the change to the "Cash flow hedge reserve" recorded for the effective portion of derivatives on the commodity and hedging IRS derivatives.

9.2 Actuarial gains/(losses)

In the year ended 31 December 2022, actuarial profits amounted to € 1,254,000, compared to the actuarial losses of € 124,000 recognised for the financial year ended 31 December 2021.

The item represents the component of comprehensive income incorporating the change to the "IAS 19 discounted reserve", recorded for the actuarial gains and losses arising from changes to the actuarial assumptions used in the employee severance indemnity valuation as per IAS 19.

10. Notes on the main balance sheet items

10.1 NON-CURRENT ASSETS

10.1.1 Property, plant and equipment

In the financial periods ended 31 December 2022 and 31 December 2021, property, plant and equipment amounted to € 141,147,000 and € 108,524,000 respectively.

(amounts in thousands of euro)	Year ended 31 December	
	2022	2021
Land and buildings	32,038	23,101
<i>of which for rights of use</i>	<i>19,691</i>	<i>13,109</i>
Plants and machinery	96,854	74,371
<i>of which for rights of use</i>	<i>469</i>	<i>179</i>
Industrial and commercial equipment	1,402	1,279
<i>of which for rights of use</i>	<i>82</i>	<i>163</i>
Other assets	6,545	6,959
<i>of which for rights of use</i>	<i>2,491</i>	<i>2,925</i>
Payments on accounts and assets under construction	4,308	2,814
Property, plant and equipment	141,147	108,524

Property, plant and equipment is primarily represented by the following proprietary assets:

- a wood biomass co-generation plant and the related district heating network in the Municipality of Calenzano for € 3,006,000;
- plants and machinery relating to the implementation of telematic and telecommunications structures arising from activities undertaken by Estracom S.p.A. for € 25,842,000;
- a trigeneration plant located in Sesto Fiorentino owned by the subsidiary Estra Clima S.r.l. for € 568,000;
- photovoltaic systems for € 35,270,000;
- a property used as an office in Ancona and a property complex used as offices and warehouse located in the Municipality of Pettoranello del Molise in the province of Isernia for € 2,542,000;
- a municipal waste selection plant, with annexed premises, acquired during financial year 2019 with the consolidation of Ecolat S.r.l. for € 7,078,000;
- a chemical, physical and biological treatment plant for liquid hazardous and non-hazardous special waste, acquired in 2022 with the consolidation of Bisenzio Ambiente S.r.l. for € 15,006,000;
- a recovery and treatment plant for non-hazardous waste mainly from road sweeping acquired in 2022 with the consolidation of Ecocentro Toscana S.r.l. for € 6,247,000;

With reference to photovoltaic systems, we note that the Group manages two photovoltaic systems located in Cavriglia (AR) on the basis of a concession relationship entered into with the Municipality of Cavriglia, accounted for as a sale and leaseback transaction for € 23,045,000. Under the terms of the concession, after construction of the plant and the transfer of ownership to the Municipality, the Group did not lose control over it. It is therefore recognised as a tangible asset at the construction cost plus the dismantling costs and depreciation along the term of the concession. The value of the tangible asset also includes the current value for the future concession expenses recorded as indirect construction costs, and where a counter entry was made for a financial liability.

In addition to leased or rented goods recognised according to IFRS 16, property, plant and equipment includes in particular:

- under the item "Land and buildings", the properties occupied by the Group and rented from shareholders for the company offices in Prato, Siena and Arezzo. The contracts with the Shareholders Intesa and Consiag have a term of three years starting from 01 January 2019, tacitly renewable for a further three. The contract with the Shareholder Coingas has a term of 6 years starting from 01 January 2020. The fees paid to shareholders in 2022 amounted to € 2,114,000. The fees are subject to annual review based on 75% of the change in the Italian National Institute of Statistics [ISTAT] cost of living

index for the previous year. For the purposes of accounting for the first time under the terms of IFRS 16 the contractual term after the first renewal, that is 31 December 2024 was taken as a reference, considering it not reasonably certain that the Group will continue with the rental of the properties beyond this date at the current contractual conditions;

During the current year, taking into account the specific facts and circumstances and the estimate on the exercise of the option being reasonably certain, the assets and associated financial liabilities were remeasured, providing for an additional renewal period of three years, namely until 2027, a date beyond which the renewal or, at least, the same conditions, cannot be considered reasonably certain.

- the item "Other assets", mainly refers to vehicles and IT equipment required in the Group's operations.

The following changes were recorded in this item for the year ended 31 December 2022:

	Land and buildings	Plants and machinery	Industrial and commercial equipment	Other assets	Payments on accounts and assets under construction	Total
<i>thousands of Euro</i>						
Cost or valuation						
At 1 January 2022	35,816	128,736	4,693	26,252	2,814	198,311
Increases	1,991	6,961	275	2,107	2,540	13,874
<i>of which for rights of use</i>	<i>1,514</i>	<i>399</i>	<i>245</i>	<i>819</i>		<i>2,977</i>
Sales/eliminations	(1,033)		(2)	(836)	(79)	(1,949)
<i>of which for rights of use</i>	<i>(1,033)</i>		<i>(2)</i>	<i>(805)</i>		<i>(1,840)</i>
Reclassifications		967			(967)	-
Corporate acquisitions	6,181	23,930	213	410		30,734
At 31 December 2022	42,956	160,594	5,179	27,933	4,308	240,970
Amortisation/ depreciation						
At 1 January 2022	(12,715)	(54,365)	(3,414)	(19,293)		(89,787)
Amortisation for the year	(4,009)	(8,411)	(352)	(2,774)		(15,546)
<i>of which for rights of use</i>	<i>(3,661)</i>	<i>(146)</i>	<i>(82)</i>	<i>(1,239)</i>		<i>(5,128)</i>
Sales/eliminations	899			796		1,695
<i>of which for rights of use</i>	<i>899</i>			<i>791</i>		<i>1,690</i>
Other changes	5,544					5,544
Corporate acquisitions	(627)	(964)	(11)	(117)		(1,719)
At 31 December 2022	(10,918)	(63,740)	(3,777)	(21,388)		(99,823)
Carrying amount						
At 31 December 2021	23,101	74,371	1,279	6,959	2,814	108,524
At 31 December 2022	32,038	96,854	1,402	6,545	4,308	141,147

We specifically note the following for 2022:

- investments during the year for € 13,874,000 are mainly attributable (i) to the category "Land and buildings", for a total of € 1,991,000 among which we note in particular the contract renewals for store rentals for € 889,000; (ii) to the category "Plants and machinery", for a total of € 6,961,000 referring mainly to the revamping of the municipal waste selection plant of the company Ecolat S.r.l. and to plants and machinery related to the creation of telematic and telecommunications structures; (iii) to the category "Other assets", for a total of € 2,107,000 referring primarily to hardware and office machines acquired on an ownership or right-of-use basis; (iv) to the category "Investments in progress and payments on account", for a total of € 2,540,000 related mainly to the creation of infrastructural cabling of the industrial areas in FTTH;
- net increases for corporate acquisitions for € 29,015,000, related to the full consolidation of Bisenzio Ambiente S.r.l. and Ecocentro Toscana S.r.l., as described in the paragraph of the notes on business combinations;
- other changes in the item "Land and buildings" for € 5,544,000, related to the remeasurement of the assets and associated financial liabilities of the contract concerning the lease of the properties occupied by the Group and owned by the Shareholders for the company offices in Prato, Siena and Arezzo, providing for an additional renewal period of three years, i.e. until 2027.
- depreciation for the period for € 15,546,000;

The following changes were recorded in this item for the year ended 31 December 2021:

	Land and buildings	Plants and machinery	Industrial and commercial equipment	Other assets	Payments on accounts and assets under construction	Total
<i>thousands of Euro</i>						
Cost or valuation						
At 1 January 2021	30,044	118,206	4,304	24,570	4,305	181,429
Increases	1,056	5,244	391	2,150	2,844	11,683
<i>of which for rights of use</i>	<i>900</i>		<i>245</i>	<i>961</i>		<i>2,106</i>
Sales/eliminations	(170)	(724)	(974)	(1,479)		(3,347)
<i>of which for rights of use</i>	<i>(171)</i>		<i>(974)</i>	<i>(629)</i>		<i>(1,774)</i>
Reclassifications		4,150		185	(4,335)	-
Corporate acquisitions	4,886	1,860	972	826		8,545
At 31 December 2021	35,816	128,736	4,693	26,252	2,814	198,310
Amortisation/ depreciation						
At 1 January 2021	(8,582)	(46,953)	(2,994)	(17,559)	-	(76,088)
Amortisation for the year	(3,543)	(6,050)	(228)	(2,750)		(12,571)
<i>of which for rights of use</i>	<i>(3,216)</i>	<i>(76)</i>	<i>(82)</i>	<i>(1,264)</i>		<i>(4,637)</i>
Sales/eliminations	119	210	388	1,430		2,147
<i>of which for rights of use</i>	<i>119</i>		<i>388</i>	<i>581</i>		<i>1,088</i>
Reclassifications						-
Corporate acquisitions	(709)	(1,572)	(580)	(414)		(3,275)
At 31 December 2021	(12,715)	(54,365)	(3,414)	(19,293)	-	(89,787)
Carrying amount						
At 31 December 2020	21,462	71,253	1,310	7,011	4,305	105,341
At 31 December 2021	23,101	74,371	1,279	6,959	2,814	108,524

We specifically note the following for 2021:

- investments during the year for Euro 11,683,000 are mainly attributable (i) to the category “Land and buildings”, for a total of € 1,056,000 among which we note in particular the contract renewals for store rentals for € 398,000; (ii) to the category “Plants and machinery”, for a total of € 5,244,000 referring mainly to plants and machinery related to the creation of telematic and telecommunications structures (iii) the category “Other assets”, for a total of € 2,150,000 referring primarily to hardware and office machines acquired on an ownership or right-of-use basis; (iv) to the category “Investments in progress and payments on account”, for a total of € 2,844,000 related mainly to the creation of infrastructural cabling of the industrial areas in FTTH and the revamping of the Ecolat S.r.l. municipal waste selection plant;
- net increases for corporate acquisitions for € 5,270, mainly related to the full consolidation of Ecos S.r.l. and Edma Reti Gas S.r.l., as described in the paragraph of the Notes on Business combinations.
- depreciation for the period for € 12,571,000;

10.1.2 Impairment tests pursuant to IAS 36 on the value of property, plant and equipment

Financial years 2022 and 2021

The directors, from the analysis of the current internal and external conditions, also taking account of the impacts of the COVID-19 health emergency, reported impairment indicators in reference to the treatment plant for hazardous and non-hazardous liquid waste owned by the subsidiary Bisenzio Ambiente S.r.l. at the reporting date of the consolidated financial statements as at 31 December 2022.

The plant, recognised at a carrying amount as at 31 December 2022 of € 15,006,000, gross of deferred tax liabilities for € 2,263,000, was subject to an impairment test following lower operating results than the budget provisions resulting from lower volumes of assets due to the longer start-up phase than initially envisaged. This plant refers to the “Waste management” included under “Other operating sectors”.

The impairment test compared the carrying amount recognised and the estimated recoverable value for the asset, calculated on the basis of its value in use.

For the value in use, the current value of estimated future cash flows was considered, which supposes that they will derive from the asset's continued use until 2045. The value in use was determined using the Discounted Cash Flow method, which estimates future cash flows and their discounting based on an appropriate discount rate.

The cash flow provisions represent the best estimates that the Estra management could make based on the main assumptions underlying the plant's operations over the period 2023-2045 (volumes of waste treated and related mix, maintenance costs and investments in the plant, sales tariffs), as per the latest business plan approved in March 2023. The approved plan assumes the achievement of an extension to 2045 of the current expiry of the integrated environmental authorisation (2034).

The discount rate used to reflect the current market valuations with reference to the present value of money and specific risks associated with the asset, was estimated consistently with the considered cash flows, using the weighted average cost of capital (WACC) after tax of 7.86%. On completion of these analyses, the directors did not record impairment in the current year, against a carrying amount, after depreciation for the period, higher than its value in use, despite the underlying assumptions of the operations of the plant suffering intrinsic uncertainties in the start-up and commercial development of a recently constructed plant, reflected in reduced operating cash flows in the first years of the plan.

The calculation of the value in use is especially sensitive to the following assumptions:

- gross margin;
- discount rate.

Gross margin – The gross margin was based on the previous year's figures, assuming gradual increases in volumes treated with a significant increase in the plant's production capacity within the limits of the authorisation granted; an improvement in the mix of waste treated in favour of more profitable types, marginal efficiency improvements in the disposal costs with the increase of volumes treated. Management expects the market share of the plant to grow over the Plan's time frame, thanks also to the commercial investments envisaged for maintenance and the acquisition of new customers.

Management recognises that it is possible that new players will enter the market and/or increased competition in the sector could impact significantly on the growth rate and that the increase in disposal costs or the failure to achieve the efficiency targets could lead to a reduction in the margins against those envisaged in the Plan.

Discount rates – Discount rates reflect the specific market risk assessment for each cash flow generating unit, taking into consideration the value of money over time and the specific risks of the underlying activities, which were not already included in the cash flow estimates themselves. The calculation of the discount rate is based on the Group's specific circumstances and its business segments, resulted from weighted average capital cost (WACC). The WACC takes into account both debt and equity. The cost of equity derives from the expected yield rate on investments. The cost of debt is based on the onerous funding that the Group has undertaken. The specific sector risk is incorporated, by applying specific beta factors. The beta factors are checked annually, based on available market information. The discount rates are adjusted to take into account quantities and specific time frames of future tax flows, so as to reflect an after-tax discount rate. The increase in the after-tax discount rate, or a reduction in the expected gross margin would result in a further reduction in the plant's value.

The sensitivity analysis was developed by focusing on plant margins, assuming a 5% decrease, with a consequent reduction in cash flows over the course of the plan and in following years, and on a WACC increase of 5%.

The amounts obtained on this basis were also higher than the carrying amounts of the plant, further confirming the recorded value.

10.1.3 Goodwill

Goodwill recorded in the consolidated financial statements at 31 December 2022 refers to:

- i) the following business combination operations prior to the FTA date, and in which case, the Group opted not to retrospectively apply IFRS 3:

- goodwill recorded following the acquisition of Gergas S.p.A. relating to the “Gergas Regulated Market CGU” (€ 1,369,000);
 - goodwill recorded from the contributions of the gas customer management business units by Consiag S.p.A., Intesacom S.p.A. and Coingas S.p.A.; the acquisition against payment for the gas sales business units of Amag S.r.l., Valdarnotiberinagas S.r.l., Baiengas Commerciale S.r.l. and Offidagas S.r.l. and Esegas; the deficit from the merger by incorporation of Energeia S.r.l. into the complex relating to the “Sale of Gas and Electricity” CGU (€ 10,687,000).
- ii) the following business combination operations after the date of FTA which amounted to € 23,440,000 and can be broken down as follows:
- goodwill resulting from the Purchase Price Allocation from the acquisition of Metania S.r.l. in 2018 (€ 10,836,000);
 - goodwill resulting from the Purchase Price Allocation from the acquisition of Gas Marca S.r.l. in 2018 (€ 6,544,000);
 - goodwill resulting from the Purchase Price Allocation from the acquisition of Ecolat S.r.l. in 2019 (€ 1,820,000);
 - goodwill resulting from the Purchase Price Allocation from the acquisition of Ecos S.r.l. in 2021 (€ 4,240,000);

The Group conducted impairment testing at 31 December 2022 and 31 December 2021, which as stated above, did not show any losses in value.

10.1.4 Impairment tests pursuant to IAS 36 on the value of goodwill

The goodwill acquired with the business combinations, for the purposes of the impairment was allocated to the “Gas and electricity sales”, “Gergas Regulated Market”, “Other Ecolat waste management” and “Other Ecos waste management” cash generating units:

Carrying value of goodwill allocated to each cash generating unit:

	Gas and electricity sales		Regulated Market		Other (Ecos)		Other (Ecolat)		Total	
	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
Goodwill	28,067	28,067	1,369	1,369	4,240	4,240	1,820	1,820	35,496	35,496

The group monitors the recoverability of the assets on the basis of approved plans that take into consideration the synergies and strategies at the CGU level.

Gas and electricity sales

The recoverable value for the Gas and electricity sales cash generating unit was determined on the basis of the value in use calculation, where cash flow projections were used for the CGU, based on the most recent business plans available at the measurement date and approved by Company Management.

The Group conducted its own impairment test at 31 December 2022 and 2021. The impairment test as at 31 December 2022 was prepared on the basis of the 2023 budget approved by the Board of Directors on 2 March 2023, the 2021-2025 business plan approved by the Board of Directors on 13 January 2021, extending its explicit projections until 2026 and taking account of the different market context, with particular reference to the foreseeable operating capital trend arising from the recent increase in the prices of commodities and the business initiatives already reflected in the 2023 budget.

The discount rate applied to the cash flow projections, net of tax is 6.51% in 2022 (5.37% in 2021). Cash flows were extrapolated using a growth rate of 1.5% in 2022 (1.5% in 2021), taken as the average growth rate for the business of gas and electricity sales over the long-term. On completion of these analyses, the directors did not

detect any impairment to be attributed to the net assets of the Gas and electricity sales unit, including goodwill of € 28,067,000.

Key assumptions used in calculating the value in use and sensitivity to changes in assumptions

The value in use for the Gas and electricity sales CGU was especially sensitive to the following factors:

- gross margin;
- market share during the forecast period;
- discount rates.

Gross margin – The gross margin was based on the previous year's figures, assuming marginal increases related to increased efficiency. The increase in the costs of raw materials beforehand or not achieving the efficiency targets could result in a decreased margin compared to what is envisaged in the plan.

Market share assumptions - Management expects the market share in Gas and electricity sales to grow over the Plan's time frame, thanks also to the commercial investments envisaged for maintenance and the acquisition of new customers. Management recognises that it is possible that new players will enter the market and/or increased competition in the sector could impact significantly on the growth rate.

Discount rates – Discount rates reflect the specific market risk assessment for each cash flow generating unit, taking into consideration the value of money over time and the specific risks of the underlying activities, which were not already included in the cash flow estimates themselves. The calculation of the discount rate is based on the Group's specific circumstances and its business segments, resulted from weighted average capital cost (WACC). The WACC takes into account both debt and equity. The cost of equity derives from the expected yield rate on investments. The cost of debt is based on the onerous funding that the Group has undertaken. The specific sector risk is incorporated, by applying specific beta factors. The beta factors are checked annually, based on available market information. The discount rates are adjusted to take into account quantities and specific time frames of future tax flows, so as to reflect an after-tax discount rate.

The sensitivity analysis was developed by focusing on CGU margins, assuming a 5% decrease, with a consequent reduction in cash flows over the course of the plan and in following years, and on a WACC increase of 5%.

The amounts obtained on this basis were also higher to those for the CGU, and therefore the analysis further confirmed the Gas and electricity sales CGU recorded value.

Regulated Market - Gergas

Goodwill results from the acquisition of Gergas, a company operating in gas distribution in Grosseto and Campagnatico.

Goodwill is negligible when compared with the comprehensive carrying value for the assets allocated to the Gergas Regulated Market unit. Nonetheless, given the uncertainties that still exist regarding the timing to announce and conduct tenders to renew gas distribution concessions/assignments, Directors decided to subject the goodwill to impairment testing, by comparing the carrying value for the gas distribution assets with the fair value net of sales costs (RIV).

To this end, an independent expert was appointed to estimate the Residual Industrial Value (RIV), which is the reference value for determining the right to compensation/reimbursements relating to networks, where the Group could lose the entirety of its concessions, following the tenders that will be announced to assign the concessions.

The recoverable value determined is higher than the asset's carrying value, by also applying reasonable sensitivity factors bringing down the Industrial Value. To complete the analysis, Directors did not record an impairment for carrying value recorded for the net assets in the Gergas Regulated Market unit, including goodwill for € 1,369,000.

Other - Ecolat waste management

Goodwill originates from the acquisition of Ecolat S.r.l., the company operating primarily in the mechanical selection of mixed-material packaging coming from the separate collections of the Optimal Areas Tuscany South, Centre and Coast and the recognition, on a residual basis in relation to the fair value of the identifiable assets, of the company's ability to produce future income from the business related to the selection plant and those not related such as intermediation, treatment of packaging and other waste from private entities.

The CGU recoverable value was determined on the basis of the value in use calculation, using cash flow projections of the relevant business sectors, based on the most recent business plan available at the measurement date (2023-2041) and approved by Company Management in April 2023. The approved plan assumes the achievement of a decade-long extension of the current expiry of the environmental authorisation (2031). The discount rate applied to the cash flow projections, net of tax was 7.95% (5.95% in 2021).

On completion of these analyses, the Directors did not find any impairment that would need to be attributed to goodwill.

The calculation of the value in use is particularly sensitive to the following factors:

- volumes of waste treated and the relative margins;
- discount rates.

The Group conducted a sensitivity analysis of the aforementioned relevant assumptions used to determine the recoverable value (variances +/- 5% of WACC and future cash flows on the assumption of lower business volumes or reduced margins), the results of which show, albeit with reasonable variances in the key assumptions, there is not a surplus carrying amount on the recoverable value.

Other - Ecos waste management

The goodwill refers to the acquisition of Ecos S.r.l., the company owning a waste storage site, operating on the domestic market in the management of special, hazardous and non-hazardous waste, on a residual basis in relation to the fair value of identifiable assets, the company's ability to produce future income from its business and relates mainly to expected growth and cost synergies.

The CGU recoverable value was determined on the basis of the value in use calculation, using cash flow projections from the last available business plan approved by Company Management (2023-2041), which envisage a progressive growth in volumes treated and consequent margins compared to the current year. The approved plan assumes the achievement of a decade-long extension of the current expiry of the environmental authorisation (2031). The discount rate applied to the cash flow projections, net of tax was 8.06% (5.95% in 2021).

On completion of these analyses, the Directors did not find any impairment that would need to be attributed to goodwill.

The calculation of the value in use is particularly sensitive to the following factors:

- growth rate in the volumes of waste treated and the relative margins;
- discount rates.

Consequently, the Group conducted a sensitivity analysis of the aforementioned relevant assumptions used to determine the recoverable value (variances +/- 5% of WACC and future cash flows on the assumption of lower business volumes or reduced margins, duration of authorisation), the results of which show, albeit with reasonable variances in the key assumptions, there is not a surplus carrying amount on the recoverable value.

10.1.5 Intangible assets

In the financial periods ended 31 December 2022 and 31 December 2021, intangible assets amounted to € 498,719,000 and € 492,392,000 respectively.

(amounts in thousands of euro)	Year ended 31 December	
	2022	2021
Industrial patent rights, licences and trademarks	11,034	3,639
Assets under concession	380,544	371,671
Customer listings	88,973	96,190
Other intangible assets	16,440	14,450
Intangible assets under construction	1,728	6,442
Intangible assets	498,719	492,392

Industrial patent rights, licences and trademarks refer mainly to third-party software user licences, amortised according to the envisaged duration of use over 3 or 5 years.

Assets under concession relate to networks, plants, connections and other assets pertinent to natural gas distribution recognised according to the “intangible assets method” provided for in IFRIC 12 for existing concession relationships with the granting entities.

The natural gas distribution service is assigned on the basis of open public tenders, which do not refer to individual Municipalities, but rather to Minimum Geographic Areas (Ambiti Territoriali Minimi - ATEMs). Municipalities, cannot therefore independently assign the service on the basis of individual tenders.

However, before the adoption of Italian Legislative Decree no. 164/2000 (the so-called Letta Decree), the gas distribution service was assigned directly by individual Municipalities. Furthermore, after the adoption of Legislative Decree 164/2000 and up until the issuing of the relevant implementation decrees, the natural gas distribution service was assigned on the basis of open public tenders by individual Municipalities. Therefore, as of today's date, the Group still has some concessions assigned directly or by public tender by individual Municipalities.

In the event of the concessions' expiring, the term of the concession is deemed extended up until a new tender is announced. During this extension period, the relationship between the granting party and concession holder continues, and consequently, the latter is still obliged to manage the service, limited to the ordinary administration, up until the new assignment takes effect. Furthermore, the outgoing operators fulfils all the obligations arising from the concession, including the payment of the concession fee payable to the granting entity.

In the event that the Group does not succeed in being awarded new tenders to supply services that are continuing on an extension basis, at the time of taking over, the new operator shall pay the Group as the outgoing operator, for the transfer of the distribution networks from the outgoing operator to the new concession holder. This amount is determined according to the provisions in the concession contract. Without any specific provision (or without certain elements), the contract provisions are supplemented by the guidelines under Ministerial Decree 226/11.

With regard to the above, the technical assessment showed a Residual Industrial Value (RIV) for the networks, plants, connections and other assets pertinent to gas distribution and recorded under “Assets under concession” that was considerably higher than the carrying value in the consolidated financial statements.

On the basis of the analyses carried out on the recoverability of the value of the assets under concession related to natural gas distribution and recognised according to the “intangible asset method” provided for in IFRIC 12, indicators of permanent impairment emerged in relation to the class of electronic meters. In particular, a write-down of € 600,000 was recorded in order to adjust the net carrying amount of malfunctioning electronic gas meters to the recoverable value in the tariff, on the basis of the update carried out during the year to the related plan for progressive replacement.

Customer listings mainly refer to determining the purchase price allocation (PPA) of the customer portfolios of the companies operating in the Gas and electricity sales CGU acquired in the business combinations conducted

by the Group starting from 2015. The item is amortised over the amortisation period corresponding to the expected useful life for the customer lists, which is reassessed at the end of each financial period in relation to the historic and forecast losses of customers (so-called "Churn Rate"). In the financial periods ended 31 December 2022 and 31 December 2021, the customer listings were amortised over a 20-year time frame.

The item Other intangible assets refers mainly to the costs to acquire customers (contract costs) incurred by the Group's commercial companies, amortised over 5-years at a decreasing rate. Amortisations for this item were also restated at least at the end of each period in relation to the Churn Rate.

The Group checks annually whether there are any impairment indicators; specifically, for the customer listings and contract costs, this refers to checking the annual churn rate recorded for each gas and electricity sales company. The churn rate, also referred to as the drop-out or defection rate, is an indicator used to measure the loss of customers over a specific time period, and represents the percentage of customers that left the service (switch out) compared to the total number of customers using the service.

Based on the above, there were no impairments found at the end of 2022 with regard to intangible assets with a defined useful life.

The following changes were recorded in this item for the year ended 31 December 2022:

<i>thousands of Euro</i>	Industrial patent rights, licences and trademarks	Assets under concession	Customer listings	Other intangible assets	Intangible assets under construction	Total
Cost or valuation						
At 1 January 2022	50,723	636,316	138,167	53,075	6,442	884,723
Increases	5,599	30,341		10,792	802	47,534
Sales/eliminations		(3,460)				(3,460)
Reclassifications	5,517				(5,517)	-
Corporate acquisitions	144			29		173
Write-downs		(600)				(600)
At 31 December 2022	61,983	662,597	138,167	63,896	1,727	928,370
Amortisation						
At 1 January 2022	(47,084)	(264,645)	(41,977)	(38,625)		(392,331)
Amortisation for the year	(3,849)	(19,891)	(7,217)	(8,819)		(39,776)
Sales/eliminations		2,484				2,484
Corporate acquisitions	(16)			(12)		(28)
At 31 December 2022	(50,949)	(282,052)	(49,194)	(47,456)		(429,651)
Carrying amount						
At 31 December 2021	3,639	371,671	96,190	14,450	6,442	492,392
At 31 December 2022	11,034	380,545	88,973	16,440	1,727	498,719

We specifically note the following for 2022:

- investments for the period of € 47,534,000, referring primarily to:
 - (i) the category "Assets under concession" for a total of € 30,341,000 for investments made regarding the gas distribution networks;
 - (ii) the category "Industrial patent rights, licences and trademarks" for a total of € 5,599,000, relating mainly to the costs to replace the current ERP (Enterprise Resource Planning) based on SAP with NET@SUITE, the new platform that will manage all areas of the ESTR A Group and going live on 1 June 2022. The go live led to the reclassification of the costs incurred in previous years and recognised in the item "Fixed assets under construction" for € 5,517,000;
 - (iii) the category "Other Intangible Assets" for a total of € 10,792,000, relating mainly to the costs to acquire customers incurred by the Group's gas and electricity sales companies;
- net increases for corporate acquisitions for € 145,000 mainly related to the consolidation of the companies Bisenzio Ambiente S.r.l. and Ecocentro Toscana S.r.l.;
- sales/eliminations for € 976,000 mainly related to gas meters;
- amortisations for the period of € 39,776,000;
- write-downs for the period for € 600,000 as mentioned previously.

The following changes were recorded in this item for the year ended 31 December 2021:

<i>thousands of Euro</i>	Industrial patent rights, licences and trademarks	Assets under concession	Customer listings	Other intangible assets	Intangible assets under construction	Total
Cost or valuation						
At 1 January 2021	45,270	547,531	138,167	45,327	2,305	778,600
Increases	2,869	25,071		6,305	4,187	38,432
Sales/eliminations		(3,864)				(3,864)
Reclassifications	50				(50)	-
Corporate acquisitions	2,534	67,578		1,443		71,555
At 31 December 2021	50,723	636,316	138,167	53,075	6,442	884,723
Amortisation						
At 1 January 2021	(41,785)	(223,921)	(34,741)	(28,776)		(329,223)
Amortisation for the year	(2,886)	(17,675)	(7,236)	(8,639)		(36,436)
Sales/eliminations		2,441				2,441
Corporate acquisitions	(2,413)	(25,490)		(1,210)		(29,113)
At 31 December 2021	(47,084)	(264,645)	(41,977)	(38,625)		(392,331)
Carrying amount						
At 31 December 2020	3,485	323,610	103,426	16,551	2,305	449,377
At 31 December 2021	3,639	371,671	96,190	14,450	6,442	492,392

We specifically note the following for 2021:

- investments for the period of € 38,432,000, referring primarily to:
 - (i) the category “Assets under concession” for a total of € 25,071,000 for investments made regarding the gas distribution networks;
 - (ii) the category “Industrial patent rights, licences and trademarks” for a total of € 2,869,000 relating mainly to software costs;
 - (iii) the category “Other Intangible Assets” for a total of € 6,305,000, relating mainly to the costs to acquire customers incurred by the Group’s gas and electricity sales companies;
 - (iv) the category “Fixed assets under construction” for a total of € 4,187,000, relating mainly to the costs to replace the current ERP with NET@SUITE, the new platform that will manage all areas of the ESTRA Group. The development project is still in progress and will be completed during 2022.
- net increases deriving from company acquisition for € 42,442,000 relating to the consolidation of Edma Reti Gas S.r.l., where the consolidation contributed intangible assets for a total of € 42,089,000 relative to the gas distribution networks included in the scope of application of IFRIC 12;
- sales/eliminations for € 1,423,000 mainly related to gas meters;
- amortisations for the period of € 36,436,000.

10.1.6 Equity investments

In the financial periods ended 31 December 2022 and 31 December 2021, equity investments amounted to € 24,139,000 and € 20,082,000 respectively.

Equity investments (amounts in thousands of euro)	Balance at 31 December 2021	Increases/(Decreases)	Revaluation/(write-down)	Other changes	Balance at 31 December 2022
Nuova Sirio S.r.l.	89		(8)		81
Equity investments in companies subject to joint control	89	-	(8)	-	81
Blugas Infrastrutture S.r.l.	7,229		(84)		7,145
AES Fano	1,026		(147)		879
Monte Urano S.r.l.	794		(35)		759
SIG S.r.l.	3,159	74	(80)		3,154
Bisenzio Ambiente S.p.A.	1,321	1,768	484	(3,573)	-
Sei Toscana S.r.l.	6,301	6,671	(1,040)		11,931
Equity investments in associates	19,830	8,513	(902)	(3,573)	23,868
AISA S.p.A.	45	(28)	(6)		11
Sinergie Italiane S.r.l.	0	12	(12)		-
Casole Energie S.r.l.	92		59		151
Other companies	26	2			28
Equity investments in other companies	163	(14)	41	-	190
Total equity investments	20,082	8,499	(869)	(3,573)	24,139

The changes in the year refer to:

- the increased percentage in the Group shareholding of SIG S.r.l. from 38.70% at 31 December 2021 to 39.60% at 31 December 2022, following the acquisition of an additional 0.9% shareholding during 2022 at the price of € 74,000.
- The acquisition of 38.2% of Bisenzio Ambiente S.r.l., already held by Estra S.p.A. for 36.8% as at 31 December 2021, at the price of € 1,768,000.
The subsidiary was measured at equity until 31/12/2021. The accounting of the business combination operation generated an upward adjustment for € 484,000, referring to the restatement of the 36.80% shareholding at fair value, which was already held prior to the acquisition.
The other changes (€ 3,573,000) refer to the elimination of the equity investment following the full consolidation. For the accounting effects of the full consolidation, please refer to the specific paragraph on business combinations in the period.
- The increase in the percentage of the Group's stake in Sei Toscana S.r.l. from 19.99% as at 31 December 2021 to 20.62% as at 31 December 2022 following participation by the subsidiary Ecolat in the capital increase approved by the Shareholders' Meeting of Sei Toscana on 22 February 2022 for € 6,671,000, with a pro-rata subscription of the shares not taken up.
- The partial distribution of the shareholders' equity of AISA S.p.A. in liquidation as an advance on the company's winding up pursuant to Art. 2491 of the Civil Code for € 28,000 and the write-down of € 6,000 for the adjustment of the investment to its estimated realisable value at the end of the liquidation.
- The incremental acquisition of 0.58% of Sinergie Italiane S.r.l. at the price of € 12,000 on 7 February 2022, as part of a settlement agreement that saw the exit of TEA S.p.A. from the shareholder structure with recognition of the equity investment held by the remaining shareholders to a proportional extent.
The company, placed into liquidation with resolution of the Shareholders' Meeting of 13 April 2012, has currently ceased all operational activities and is expected to wind up in 2023. On the basis of the updated liquidation plan at the reporting date of these financial statements, a full write-down of the investment was carried out for € 12,000 and an adjustment of € 158,000 was made to the provision for write-downs of shareholder loans disbursed by Estra S.p.A. and allocated in the financial statements as at 31 December 2021, recording a net financial income of € 146,000 in the current year.

- Other revaluation/(write-down) resulting from the application of the net equity method for an overall negative effect of € 851,000.

No indicators of permanent impairment were identified for any equity investments, and consequently no specific impairment tests were conducted.

With regard to Blugas Infrastrutture S.r.l., the investment is recognised at a carrying amount higher than the corresponding portion of the subsidiary's shareholders' equity at 31 December 2022 of € 2,111, following the allocation of a higher purchase price to the company's assets represented by:

- a 10% co-interest in the project for the construction and operation of the storage plant located in San Potito and Cotignola, Ravenna province, with the partner Edison Stoccaggio at 90%, as a result of a special concession ("San Potito and Cotignola Storage") awarded by the Italian Ministry for Economic Development with the Italian Ministerial Decree of 24/04/2009;
- an ownership interest of 70 million cubic metres of natural gas to be extracted from the Abbadesse field.

With regard to the San Potito and Cotignola Storage project, it should be noted that, following the discovery of a more complex geological situation than expected, Edison Stoccaggio had to significantly revise the originally approved project with a consequent reduction in storage capacity estimates. With this changed scenario, AEEGSI (now ARERA) with resolution 66/2016 dated 25 February 2016 redetermined the tariffs using a penalising mechanism that was questionably lawful, to reduce the revenue from the site capex (calculated according to the investment realised/ space performance achieved ratio), which will be applied each year up until the site regulation is completed, at the same time, requiring a partial adjustment for the lower revenue received, in relation to the space performance that the fully operational concession will guarantee. In addition only with regard to 2015, and once again based on resolution 531/2014/R/gas, the Authority made the recognition of certain revenue components (amortisation and incentive rates) conditional on the site becoming "commercially" operational, i.e. the date when the site began to commercially offer its capacity for storage services (2015), effectively postponing the recognition of these components by a year (as from 2016).

The co-holder Edison Stoccaggio strongly objected to the Authority's argument, undertaking the relevant legal action, which after the initial unsuccessful outcome in the TAR Lombardy, resulted in the reasons for the objection being accepted by the Council of State in June 2021. In accordance with the Council of State judgment, ARERA issued Resolution 513/2021, reassessing the calculation methods for the curtailment of revenue factor applied, and reformulated the value, with an increase from 71.6% to 73.6%. The co-holder Edison Stoccaggio has proposed a new appeal against Resolution 513/2021, because it believes that the latter does not adequately execute the Council of State decision. The new proceedings had not yet been initiated at the reporting date of these financial statements.

Deeming its arguments underlying the appeal to be valid, there are no impairment indicators, in consideration of both the expected cash flows as well as the implicit capital gains on the company's assets.

10.1.7 Other non-current financial assets

In the financial periods ended 31 December 2022 and 31 December 2021, other non-current financial assets amounted to € 12,289,000 and € 13,919,000 respectively.

(amounts in thousands of euro)	Year ended 31 December	
	2022	2021
Loans to companies subject to joint control	230	230
Loans to associates	4,643	7,331
Receivables from others	7,416	6,358
Other non-current financial assets	12,289	13,919

The tables below show the composition of loans to subsidiaries and their changes at 31 December 2022 compared to the previous financial period:

(amounts in thousands of euro)	Balance at 31 December 2021	Increases	Decreases	Other changes	Balance at 31 December 2022
Nuova Sirio S.r.l.	230				230
Loans to companies subject to joint control	230				230

(amounts in thousands of euro)	Balance at 31 December 2021	Increases	Decreases	Other changes	Balance at 31 December 2022
Blugas Infrastrutture S.p.A.	4,153				4,153
A.E.S. Fano Distribuzione Gas S.r.l.	490				490
Sei Toscana S.r.l.	2,688		(2,688)		-
Loans to associates	7,331		(2,688)	-	4,643

The recoverability of the loans was verified on the basis of the subsidiaries' latest economic-financial plans.

The item "Loans to associates" shows a decrease of € 2,688,000 following the collection of the shareholder loan disbursed by the company Ecolat S.r.l. in favour of Sei Toscana S.r.l.

The item receivables from others mainly refers:

- for € 5 million to the amount paid at the time of being awarded the gas distribution contract for the Municipality of Rieti, and which will be repaid once the concession ends, and all plants, networks and other distribution service installations are delivered to the replacement operator, also present at 31 December 2021;
- for € 3,360,000 to the loan provided on 3 August 2021 to the subsidiary Sinergie Italiane S.r.l. and written down for € 1,942,000, as commented under equity investments in other companies.

10.1.8 Other non-current assets

In the financial periods ended 31 December 2022 and 31 December 2021, other non-current financial assets amounted to € 3,137,000 and € 2,369,000 respectively and mainly refer to long term guarantee deposits issued in favour of the Customs Agency by the subsidiary Estra Energie S.r.l. and to various suppliers for sales activities and gas storage.

10.1.9 Deferred tax assets

In the financial periods ended 31 December 2022 and 31 December 2021, deferred tax assets amounted to € 69,991,000 and € 70,649,000 respectively.

The table below shows the composition of deferred tax assets and their changes at 31 December 2022 compared to the previous financial period:

(amounts in thousands of euro)	Balance at 31 December 2021	Corporate acquisitions	Reversals/Uses	Allocations	Other changes	Balance at 31 December 2022
Amortisation/ depreciation	10,512		(185)	1,761		12,088
Risk provisions	1,067		(55)	296		1,307
Provision for write-downs	13,099		(971)	2,580	(6)	14,701
Contributions received on connections	3,233		(108)			3,125
Write-down of fixed assets	916		(154)	144		906
Lease accounting	264	32	(3)	67		360
Reversal intangible assets	225	2	(12)	1		216
Fair value derivatives	2,231				(756)	1,475
Other	3,614	71	(1,170)	1,160	(1,705)	1,970
Higher tax value goodwill	3,535		(30)	21		3,526
Higher tax value assets under concession	31,953		(1,638)			30,315
Total	70,649	105	(4,326)	6,030	(2,467)	69,991

The Group has accounted for the deferred tax assets relating to temporary differences between values which are significant for tax purposes and carrying amounts, where it considers probable that future taxable income will absorb the temporary differences that generated them. In determining deferred tax assets, reference was made to the IRES tax rate (corporate income tax) and, where applicable, the IRAP tax rate (regional production tax) applicable at the time the temporary differences are expected to be reversed. There are no problems expected regarding recoverability given the amount of the expected taxable income.

The table below shows the composition of deferred tax assets and their changes at 31 December 2021 compared to the previous financial period:

(amounts in thousands of euro)	Balance at 31 December 2020	Corporate acquisitions	Reversals/Uses	Allocations	Other changes	Balance at 31 December 2021
Amortisation/ depreciation	8,217	778	(137)	1,654		10,512
Risk provisions	831	225	(292)	303		1,067
Provision for write-downs	11,665		(1,014)	2,448		13,099
Contributions received on connections	3,072	266	(105)			3,233
Write-down of fixed assets	991		(75)			916
Lease accounting	189	62	(13)	26		264
Reversal intangible assets	216	24	(16)	1		225
Fair value derivatives	228				2,003	2,231
Other	3,815	691	(2,127)	1,196	39	3,614
Higher tax value goodwill	3,544		(30)	21		3,535
Higher tax value assets under concession	33,600		(1,647)			31,953
Total	66,368	2,046	(5,455)	5,649	2,041	70,649

10.2 CURRENT ASSETS

10.2.1 Inventories

In the financial periods ended 31 December 2022 and 31 December 2021, inventories amounted to € 41,166,000 and € 13,814,000 respectively.

The item can be broken down as follows:

(amounts in thousands of euro)	Year ended 31 December	
	2022	2021
Materials inventories	6,697	5,278
Natural gas storage inventories	34,294	8,370
LPG inventories	458	450
Provision for stock devaluations	(284)	(284)
Inventories	41,166	13,814

Inventories primarily comprise:

- spare parts for the maintenance and operation of gas distribution plants for € 6,438,000 at 31 December 2022 (€ 4,169,000 at 31 December 2021), recorded at cost of acquisition or manufacture, including ancillary costs, which was lower than the market value;
- stored gas intended for supplies to final customers, measured at the lower value between the purchase cost including ancillary charges, and the estimated realisable value from the market trend for € 34,294,000 (€ 8,370,000 at 31 December 2021).

10.2.2 Trade receivables

In the financial periods ended 31 December 2022 and 31 December 2021, trade receivables amounted to € 442,369,000 and € 405,857,000 respectively.

The item can be broken down as follows:

(amounts in thousands of euro)	Year ended 31 December	
	2022	2021
Receivables from users and customers	434,215	399,741
Receivables from joint ventures	10	10
Receivables from associates	6,741	4,393
Receivable from holding companies	1,403	1,713
Trade receivables	442,369	405,857

The increase in the balance at the end of financial year 2022 compared to the end of 2021 is due mainly to the rise in market prices of gas and electricity commodities.

The adjustment of the nominal value of receivables to their estimated realizable value was obtained using a write-down provision established for doubtful debts, referring mainly to trade receivables for the sale of gas and electricity to end customers. Changes in the provision are shown in the table below:

(amounts in thousands of euro)	Balance at 31 December 2021	Change in the scope of consolidation	Uses during the year	Allocations for the year	Balance at 31 December 2022
Provision for write-downs	59,430	-	(6,372)	13,642	66,700

(amounts in thousands of euro)	Balance at 31 December 2020	Change in the scope of consolidation	Uses during the year	Allocations for the year	Balance at 31 December 2021
Provision for write-downs	52,934	52	(6,105)	12,549	59,430

Trade receivables primarily refer to receivables from customers for the provision of gas and electricity and include the provision for invoices still to be issued, accruing to the current year and to previous ones, for the estimate of the gas and electricity supplied to final customers and not yet invoiced at 31 December.

The Group adopted a method to calculate the Provision for write-downs based on which the credit positions are analysed according to different risk profiles, determined in terms of creditor category and the stratification of prior credit. At each overdue level, based on the category, write-down percentages are applied that are calculated on a historic basis and subdivided according to credit ageing time brackets and customer clusters. Receivable positions of the most significant amounts are analysed and, if appropriate, specifically written down. For additional information on the calculation of the Provisions for Impairment of Receivables and the provision for invoices still to be issued for the gas and electricity supplied, please see the note "Significant accounting estimates".

For information on the receivables from Shareholders, companies subject to joint control and associates, please see the table referring to related parties transactions in the note "Transactions with Related parties".

The payment terms generally applied to customers are governed by legislation or regulations in force and are in line with the standards of the free market; in the event of non-payment, interest on arrears is charged in the amount indicated in the supply contracts and provided by existing legislation.

Reference is made to the paragraph "Credit Risk" for additional information on credit ageing.

10.2.3 Current tax assets

In the financial periods ended 31 December 2022 and 31 December 2021, current tax assets amounted to € 7,181,000 and € 2,395,000 respectively.

The item can be broken down as follows:

(amounts in thousands of euro)	Year ended 31 December	
	2022	2021
IRES/IRAP credits	7,181	2,395
Current tax assets	7,181	2,395

10.2.4 Other current assets

In the financial periods ended 31 December 2022 and 31 December 2021, other current assets amounted to € 228,533 and € 42,576 respectively.

The item can be broken down as follows:

(amounts in thousands of euro)	Year ended 31 December	
	2022	2021
Receivables from the Energy Authority and GSE	59,409	25,570
Advances	1,880	2,160
Other receivables	105,728	5,285
Prepaid expenses	3,914	2,224
VAT credit	8,835	1,959
UTIF	38,690	132
Other tax receivables	10,077	5,246
Other current assets	228,533	42,576

The item “Receivables from the Energy Authority” recorded a significant increase of € 33,839,000 as it not only refers to the amounts due in application of the equalisation mechanism to the restriction of total distribution revenue for subsidiaries operating in the sector and for contributions relative to reaching the energy saving targets, but it is significantly impacted by the measures introduced by the Government in autumn 2021, in order to contain energy tariffs. These measures involved bringing the majority of system charges to zero and the expansion of the gas and electricity social bonuses, with a resulting tariff reduction, not affecting market operators, which led to the onset of a relevant receivable from the Energy and Environmental Services Fund.

The item “Other receivables” recorded a significant increase of € 100,443,000 mainly due to the effect of including:

- i) credit positions in relation to natural gas distribution companies for € 20,001,000. These receivables were generated by the effect of the credit notes received from the sales companies, from the natural gas distribution companies, following the social bonuses envisaged by the measures introduced by the Government in autumn 2021 as well as the discounts recognised with the Ug2c component introduced from 1 April 2022. Both the social bonuses and the discounts recognised were then re-credited to the end customers by the sales companies, and therefore the value of these components is higher than the distribution units charged, leading to an inversion in the typical trade balance;
- ii) credit positions in relation to SNAM and natural gas shipper companies for € 76,106,000 (in addition to € 18,892,000 recognised in the trade receivables for documents already issued) in relation to the mechanism for allocating gas volumes for points of delivery not equipped with a meter that allows for remote readings. The settlement activities, governed at regulatory level by ARERA resolution 148/2019/R/gas – TISG – require that, based on daily and monthly balancing sessions, determined on the basis of provisional data, annual and multi-annual adjustment sessions be carried out involving adjustment procedures for the economic measurement of the difference between physical gas items attributed in the balancing sessions and those determined on the basis of measurement data available at the time when such session is carried out. In particular, there are points – mainly domestic ones – for which the annual consumption, based on effective data from the previous year, has seen much higher values than those that reflect current consumption, following policies on lower thermal use and user behaviours leaning more towards savings.

This situation led to a much larger purchase of gas than the effective quantities used, with related financial advance payment, which will be regulated during the annual and multi-annual adjustment sessions.

In this regard, with resolution 688/2022/R/gas, the Authority intervened in gas settlements for the balancing service. This resolution was aimed at remedying the issues reported by operators as a result of the ministerial measures on containment of consumption or due to different behaviours of end customers also prompted by the costs that should have been incurred due to the level reached of the prices of the commodity, with reference to gas allocations at the interconnections with the distribution networks, between October 2022 and March 2023, months during which an economic offsetting was envisaged in the final budget aimed at considering the changes in drawdowns, connected to lower consumption, against those envisaged on the basis of the criteria set out by art. 16 of the TISG, measuring the difference – if positive – between the total estimated consumption and the measurement of the related citygate, to be attributed to the sales companies pro rata.

With recent resolution of 18 April 2023 – 170/2023/R/GAS – ARERA, due to these same reasons, also considering the time needed to settle any adjustments resulting from the adjustment sessions, considered it appropriate to extend the provisions of resolution 688/2022/R/gas to the period between January and September 2022 and, as regarding the current year 2023, from April to September in light of the ongoing analyses of the possible improvement implementations to be made to the drawdown prediction mechanism subject to profiling during settlement.

The significant increase in UTIF tax credits is mainly due to the difference between advances paid over the -year, determined on the basis of consumption in 2021, and the tax effectively debited to customers over the period, which is significantly lower compared to the end of the previous financial year.

The item “Other tax receivables” refers mainly to the credits resulting from tax receivables pursuant to Art. 14, sections 2-ter and 2-sexies of Italian Decree Law 63/2013, relating to energy efficiency measures and building renovations.

Receivables recognised under current assets are all payable within twelve months.

All receivables are from entities operating in Italy, with the exception of insignificant amounts from EEC and Non-EEC entities for gas sales.

We also note that:

- certain receivables and payables with the same counterparties are recognised separately between receivables and payables as they cannot be offset by law as a result of specific agreements between the parties;
- there were no receivables subject to constraints or restrictions of any kind or receivables for which it was decided to discount in compliance with sound accounting principles;
- there were no transactions with compulsory buy-back on maturity;
- there were no receivables in foreign currency.

10.2.5 Other current financial assets and other current financial liabilities

In the financial periods ended 31 December 2022 and 31 December 2021, other current financial assets amounted to € 25,442,000 and € 36,257,000 respectively, while other current financial liabilities amounted to € 12,632,000 and € 33,876,000.

Current financial assets can be broken down as follows:

(amounts in thousands of euro)	Year ended 31 December	
	2022	2021
Receivables from banks	7,346	9,430
Derivative instruments	18,096	26,827
Other current financial assets	25,442	36,257

Derivative instruments included in other current financial assets are made up as follows:

(amounts in thousands of euro)	Year ended 31 December	
	2022	2021
Forward commodity contracts	13,716	22,521
Cash Flow Hedge Commodity Swaps	3,029	2,478
Commodity Swaps with change in fair value through profit or loss	1,351	1,828
Derivative instruments	18,096	26,827

Current financial liabilities are broken down as follows:

(amounts in thousands of euro)	Year ended 31 December	
	2022	2021
Payable derivative financial instruments	12,632	33,876
Other current financial liabilities	12,632	33,876

Derivative instruments included in other current financial liabilities are made up as follows:

(amounts in thousands of euro)	Year ended 31 December	
	2022	2021
Forward commodity contracts	11,306	21,816
Cash Flow Hedge Commodity Swaps	1,316	10,949
Commodity Swaps with change in fair value through profit or loss	-	995
Cash flow hedge Interest Rate Swaps	10	116
Derivative instruments	12,632	33,876

Receivables from banks refer to the interest on cash and cash equivalents and commodity swap spreads accrued at the reporting date and credited by the bank on a subsequent date.

Forward contracts (to buy or sell) envisage the physical delivery of gas during future years, used in the gas trading activity. These financial instruments are measured at fair value at the reporting date with recording of the effects in the income statement under "Expenses/(income) from commodity risk management".

Forward contracts used for gas sales and entered into to optimise the company's own procurement and sales portfolio do not fall within the scope of application of IFRS 9 (so-called "own use"). These contracts are recognised at the time of the physical delivery of the underlying commodity.

Commodity Swaps do not envisage the physical exchange of gas, but are entered into to hedge price indices for volumes sold, in order to limit price risk deriving from specific gas purchase transactions at a fixed price and resale at a variable price (or vice versa) at different times. This category includes derivatives entered into in the context of trading activity and derivatives in the context of gas sales that do not meet the conditions required by IFRS 9 (including formal conditions), to qualify as hedges.

Interest Rate Swap (IRS) contracts hedge the risk of unfavourable interest rates on loans or long-term leasing plans. The effective portion of changes in the fair value of derivatives is directly recognised in shareholders' equity under a specific equity provision called the "Cash flow hedge reserve", whereas the ineffective portion is recorded in the income statement. Amounts that are directly recognised in shareholders' equity are reflected in the comprehensive income statement.

The table below shows the due dates, notional value and fair value of existing IRS contracts at 31 December 2022 and 31 December 2021:

(amounts in thousands of euro)	Year ended 31 December 2022		Year ended 31 December 2021	
	Positive/(negative) Fair Value	Notional	Positive/(negative) Fair Value	Notional
IRS Fixed Rate/Variable Rate maturing 28/06/2024 (Intesa)	(10)	1,099	(115)	1,788
IRS Fixed Rate/Variable Rate maturing 03/06/2026 (Intesa)	30	527	(1)	600
IRS	20	1,626	(116)	2,388

Please see the paragraph “Interest rate Risk” for additional information.

10.2.6 Cash and cash equivalents

In the financial periods ended 31 December 2022 and 31 December 2021, cash and cash equivalents amounted to € 345,872,000 and € 143,107,000 respectively.

The item can be broken down as follows:

(amounts in thousands of euro)	Year ended 31 December	
	2022	2021
Bank and postal deposits	345,857	143,092
Cash and cash equivalents	15	15
Cash and cash equivalents	345,872	143,107

Deposits held with banks accrue interest based on variable daily deposit rates. Short-term deposits have various call dates, between one day and three months, in relation to the Group's financial requirements and accrue interest at short-term rates. Cash and cash equivalents recorded in the financial statements are free from usage restrictions.

10.2.7 Liabilities directly associated with assets held for sale

The assets and Liabilities held for sale at 31 December 2022 refer to the equity investments and relevant debts for subscribed capital not yet paid in the companies Metropolitan City of Venice I and Metropolitan City of Venice II established on 30/03/2021, with a 30% stake held by Estra Clima for a total of €42,000, for the execution of works, supply of materials and equipment needed and provision of services for the management and maintenance of the public lighting system in 14 municipalities in the metropolitan city area of Venice.

In December 2021, shareholders were unable to reach agreement on the funding methods to adopt for the project and a stalemate resulted, following which Estra Clima, as envisaged by the shareholders' agreements in these circumstances, sold 29.9% of its shareholding in both companies at the beginning of 2022 at the subscription value, keeping only a residual stake of 0.1%, for a total of €0.1 thousand (to be held until the final approval of the works executed, which are also intended for sale);

10.3 SHAREHOLDERS' EQUITY

In the financial periods ended 31 December 2022 and 31 December 2021, shareholders' equity amounted to € 423,249,000 and € 413,025,000 respectively.

The change in the Group's equity at 31 December 2022 compared to 31 December 2021 is mainly due to:

- distribution of dividends to Shareholders (profit for the year 2021) by the Parent Company (- € 16,000,000);
- other changes due to the effects arising from the Centria capital increase (-€ 117,000) as described in the paragraph "Business combinations and disposals of assets, and acquisition and disposal of non-controlling interests";
- result of the Group's comprehensive income statement (+ € 24,401,000);

The change in the Group's equity at 31 December 2021 compared to 31 December 2020 is mainly due to:

- distribution of dividends to Shareholders (profit for the year 2020) by the Parent Company (-€ 17,500,000);
- Effects resulting from the acquisition of non-controlling interests in the already-controlled company Prometeo S.p.A. (+ € 819,000). Please see the related point in the paragraph "Business combinations and corporate sales and acquisitions and disposals of non-controlling interests";
- result of the Group's comprehensive income statement (+€ 22,139,000).

The change in shareholders' equity attributable to Non-Controlling Interests at 31 December 2022 compared to 31 December 2021 is mainly due to:

- other changes due to the effects arising from the Centria capital increase (+€ 117,000) as described in the paragraph "Business combinations and disposals of assets, and acquisition and disposal of non-controlling interests";
- other changes arising from the Bisenzio Ambiente S.r.l. share capital increase subscribed by third parties (+€ 1,825,000);
- distribution of dividends to third party shareholders (- € 1,104,000).
- result of the Group's comprehensive income statement related to Non-Controlling Interests (- € 186,000).

The change in shareholders' equity attributable to Non-Controlling Interests at 31 December 2021 compared to 31 December 2020 is mainly due to:

- Effects resulting from the acquisition of non-controlling interests in the already-controlled company Prometeo S.p.A. (- € 3,224,000). Please see the related point in the paragraph "Business combinations and corporate sales and acquisitions and disposals of non-controlling interests";
- Effects deriving from the first consolidation of Edma Reti Gas S.r.l. (+ € 19,666,000). Please see the related point in the paragraph "Business combinations and corporate sales and acquisitions and disposals of non-controlling interests";
- distribution of dividends to third party shareholders (- € 1,468,000).
- result of the Group's comprehensive income statement related to Non-Controlling Interests (+€ 215,000).

10.4 NON-CURRENT LIABILITIES

10.4.1 Provisions for risks and charges

In the financial periods ended 31 December 2022 and 31 December 2021, the provisions for risks and charges amounted to € 11,053,000 and € 10,645,000 respectively.

The table below shows the composition of the item and the change that occurred in 2022:

(amounts in thousands of euro)	31/12/2021	Allocations	Uses	Reversal	31/12/2022
Agency indemnities	256	310		(252)	314
Disputes and legal defence expenses	2,268	20		(85)	2,203
Energy Efficiency Certificates	1,867	18	(445)		1,440
Other risks	5,059	1,375	(566)	(59)	5,809
Plant dismantling provision	1,195	92			1,287
Provisions for risks and charges	10,645	1,815	(1,011)	(396)	11,053

The item Disputes and legal defence costs is allocated based on the best estimate at the reporting date of the risk relating to expenses and obligations arising from ongoing lawsuits involving Group companies. Given that the time period to resolve the disputes cannot be reasonably predicted, the Group has not discounted the item.

Energy Efficiency Certificates refers to the risks associated with market trends in energy efficiency certificates, considering the remainder of the mandatory certificates to be purchased and the most recent estimate available for the contribution that will be recognised by the Authority.

Other risks refers mainly to the risks associated with the plants producing energy from renewable sources and technological equipment for telecommunications and to penalties related to the gas distribution business.

The item agency indemnities refers to the severance indemnity for sales agents of the Group's vendor companies.

The Plant dismantling provision is related to the concession relationship between the subsidiaries Caviglia and Tegolaia and the granting Municipality. recognised in accordance with IAS 17.50 as a sale and leaseback transaction (IAS 17.59), as described in the paragraph on property, plant and equipment, to which you are referred.

The change during 2022 referred mainly to:

- Use of risk provisions for Energy Efficiency Certificates for € 445,000 to cover the losses on EECs made in 2022 for the obligation year 2021;
- Provisions for € 968 thousand primarily referring to the estimate for the risk of sanctions and/or penalties pertinent to the gas distribution activity;
- Uses for € 566,000 of provisions for risks and sanctions set aside in previous years;

10.4.1.1 Main pending disputes

Dispute referring to the determination of the compensation due to the outgoing operator for the natural gas distribution service Municipality of Prato Toscana Energie

Following the award of the tender for the assignment of gas distribution services in the Municipality of Prato to Toscana Energie, on 31 August 2015, Centria, Toscana Energie and the Municipality of Prato signed the network delivery report (with the related installations and assets making up the gas distribution system), with the concurrent payment by Toscana Energie to Centria of compensation for the network of € 85,538,000 plus VAT.

During the year 2016, Estra and Centria filed a lawsuit with the Court of Prato against the Municipality of Prato and Toscana Energia, in order to obtain the condemnation of Toscana Energia. Moreover, subordinate to the Municipality of Prato, they pretend the payment of € 9,613,000, to supplement the lesser amount provided in the

call for the tender and recognized to the outgoing Centria operator for the networks delivery, in application of a contested indexation and revaluation mechanism, on the basis of the time passed between the call and the delivery of the networks.

Based on the alternative application in respect of the Municipality of Prato, there was, *inter alia*, an agreement signed by Estra and the Municipality of Prato on 17 November 2011 with which the parties had intended to settle mutual disputes concerning the amount of network compensation owed by the incoming operator to the outgoing operator, in view of Estra's commitment to pay € 7,700,000 to the Municipality of Prato (of which, € 1,700,000 paid on 17 November 2011).

In the proceedings pending before the Court of Prato, Toscana Energie and the Municipality of Prato, argued for the unsubstantiated nature of the proposed application and presented a series of counter demands, and specifically:

- the Municipality of Prato submitted a counter-claim to obtain the payment of € 6,000,000 due to the aforementioned settlement agreement provisions signed in 2011 to determine, *inter alia*, the value of the compensation due to the outgoing operator;
- Toscana Energia counter-claimed to obtain the payment of an amount of € 1,742,000 based on an alleged different composition of the network from what had been represented by the outgoing operator.

With judgment no. 387/2020 published on 14/08/2020, the ordinary Court of Prato ordered Estra S.p.A. to pay the Municipality of Prato, the amount of € 6,000,000, plus interest, based on the provisions of a settlement agreement signed in 2011 to determine, *inter alia*, the amount of the compensation owed to the outgoing operator.

Instead the Court held that the Administrative Judge had jurisdiction in responding to the lawsuit filed in 2016 by Estra and Centria against the Municipality of Prato and Toscana Energia, in order to obtain an order against Toscana Energia, or alternatively the Municipality of Prato, for the payment of € 9,613,000, to supplement the lesser amount recognised to the outgoing operator Centria for the delivery of the networks, in application of a contested indexation and revaluation mechanism, on the basis of the time that had passed between the call and the delivery of the networks.

The settlement agreement dated 02 December 2020 provided, *inter alia*, for Estra and Centria's withdrawal of the challenge to the judgment, limited to the part ordering the payment to the Municipality of Prato. The Parties agreed on instalment-based payments for a total amount of € 6,050,000, including interest, in three annual instalments falling due on 31 January 2021, 31 January 2022 and 31 January 2023.

With regard to the application by Estra and Centria for € 9,613,000 and the counter demand of € 1,742,000 by Toscana Energia, the Court of Prato waived its jurisdiction, stating that the matter should be heard by the Administrative Judge. Estra and Centria appealed the judgment on 26 February 2021 and Toscana Energia separately submitted an application to the Appeal Court of Prato against the same judgment. Following this agreement, the defence then advised the summons of Estra and Centria to the autonomous rehearing proposed by Toscana Energia, requesting, in addition to the merging with the other appeal, the rejection of the counterparty's demands. The first hearing for the merged proceedings was automatically deferred first to 4 July 2023 and then to 7 May 2024.

With regard to the reservations expressed by Toscana Energia on signing the networks delivery report, some of which appear to already have been accepted by the Municipality of Prato, it was deemed prudent to retain the risk provisions for € 1,752,000 recognised in previous financial years.

Notice of liquidation of registry, mortgage and land registry taxes

On 20 December 2019, the Parent Company and the subsidiary Centria received notices of liquidation of registry, mortgage and land registry taxes, as well as sanctions for a total of € 435,000 with reference to the corporate operations with which the companies Solgenera S.r.l. (now incorporated into Estra S.p.A.) and Centria S.r.l. contributed on 29/09/2016 to the company Estra Clima S.r.l. business units of theirs obtaining in exchange equity investments, of 44.69% and 39.43% respectively in the share capital of the conferee. These equity investments were subsequently (on 13/12/2016) transferred to the company Es.tr.a. S.p.A. at that time already a shareholder of the said Estra Clima S.r.l. with a 15.88% stake in the share capital.

Based on the external opinions also received, on 7 February 2020, the Group companies presented an appeal, considering the notices received unlawful and no provision has therefore been set aside in these consolidated financial statements. Subsequently to the submission of the appeal, the Regional Tax Commission of Arezzo, with judgment no. 210/2021 of 26 April 2021, filed on 24/05/2021, accepted the appeal by Centria and cancelled the challenged settlement notice. On 15 December 2021, the Revenue Agency submitted an appeal to the Regional Tax Commission of Tuscany.

Also in relation to Estra, the Regional Tax Commission of Arezzo, with judgements no. 420/2021, 421/2021 and 422/2021 of 26/04/2021, filed on 13/12/2021, accepted the appeal and cancelled the challenged settlement notices. The Revenue Agency submitted an appeal to the Regional Tax Commission of Tuscany, as notified to the counterparty on 8 June 2022.

Centria filed its rebuttal arguments on 04/02/2022 and Estra on 18/07/2022.

Lastly, on 05/04/2023, with judgement no. 335/2023, Centria also won its defence in the second instance. For Estra, the hearings of another 3 appeals are still yet to take place.

Disputes with a number of granting Municipalities in the *ope legis* management stage of the natural gas distribution service

The subsidiary Centria S.r.l. launched legal disputes with the Municipality of Seravezza and the Arno Valley Municipalities (Montevarchi, Cavriglia and Figline Valdarno) on the definition of the amount of the fees due to these Municipalities for the period, after the contractual expiry, in which Centria continued and is continuing to perform the activity of natural gas distribution in a regime of *prorogatio ope legis*.

In particular, the Company, supported by its lawyers, believes that it has the right to be granted a reduction of the fees established in the concession contracts, which expired during 2016 for Serravezza or during 2014 for the Arno Valley Municipalities.

In relation to the Municipality of Serravezza, the annual concession fee of which amounts contractually to approximately € 500,000, on 30/09/2019 a judgement was issued with which the Court of Lucca accepted Centria's arguments, ascertaining that the Municipality was and is obliged to renegotiate the fee after the expiry of the concession in observance of the general clauses of good faith and correctness, to preserve the economic and legal balance between the parties.

Following this decision, Centria S.r.l. and the Municipality of Serravezza signed a settlement agreement in May 2020 to quantify the fee payable to the Municipality for the 2016 and 2017 financial years, setting this at a total of € 861,000 per year. The adjustment to the provision recognised in the financial statements for € 636,000, was recorded less the operating costs in these financial statements.

For the years 2018 to 2021, the fee has provisionally been calculated at € 150,000, pending legislative/judicial clarification or notification from the sector Authority on the issue of fees post-maturity. Pending this clarification, the company has prudentially posted the contract-based fees in the financial statements.

Despite the settlement agreement, which should have ended the dispute, in December 2021 the Municipality of Seravezza requested the supplementary payment of the fees envisaged by contract reg. no. 128/2005 with reference to the period post-maturity and, notably, with reference to the years 2018, 2019, 2020 and 2021, in addition to the sums already paid by the Company, in execution of the settlement deed reg. no. 580 of 21.5.2020.

This request was entirely contested by Centria. In response, the Municipality notified an injunction on 26 June 2022 for a total of € 2,324,100, with related decree of the Court of Lucca, also requesting the granting of provisional enforcement. On 7 September 2022 Centria filed a notice of objection to the injunction notified by the Municipality of Serravezza.

At the first hearing on 27 January 2023, the Municipality entered an appearance asking for the provisional enforceability of the injunction. A paper-based hearing was set for 28 March 2023. The judge, who had reservations, withdrew the reservation in April, accepting the requests in the hearing notes and rejected the motion filed by the Municipality for the provisional enforcement of the injunction, in the context of the opposition proceedings in question. The judge also rejected the request of the counterparty defence, which sought to obtain an additional oral cross-examination (in-person hearing) to seek to add supporting arguments to its motion.

In relation to the Arno Valley Municipalities, the annual concession fees of which amount contractually to approximately € 2,200,000, a dispute launched by Centria in relation to the said Municipalities is still ongoing, having concluded the arbitration procedure, with partial rulings, issued in September 2019 and January 2020, which did not resolve the dispute, and with a final ruling issued in May 2022.

In particular, with the partial ruling issued in January 2020, in accepting one of the demands from Centria, the Board raised the question of constitutional legitimacy regarding the original interpretation rule (Art. 1, paragraph 453, Law no. 232/2016), which gives rise to the obligation for the operator to always pay the contract fee for the entire term of the *ope legis* management phase. With the same partial ruling, as it appears from the motivation, for the period 2014-2019, the Board deemed the 2014 agreement valid and effective, where it provided for the application of the contract conditions, even though this was not followed by any conviction.

In the context of the judgement of constitutional legitimacy, Centria entered an appearance in the case, and the Constitutional Court pronounced the inadmissibility of the matters of constitutional legitimacy, as highlighted by the arbitrators. Centria therefore appealed against the partial ruling of January 2020 before the Court of Appeal of Rome, requesting a decision on the precise identification of the effects of the 2014 Agreement on and the additional demand aimed at ascertaining the obligation of the Municipalities to renegotiate the content of the Agreement based on the rules of correctness and good faith (Articles 1175 and 1375 of the Italian Civil Code), so as to respect the legal-economic balance of the relationship between the parties. The first hearing was held on 28 January 2021, with a postponement until 23 March 2023 for the closing arguments.

With the final ruling of May 2022, the Board accepted the demands of the Municipalities and what had been requested in their counter demand, namely € 3,330,000 to be divided between the three Municipalities according to a criterion not yet defined.

Centria then appealed against the final ruling of May 2022 before the Court of Appeal of Rome. The first hearing, initially requested by Centria for 23 March 2023, to favour the merging with the proceeding pending objection of the partial ruling of January 2020, was automatically deferred to 7 June 2023.

The merger of the two proceedings was requested with a specific application and is awaiting the decision of the Court.

Although the Company, assisted by its lawyers, believes that it has the right to a redetermination of the fees for the years after the contractual expiry, the outcome of the disputes launched and of the renegotiations with the Municipalities is still uncertain. Pending the dispute being finalised, in these financial statements, in continuity with the previous years, it was therefore decided to continue to recognise the entire amount contractually provided for at cost.

It is noted further that on 28/12/2020, Centria S.r.l. received a summons to appear before the Court of Arezzo from the Municipality of Arezzo, with the demand for arrears on the concession fees for 2014 to 2019, for a total of € 3,131,000, plus interest and monetary revaluation.

The demand is based on the assumption, contested by Centria S.r.l., of an existing agreement (formulated on the basis of an exchange of correspondence) whereby the company was obliged to pay an annual fee determined on a fixed amount of € 984,000 as from 2011 and up until the European tenders pursuant to Art. 14 of Italian Legislative Decree 164/2000 are awarded.

The first hearing was held on 15 February 2022. On the request of the Municipality's defence, the Judge granted the standard deadline for the filing of statements pursuant to Art. 183, paragraph 6 of the Civil Procedure Code. The case was therefore postponed to a hearing on 15/06/2022 to review the preliminary submissions and for the proceedings to continue.

At the hearing in June 2022, the counterparty's lawyer produced the ruling issued in the dispute with the Municipalities of Valdarno and insisted (as an alternative) on the request for a technical report. Centria, through its own lawyer, noted the irrelevance of the case to which the ruling refers, in terms of the subject of the judgement, as well as the inadmissibility of the requested technical report (since it is beyond the scope of the request), asking to schedule directly a hearing to set out the closing arguments.

The Judge, in accepting Centria's request, directly scheduled the hearing to set out the closing arguments, deeming the case to be ready for trial, with no need for investigation.

At the final hearing on 1 March 2023, the case was adjourned for a decision.

It is noted that the distribution of natural gas in the Municipality of Arezzo, relating to the original public management of the service in an association format, has lapsed with the application of the sector transition regime and is managed by Centria S.r.l. *ope legis* post expiry in the absence of a contract.

Supported by its lawyers, the Board of Directors believes that the Municipality's claim can be legitimately opposed, and has therefore made no provision to any risk provisions regarding this dispute.

On 5 February 2021, the Municipality served notice of the start of summary proceedings pursuant to Art. 702 *bis* of the Italian Code of Civil Procedure, aimed at obtaining judgment against Murgia S.r.l. to pay the fees past their due date for the period 2019-2020 for approximately € 326,000, plus approximately € 108,000 in penalties.

This refers to an expired concession contract arising from a tender conducted pursuant to Art. 14 of Italian Legislative Decree no. 164/2000, which contemplates a fee equalling 53% of the location revenue tariff (at the time, VRD).

In the absence of the Entity's availability to reformulate the fee, the Company paid amounts commensurate to the criteria applicable to new tenders, in accordance with tariff regulations, estimating a breakdown between the Municipality and Operator (remuneration of invested capital for the municipality owned portion).

The first hearing was held on 25/11/2021. At the hearing, the Court issued an Order whereby the documents were sent to the Judge President, on the basis that the case fell within the scope of responsibility of the Companies Section of the same Court.

At the subsequent hearing on 16/03/2022, the Judge, rejecting our objection of lack of jurisdiction in favour of arbitral competence, granted the terms for filing the standard notices pursuant to art. 183 of the Code of Civil Procedure.

After filing the statements pursuant to Art. 183, nos. 1, 2 and 3 of the Civil Procedure Code by both Murgia and the Municipality, at the hearing on 14 December both parties insisted on the performance of the investigation. In particular, a technical report (CTU) was requested by both Murgia and the Municipality.

The differences concern the formulation of the questions.

Murgia also put forward a request for other means of investigation, including a request for information/clarification to the Authority on the limit of the fee payable by the Entity, beyond the willingness of the concession holder to negotiate. The Judge had reservations about the investigation.

The entire fee amount was recognised in these financial statements, but given the risk profile and arguments underlying its position, supported by independent external consultants, a provision was not made for the amount for penalties requested by the Municipality.

Formal tax audit report issued in respect of Coopgas S.r.l. and subsequent notices of assessment

On 19 December 2017, the Finance Police [Guardia di Finanza] of Modena issued a formal tax audit report ["processo verbale di constatazione (PVC)"], against Coopgas S.r.l., a company acquired by the Group in February 2016 and subsequently merged by incorporation into Estra Energie S.r.l., whereby it formulated findings referring to (i) the alleged inaccuracy of the IRES and IRAP tax returns for the deduction of costs relating to non-existent transactions for € 195,000 during 2014 and sponsorship costs deemed to be non-deductible donations for € 325,000 in 2015, and (ii) the non-deductible VAT on the invoices for non-existent costs for about € 43,000, with reference to 2014.

The findings relating to 2014 gave rise to a report to the judicial authorities against the company representative at the time for having committed the action, since, according to the Finance Police, the documentation for the costs consisted of invoices relating to non-existent transactions.

It should be noted that the PVC is an act occurring during the course of proceedings and does not involve the penalties that could be imposed by the tax authorities when issuing an order confirming the PVC criteria, and consequently does not allow us to accurately quantify the risk related to the claim. Based on the findings and documentary evidence in the PVC, the Group has estimated the tax at around € 211,000 and about € 401,000 for the maximum penalties that could apply with the tax assessment.

Considering that there are not sufficient elements to open a dispute and challenge the above findings (related to conduct dating back to financial periods prior to the acquisition date of Coopgas), the Group believes it is plausible to accept the assessment notices, which in terms of the ordinary deadlines, should be notified by 31 December 2023, failing which they lapse. The Group has therefore set aside € 350,000 in the consolidated financial statements at 31 December 2017 to cover the probable expense for taxes and penalties, with the latter reduced by one third as provided for in the case of acceptance of the assessment notices.

In 2019, based on the assessment notices issued for 2014 relating to IRES, IRAP and VAT, a total of € 132,000 was paid in total for taxes, penalties and interest, by accepting the assessment notices.

Given that what was paid to settle the findings relating to 2014 does not diverge substantially from the provisions set aside at 31 December 2017, and considering that no notices have currently been received for 2015, the residual provision for € 218,000 is deemed appropriate.

Notice of assessment on deductibility of goodwill

In June 2018, the Regional Tax Office [DRE] for Marche served Prometeo with an assessment notice for 2014, where the main finding referred to the derecognition for IRES, IRAP and Robin Tax purposes of the amortisation, quantified at € 148,000, applied to goodwill for around € 6,690,000, acquired on the basis of a business unit contribution operation.

Essentially, the tax authorities deem that in a business unit contribution operation the goodwill recognised by the transferee is always irrelevant for tax purposes, even when as in the case in question, the transferor transfers goodwill that is not subject to taxation.

In March 2020, the first-instance hearing was held and the Group received a favourable judgement. On 22 October 2020, the Regional Tax Commission submitted an appeal application in the second instance. In January 2021, Prometeo submitted the relevant rebuttal arguments to the appeal application.

In the scope of the tax mentorship undertaken with the Regional Tax Department in the Marches region, the above finding was also re-proposed for tax years after 2014. Specifically, with regard to the 2015 tax year, the Marches DRE issued additional assessment notices, in which respect Prometeo S.p.A. submitted an appeal on 20 July 2021. The 2015 references also had judgments that become definitive with the Provincial Tax Commission of Ancona, on 23 November 2021, the Commission handed down another judgment in favour of the company.

On 30 March 2022, the DRE Marches issued another assessment notice referring to the same case as above, for the year 2016. Additionally, in reference to the proceedings of first instance for the year 2016, the tax court of first instance of Ancona handed down a judgement in favour of Prometeo S.p.A. on 7 November 2022. Pending the undertaking of legal action, the company is continuing with its defence in the various instances still open; furthermore, on 2 March 2023, the Regional Tax Office for Marche launched a tax assessment for tax year 2017. At the end of the meeting, an official tax audit report was drawn up in which the Revenue Agency contested, for the same case as above, the deductibility of amortisation and depreciation for the year 2017. As it stands, the company is waiting to receive the related assessment notice.

Supported by its consultants, the Group believes the allegation raised to be unfounded; therefore, no provision has been made against the risks deriving from losing the dispute.

Dispute referring to the electricity surcharges pursuant to Italian Decree Law 511/1988

On 23 October 2019, in its judgement no. 27101, the Court of Cassation stated the legal principles whereby provincial surcharges are not applicable to excise duties on electricity as per Art. 6 of Italian Decree Law 511/88, in the applicable version, *ratione temporis*, subsequent to the amendments introduced by Art. 5, section 1 of Italian Legislative Decree no. 26/2007. The judgement confirmed the non-application of the regulation in question, deeming it contrary to Art. 1, paragraph 2 of Directive 2008/118/EC of 2007, also following the interpretation provided by the EU Court of Justice ratified by specific judgements.

Even though in the scope of other pending proceedings, the Court of Cassation rejected the claims for reimbursement submitted by end consumers in respect of Customs Offices, in this case, finding the lack of passive legitimacy on the part of the end customer, as they are extraneous to the tax relationship established between the financial administration and the vendor company that acts as a withholding agent. In the aforementioned decisions, the Supreme Court nonetheless provided the end customer with the option of “conducting a civil case referring to the recovery of amounts unduly paid, directly in respect of the service provider”.

Based on these pronouncements, electricity vendor companies are receiving a series of reimbursement demands from end customers, referring to amounts unduly paid for the provincial surcharges for the years 2010-2012 as these do not yet fall within the term of prescription provided for a civil action. It should be remembered further that the provincial surcharge for excise duty on electricity was applicable until its cancellation on 31 March

2012, in terms of Italian Decree Law no. 16/2012, and was applied to electricity usage up to 200,000 KWh monthly.

With regard to the demands for reimbursement of undue payments that could result in civil litigation, the supplier is essentially obliged to oppose the reimbursement claims made by end consumers, as it will be impossible to obtain a reversal from the Customs Agencies. Should the supplier acquiesce to the demands of its customers, the reversal operation in respect of the Financial Administration would become impossible, given the provisions under Art. 14, paragraph 4 of the Consolidated Excise Duties Text, which strictly sets the deadline to reimburse what has been paid at two years from the time of payment. Otherwise, the assumption of the civil court ordering the supplier to make the reimbursement, again on the basis of Art. 14, paragraph 4 of the Consolidated Excise Duties Text, requires the taxpayer to request the refund from the Financial Administration within ninety days of the civil court judgement becoming final, imposing the return of the amounts paid.

Even though this mechanism could generate advances paid to the end consumer by the supplier, when ordered to refund the payment, it theoretically excludes the risk of a liability for the vendor company, because the amounts that will be reimbursed by suppliers would be recovered based on subsequent compensation action in respect of the Tax Authority.

The first hearings were held in the Civil Court during 2021, opposing the requests for refunds received from certain customers. Given that the position is wide open to interpretation, and in the absence of consolidated case-law, the Courts involved up to now in the individual matters, are adopting different approaches to the matter at hand. At the date of this document, pending the action relating to the claims for damages that have already become definitive in the first instance, during 2022, the company repaid 24 customers that had put forward a request before the Court, for a total of approximately € 409,000. For these amounts, during 2022, the Group presented a specific claim for reimbursement to the respective Customs Agencies involved for 18 cases and a total amount of € 283,000; whereas it filed a lawsuit in the second instance for 6 cases in which claims for reimbursement had accrued for € 126,000.

To date, with regard to the above, given that the applications for refunds to the vendor companies involved in other specific cases, have been accepted by certain territorial Customs Agencies, the Group did not deem it necessary to make a specific allocation to the risk provisions.

Proceedings related to the appointment of Mr Macrì to the Board of Directors of Estra S.p.A.

On 27 May 2021, ANAC notified Estra S.p.A. and other parties that it had initiated proceedings with regard to the appointment of Mr Francesco Macrì as Chairman of the Company. The proceedings were initiated in order to ascertain whether the appointment of Mr Macrì to the Board of Directors was subject to the prescriptions pursuant to Italian Legislative Decree no. 39 of 8 April 2013 referring to appointments with the public administration and entities under public control ("Decree 39"), and if subject to these requirements, whether any non-compliance had occurred. More specifically, the investigation relates to Mr Macrì's potential ineligibility as a member of the Board of Directors of Estra S.p.A. at the time of his appointment, based on his recent appointment as municipal councillor for the Municipality of Arezzo.

On 22 November 2021, ANAC notified Estra S.p.A. of its decision to cancel the appointment of Mr Francesco Macrì as Chairman of Estra S.p.A. with immediate effect.

On 26 November 2021, the Board of Directors appointed as its Chairman Mr Alessandro Piazzzi, formerly Chief Executive Officer of Estra S.p.A., and passed a resolution to challenge the ANAC decision before the relevant courts. More specifically, the Directors believe that Decree no. 39 should not apply to Group companies. The Decree refers mainly to the appointment of directors and officials, on the assumption that is supported by legal advice received, that Estra S.p.A. does not qualify as a company under public control in terms of this legislation. The first hearing relating to Estra's challenge of the ANAC decision is set for 14 June 2022 before the Administrative Court of Lazio.

With judgement no. 13057 of 13/10/2022, the Regional Administrative Tribunal of Lazio rejected the appeal lodged by Estra S.p.A. against ANAC in relation to Francesco Macrì, Coingas S.p.A. and the Municipality of Arezzo for the cancellation of Resolution no. 744 of 10 November 2021 adopted by ANAC and any other preliminary, connected and/or consecutive measures.

Assisted by its lawyers, the company appealed the aforementioned judgement to the Council of State and the hearing took place on 4 April 2023.

The proceedings have not had an effect on these consolidated financial statements.

10.4.2 Employee severance indemnity

The employee severance indemnity [TFR] provided for in Art. 2120 of the Italian Civil Code, from the point of view of recognition in the financial statements, qualifies as a defined benefit pension plans, and as such, is treated according to IAS 19, which requires the measurement of the relevant liability based on actuarial criteria.

The table below shows the changes during 2022 to the obligations for defined benefits and the fair value of the plan's assets:

Obligations for defined benefits 31.12.2021	Corporate acquisitions	Costs for services	Interests	Settled benefits	Expected obligations 31.12.2022	Actuarial losses (gains) from experience	Actuarial losses (gains) from changes to financial assumption	Obligations for defined benefits 31.12.2022
9,340	88	345	155	(645)	9,283	587	(2,236)	7,634

The main assumptions are summarised in the table below:

Summary of the Economic Technical Basis

	Year ended 31 December 2022	Year ended 31 December 2021
Annual discount rate	3.77%	0.98%
Annual inflation rate	2.30%	1.75%
Annual severance indemnity increase rate	3.22%	2.81%
Annual salary increase rate	1.00%	1.00%

The discount rate used to determine the current extent of the obligation was taken from the Iboxx Corporate AA Index over 10+ years recorded at the assessment date, in accordance with paragraph 83 of IAS 19. In this respect, the yield was chosen with a term that was comparable to the duration of the workers collective agreement under valuation.

Summary of the Demographic Technical Basis

Death	RG48 Mortality table published by the State General Accounting Office
Disability	National Pension Fund [INPS] table according to age and gender
Pension	100% on reaching mandatory general insurance [AGO] requirements

Annual frequency of Turnover and early retirement

Early retirement frequency	Turnover frequency
1.21%	0.50%

A quantitative analysis follows below summarising sensitivity in respect of the significant assumptions at 31 December 2022 and 2021:

Assumptions	Changes	Year ended 31 December 2022	Year ended 31 December 2021
Turnover frequency	+1/4%	7,379	8,940
	- 1/4%	7,352	9,189
Inflation rate	+1/4%	7,179	9,235
	- 1/4%	7,560	8,883
Discount rate	+1/4%	7,500	8,800
	- 1/4%	7,235	9,324

The sensitivity analyses above were done on the basis of extrapolating the impact on the net obligation for the defined benefits plan from reasonable changes in the key assumptions that arise at the reporting date. The sensitivity analysis is based on the variation in one of the significant assumptions, whilst keeping the other assumptions constant. The sensitivity analysis may not represent the effective changes in the defined benefits obligation because it is improbable that isolated changes could occur on single assumptions.

The following payments are the envisaged contributions that will be made in future years against the defined benefit plan obligations:

Payments envisaged				
	2023	2024	2025	2026
Total	391	148	566	504

The average duration of the defined benefit plan obligation at the close of the 2022 financial period is approximately 15.6 years (approx. 15.4 at 31 December 2021).

10.4.3 Medium/long terms loans

In the financial periods ended 31 December 2022 and 31 December 2021, medium/long-term loans amounted to € 665,964,000 and € 350,720,000 respectively.

The item can be broken down as follows:

(amounts in thousands of euro)	Year ended 31 December 2022		Year ended 31 December 2021	
	Amount Carrying	Amount Nominal	Amount Carrying	Amount Nominal
Bonds maturing within 12 months	19,902	20,000	96,869	97,200
Bonds maturing after 12 months	145,439	150,000	49,516	50,000
Total payables for bonds	165,341	170,000	146,385	147,200
Shareholders' loans maturing within 12 months	1,435	1,435	1,435	1,435
Shareholders' loans maturing after 12 months	4,935	4,935	5,370	5,370
Total Shareholders loans	6,370	6,370	6,805	6,805
Loans maturing within 12 months	125,782	125,782	70,304	70,304
Loans maturing after 12 months	341,603	343,853	106,649	107,098
Total payables for loans	467,385	469,635	176,953	177,402
Leasing within 12 months	4,763	4,763	4,710	4,710
Leasing after 12 months	22,105	22,105	15,867	15,867
Total payables for leasing	26,868	26,868	20,577	20,577
Total within 12 months	151,882	151,980	173,318	173,649
Total after 12 months	514,082	520,893	177,402	178,335
Total medium/long term loans	665,964	672,873	350,720	351,984

The changes during 2022 are shown below:

(amounts in thousands of euro)	Balance at 31 December 2021	Corporate acquisitions	Granted/Opened	Repayments	Application of amortised cost	Balance at 31 December 2022
Bonds	146,385		150,000	(127,200)	(3,844)	165,341
Loans	176,953	1,207	369,700	(78,673)	(1,802)	467,385
Leases	20,577	3,461	7,968	(5,138)		26,868
Shareholders' loans	6,805		1,000	(1,435)		6,370
Total medium/long term loans	350,720	4,668	528,668	(212,446)	(5,646)	665,964

With reference to bond loans, we note that:

- on 14 April 2022, the issue and placement of a non-convertible unsecured bond loan for € 80 million represented by bonds listed on the regulated market managed by the Irish Stock Exchange, where the relative prospectus has been filed.
The loan is guaranteed by the subsidiary Centria S.r.l., entirely subscribed by institutional investors outside of the United States of America. Bonds, issued at a price of 98.509% of nominal value, are unrated, have a duration of 5 years and a fixed coupon of 3.050%. At the same time as the new issue, Estra S.p.A. partially bought back € 30 million of the bond loan of € 50 million outstanding at 31 December 2021, falling due in November 2023 at a price of 100.53% of the nominal value.
- On 15 September 2022, the issue and placement of non-convertible unsecured senior bonds with American institutional investors (so-called "US Private Placement") for the amount of € 70 million.
The bonds, issued at par and with a duration of 7 years, admitted to trading on the non-regulated market of the Wiener Börse AG, have a fixed coupon of 4.20% and will be repaid at par in a single tranche at the maturity date.
The issue is part of an uncommitted issue programme of bonds that can be subscribed by the Pricoa Group ("Private Shelf Facility") up to US\$ 125 million, with a 3-year duration. The transaction represents a new and complementary channel of funding and confirms Estra's capacity to fund its activities on the capital market and the interest of investors, including American investors, in supporting the Group's strategic plan.

Both issues are aimed at the partial repayment of existing debt as well as support for the Group's investment plan, and pursue a strategy of diversification and improvement of the Group's indebtedness, by extending its average duration.

The table below shows the carrying amount at 31 December 2022 and 31 December 2021 for each bond loan issued:

(amounts in thousands of euro)	Year ended 31 December	
	2022	2021
BOND 2015-2022	-	96,869
BOND 2016-2023	19,902	49,516
BOND EUPP 2022-2027	76,789	
BOND USPP 2022-2029	68,651	
Bonds	165,341	146,385

With reference to loans, we can note in particular:

- on 31 March 2022, an unsecured bank loan for € 50,000,000 by the subsidiary Centria S.r.l., in support of the corporate investment plan in networks and plants pertaining to the distribution of natural gas, with a 5-year duration, quarterly amortisation and maturity at 31 March 2027;
- on 9 August 2022, the finalisation by Estra S.p.A. of a pool loan agreement with leading credit institutes as a result of which the lending banks undertook, on the basis of their share in the pool, to grant a loan to Estra S.p.A. divided into two medium/long-term secured credit facilities:

- a credit facility (Facility A), for a maximum amount of € 120,000,000 in support of the costs incurred and to be incurred based on the Group's CapEx plan and
- a credit facility (Facility B), for a maximum amount of € 35,000,000 to be used in support of the Company and the Group's general cash requirements.

On 12 August, the Parent Company obtained the provision of € 104,700,000, broken down as follows:

- € 81,059,000 referring to Facility A; and
- € 23,641,000 referring to Facility B.

The availability period for the request by Estra and the provision by the lending banks of the residual sum of € 50,300,000 is 12 months starting from the date of stipulation, i.e. 8 August 2023.

The loan expires on 8 August 2027. Repayment of the loan is envisaged in deferred half-yearly instalments starting from the end date of the availability period.

- On 23 December 2022, the finalisation with leading credit institutes of a pool loan agreement for € 125,000,000 supported by a guarantee issued by SACE S.p.A. to hedge 90% of the total amount in accordance with the provisions of Decree Law no. 50 of 17 May 2022 definitively converted with amendments into Law 91/2022 and published in the Official Gazette no. 164 of 15 July 2022 and pursuant to Article 2.5 *et seq.* of the SACE General Conditions.

The loan is in support of the financing needs of the net working capital of the natural gas and electricity sales activity, which was amplified following the energy crisis starting in late 2021 and the conflict between Russia and Ukraine. The loan, taken out by the Parent Company Estra S.p.A., was utilised by the same for the disbursement of two intercompany loans in favour of Prometeo S.p.A. for an amount of € 5,000,000 and Estra Energie S.r.l. for an amount of € 120,000,000 respectively (indirect beneficiaries).

The loan was fully disbursed on 29 December 2022 and expires on 30 September 2025, repaid in 7 quarterly instalments of constant principal amounts starting from 31 March 2024.

- On 29 December 2022, the finalisation with leading credit institutes of a pool loan agreement for € 80,000,000 intended for the payment of obligations towards suppliers arising from supplies of goods/provisions of services in the context of the gas and electricity sales activity, supported by a guarantee issued by SACE S.p.A. to hedge 90% of the total amount in accordance with the provisions of Decree Law no. 50 of 17 May 2022, definitively converted with amendments into Law 91/2022 and published in the Official Gazette no. 164 of 15 July 2022 and pursuant to Article 2.5 *et seq.* of the SACE General Conditions.

The loan, taken out by the subsidiary Estra Energie S.r.l., is in support of the financing needs of the net working capital of the natural gas and electricity sales activity, which was amplified following the energy crisis starting in late 2021 and the conflict between Russia and Ukraine.

The loan was fully disbursed on 30 December 2022 and expires on 31 March 2024, repaid in 4 quarterly instalments of constant principal amounts starting from 31 March 2023.

The item "Leasing" refers to the financial liabilities relating to financial or operating lease payments in accordance with IFRS 16 for the right to utilise the asset underlying the contract. We specifically note the following for 2022:

- The remeasurement of the financial liabilities related to the lease contracts of the company offices with the Shareholders Consiag S.p.A., Intesa S.p.A. and Coingas S.p.A. considering the reasonable certainty of an additional renewal period of three years at the end of the current three-year period (€ 5,862,000);
- The recognition of the financial liabilities relating to the lease of the property that serves the plant of Bisenzio Ambiente S.r.l. due to its full consolidation, following acquisition of control (€ 3,461,000).

Shareholders' loans includes amounts due to shareholders for medium/long term loans, subordinate to bank and bond debt agreed by the shareholders Consiag and Intesa and, in particular:

- debt to the shareholder Consiag originally for € 15,000, repayable in 24 instalments starting from 30 June 2015, with constant principal amounts at an annual rate of 3% and residual debt at 31 December 2022 of € 5,000,000;
- debt to the shareholder Coingas originally of € 1,850,000 repayable in 20 bi-annual instalments starting from 30 June 2015, with constant principal amounts at an annual rate of 3% and residual debt at 31 December 2022 for € 370,000.
- debt to the shareholder Consiag for € 1,000,000 paid in 2022 in favour of the company Bisenzio Ambiente S.r.l., repayable in 14 bi-annual instalments starting from 30 June 2023, with constant principal amounts,

remunerated at the Euribor rate (6 months) increased by a spread of 310 bps and residual debt at 31 December 2022 for € 1,000,000.

10.4.4 Deferred tax liabilities

In the financial periods ended 31 December 2022 and 31 December 2021, deferred tax liabilities amounted to € 27,516,000 and € 24,603,000 respectively.

The composition and changes in 2022 in the item are as follows:

(amounts in thousands of euro)	Balance at 31 December 2021	Corporate acquisitions	Allocations	Reversals/Uses	Other changes	Balance at 31 December 2022
Dividends not collected	32		240	(16)		256
Amortised cost bond loans	87			(75)		12
Capital gains on assets under concession	2,298			(281)		2,017
Capital gains on intangible assets	20,980		237	(1,660)		19,557
Capital gains on property, plant and equipment	1,005	4,039	0	(362)		4,682
Other	201		148	-		349
Derivatives on commodities fair value	-				643	643
Deferred tax liabilities	24,603	4,039	625	(2,394)	643	27,516

The composition and changes in 2021 in the item are as follows:

(amounts in thousands of euro)	Balance at 31 December 2020	Allocations	Reversals/Uses	Other changes	Balance at 31 December 2021
Dividends not collected	24	8			32
Amortised cost bond loans	172		(85)		87
Capital gains on assets under concession	2,358		(60)		2,298
Gains on Customer listings	22,403	237	(1,660)		20,980
Capital gains on property, plant and equipment	999	72	(66)		1,005
Other	219		(18)		201
Derivatives on commodities fair value	1,302			(1,302)	-
Deferred tax liabilities	27,477	317	(1,889)	(1,302)	24,603

10.4.5 Other non-current liabilities

In the financial periods ended 31 December 2022 and 31 December 2021, other current liabilities amounted to € 17,211,000 and € 15,709,000 respectively.

The balance at 31 December 2022 mainly refers to multiple-year deferred income for fibre optic rentals for the year relating to data transmission in the telecommunication sector (€ 14,574,000) and the negative fair value of the TAG transport capacity acquired by the subsidiary SinIt as commented under equity investments (€ 1,799,000).

10.4.6 Non-current and current contractual liabilities

At 31 December 2022 non-current and current contractual liabilities amounted to € 26,145,000 and € 944,000 respectively (€ 25,172,000 and € 900,000 at 31 December 2021) and are mainly connected with contributions received by users for gas connections, booked to the income statement pro-rata temporis along the period of amortisation of the related investments.

10.5 CURRENT LIABILITIES

10.5.1 Short-term borrowings

In the financial periods ended 31 December 2022 and 31 December 2021, short-term borrowings amounted to € 44,681,000 and € 34,891,000 respectively.

The item can be broken down as follows:

(amounts in thousands of euro)	Year ended 31 December	
	2022	2021
Bank advances and current account uses	41,554	32,896
Payables to bondholders for interest accrued	3,127	1,995
Short-term borrowings	44,681	34,891

Bank advances were used mainly by the Group together with available liquidity, to meet the possible financial requirements generated by net commercial working capital, in particular for companies operating in the sale of natural gas and electricity, which also due to their seasonal nature, generally record physiological growth in the first half of the year due to the misalignment in the time frame between collections from customers and payments to suppliers.

It is noted that in order to meet the extraordinary increases in commodity prices, the Group promptly approached leading credit institution to increase its short-term credit facilities, as noted in the paragraph "Objectives and criteria of financial risk management".

10.5.2 Trade payables

In the financial periods ended 31 December 2022 and 31 December 2021, trade payables amounted to € 522,953,000 and € 380,273,000 respectively.

The item can be broken down as follows:

(amounts in thousands of euro)	Year ended 31 December	
	2022	2021
Payables to suppliers	522,360	378,456
Payables to holding companies	557	917
Payables to associates	36	900
Trade payables	522,953	380,273

Amounts due to suppliers refer to payables on invoices received and still to be received mainly from gas and electricity suppliers. These are posted net of commercial discounts; cash discounts, however, are registered at the time of payment. The nominal value of these payables has been adjusted if returns or rebates exist (invoicing adjustments), according to the amount agreed upon with the counterparty.

All debts are due within 12 months and in respect of persons operating in Italy, with the exception of non-significant amounts towards EEC and Non-EEC customers for gas purchases.

The significant increase in the balance at the end of financial year 2022 compared to the end of 2021 is due mainly to the rise in the prices of gas and electricity commodities.

For information on the payables to Shareholders, companies subject to joint control and associates and for the terms and conditions related to payables to related parties, please see the note "Transactions with Related parties".

10.5.3 Current tax liabilities

In the financial periods ended 31 December 2022 and 31 December 2021, current tax liabilities amounted to € 2,411,000 and € 3,573,000 respectively.

The item can be broken down as follows:

(amounts in thousands of euro)	Year ended 31 December	
	2022	2021
IRRES/IRAP payables	2,411	3,573
Current tax liabilities	2,411	3,573

10.5.4 Other current liabilities

In the financial periods ended 31 December 2022 and 31 December 2021, other current liabilities amounted to € 113,088 and € 84,721 respectively.

The item can be broken down as follows:

(amounts in thousands of euro)	Year ended 31 December	
	2022	2021
Payables due to staff for salaries	6,012	5,655
Payables to social security institutions	2,130	2,083
Payables to Energy and Environmental Services Fund [CSEA]	3,791	7,082
Payables for dividends resolved	16,000	17,500
Accruals and deferrals	3,155	974
Guarantee deposits	32,079	20,585
Payable for settlement agreement with the Municipality of Prato	2,002	3,990
Other payables	42,660	6,438
Payables to purchase equity investments	1,400	2,786
Irpef withholding agents	1,144	1,227
VAT payable	430	366
Excise duty and additional taxes	10	11,804
Substitute tax	2,081	4,160
Other tax liabilities	194	71
Other current liabilities	113,088	84,721

The item “Other payables” recorded a significant increase compared to the previous financial year of € 36,222,000. This increase is mainly related to the reclassification among “Other current liabilities” of the negative balances posted by the Group’s gas distribution companies in relation to the sales companies. These positions were generated following the measures ratified by the “Aid” Decree Laws, which provided for the application of discounts to mitigate increases in bills. The regulation added the discount applied to the tariff components and, as a result, was regularised with these in relation to the sales companies operating in the territories where the network of the Group’s distribution companies is based, as well as in relation to CSEA. The ratified and applied discount, proving to be higher than the transmission tariff, led to the issue of credit notes to the sales companies.

The item “Guarantee deposits” refers to payments by customers as guarantees on gas consumption in the scope of one-year contracts. The increase of € 11,494,000 compared to the previous financial year is mainly related to the increase in the prices of commodities, which resulted in a higher value of guarantee deposits charged to customers.

The payables to CSEA are payables recognized in relation to the Energy and Environmental Services Fund mainly referred to pass-through tariff components of natural gas transmission, and are down compared to the previous year.

Payables to shareholders for dividends resolved were settled in January 2023.

The payable to the Municipality of Prato for the settlement agreement refers to the portion payable in terms of the contract in 2023 following the outcome of the dispute on determining the compensation to the Group as the outgoing operator of the natural gas distribution services for the Municipality of Prato, with judgment no. 387/2020, the ordinary Court of Prato ordered Estra S.p.A. to pay the Municipality of Prato an amount of € 6,000,000. Reference is made to the paragraph "Dispute referring to the determination of the compensation due to the outgoing operator for the natural gas distribution service Municipality of Prato Toscana Energie".

The item "Payables to purchase equity investments" for € 1,400,000 refers to the residual debt for the acquisition of the 100% stake in Ecocentro Toscana S.r.l.

The price of the acquisition was € 5,515,000, of which € 4,115,000 paid during the year, € 800,000 paid on 28 February 2023, € 600,000 to be paid by 31 December 2023 and € 200,000 by 31 December 2028.

The item "Substitute tax" refers to the payable emerging due to the revaluation of company assets for statutory accounting and tax purposes and tax realignment of company assets for the tax recognition of the step-up values recorded in the financial statements at 31 December 2020. Substitute tax must be paid over a maximum of three instalments for equal amounts, within the deadline for the balance on income taxes relating to the tax period when the revaluation was carried out (the first), and within the deadline set for the balance of income taxes referring to subsequent tax periods (the other two).

With regard to liabilities for excise duty and additional taxes on gas and electricity consumption, reference is made to the item "other UTIF current assets".

10.5.5 Financial instruments and measurement at fair value

In terms of IFRS 13, the table below shows the carrying amount for existing financial instruments, per category, compared with the corresponding fair values at 31 December 2022 and 31 December 2021.

FINANCIAL ASSETS	Year ended 31 December 2022		Year ended 31 December 2021	
	Carrying amount	Fair value	Carrying amount	Fair value
Financial assets at fair value with changes recognised in income statement	15,067	15,067	24,349	24,349
Forward commodity contracts	13,716	13,716	22,521	22,521
Commodity Swaps	1,351	1,351	1,828	1,828
Financial assets at fair value with changes recognised in shareholders' equity	3,029	3,029	2,478	2,478
Commodity Swaps	3,029	3,029	2,478	2,478
Receivables and loans	457,726	457,726	425,218	425,218
Loans to companies subject to joint control	230	230	230	230
Loans to associates	4,643	4,643	7,331	7,331
Medium/long term guarantee deposits	3,138	3,138	2,370	2,370
Trade receivables	442,369	442,369	405,857	405,857
Receivables from banks	7,346	7,346	9,430	9,430
Cash and cash equivalents	345,872	345,872	143,107	143,107
Non-current assets held for sale	-	-	42	42
TOTAL ASSETS	821,694	821,694	595,194	595,194

FINANCIAL LIABILITIES	Year ended 31 December 2022		Year ended 31 December 2021	
	Carrying amount	Fair value	Carrying amount	Fair value
Financial liabilities at fair value with changes recognised in income statement	11,306	11,306	22,811	22,811
Forward commodity contracts	11,306	11,306	21,816	21,816
Commodity Swaps	-	-	995	995
Financial liabilities at fair value with changes recognised in shareholders' equity	1,326	1,326	11,065	11,065
Cash flow hedge IRS derivatives	10	10	116	116
Commodity Swaps	1,316	1,316	10,949	10,949
Liabilities at amortised cost	1,265,676	1,265,676	785,138	785,138
Trade payables	522,953	522,953	380,276	380,276
Medium/long terms loans	665,964	665,964	350,719	350,719
Short-term borrowings from banks	44,681	44,681	34,891	34,891
Guarantee deposits	32,079	32,079	19,252	19,252
Liabilities directly associated with assets held for sale	-	-	32	32
TOTAL LIABILITIES	1,278,309	1,278,309	819,046	819,046

Given their nature, in the case of most items, the carrying amount was considered to be a reasonable approximation of the fair value.

In all other cases, fair value was determined according to Level 2 methodologies in the hierarchy of the levels of significance of the data used in determining fair value as defined under IFRS 13 (input data different from the listed prices at Level 1 that are observable for assets or liabilities, both directly (as in the case of prices), and indirectly (i.e. deriving from prices).

The Group used internal assessment models, which are generally used in financial practice, based on the prices provided by market operators or by listings recorded on active markets by primary info providers.

To determine the fair value of derivatives on commodity rates or prices, a pricing model is used based on the market forward curve at the reporting date, when the underlying of the derivative is traded on markets that present official and liquid forward price listings. In the case that the market does not present forward listings, provisional price curves are used, based on internal evaluation techniques.

In so far as non-performance risk is concerned, i.e. the risk that one of the parties may not honour their contractual obligations due to a possible default before the derivative's due date, both in respect of counterparty risk (Credit Value Adjustment: CVA), and own non-performance risk (Debt Risk Adjustment: DVA) any adjustments are not deemed significant, in consideration of the type of derivative instruments in the portfolio (represented exclusively by buy or sell short-term forward commodity contracts and financial derivatives with primary credit institutions) and the ratings of both the counterparties with whom the contracts were entered into and the Group.

The Group is not offsetting financial instruments as per IAS 32 and has no significant offsetting agreements. There were no changes in the valuation methods used compared to previous years, nor transfers from one level to another in the hierarchy of assets or liabilities measured at fair value.

11. Earnings per share (basic and diluted)

As required by IAS 33, information is provided on the data used to calculate the net result and result from operating activities per share and diluted. The basic result per share is calculated by dividing the economic result for the period, profit or loss, attributable to the Parent Company shareholders by the average weighted number of shares in circulation during the reference period. There were no diluted effects of the result per share in two years.

The values used to calculate the result per basic share are shown below.

	Year ended 31 December	
	2022	2021
Net income pertinent to Parent Company shareholders (thousands of Euro)	14,661	32,725
- Operating activities	14,661	32,939
- Assets held for sale		
Average number ordinary shares in circulation in period	227,834,000	227,834,000
Result per basic and diluted ordinary shares (Euro)	0.06	0.14
Result from operating activities per basic and diluted ordinary shares (Euro)	0.06	0.14

The result per 2022 share, net of non-recurring operations, in terms of CONSOB Resolution number 15519 of 27 July 2006 (€ 14,661,000), is 0.06.

In this regard we can note that the 500,000 treasury shares held by the Parent Company were excluded from the calculation.

12. Guarantees and undertakings

The Group had provided the following guarantees at 31 December 2022 and 2021:

Guarantees issued on behalf of associates	31/12/2022	31/12/2021
Surety issued to Banca Popolare Emilia and UniCredit in favour of Sinergie Italiane S.r.l.	-	4,049
Guarantee issued to Unicredit in favour of Blugas Infrastrutture S.r.l. for funding	4,257	4,257
Guarantee issued to the Tuscany Region in favour of Bisenzio Ambiente S.r.l. in terms of DGRT no. 743 of 6 August 2012	2,357	2,357
Total	6,614	10,663
Guarantees granted in the interests of others	31/12/2022	31/12/2021
Sureties issued to the Tax/Customs Authorities for tax refunds	7,211	7,932
Sureties to other parties	451	501
Guarantees issued on behalf of local entities for work or concessions relating to the use of public land	8,227	9,090
Total	15,889	17,523
Total guarantees	22,503	28,186

Bank or other guarantees, such as parent company commitments were also given in the interests of fully consolidated companies for conducting normal Group activities, for which the related amount payable is generally already recognised in the consolidated financial statements.

13. Objectives and criteria for financial risk management

The Group's main financial liabilities, other than derivatives, include bank loans and funding, bond loans, trade payables, various payables and financial guarantees. The main objective of these liabilities is to fund the Group's operating activities. The Group has trade receivables and other commercial and non-commercial receivables, cash and cash equivalents and short-term deposits, originating directly from operating activities. The Group also holds equity investments held for sale and subscribes to derivative contracts.

The Group is exposed to market risk, credit risk and liquidity risk. The Group's Management is assigned the management of these risks. The Group has also initiated the process to define an integrated risk management model, based on internationally recognised standards in the context of Enterprise Risk Management (ERM), developed according to the reference model generally accepted at international level in the area of internal audit, issued by the Committee of Sponsoring Organizations of the Treadway Commission (known as the CoSO Report).

This ERM Model also aims to support Management so that activities involving financial risk are governed by appropriate company policies and adequate procedures, and that financial risks are identified, measured and managed in accordance with the Group's policies and procedures.

13.1 Interest rate risk

Interest rate risk is the risk that fair value or future cash flows for a financial instrument will alter due to changes in the market interest rates. The Group's exposure to changes in market interest rates is related firstly to long-term debt with variable interest rates.

The Group manages its interest rate risk based on a balanced portfolio of loans and funding at fixed and variable interest rates by subscribing to interest rate swaps (IRS), where at defined intervals, the Group agrees to swap the difference on the amount between the fixed and variable rate, calculated with reference to an agreed notional capital amount. These swaps are designated to hedge the underlying debt.

At 31 December 2022, after evaluating the effects of IRS, around 37% (72% in 2021) of the Group's loans were at a fixed rate. In particular, the loans with a longer duration are fixed rate (bond loan and net metering service users issued in 2022)

The table below shows the sensitivity to a reasonably possible change in interest rates carried out to the following procedures:

- an upward or downward change of 50 basis points in the Euribor interest rates recorded during the period was applied to the medium/ long term financial debt;
- in the case of a hedging relationship, the shock on rates was jointly applied to the debt position and the relevant hedging derivative instrument, with a very limited effect on the income statement;
- with regard to the hedging derivative contracts existing at the reporting date, an upward and downward shift of 100 basis points was applied to the forward curves of the interest rates used to determine fair value on the contracts.

The table below shows the outcome of the sensitivity analysis conducted with reference to 31 December 2022 and 2021:

SENSITIVITY OF FINANCIAL FLOWS	31/12/2022				31/12/2021			
	FINANCIAL EXPENSES		CASH FLOW HEDGE RESERVE		FINANCIAL EXPENSES		CASH FLOW HEDGE RESERVE	
	INCREASE 50 BP	DECREASE 50 BP	INCREASE 50 BP	DECREASE 50 BP	INCREASE 50 BP	50 BP DECREASE	INCREASE 50 BP	DECREASE 50 BP
TOTAL DEBT FOR DERIVATIVES AND LEASES	(1,480)	1,492			(147)	148		
CHANGES TO FAIR VALUE			95	(96)			138	(80)
TOTAL	(1,480)	1,492	95	(96)	(147)	148	138	(80)

13.2 Credit Risk

Credit risk is the risk that a counterparty will not fulfil its obligations associated with a financial instrument or commercial contract, thereby resulting in a financial loss. The Group is exposed to credit risk deriving from its operating activities (particularly, trade receivables deriving from the sale of gas and electricity) and its financial assets, including deposits held at banks and financial institutions.

Trade receivables

The risk for trade receivables is managed on the basis of policies set by the Group and according to the procedures and controls for credit risk management.

Over time the Group has improved its control over credit risk by strengthening its monitoring and reporting procedures, in order to implement countermeasures to be adopted for causes identified as soon as possible. To control credit risk, with regard to the portfolio existing at the reporting date, which is deemed to be the maximum exposure for the Group, methodologies have been defined to monitor and manage receivables as well as defining strategies to limit credit exposure, such as customer credit checks at the time of acquisition through credit rating analysis to limit insolvency risk, the assignment of receivables of terminated customers to external credit collection services and the management of legal action on receivables associated with services provided, recourse to insurance cover and obtaining guarantees from customers.

An analysis is done at each reporting date, as to whether write-downs are required in respect of the more significant customers. Furthermore, for most of the minor credits, grouped into similar categories, an evaluation is also done as to whether to reduce the total value. The calculation is based on historic data. The maximum exposure to credit risk at the reporting date is the carrying amount for each financial asset class shown in the note Trade receivables.

The table below provides details on gross trade receivables and relevant provision for write-downs at 31 December 2022 and 2021:

Trade receivables	Year ended 31 December			
(amounts in thousands of euro)	2022		2021	
Gross trade receivables	509,069	100%	465,287	100%
Provision for write-downs	(66,700)	(13%)	(59,430)	(13%)
Trade receivables	442,369	87%	405,857	87%

The table below provides details on gross trade receivables according to ageing at 31 December 2022 and 2021:

Trade receivables	Year ended 31 December			
(amounts in thousands of euro)	2022		2021	
Falling due	418,326	82%	401,434	86%
Due from 0-30 days	18,742	4%	17,011	4%
Due from 31-90 days	11,512	2%	5,629	1%
Due from 91-180 days	7,398	1%	3,553	1%
Due from 181-365 days	20,733	4%	6,775	1%
Due over 365 days	32,358	7%	30,885	7%
Gross trade receivables	509,069	100%	465,287	100%

Financial instruments and bank deposits

Credit risk related to accounts with banks and financial institutions is managed by the Group's Treasury in accordance with Group policies. The investment of available funds is only undertaken with approved counterparties and within defined limits so as to minimise the concentration of risk, and consequently mitigate any financial loss generated by the counterparty's potential bankruptcy. The Group's maximum exposure to credit risk in respect of the items in the balance sheet at 31 December 2022 are the carrying amounts shown in the Note Financial instruments and measurement at fair value, with the exception of financial guarantees.

13.3 Liquidity Risk

The Group monitors the risk of a shortfall in liquidity by using a cash planning tool.

The Group's objective is to maintain a balance between continuity in the availability of funds and flexibility in use, by adopting financial instruments such as bank overdrafts, bank loans, bonds, financial leases and rental and purchasing contracts.

The Group Finance Department is centralised in order to optimise the identification and use of financial resources. In particular, the centralised cash flow management in the Group, whether through a cash pooling system or a system of centralisation in the Group current accounts for the prevalence of receipts and payments, allows for the allocation of available funds at Group level according to the needs that arise from time to time within single Companies. The current and forecast financial situation is constantly monitored, as is the availability of adequate credit. The accounts held by the Group with the main Italian and International Banks make it possible to identify the most suitable types of loans and the best market conditions.

The table below shows an analysis of due dates based on the non-discounted refund obligations in terms of contracts as they relate to bond loans, medium/long-term bank loans, leases and medium/long-term loans to shareholders as at 31 December 2022.

(amounts in thousands of euro)	Total cash flow	CF < 1 Y	1 Y < CF < 2 Y	2 Y < CF < 5 Y	CF > 5 Y
Bond loans	170,000	20,000	-	80,000	70,000
Bank loans	469,635	125,782	162,710	180,956	187
Leases	26,868	4,763	4,063	11,002	7,040
Medium/long terms loans to shareholders	6,370	1,435	1,768	3,000	167
Total	672,873	151,980	168,541	274,958	77,394

The Group closed 2022 with a significantly stronger liquidity position than in 2021 (€ 345.9 million, up by € 202.8 million), not only to support the investment plan, but to deal with the extraordinary price level of natural gas and electricity and the extraordinary volatility recorded on the markets.

After the reporting date, a loan agreement was structured and finalised on 24/03/2023 for € 80,000,000 supported by a guarantee issued by SACE S.p.A. to hedge 90% of the total amount in accordance with the provisions of Decree Law no. 50 of 17 May 2022 definitively converted with amendments into Law 91/2022 and published in the Official Gazette no. 164 of 15 July 2022 and pursuant to Article 2.5 *et seq.* of the SACE General Conditions, in support of the financing requirements of the net working capital of the natural gas and electricity sales activity. The loan, taken on by the Parent Company Estra S.p.A., was utilised by the same for the disbursement of an intercompany loan of the same amount in favour of Estra Energie S.r.l.

The loan was fully disbursed on 27/03/2023 and expires on 31/12/2025, repaid in 8 quarterly instalments of constant principal amounts starting from 31/03/2024

The Group mainly seeks recourse to short-term bank advances to meet the possible financial requirements generated by net commercial working capital, in particular for companies operating in the sale of natural gas and electricity, which also due to their seasonal nature, which generally record physiological growth in the first half of the year due to the misalignment in the time frame between collections from customers and payments to suppliers.

At 31 December 2022, the Group had unused short-term credit facilities granted by leading credit institutions (in the form of bank advances, advances on trade receivables or supplier maturities) for approximately € 183 million.

13.4 Default risk and covenants

The Group has bank loans and bond loans in place, where according to the type of instrument in line with the market, contract conditions entitle counterparties (whether banks or bondholders) to request the immediate repayment of the amounts loaned from the debtor, should specific events arise.

These contract conditions usually envisage in favour of bondholders/credit institutions, that control may not be changed and financial parameters need to be complied with, such as the net financial debt/EBITDA ratio, net financial debt/RAB ratio and net financial debt/shareholders' equity ratio.

The composition of net financial debt at 31 December 2022 and 2021 is shown below. This derives from the consolidated financial statements for the years ended on the same dates, in compliance with the Guidelines on disclosure obligations pursuant to Regulation EU 2017/1129 (so-called "Prospectus Regulation"), published on 4 March 2021 by the European Securities and Market Authority (ESMA):

Financial debt (amounts in thousands of euro)		2022.12	2021.12
A.	Cash and cash equivalents	345,872	143,107
B.	Cash equivalents		
C.	Other current financial assets	25,442	36,257
	- <i>current derivative financial instruments</i>	18,096	26,827
	- <i>Receivables from banks</i>	7,346	9,430
D.	Cash and cash equivalents (A) + (B) + (C)	371,314	179,365
E.	Current financial payables (including debt instruments, but excluding the current portion of non-current financial debt)	202,997	235,939
	- <i>current financial debt</i>	44,681	34,891
	- <i>current derivative financial instruments</i>	12,632	33,876
	- <i>bank debts</i>	125,782	70,304
	- <i>bonds issued</i>	19,902	96,868
F.	Current portion of non-current financial debt	6,198	6,145
	- <i>payables to other lenders for financial leases</i>	375	363
	- <i>payables to other lenders for operating leases</i>	4,388	4,347
	- <i>payables to shareholders for loans</i>	1,435	1,435
G.	Current financial debt (E) + (F)	209,195	242,085
H.	Net current financial debt (G) - (D)	(162,118)	62,720
I.	Non-current financial debt (excluding the current portion and debt instruments)	27,040	21,236
	- <i>payables to other lenders for financial leases</i>	3,663	4,038
	- <i>payables to other lenders for operating leases</i>	18,442	11,829
	- <i>payables to shareholders for loans</i>	4,935	5,370
J.	Debt instruments	487,043	156,166
	Non-current bank debts	341,603	106,649
	Bonds issued	145,439	49,516
K.	Trade payables and other non-current debt	-	-
L.	Non-current financial debt (I) + (J) + (K)	514,082	177,402
O.	Total financial debt (H) + (L)	351,963	240,122

At 31 December 2022, net financial debt was € 351.9 million, down on the € 111.8 million at 31 December 2021, owing mainly to cash flow from operations absorbed by the increase in the net working capital of the sale of natural gas and electricity due to extraordinary trends on the energy markets in the current year, in addition to significant investments for the period and the distribution of dividends.

The main changes refer to the liquidity and non-current financial debt resulting from significant medium/long-term borrowings finalised in the year for the refinancing of payables coming due and support for the investment plan, as well as 18-36 month facilities in support of higher financing needs of the working capital.

It should be noted that the Group has bank loans and bond loans in place, where according to the type of instrument in line with the market, contract conditions entitle counterparties (whether banks or bondholders) to request the immediate repayment of the amounts loaned from the debtor, should specific events arise.

In particular, the settlement of bond loans requires:

- undertakings by the Group, including in particular, a negative pledge, whereby the Group undertakes not to create, or allow the creation, whether partial or total, of any constraints on its present or future assets or revenue;
- non-performance in line with market practice for similar types of transactions. With specific reference to the latter, it should be noted, by way of example, *inter alia*:
 - a) non-performance of the obligations arising from convictions, on condition that predetermined relevance threshold are exceeded;
 - b) disposal and/or company restructuring operations (including, cases of winding-down and liquidation and the termination, be it total or a substantial portion of its business) not falling within the scope of those defined as permitted, as well as the winding down or liquidation of the Group or its subsidiaries defined as being relevant;
 - c) change in the control structure, in respect of which, following the notice for bondholders to exercise the put option, the Group must fully (and not partly) reimburse whatever forms the subject of the put option at the bonds' nominal value, plus the interest accrued from the previous interest payment date.

The bond loan regulations also require the Group to comply with specific asset-financial indices for the entire duration of the loan. Failure to comply with these parameters could result in the execution of the acceleration clause and an earlier repayment obligation arising for the debtor.

The financial parameters relating to these rules are summarised below:

- the ratio between net financial debt and EBITDA (higher than 4.5x);
- the ratio between net financial debt and shareholders' equity (lower than 1.2x);
- the ratio between net financial debt and RAB of the subsidiary Centria S.r.l., consolidated with those of its investee companies (lower than 1x).

With respect to the outstanding bond loan for € 20 million falling due in November 2023, we also note the provision for the "ratio between net financial debt and consolidated RAB" parameter to be lower than 1.30, with option for earlier partial repayment in favour of Bondholders on the ratio going higher than 1. In this regard, in December 2022, the Issuer EstrA S.p.A. obtained a specific waiver from the Bondholders for the current financial year.

Furthermore, these bond loans contain cross default clauses for the Group or companies it control in the event of defaults for amounts higher than the thresholds set respectively for each regulation.

Additionally, in line with market practises for similar transactions, bond loans require the Group to observe a series of negative covenants, i.e. limits on the option of carrying out certain transactions, such as termination of a significant part of its business.

Furthermore, the existing bank loans impose, inter alia, specific obligations (in certain cases, also referring to companies in the Group), in terms of which the Group undertakes:

- not to use the amounts received on the basis of the loan contracts for other purposes than those agreed on;
- not to substantially change the core business;
- not to carry out extraordinary transactions or the disposal of assets other than those expressly permitted (without prejudice, where applicable, with the prior written consent of the relevant lender bank);
- not create, or allow for the creation of constraints or encumbrances on its assets, other than the constraints and encumbrances expressly permitted (negative guarantee); and
- to keep in place all authorisations, permits and administrative licences required or appropriate to allow the Group to conduct its core business;
- not to give rise to changes in the control structure.

In addition, certain loan contracts entered into by the Group also specify that for the entire duration of the loan, the Group must respect predetermined asset-financial indices (similar to those for the Bond Loan Regulations above), with compliance checked on an annual basis (or with reference to the reporting date of each period based on the results of the relative consolidated financial statements or financial statements of the Group contracting company). Failure to comply with these parameters could result in the execution of the acceleration clause and an earlier repayment obligation arising for the debtor.

The existing loan contracts also specify a series of default events (in certain cases, also referring to companies that are part of the Group), including:

- bankruptcy status or being subject to bankruptcy procedures (or similar procedures);
- cross-default clauses (and in some cases, cross-acceleration) for amounts higher than predetermined materiality thresholds;
- the implementation of extraordinary transactions on its share capital (other than listing) without prior written consent from the related lender bank;
- the occurrence of events that determine a serious stability crisis and/or liquidity in financial markets that make the funding excessively onerous for the relative lender bank; and
- non-compliance with any of the Group's obligations (including, the infringement of any one of the financial parameters set in the relevant loan contract), unless this non-compliance can be remedied, and this is not done within the deadline granted.

In 2022 and 2021 there were no infringements of covenants associated with loans and bond loans.

13.5 Risks associated with commodity prices

The Group is exposed to commodity price risk, so it has to manage risks associated with the misalignment between the indexing formulae related to the purchase of raw materials (natural gas and electricity) and the indexing formulae related to the sale of the same commodities.

The risk relates to both trading activity in a strict sense (spot transactions aimed at achieving additional short-term profits) and “industrial” activity of delivering gas and electricity to final customers.

With reference to trading, the activity is opportunely segregated but is performed within rigorous risk policies that provide for, among other things, observance of limits in terms of Risk Margin and VAR, set by the company’s Board of Directors and monitored constantly.

With reference to “industrial” activity, Group policy is designed to minimise the risk associated with fluctuating prices by aligning the indexing of commodity purchases with commodity sales, the vertical exploitation of the various business chains and recourse to financial markets for hedging purposes. In particular, the Group has structured a series of commodity derivatives aimed at pre-setting the effects on sales margins irrespective of the changes in market conditions. All transactions in derivatives are concluded for the purpose of hedging, even if they do not formally come within the criteria defined by the standard IFRS 9 for hedge accounting.

The Group has adopted a specific policy aimed at defining the guidelines of the Estra Group related to governance, the management strategy and the control of risks associated with activities in commodities performed by the Group Companies and, more particularly, the subject of the policy is price risk.

The objective is to stabilise the cash flows generated by the Group’s portfolio of assets and contracts, protecting the Group’s gross operating margin from fluctuations due to price risk on the commodities traded and to qualify the Group’s financial performance with a view to mitigating the risk, through the definition and continuous monitoring of the risk limits.

The Group’s policy is oriented to minimising recourse to the financial markets for hedging through making good use of the netting logics included in the Portfolio of reference. To this end, the Group plans as a priority the physical balancing of volumes of its sales of energy commodities on the markets for the various time deadlines, through the portfolio of existing contracts, both medium-term (with reference to the thermal year of the following period) and spot. Secondly, the Group pursues a strategy of making sources and physical uses uniform, so that the formulae and indexing with which the costs deriving from energy commodity purchases are associated reflect as far as possible the formulae and indexing of the Group’s revenue, making use to this end also of derivative instruments.

For the purposes of managing and controlling Price Risks, the Estra Group makes use of the consolidated parameters in the international best practice. In particular, the Contribution Margin of the industrial portfolio is subject to monitoring; this includes both Profit & Loss (*realised P&L*) accrued at the date and the future Mark to Market (MtM). The realised P&L corresponds to the portion of P&L already accrued in the accounting year of reference, calculated on the basis of the final value of all the market prices that have determined costs and revenue. The Mark to Market (or *unrealised P&L*) corresponds to the portion of future P&L not yet accrued in the accounting year of reference, measured at fair value on the basis of the forward curve for quoted prices and on forecast curves for non-quoted prices.

Exposure to price risk of the contract portfolio is measured, for each index, as a change in Mark to Market, that is of the Contribution Margin, determined by a unit change in the price of the commodity in question and is permitted within the pre-set limits established by the company’s Board of Directors.

As of 31 December 2022, the Group had the following commodity risk derivative instruments included among other current financial assets and liabilities:

(amounts in thousands of euro)	Year ended 31 December	
	2022	2021
Forward commodity contracts	13,716	22,521
Cash Flow Hedge Commodity Swaps	3,029	2,478
Commodity Swaps with change in fair value through profit or loss	1,351	1,828
Derivative instruments	18,096	26,827

(amounts in thousands of euro)	Year ended 31 December	
	2022	2021
Forward commodity contracts	11,306	21,816
Cash Flow Hedge Commodity Swaps	1,316	10,949
Commodity Swaps with change in fair value through profit or loss	-	995
Derivative instruments	12,622	33,760

The net balance of the fair values of existing derivative instruments at 31 December 2022 was, therefore, positive for € 5,474 thousand.

Assuming an instantaneous increase of 5% of the entire forward curve of natural gas and electricity prices, the cumulative fair value of the financial instruments on commodities would worsen by € 703 thousand, going from a positive balance of € 5,474 thousand to a positive balance of € 4,771 thousand.

In particular:

- the effect referred to the change in the natural gas price would be a worsening of € 356,000 for derivatives that meet the IFRS 9 criteria for hedge accounting and a worsening of € 347,000 for derivatives with change in fair value in the income statement, not meeting the IFRS 9 criteria for hedge accounting;

Vice versa, with an instantaneous reduction of the entire *forward curve* of the commodity prices of 5%, the effects would be of the same amount with the opposite sign.

14. Public funding received

With reference to the new aspects introduced by Law no. 124 of 4 August 2017 “Annual competition law”, under Art. 1 para. 125-129, excluding the amounts received as payment for supplies and services rendered, during 2022, the Group received the following contributions from public Entities. (amounts in Euro).

Beneficiary	Granting entity		Type of operation	Amount
	Company name	Tax number		
CENTRIA S.R.L.	MUNICIPALITY OF ABBADIA S. SALVATORE	00221400526	Plants account contribution (gas distribution networks)	13,691
CENTRIA S.R.L.	TUSCANY REGION	01386030488	Plants account contribution (gas distribution networks)	21,000
CENTRIA S.R.L.	PUBLIACQUA S.P.A.	05040110487	Plants account contribution (gas distribution networks and connections)	45,352
CENTRIA S.R.L.	TUSCANY REGION	94225010480	Plants account contribution (gas distribution networks)	20,007
CENTRIA S.R.L.	MUNICIPALITY OF MONTEMURLO	00584640486	Plants account contribution (gas distribution networks)	10,200
CENTRIA S.R.L.	ANAS SPA	80208450587	Plants account contribution (gas distribution networks)	42,542
TOTAL				152,792

15. Transactions with related parties

Estra and the Group companies carry out transactions with related parties based on principles of transparency and correctness. These transactions generally relate to services provided to all customers (supply of gas, electricity, heat, etc.) and are governed by contracts and conditions normally applied in these situations.

If they are not services of the current type, the transactions are in any case governed on the basis of the normal conditions applied on the market.

The following table presents the total amount of transactions that have been entered into with related parties for the financial years ended 31 December 2022 and 2021. The related parties identified are shareholders, subsidiaries, companies subject to joint control and associates, directly or indirectly by Estra S.p.A.:

- **Economic transactions**

Financial year 2022

Related parties/FS item	Year ended 31 December 2022						
	Revenue from sale of goods and services	Other operating revenue	Costs for services	Personnel costs	Other operating costs	Financial income	Financial expenses
Consiag S.p.A.	523	14		(109)	5		178
Intesa S.p.A.		24		(280)	(9)		
Coingas S.p.A.	37	34	3				15
Viva Energia S.p.A.							
Shareholders	559	72	3	(389)	(4)		193
Nuova Sirio S.r.l.	7	4					
Companies subject to joint control	7	4					
Monte Urano S.r.l.	1,283	9				35	
Blugas Infrastrutture S.r.l.		14				209	
A.E.S. Fano Distribuzione Gas S.r.l.	97	102	(1,709)	(17)	1	25	
SIG S.r.l.	445	97	(3)	(15)		1	
Sei Toscana S.r.l.	1,526	7	607	(172)		23	
Associates	3,352	229	(1,105)	(205)	1	292	
Total	3,918	305	(1,102)	(594)	(3)	292	193
<i>Percentage incidence on corresponding FS item</i>	<i>0.22%</i>	<i>2.50%</i>	<i>(1.07%)</i>	<i>(1.27%)</i>	<i>(0.03%)</i>	<i>10.84%</i>	<i>1.35%</i>

Financial year 2021

Related parties/FS item	Year ended 31 December 2021						
	Revenue from sale of goods and services	Other operating revenue	Costs for services	Personnel costs	Other operating costs	Financial income	Financial expenses
Consiag S.p.A.	650	52		(154)	5		297
Intesa S.p.A.	25	55	2	(277)			54
Coingas S.p.A.	40	16	3				50
Viva Energia S.p.A.	77		97	62	3		8
Shareholders	790	123	102	(370)	8		409
Nuova Sirio S.r.l.	7	2					
Companies subject to joint control	7	2					
Monte Urano S.r.l.	18	2					
Blugas Infrastrutture S.r.l.		14				209	
A.E.S. Fano Distribuzione Gas S.r.l.	69	98	120	(8)		25	
SIG S.r.l.	26	91		(23)			
Bisenzio Ambiente S.r.l.	6	10					
Sei Toscana S.r.l.	142	8	320	(115)		15	
Associates	261	223	440	(146)		249	
Total	1,058	348	542	(516)	8	249	409
<i>Percentage incidence on corresponding FS item</i>	<i>0.10%</i>	<i>2.51%</i>	<i>0.22%</i>	<i>(1.23%)</i>	<i>0.07%</i>	<i>12.61%</i>	<i>4.09%</i>

- **Asset transactions**

Financial year 2022

Related parties/FS item	Year ended 31 December 2022					
	Trade receivables	Other non-current financial assets	Other non-current assets	Trade payables	Current and non-current financial debt	Other current liabilities
Consiag S.p.A.	973		262	26	10,972	6,334
Intesa S.p.A.	255		180		3,508	4,030
Coingas S.p.A.	175		80	10	2,120	4,030
Viva Energia S.p.A.						1,605
Shareholders	1,403		522	36	16,600	16,000
Nuova Sirio S.r.l.	10	230				
Companies subject to joint control	10	230				
Monte Urano S.r.l.	524					
Blugas Infrastrutture S.r.l.	1,890	4,153				
A.E.S. Fano Distribuzione Gas S.r.l.	2,353	490				
SIG S.r.l.	344					
Sei Toscana S.r.l.	1,631	(2,688)		557		
Associates	6,741	1,954		557		
Total	8,155	2,184	522	593	16,600	16,000
<i>Percentage incidence on corresponding FS item</i>	<i>1.84%</i>	<i>17.78%</i>	<i>16.64%</i>	<i>0.11%</i>	<i>2.49%</i>	<i>14.15%</i>

Financial year 2021

Related parties/FS item	Year ended 31 December 2021					
	Trade receivables	Other non-current financial assets	Other non-current assets	Trade payables	Current and non-current financial debt	Other current liabilities
Consiag S.p.A.	1,251		262	26	9,298	6,928
Intesa S.p.A.	237		180	182	2,097	4,408
Coingas S.p.A.	111		80	9	1,759	4,408
Viva Energia S.p.A.	114		2	701	395	1,756
Shareholders	1,713		524	918	13,549	17,500
Nuova Sirio S.r.l.	10	230				
Companies subject to joint control	10	230				
Monte Urano S.r.l.	94					
Blugas Infrastrutture S.r.l.	1,667	4,153				
A.E.S. Fano Distribuzione Gas S.r.l.	293	490		9		
SIG S.r.l.	103					
Bisenzio Ambiente S.r.l.	16					
Sei Toscana S.r.l.	2,219	2,688		891		
Associates	4,392	7,331		900		
Total	6,115	7,561	524	1,818	13,549	17,500
<i>Percentage incidence on corresponding FS item</i>	<i>1.51%</i>	<i>54.32%</i>	<i>22.12%</i>	<i>0.48%</i>	<i>3.86%</i>	<i>20.66%</i>

Description of main transactions with related parties

The main transactions put in place with related parties were done on the same basis and referred to transactions with Shareholders', companies subject to joint control and associates and are summarised below:

Main transactions with Shareholders'

- Existing service contracts with the shareholders Consiag S.p.A., Coingas S.p.A. and Intesa S.p.A. (the “**Service contracts**”);
- Charge back of costs for staff seconded by companies in the Estra Group to shareholders Consiag S.p.A. and Intesa S.p.A.;
- Rental contracts to lease company offices in Prato, Arezzo and Siena for the ESTR A Group, respectively from shareholders Consiag S.p.A., Coingas S.p.A. and Intesa S.p.A. (the “**Rental contracts**”);

- Existing loan contracts with the shareholders Consiag S.p.A. and Coingas S.p.A. (the **“Loan contracts”**);
- Electricity sales contract with shareholder Intesa S.p.A. for the consumption of public lighting plants, where Intesa S.p.A. is the operator awarded the contract by the Municipalities.

Main transactions with companies subject to joint control

- Medium/long-term loan contracts aimed at supporting operating activities and investments to Nuova Sirio S.r.l.

Main transactions with associates

- Medium/long-term loan contracts aimed at supporting operating activities and investments to associates. For additional information, reference is made to the note on Non-current financial assets.

In particular, the **“Service contracts”** govern the provision by ESTRA of certain services on an ongoing basis, generally referring to administrative and technical services for Shareholders and some of the shareholders' subsidiaries. Specifically, certain of the services provided relate to Administration and Budget, Finance, Legal and Corporate Affairs, information systems and secretarial, protocol and archive functions.

These are year long contracts and are subject to tacit renewal for an equal term; fees are determined according to market pricing in accordance with the Regulatory Accounting standards governed by AEEGSI.

In providing its services, ESTRA is obliged to perform the services based on the contract in accordance with the standards and rules set by company procedures and practices, the methods and procedures set by law and with the levels of competency, diligence, prudence and precaution required of an expert with the relevant competencies undertaking similar services under similar circumstances and conditions. The contracts stipulate an obligation of mutual cooperation for the parties, in accordance with the principles of correctness and good faith, so as to work in conjunction in order to guarantee service quality, efficiency and economic viability. The fees paid by shareholders in 2022 amount to € 545,000.

The **“Rental contracts”** govern the leases payable for company offices in Prato, Arezzo and Siena for the ESTRA Group, respectively from shareholders Consiag S.p.A., Coingas S.p.A. and Intesa S.p.A. The contracts with the Shareholders Intesa and Consiag have a term of three years starting from 01 January 2019, tacitly renewable for a further three. The contract with the Shareholder Coingas has a term of 6 years starting from 01 January 2020. The fees paid to shareholders in 2022 amounted to € 2,114,000. The fees are subject to annual review based on 75% of the change in the Italian National Institute of Statistics [ISTAT] cost of living index for the previous year.

The **“Loan contracts”** refer to two existing loans between Estra S.p.A. and the shareholders Consiag S.p.A. and Coingas S.p.A. and one existing loan between Bisenzio Ambiente S.r.l. and Consiag S.p.A., with the following features:

- Existing loan contract between Estra and the Shareholder Consiag S.p.A. originally for € 15,000,000, repayable in 24 instalments starting from 30 June 2015, with constant principal amounts at an annual rate of 3%
- Existing loan contract between Estra and the Shareholder Consiag S.p.A. originally for € 1,850,000, repayable in 20 instalments starting from 30 June 2015, with constant principal amounts at an annual rate of 3%
- Existing loan contract between Bisenzio Ambiente S.r.l. and the Shareholder Consiag S.p.A. originally for € 1,000,000, repayable in 14 instalments starting from 30 June 2023, with constant principal amounts at the Euribor rate (6 months) increased by a spread of 310 bps.

Estra is free to totally or partially extinguish its debt at any time with additional payments to the six monthly instalments, without incurring any kind of penalty.

A delayed payment is one made between the fourth and one hundred and eightieth day from the instalment's due date. After the one hundred and eightieth day, the **“failed payment”** applies, and as such even if a single instalment exceeds this delay, it entitles the creditor to demand the immediate repayment of the entire debt.

In the case of delays in instalment payments, default interest will apply at a rate of 4%, in addition to the 3% rate agreed for the repayment, or at the commercial default rate if this is lower.

Managers with strategic responsibilities

The total amount for emoluments paid at 31 December 2022 for any reason and in any form by the Estra Group to Strategic Managers amounted to € 1,324 and included the General Manager Paolo Abati, who in addition to

being a strategic manager is also a member of the Board of Directors.

16. Emoluments to directors, statutory auditors and independent auditors

The table below shows the emoluments to directors, statutory auditors and independent auditors for 2022 and 2021.

Beneficiaries	Year ended 31 December 2022			Year ended 31 December 2021		
	At the parent company	Of the other companies of the group	Total	At the parent company	Of the other companies of the group	Total
Directors	247	375	622	343	274	617
Board of Statutory Auditors	94	296	390	94	293	387
Independent Auditors	193	273	466	151	280	431

The table below shows the fees paid for 2022 to the independent auditors and entities falling within its network, including the “other services” provided to Estra S.p.A and the subsidiaries of the audit firm EY S.p.A. and entities falling within its network. No appointments were made in respect of EY S.p.A. that are not permitted in terms of application legislation.

Type of service	Service provider	Recipient	Fees 2022 (€ thousand)
Independent audit of accounts	Parent Company independent auditor	Parent company	116
		Subsidiaries	163
Certification services	Parent Company independent auditor	Parent company	77
		Subsidiaries	44
Other services	Parent Company independent auditor	Parent company	-
	Parent Company independent auditor network	Parent company	-
Total			400

¹ The certification services refer to the audit of the schedules prepared for the purposes of Resolution no. 137 of 24 March 2016, by the Regulatory Authority for Energy, Networks and the Environment (former AEEGSI) for the Parent Company and its subsidiaries, and the limited audit of the non-Financial Declaration for the Parent Company, the audit of the expenses incurred by the Parent Company for research and development activities, the audit of the Parent Company's debit and credit entries with local entities, the issue of an opinion on the withdrawal of a shareholder pursuant to Art. 2437 provided to a subsidiary and the advance for the activities carried out for the issue of a comfort letter on the bond issue completed on 14 April 2022.

17. Significant events after the reporting date

We can note the following significant events that occurred after the end of the year:

17.1 Acquisition of control in Monte Urano Energia S.r.l.

On 13 January, through the subsidiary Prometeo S.p.A., the Group completed the acquisition of 100% of the stakes in the company Monte Urano Energie S.r.l., taking up the 51% stake in the share capital held by the Municipality of Monte Urano for € 840,000.

The company has around 3,000 natural gas customers and 800 electricity customers.

17.2 Change in the corporate structure of Estra S.p.A.

With deed dated 26 January 2023, the merger by incorporation of Consiag S.p.A., Publiservizi S.p.A. and Acqua Toscana S.p.A. into Alia Servizi Ambientali S.p.A. was completed, with effect from 1 February 2023.

As a result of the incorporation of Consiag S.p.A., Alia Servizi Ambientali S.p.A. took over title of the 39.50% stake in the share capital of Estra S.p.A. as well as all assets, liabilities and dealings of any kind in place.

Alia Servizi Ambientali S.p.A., concession holder of the integrated management service of municipal and similar waste, pursuant to Art. 26, paragraph 6 of Tuscany Regional Law no. 61/2007, for the respective area of the ATO Central Tuscany, is controlled by the Municipalities of Florence (37.1%), Prato (18.1%), Pistoia (5.54%), Empoli (3.4%) and other Tuscan municipalities (35.9%).

Prato, 27 April 2023

for the Board of Directors
General Manager
Paolo Abati

E.S.TR.A. S.p.A.

Consolidated financial statements as at December 31, 2022

Independent auditor's report pursuant to article 14 of
Legislative Decree n. 39, dated 27 January 2010, and article
10 of EU Regulation n. 537/2014

Independent auditor's report pursuant to article 14 of Legislative Decree n. 39, dated 27 January 2010 and article 10 of EU Regulation n. 537/2014
(Translation from the original Italian text)

To the Shareholders of
E.S.T.R.A. S.p.A.

Report on the Audit of the Consolidated Financial Statements

Opinion

We have audited the consolidated financial statements of the E.S.T.R.A. Group (the Group), which comprise the consolidated statement of financial position as at December 31, 2022, and the consolidated statement of income, the consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the consolidated financial statements give a true and fair view of the financial position of the Group as at December 31, 2022, and of its financial performance and its cash flows for the year then ended in accordance with International Financial Reporting Standards as adopted by the European Union and with the regulations issued for implementing art. 9 of Legislative Decree n. 38/2005.

Basis for Opinion

We conducted our audit in accordance with International Standards on Auditing (ISA Italia). Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Consolidated Financial Statements* section of our report. We are independent of the E.S.T.R.A. S.p.A. in accordance with the regulations and standards on ethics and independence applicable to audits of financial statements under Italian Laws. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

We identified the following key audit matters:

Key Audit Matter	Audit Response
<p>Recognition of revenues for unbilled gas and electricity sales and accruals for invoices to be issued</p> <p>Revenues from sales and services include the estimated revenues accrued for the sale of gas and electricity already delivered to the customers but unbilled as at December 31, 2022, in addition to revenues already invoiced to the customers, measured on the basis of pre-established meter reading schedules, effective or estimated, during the year. The estimated revenues accrued but unbilled are recorded within trade receivables, as accruals for invoices to be issued, that include also accruals related to previous years. Revenue recognition for sales accrued but unbilled involves estimates based on processes and evaluation methodologies developed on complex assumptions. The methodologies used by the Group to estimate gas and electricity consumptions between the date of the last meter reading of each customer and the 31st of December, and therefore to estimate revenues to be accrued, are based on assumptions and complex calculation algorithms, which involve a combination of data extracted from the IT systems and non-accounting data.</p> <p>In particular, the estimate of revenues accrued but unbilled is determined as the difference between the consumptions already invoiced to the customers at the end of the year and the quantity of gas and electricity allocated in the distribution network, measured on the basis of data communicated at the end of the year by the service distributors, subject to potential future adjustments as required by applicable laws and regulations, and on the basis of internal customers consumption forecasts. Such difference is then prized, based on the customer's cluster, on the basis of gas and electricity volumes already invoiced and the related average fee used during the year. Considering the complexity of the estimate of revenues accrued but unbilled, we have determined that this area constitutes a key audit matter.</p>	<p>Our audit procedures responsive to this key audit matter included, among others:</p> <ul style="list-style-type: none"> • assessment of the process and key controls, including controls related to information technology, implemented by the main entities of the Group for the recognition process of gas and electricity sales, and test of key controls, including controls related to estimated and actual volumes billed to the customers; • testing, on a sample basis, of the data used by management to determine revenue accruals for sales unbilled, including information communicated by service distributors on the volumes allocated in the distribution network, data extracted from the IT systems, and testing of the arithmetic accuracy; • analysis of the assumptions used by the Management, also compared to the previous year; • look-back analyses of the prior years estimate against the data subsequently reported, and analysis of the variances in order to support the accuracy of the current estimation process. <p>Lastly, we reviewed the adequacy of the disclosures included in the notes to the financial statements.</p>

The disclosures included in note "Significant accounting estimates" of the consolidated financial statements as at December 31, 2022 describe the revenues recognition principles adopted by the Group for gas and electricity sales.

Responsibilities of Directors and Those Charged with Governance for the Consolidated Financial Statements

The Directors are responsible for the preparation of the consolidated financial statements that give a true and fair view in accordance with International Financial Reporting Standards as adopted by the European Union and with the regulations issued for implementing art. 9 of Legislative Decree n. 38/2005, and, within the terms provided by the law, for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

The Directors are responsible for assessing the Group's ability to continue as a going concern and, when preparing the consolidated financial statements, for the appropriateness of the going concern assumption, and for appropriate disclosure thereof. The Directors prepare the consolidated financial statements on a going concern basis unless they either intend to liquidate the Parent Company E.S.T.R.A. S.p.A. or to cease operations, or have no realistic alternative but to do so.

The statutory audit committee ("Collegio Sindacale") is responsible, within the terms provided by the law, for overseeing the Group's financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with International Standards on Auditing (ISA Italia) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with International Standards on Auditing (ISA Italia), we have exercised professional judgment and maintained professional skepticism throughout the audit. In addition:

- we have identified and assessed the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, designed and performed audit procedures responsive to those risks, and obtained audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting

- from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- we have obtained an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control;
 - we have evaluated the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Directors;
 - we have concluded on the appropriateness of Directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to consider this matter in forming our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the the Group to cease to continue as a going concern;
 - we have evaluated the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation;
 - we have obtained sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We have communicated with those charged with governance, identified at an appropriate level as required by ISA Italia, regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We have provided those charged with governance with a statement that we have complied with the ethical and independence requirements applicable in Italy, and we have communicated them all matters that may reasonably be thought to bear on our independence, and where applicable, the actions taken to eliminate relevant risks or the safeguard measures applied.

From the matters communicated with those charged with governance, we have determined those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We have described these matters in our auditor's report.

Additional information pursuant to article 10 of EU Regulation n. 537/14

The shareholders of E.S.T.R.A. S.p.A., in the general meeting held on January 12, 2017, engaged us to perform the audits of the consolidated financial statements for each of the years ending December 31, 2016 to December 31, 2024.

We declare that we have not provided prohibited non-audit services, referred to article 5, par. 1, of EU Regulation n. 537/2014, and that we have remained independent of the Group in conducting the audit.

We confirm that the opinion on the consolidated financial statements included in this report is consistent with the content of the additional report to the audit committee ("Collegio Sindacale") in their capacity as audit committee, prepared pursuant to article 11 of the EU Regulation n. 537/2014.

Report on compliance with other legal and regulatory requirements

Opinion pursuant to article 14, paragraph 2, subparagraph e), of Legislative Decree n. 39 dated 27 January 2010 and of article 123-bis, paragraph 4, of Legislative Decree n. 58, dated 24 February 1998

The Directors of E.S.T.R.A. S.p.A. are responsible for the preparation of the Report on Operations and of the Report on Corporate Governance and Ownership Structure of Group E.S.T.R.A. as at December 31, 2022, including their consistency with the related consolidated financial statements and their compliance with the applicable laws and regulations.

We have performed the procedures required under audit standard SA Italia n. 720B, in order to express an opinion on the consistency of the Report on Operations and of specific information included in the Report on Corporate Governance and Ownership Structure as provided for by article 123-bis, paragraph 4, of Legislative Decree n. 58, dated 24 February 1998, with the consolidated financial statements of E.S.T.R.A. Group as at December 31, 2022 and on their compliance with the applicable laws and regulations, and in order to assess whether they contain material misstatements.

In our opinion, the Report on Operations and the above mentioned specific information included in the Report on Corporate Governance and Ownership Structure are consistent with the consolidated financial statements of E.S.T.R.A. Group as at December 31, 2022 and comply with the applicable laws and regulations.

With reference to the statement required by art. 14, paragraph 2, subparagraph e), of Legislative Decree n. 39, dated 27 January 2010, based on our knowledge and understanding of the entity and its environment obtained through our audit, we have no matters to report.

Statement pursuant to article 4 of Consob Regulation implementing Legislative Decree n. 254, dated 30 December 2016

The Directors of E.S.T.R.A. S.p.A. are responsible for the preparation of the non-financial information pursuant to Legislative Decree n. 254, dated 30 December 2016. We have verified that consolidated non-financial information have been approved by Directors.

Pursuant to article 3, paragraph 10, of Legislative Decree n. 254, dated 30 December 2016, such non-financial information are subject to a separate compliance report signed by us.

Florence, May 11, 2023

EY S.p.A.
Signed by: Andrea Eronidi, Auditor

This report has been translated into the English language solely for the convenience of international readers.