E.S.TR.A. S.p.A.
Registered office in Via Ugo Panziera Prato (PO)
Share capital € 228,334,000.00 fully paid-up
Tax code and entry number in the Register of Companies of Prato 02149060978,
Rea no. 0505831

CONSOLIDATED FINANCIAL STATEMENTS AT 31 DECEMBER 2019

OFFICERS

Board of Directors
Chairperson Francesco Macrì
CEO Alessandro Piazzi
General Manager Paolo Abati
Director Roberta De Francesco
Director Chiara Sciascia

Board of Statutory Auditors
Athos Vestrini (Chairperson)
Saverio Carlesi
Patrizia Berchiatti

Independent Auditors
EY S.p.A.

MANAGEMENT REPORT ON THE CONSOLIDATED FINANCIAL STATEMENTS AT 31 DECEMBER 2019

CONSOLIDATED FINANCIAL STATEMENTS AT 31 DECEMBER 2019

1. HIGHLIGHTS OF THE YEAR

During financial year 2019, the Estra Group achieved very sound results, up significantly compared to 2018, benefiting from the positive performance of all the Group's business segments, from a number of non-recurring positive income components and from expansion of the consolidation scope.

In 2019 the Group, in continuity with the strategic approach adopted in the last few years, concentrated on strengthening its competitive position thanks to commercial development policies and by means of investment operations along external lines mainly in the segment of regulated activities and in the integrated waste cycle.

Particularly significant for the business activity were the acquisitions finalised at the beginning of 2019 of the natural gas distribution business of 2i Rete Gas in Apulia in the Minimum Territorial Areas (ATEMs) of Foggia 1-North and Bari 2-South and of 100% of Ecolat, which officially marked entry into the environmental segment implementing one of the Group's strategic prospects. Please see on this point the specific paragraph on significant events of the year.

In 2019, the Group achieved total revenue of € 997 million (+18% compared to the 843 million of 2018). The growth in revenue originated mainly from natural gas and electricity sales, with higher volumes sold.

The gross operating margin (EBITDA) came out at € 97.2 million, up by 26 million (37%) compared to 2018 (€ 71.2 million).
The different way of accounting for operating leases required for lessees by the new accounting standard IFRS 16, applied starting from 01 January 2019, determined an increase in the gross operating margin of € 4.7 million as a result of the recognition of lower costs for use of third party assets.
The gross operating margin, in addition, benefited from non-recurring items for a net positive balance of € 10.2 million, including, in particular, revenue recognised for refunds due to the Group as a result of Resolution 32/2019/R/gas of 29/01/2019 with which ARERA regulated the methods for settling economic items between sellers and final customers for the period 2010-2012, in accordance with Council of State judgement 4825/2016.
As well as the results of the above, significant growth was recorded in gross operating margin to which all the Group's business activities contributed, owing both to expansion of the perimeter and to improvement of performance.

The net operating profit (EBIT) came out at € 37.8 million, up by € 9.8 million (35%) compared to 2018 (€ 28 million). The change is attributable to higher depreciation and amortisation of € 10.2 million as a result of the investments and corporate acquisitions made, as well as to the effect of first application of IFRS 16 (€ 4.3 million), write-downs of assets for impairment of € 2.5 million and higher provisions for impairment of receivables of € 3.4 million.

The net profit for the year came out at € 16.7 million, up by € 9 million (117%) in comparison with 2018 (€ 7.7 million), after better financial management of € 2.3 million, higher income tax expense of € 5.2 million and net loss from assets held for sale of € 0.2 million compared to a loss of € 2.3 million in the previous year.

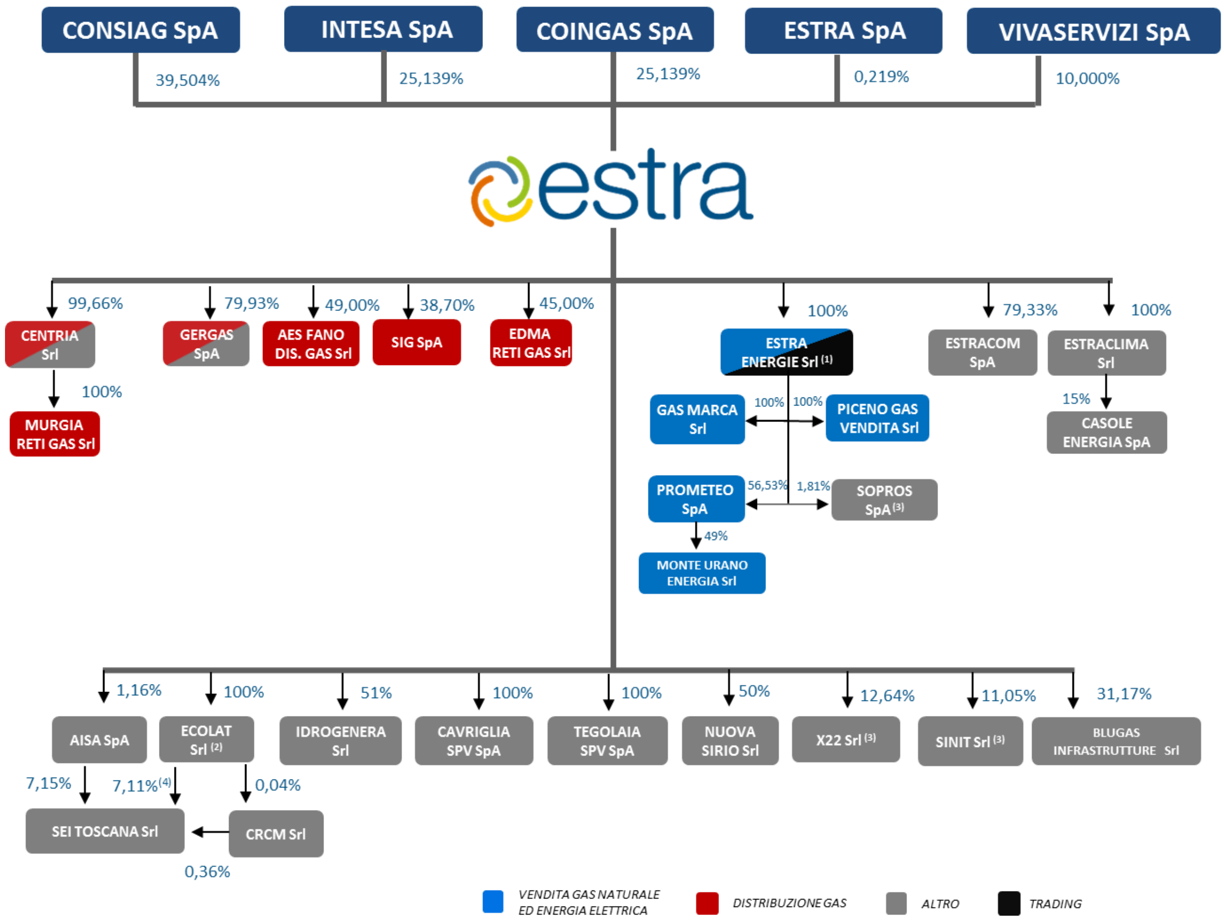
The Group's shareholders' equity at 31 December 2019 came out at € 321.8 million (325.3 million in 2018). The changes that occurred in the year are attributable to the net profit for the period and to the distribution of dividends. The proportion of shareholders' equity to capital raised was 51.3%, down compared to the 55.3% of 2018.

The net financial debt was € 305.6 million (€ 263.1 million in 2018), with a proportion of capital raised up from 44.7% to 48.7%, owing to the cash absorption of investing activities. The adoption of IFRS 16 determined a worsening of € 17,1 million in the net financial position at the end of financial year 2019.

With reference to the state of emergency in progress in Italy owing to the spread of the COVID-19 virus and to the consequent measures adopted by the competent Government Bodies, the Board of Directors of Estra keeps the evolution of the situation constantly monitored. Please see the specific paragraph of the report for the main oversight carried out to guarantee business continuity and the performance of the work activities ensuring the protection of our employees and for considerations on the possible effects on the Group's economic and financial situation.

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.



Notes:

(1) Estra Energie holds 0.072% of Banca Popolare delle Province Molisane Scarl
(2) Ecolat holds an equity investment in the Cons.Eco consortium
(3) Company currently in liquidation
(4) The stake declared by Ecolat in the financial statements at 31/12/2018 was 11.27%

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:

(a) "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;

(b) "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 the free-market activities of sale of natural gas and electricity, trading of natural gas, 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 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 2019

3.1 ACQUISITION OF ECOLAT S.R.L.

On 26 February 2019 Estra completed the acquisition of the company Ecolat S.r.l., in which it already had a 12% stake at 31 December 2018, following the subscription of a capital increase of € 124,000.

Full control was acquired through the sale by ETH S.r.l. of the equity investment representing the remaining 88% of the share capital at a price of € 6,380 thousand.

For the Group the acquisition represents entry into the integrated waste cycle, as the company, besides being the holder of an equity investment in SEI Toscana S.r.l., is the operator of a plant for the mechanical selection of mixed-material packaging coming from the separate collections of the Optimal Areas Tuscany South, Centre and Coast, and operator of a platform for the storage of municipal recoverable, assimilated and special waste and for selection of bulky waste, managing also the waste intermediation activity. The company also manages a collection centre which has an agreement with the municipality of Grosseto to enable private citizens to confer recoverable waste directly.

The accounting effects of the acquisition are described in the notes to the financial statements.

3.2 ACQUISITION OF MURGIA RETI GAS S.R.L.

On 01 April 2019 the Group acquired 100% of the share capital of Murgia S.r.l., a company newly incorporated by 2i Rete Gas, to which the ATEM Bari 2 business unit relating to concessions for the distribution service in the Municipalities of Conversano, Putignano, Rutigliano, Triggiano and Valenzano was transferred, together with the ATEM Foggia 1 business unit, relating to the concessions for the distribution service in the Municipalities of Chieuti, Lesina, San Severo, Serracapriola and Torremaggiore.

Through the operation, the Estra Group acquired the management of approximately 544 km of distribution network (302 km in Bari 1 and 242 km in Foggia), for a total of around 66,000 Points of Delivery (PoDs).

The acquisition occurred after the Group, through Centria S.r.l., won the disposal procedure launched by 2i Rete Gas on 29 March 2018.

The acquisition was made for a total price of € 42 million.

The accounting effects of the acquisition are described in the notes to the financial statements.

3.3 SALE OF USENEKO S.P.Z.OO

During the year the process of disposing of the equity investment in Useneko was completed, Useneko is a Polish company operating in the gas distribution business in Poland, which was 100% controlled by Estra S.p.A..

The investee was presented in the consolidated financial statements at 31 December 2018 in accordance with IFRS 5 among "assets/liabilities held for sale"

The accounting effects of the sale are described in the notes to the financial statements.

4. MARKET SCENARIO

Macroeconomic context 2019

During 2019 global growth remained stable: according to the data published by the OECD, in 2019 the increase in global GDP was 2.9%, slightly down compared to 2018 (0.7%).
As regards the trend in world trade, in the third quarter of 2019 there was a turnaround compared to the reduction that had begun in the last quarter of 2018 and that continued for the whole of the first half of 2019[1]. This decrease was mainly due to the lower imports of Advanced Countries, in particular the United Kingdom, while the Emerging Countries recorded a slight recovery in the total level of imports[2].
Overall, according to the estimates of the Bank of Italy, in 2019 international trade increased by 0.6%, while in 2018 the increase had been 4.2% [3]
In 2019, there were signs of attenuation of the tariff disputes between the United States and China and, in December, the two countries reached a first commercial agreement, which excluded further increases in US customs duties and reduced those introduced in September 2019. The Chinese government also undertook to increase imports of agricultural and energy goods from the United States and offered guarantees on the defence of intellectual property (rights and patents) and on the exchange rate policy.
Global growth prospects are subject to international factors, such as geopolitical tensions, in particular those between the United States and Iran, owing to Iran's nuclear threat and Trump's not very conciliatory policy. The lack of clarity on the repercussions of the United Kingdom's exit from the European Union, which became effective on 1 February 2020, contributed to making even more doubtful the situation of the global economy during 2019.
In all the major advanced countries, economic growth expanded only slightly. In the United States and Japan GDP growth in the first three months of the year was determined above all by the drop in imports and the accumulation of stocks, in a context of weakness of domestic final demand; in annual terms Japan's GDP grew overall by 1% in 2019, while that of the United States by 2.3% (forecasts on OECD data)[4].
The expansion of economic activity in the United Kingdom slowed down slightly in the first six months of the year, affected by the precautionary measures adopted close to the original Brexit deadline, planned for the end of last March[5]; it then came back to growth in the second half of the year (GDP +1.2% - forecast on OECD data for 2019).

As regards emerging countries, in India in 2019 the economy grew (5.8% 2019 GDP forecast), but decreased sharply in annual terms (in 2018 it had recorded 6.8%), while in Russia and Brazil growth remained very modest (respectively 1.1% and 0.8%). In China economic activity slowed down in the summer months, but the forecast growth figure for 2019 shows a positive trend (6.2%).

The economy of the Euro Area in 2019 showed limited growth (1.2% forecast). During the whole of the year, growth remained moderate (0.2% in the II and III quarters) but positive, boosted by an increase in private consumption, the consequence of favourable conditions on the labour market, with the unemployment rate that remained at the levels of the last few year[6]. If we analyse the trend in the main countries of the area, in 2019 German GDP contracted by 0.2 per cent, while Spain and France, which have a

[1] *Bollettino economico* (*Economic Bulletin*) – Bank of Italy 1/2020
[2] *Bollettino economico* (*Economic Bulletin*) – Bank of Italy 4/2019
[3] *Bollettino economico* (*Economic Bulletin*) – Bank of Italy 1/2020
[4] *Bollettino economico* (*Economic Bulletin*) – Bank of Italy 1/2020
[5] *Bollettino economico* (*Economic Bulletin*) – Bank of Italy 4/2019
[6] Eurozone economic outlook 8/01/2020

higher proportion of services and production of consumer goods, showed substantial stability over the year (respectively +0.4% and +0.3%).
Again, at the European level, the activity of the industrial sector decreased in the summer months, with a particularly sharp drop in Germany, caused in part by the slowdown of the Chinese economy and by the weakness of the automobile industry, which affected above all producers of instrumental goods and intermediate goods[7]. However, at the Community level, the service sector grew[8]. Private consumption in the area was the main support to growth, boosted by the favourable trend of the labour market[9]. Inflation remained stable throughout the year, given that the drop in the energy component in the basket of prices was offset by the trend in the prices of services[10].

In this international economic context, in 2019, Italian GDP increased by 0.2% compared to the previous year (preliminary ISTAT estimate) despite falling in the last quarter of the year by 0.3% compared to the previous quarter[11]. This contraction interrupted the slight positive trend seen in the previous months. In the first half of 2019, gross domestic product was boosted by domestic demand and household spending, as well as by investments in instrumental goods, which benefited also from the renewal of the tax incentives (super depreciation)[12]. The quarterly decrease in GDP at the end of 2019 can instead be attributed mainly to the weakness of the manufacturing sector[13].
Household consumption showed a 0.4% acceleration in the summer months, benefiting from the favourable trend in available income, also boosted moderately starting from April 2019 by basic income[14]. The reasons for this growth can in part be found in the performance of the labour market. According to INPS data, employment in the private sector continued to grow throughout 2019, slowing its expansion in the second half of the year, but still growing. This increase is attributable, above all, to subordinate employment and regarded, in particular, permanent positions, due to the high number of temporary contract conversions. The unemployment rate fell during 2019 and contractual remuneration slowed down in the first half of the year, before growing, although weakly, towards the end of the period[15].
During 2019, industrial production in Italy showed a slightly downward trend. After a slight increase in the first quarter, due above all to the positive trend in the consumer goods sector, there was a change in the trend in the second half of the year due, in particular, to the reduction in the energy segment[16]. Manufacturing activity was weak; the PMI[17] for this sector remained below the threshold of expansion all year. After a positive first half of the year driven, above all, by the pharmaceutical, metal products, oil products and clothing sectors, exports of goods and services recorded a drop of 0.1% in the 3rd quarter, owing to the persistent weakness of international trade. According to the estimates, in the fourth quarter, exports to other EU and to non-EU countries regained ground. In relation to imports of goods and services, after a drop at the beginning of the year and a period of weakness in the spring, in the second half of the year, import increased, stimulated by the component of services and purchases of goods from non-EU countries.

The prospects for the global and Italian market for 2020 will be strongly conditioned by the Coronavirus epidemic which spread in the first quarter of the year. According to the International Monetary Fund (IMF), the pandemic will have negative impacts at the level of global economic growth, leading to a recession in 2020.[18]

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[7] Eurozone economic outlook 8/01/2020
[8] *Bollettino economico* (*Economic Bulletin*) – Bank of Italy 1/2020
[9] Eurozone economic outlook 8/01/2020
[10] *Bollettino economico* (*Economic Bulletin*) – Bank of Italy 1/2020
[11] Preliminary estimate of GDP – ISTAT - 31 January 2020
[12] The tax benefit of "super depreciation" consists of the possibility of increasing by 30%, for income tax purposes, the cost of acquiring new instrumental tangible assets, with exclusive reference to the determination of depreciation and leasing fees (Source: Revenues agency website).
[13] *Bollettino economico* (*Economic Bulletin*) – Bank of Italy 4/2019
[14] *Bollettino economico* (*Economic Bulletin*) – Bank of Italy 1/2019
[15] Our processing of data from Bollettino economico (Economic Bulletin) – Bank of Italy 3/4/2019 and 1/2020
[16] Our processing of data from Bollettino economico (Economic Bulletin) – Bank of Italy 2/3/4/2019 and 1/2020
[17] This is an index (acronym of Purchasing Managers' Index) which represents the surveys carried out on a sample of companies in which the interviewees are the managers of the procurement sector.
[18] https://www.imf.org/en/News/Articles/2020/03/23/pr2098-imf-managing-director-statement-following-a-g20-ministerial-call-on-the-coronavirus-emergency

Monetary policy

In 2019, the slowdown of the American economy and the uncertainty generated by commercial policies led the Federal Reserve to implement an expansive monetary policy. The FED, in fact, reduced interest rates three consecutive times. At the end of the year, they were in a range between 1.5% and 1.75%.
As regards monetary policy in the Eurozone, 2019 saw confirmation of the expansive measures already introduced in 2018, in order to counter the downside risks for inflation, deriving from the weakening of the prospects of economic activity[19], and to preserve favourable conditions in the credit market.
In the 4 meetings of the Governing Council of the European Central Bank (ECB) held during the year, it was confirmed that the official rates were not to be raised immediately, until the prospects for inflation had stably reached a level close to 2%: in December the main rate was kept steady at 0%, that on marginal loans at 0.25% and that on deposits at -0.50%[20]. On 1 November the monthly purchases of securities began again in the context of quantitative easing[21], at a monthly rate of € 20 billion; the Governing Council expects that they will continue as long as is necessary to strengthen the accommodating impact of its reference rates.[22]
During the year, the Council also extended the reinvestment of the repaid principal of securities in maturity for an indefinite period, at least as long as is necessary to maintain favourable liquidity conditions and a high level of monetary accommodation[23].
In the first quarter of 2020 the European Central Bank announced a new € 750 billion securities purchasing programme (Pandemic Emergency Purchase Programme – PEPP) to tackle the Coronavirus emergency.[24]

Trends in the energy market

In 2019 the oil price (Dated Brent) showed considerable volatility, reaching an annual average of 64.5 dollars/barrel, down by approximately 6.5 dollars/barrel compared to the average figure of 2018 (71 dollars/barrel). In the early months of the year, the price of crude oil was affected by a rising sentiment compared to the 2018 figures up to a maximum of 76 dollars/barrel, before coming back down in the second half of the year to the minimum of 54 dollars at the beginning of August[25]. The upward trend of the first period was mainly due to two factors: firstly the imposition of economic sanctions by the United States on Iran and Venezuela, which entailed a reduction in the supply of oil on the market; secondly the cuts provided for in the "Opec Plus"[26] agreement from 1 January 2019. The peak in oil prices was reached in May (76 dollars/barrel), in the wake of a toughening of American sanctions. In addition, the block of flows of Ural from Russia to central Europa owing to contamination by chlorides of the Druzhba pipeline[27], attacks on a number of oil tankers in the Gulf of Oman[28] and, finally, Iran's threats to close the Hormuz Strait[29] all contributed. Subsequently, the heightened commercial tensions between the USA and China affected the downward trend of crude oil prices between May and August 2019[30].
The last part of the year was instead distinguished by great volatility of oil prices, caused by the loss of more than half of Saudi oil production, following an attack with drones on two important oil infrastructures of Saudi Aramco on 14 September, which led to a reduction of about 6% in global crude oil production. Despite this, the effects on oil prices were limited, as they remained below the threshold of 70 dollars/barrel.[31]

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[19] *Bollettino economico* (*Economic Bulletin*) – Bank of Italy 4/2019
[20] European Central Bank press release 12/12/2019
[21] Instrument with which the central bank puts liquidity into the financial system, through the purchase of government and other bonds, supporting economic growth in the whole euro area and contributing to a return of inflation to levels lower than but close to 2%. Source: ECB official website
[22] European Central Bank press release 12/12/2019
[23] Bollettino economico (Economic Bulletin) of the Bank of Italy 1/2020
[24] https://www.ecb.europa.eu/press/pr/date/2020/html/ecb.pr200318_1~3949d6f266.en.html
[25] Pre-consuntivo petrolifero 2019 – Unione Petrolifera (2019 Preliminary Oil Balance - Petroleum Industry Union)
[26] 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).
[27] The Druzhba pipeline is the longest oil pipeline in the world with approximately 5500 km of network, including branches. In April 2019, owing to the contamination of the pipeline by organic chlorides, potentially damaging for the plants.
[28] On 13 June 2019 two oil tankers were attacked in the Gulf of Oman, near the Hormuz Strait, increasing geopolitical tension in the Middle East.
[29] The Hormuz Strait separates Iran from Oman and the United Arab Emirates. Approximately 30% of oil at the global level transits through this passage (AIE estimate).
[30] Pre-consuntivo petrolifero 2019 – Unione Petrolifera (2019 Preliminary Oil Balance - Petroleum Industry Union)
[31] "Preconsuntivo Petrolifero 2019" – Unione Petrolifera (2019 Preliminary Oil Balance - Petroleum Industry Union)

In 2019 total energy consumption in Italy is estimated to have been 161 million TOE, with a reduction of 1.2% compared to 2018, due to both the milder weather and the economic stagnation that slowed down energy-intensive industries.
Gas and oil were confirmed as the first two energy sources of the country with a contribution respectively of 38.5% and 36.1% to meeting Italian energy demand; gas contributed to the demand for energy with 61.9 million TOE[32], up by 4% compared to the previous year, and oil with 58.2 million TOE. The picture of Italian energy sources is completed by renewables (in line with the 2018 result and 17.3% of the total), net imports of electricity (-13.9% compared to 2018 and 4.1% of the total) and solid fuels (-30% compared to 2018 and 4.0% of the total)[33].
In 2019 the falling prices of energy from different sources, and the drop in consumption, contributed to the reduction in the estimate of the energy invoice, that is the cost that the country bears for procurement abroad, of € 39.6 billion (-7.4% compared to 2018), with a proportion of GDP of 2.2% compared to 2.4% in the previous year.

As regards the power exchange, in 2019 the purchase price of energy (PUN[34]) fell to € 52.32/MWh, (-14.7% compared to 2018) a turnaround from the rising trend of the previous year. The reduction mainly occurred in the second half of 2019, falling to the minimum level in September (-25 €/MWh compared to 2018). With a level of national purchases among the highest of the last six years and net imports at almost the lowest-ever figures, also in 2019, as in the previous year, the downward trend of the PUN was tied to the falling prices of gas at the PSV[35].
Trades of electricity on the Day Ahead Market (DAM), of 295.8 TWh increased slightly compared to the figure, in any case high, of 2018 (0.1%), reaching the maximum level since 2013. Volumes traded on the exchange also increased, to 213.3 TWh (+0.2% compared to 2018), boosted by the trades of non-institutional national operators and by exports. Owing to these trends, the liquidity of the market was in line with the record high reached in the two previous years, of 72.1% (+0.1% compared to 2018).
Additionally, the price of natural gas on the Italian Virtual Exchange (Punto di Scambio Virtuale nazionale - PSV) reversed the trend compared to the growth that marked the two previous years, falling to 16.28 €/MWh (-8 €/MWh compared to 2018), just above the record low of 2016 (15.85 €/MWh).
This trend was in line with the prices of the main European hubs, in which the TTF[36] reached the absolute low at 13.58 €/MWh (-9.32 €/MWh compared to 2018) widening the PSV-TTF spread to 2.70 €/MWh (1.65 €/MWh in 2018).

Overview of the Italian markets

The natural gas market

Natural Gas Balance Sheet[37]			
NATURAL GAS (Million m^3)	**Financial year 2019**	**Financial year 2018**	**Changes %**
Imports	70,643	67,432	+4.8
Domestic production	4,512	5,123	-11.9
Delivery from storage	10,149	11,534	-12.0
Total issued	**85,304**	**84,089**	**+1.4**
Services and domestic use	31,649	32,294	-2.0
Industrial use	13,957	14,221	-1.9
Thermoelectric use	25,714	23,390	+9.9
Exports, third-party networks and system consumption*	2,439	2,221	+9.8
Total demand	**73,760**	**72,126**	**+2.3**
Injections into storage	11,544	11,963	-3.5

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

32 TOE (Tonne of Oil Equivalent) is a unit of measurement of energy (1 TOE = 42 GJ)
33 "Preconsuntivo Petrolifero 2019" – Unione Petrolifera (2019 Preliminary Oil Balance - Petroleum Industry Union)
34 "Prezzo Unico Nazionale" - Single National Price
35 GME Newsletter January 2020
36 The TTF (Title Transfer Facility) is the natural gas trading hub of reference at the European level
37 GME Newsletter January 2020 and GME Newsletter January 2019

In 2019 natural gas consumption returned to the upward trend seen between 2015 and 2017 coming out at 73,760 million m^3 (780.6 TWh, +2.3% compared to 2018), after the reduction recorded in the previous year[38].
The growth was mainly boosted by the consumption of the thermoelectric sector (+9.9% compared to 2018), up thanks to the drop in gas prices and lower imports of electricity, with a contribution of renewable sources to electricity production in line with the previous year.
The downward trend of consumption in the residential (-2.0%) and industrial (-1.9%) sectors continued in 2019, as did that of injections into storage systems, which declined from the 11,963 million m^3 of 2018 to the 11,544 million m^3 of 2019.

As regards supply, imports of natural gas grew, coming out at 70,643 million m^3 (up 4.8% compared to 2018) boosted exclusively by the increase through regasification terminals, which reached a record maximum level of 14,000 million m^3. On the contrary, imports via gas pipelines were at the minimum levels of the last four years, at 56,693 million m^3 (-4% compared to 2018): we are seeing prolonged contraction of gas flows at the entry point of Mazara (Trapani) from Algeria, while the entry point of Tarvisio (Udine) is staying at the same high level.

In the gas spot markets managed by the GME (Gestore Mercati Energetici - Energy Markets Operator), in the third year of operations, total trades continued the growth recorded in the previous year, reaching in 2019 79 TWh (+45% compared to 2018). This increase was mainly due to trades on MGP-Gas (Day Ahead Market) and MI-Gas (Intraday Market).

The gas distribution sector is still in a situation of stasis as regards the preparation of MTA bidding. The tenders issued are still few compared to those initially provided for in the calendar of the Ministry of Economic Development. At the end of 2019 the situation was:

- 11 ATEMs with calls for tenders published with restricted procedures still active: Monza Brianza 1, Bergamo 3, Varese 2, Verona 2, Lodi 1, Varese 3, Vicenza 3, Brescia 1, Vicenza 4, Bergamo 2, Milan 4;
- 1 ATEM with call for tenders published with open procedure still active: Naples 1;
- 12 ATEMs with calls for tenders revoked, cancelled, suspended: Cremona 2 and 3, Alessandria 2, Turin 3, Udine 1, Perugia 2, Massa Carrara, Biella, Udine 3, Venice 1, Lucca, Monza and Brianza 2, Como 1;
- 6 ATEMs with calls for tenders published with open procedures expired: Belluno (offers presented by Italgas, Erogasmet, 2i Rete Gas, Ascopiave), Milan 1 (award to A2A subsequently cancelled by the RAC), Turin 2 (award to Italgas), Aosta (award to Italgas), Udine 2, Turin 1.

ARERA Resolution 639/2018/R/com updated, to December 2018, the weighted average cost of capital for infrastructural services of the gas sector (WACC) only for the year 2019, while awaiting the beginning of the new regulatory period: the remuneration rate for 2019 is increased for gas distribution (6.3%, compared to the 6.1% of the previous year) as also for gas metering (6.8%, compared to the 6.6% of the previous year)[39].
In December 2019, on the occasion of the beginning of the 5th Regulatory period, ARERA Resolution 570/2019/R/GAS aligned the value of the $beta_{asset}$ for the distribution and metering service, of 0.439. Therefore, the weighted average cost of capital (WACC) in the period 2020-2021 was 6.3% both for the gas distribution service (6.3% in 2019) and for the metering service (6.8% in 2019) while from 2022 the update of the remaining parameters that make up the weighted average cost of capital for infrastructural services (e.g. gearing), contained in the TIWACC will come into force (Resolution 583/2015/R/GAS)[40].

[38] GME Newsletter January 2020
[39] ARERA 639/2018/R/com
[40] ARERA Res. 570/2019/R/GAS

The market for electricity and renewable energy sources

In 2019 the demand for electricity was 319.6 TWh, down by 0.6% (321.91 TWh) compared to 2018 (Terna preliminary data).

Electricity Balance Sheet[41]			
Electricity (TWh)	**Financial year 2019**	**Financial year 2018**	**Changes %**
Net production:	283.85	280.23	1.3
- Thermoelectric	186.81	185.05	1.0
- Hydroelectric	46.96	49.28	-4.7
- Photovoltaic	24.33	22.89	6.3
- Wind	20.06	17.32	15.8
- Geothermal	5.69	5.71	-0.4
Net import/export balance	38.16	43.91	-13.1
Pumping consumption	2.41	2.23	8.1
Total demand	**319.60**	**321.91**	**-0.7**

In 2019, net production covered approximately 89% of demand for electricity, a higher figure compared to the previous year (87% in 2018). In absolute terms, net production came out at 283.85 TWh, up by 1.3% compared to 2018 (280.23 TWh).

The hydroelectric component reached 46.96 TWh in 2019, down by 4.7% compared to 2018 (49.28 TWh), as was electricity production from geothermal sources, which fell by 0.4% compared to 2018; the other renewable components showed a rising trend. In particular, wind production exceeded, in 2019, 20 TWh produced (+15.8%), while photovoltaic reached 24.33 TWh (+6.3% compared to 2018).

The net import/export balance was distinguished by a decrease of 5.75 TWh (-13.1%), returning to the figures of 2017.

For the trend in the purchase price of energy (PUN - Prezzo Unico Nazionale [Single National Price]) please see the paragraph "Trends in the energy market".

The energy efficiency market

The twenty-first Conference of the Parties in Paris (COP21) which was held in 2015, was an event that marked a turning point in combating climate change. It was then that the 197 countries involved agreed on the need for a legally-binding global action plan to limit the increase in the average global temperature to below 2°C. The international commitment, confirmed by the Marrakesh Declaration (COP22) of 2016 which indicated the guidelines for monitoring the actions aimed at limiting greenhouse gas emissions (Nationally Determined Contributions), continued also in 2017 with the Conference of the Parties in Bonn (COP23) and subsequently, in December 2018, with the Katowice conference (COP24); on this last occasion the 196 countries participating in the conference signed an implementing regulation (Rulebook) that makes the Paris agreement operational and that includes the scheme of rules on monitoring the future action plan[42]. The Madrid climate conference (COP25), held at the beginning of December 2019, had the objective of aligning the interests of the countries as regards a number of crucial issues for the effective application of the COP21 agreement, such as the regulation of the carbon market. This agreement was not reached and all decisions on the subject were deferred to the COP26 in Scotland.

[41] Terna – Monthly Report on the Electrical System (December 2019)
[42] GSE Annual White Certificates Report 2018 and 2019

At the European level in 2018 the Clean Energy Package presented by the European Commission was updated to establish a new objective in relation to the proportion of energy produced from renewable sources at 32% and a 32.5% reduction in energy consumption in the Union[43].
As regards this context, in November 2017 the Italian Government had outlined the National Energy Strategy (NES) 2017, with the objective of making its system more sustainable at the environmental level and stronger at the economic level[44]. In keeping with the national strategic framework, in December 2018 Italy presented its proposal for an "Integrated National Plan for Energy and the Climate" through which it intends to implement a profound transformation of the economy making it more respectful of people and the environment; in particular the Plan proposes to make use of the great potential for efficiency both in the construction industry through construction, seismic, system and aesthetic renovation of buildings and districts and through their energy redevelopment. In addition, on the subject of transport, it intends to promote alternative fuels and the purchase of electric vehicles, as well as implementing policies that would increase collective mobility. In December 2019 the final text of the *"Integrated National Plan for Energy and the Climate"* was drafted; this will be assessed by the European Commission in the first half of 2020.
Over the last few years Italy has acted to achieve the energy saving targets set for 2020 by European Directive 2012/27/EU. As of 2018 67% of these targets had been achieved.

Risparmi energetici annuali conseguiti per settore nel periodo 2011-2018 e attesi al 2020 *(final energy, Mtep/year) under the terms of the PAEE2014*[45]

Sector	White certificates	Tax deductions	Thermal Account	Business 4.0	Italian Legislative Decree 192/05 and 26/6/15	Other*	Energy savings		Target achieved (%)
							Achieved in 2018	Expected at 2020	
Residential	0.67	2.7	-	-	1.34	0.33	5.04	3.67	137.3
Tertiary	0.14	0.03	0.08	-	0.04	0.03	0.31	1.23	25.6
Industry	1.97	0.04	-	0.44	0.08	0.23	2.75	5.10	54.0
Transport	0.01	-	-	-	-	2.28	2.29	5.50	41.6
Total final energy	**2.79**	**2.76**	**0.08**	**0.44**	**1.46**	**2.86**	**10.39**	**15.50**	**67.0**

** includes the energy savings deriving from the Cohesion Policy, PIF, Marebonus, Community Regulations and High Speed*

These energy savings derive for approximately 27% from the mandatory mechanism of white certificates (EECs - energy efficiency certificates) or from the 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 (EECs) also for 2019 underwent significant developments. As regards the mechanism for admission of energy efficiency projects, the Directorial Decree of 30 April 2019 changed the list of admissible energy efficiency projects. At the same time, an Operating Guide was prepared for the presentation of energy efficiency projects, including Sectoral Guides for different markets. In addition, in the Directorial Decree of 9 May 2019 the guidelines were defined for the issued of White Certificates not linked to energy efficiency projects (so-called virtual EECs[46]). The obligated subjects must have at least 30% of real EECs, with respect to the minimum obligation[47], to be able to obtain the issue of virtual EECs[48].
Finally, on 28 November 2019, judgement no. 2538/2019 of the Lombardy RAC annulled the Ministerial Decree of 10 May 2018 in relation to the part which introduced the price cap at € 250/EEC, because this was not within the powers of the Ministry of Economic Development (MED). This judgement invalidated also the resolutions issued by the Authority that made reference to the aforementioned Decree. Therefore,

[43] GSE Annual White Certificates Report 2018 and 2019
[44] Ministry of Economic Development – National Energy Strategy

[45] Enea Annual Energy Efficiency Report 2019
[46] Energy Efficiency Certificates purchasable at € 260 within the last day of the year. These certificates do not represent a real and proper energy efficiency project, therefore they are called 'virtual' and offer operators the opportunity to fulfil their obligations to save primary energy.
[47] The minimum obligation is 60% of the White Certificates that constitute the obligation of the year "n".
[48] GSE Annual White Certificates Report 2019

ARERA indicated in Resolution 529/2019/R/efr the start of the tariff contribution regulation proceeding, which continued with consultation document 47/2020/R/efr. The definition of the new mechanism is envisaged by the end of the first half of 2020.
During 2019, the GSE recognised 2,9 million EECs: the trend of total certificates recognised fell by approximately 24% compared to 2018, a year in which approximately 3.8 million certificates were recognised. The average price recorded on the organised market in 2019, of 260 €/TOE, showed a turnaround compared to the rising trend of the last two years, with a reduction of 14% from the record high of 2018 (303.6 €/TOE); the volumes traded on the average price recorded on the TEE market confirm the downward trend that had characterised also 2018, reaching the lowest figure of the last six years, of 2.9 million TOE (-15.3%).

Energy efficiency certificates – cumulative data[49]				
Year	Price (€/TOE)			Volumes traded
	Weighted average	Minimum	Maximum	(TOE)
2019	260.00	256.00	262.50	2,855,476

As regards the electric mobility sector 2019 confirmed the growth of the previous years in the number of electric cars in circulation: in the first seven months of 2019 approximately 5,900 pure electric cars were registered (+113% compared to the same period of 2018)[50].
The growth of the recharging infrastructure for electric vehicles continued, with more than 8,000 available sockets adapted in 2019 (a 93% increase compared to 2018), of which 15% are concentrated in Tuscany. This growth was supported by the implementation of numerous projects by many utilities also through agreements with public administrations and industrial partnerships with motor manufacturers and other entities linked to the mobility sector[51].
The developments of the sector in the coming years will be affected by the evolution of the legislative framework (for example new European regulations, such as the Clean Mobility Package, which provides for reducing automobile emissions by 30% at 2030 compared to 2021), by mass media communication, by infrastructural investments and certainly also by technological development: this last will play a fundamental role in increasing the range of batteries and in the challenge of interoperability, understood as the possibility for a vehicle to recharge at all existing types of stations.
Among the opportunities that the electric mobility sector offers, the car sharing service has had considerable success over the last few years, above all in large cities.

The telecommunications market

In 2019, the Italian ICT market grew by 2.3% compared to 2018, with turnover of more than € 31 billion. The software, hardware and IT services segments grew (respectively +5.7%, +6.2% e +1.4%), while the TLC segment saw a reduction (-2.7%). Restricting the field to only Information Technology, this doubled the growth compared to 2018: it is worth more than € 24.2 billion, +3.8% compared to the previous year, and the positive trend is expected to consolidate, with total growth in IT investments for the period 2018-2022 of +2.6% (CAGR)[52]. The main driver of this growth is Digital Transformation and the technologies that are growing exponentially in the investments of Italian companies are the Internet of Things (+24%), artificial intelligence (+39.1%), augmented and virtual reality (+160.5%), wearable devices (+116.2%), the Cloud (+26.1%) and Big Data and Analytics solutions (+7.6%)[53].
The aforementioned technologies will continue their growth thanks also to the 5G network, which as of today in Italy is in the testing stage. The project launched by the Government on 5G began in 2017 and involves 5 cities: Milan, Prato, L'Aquila, Bari and Matera. Vodafone Italia operates in Milan, Wind Tre and Open Fiber in Prato and L'Aquila (with the participation of Estra for Prato), Telecom Italia, Fastweb and Huawei Technologies Italia in Bari and Matera.[54] During 2019 the monitoring of use cases continued, with the aim of assessing the progress of performance of the activities related to the project in the 5 pilot cities. The testing seems to be a useful tool for the country to understand how the business models evolve and how the general interest can benefit from adopting the new services, made available by 5G in the different

[49] GSE Annual White Certificates Report 2019
[50] Smart Mobility Report Energy & Strategy Group
[51] Città MEZ 2019 Legambiente Motus-E Report
[52] Assintel Report 2020 Press Release
[53] Assintel Report 2020 Press Release
[54] MED: Notice of 2 August 2017 - 5G Testing: Rankings of best project proposals and deferment of terms for the negotiated procedure.

sectors, such as transport, health, tourism, energy, industry etc.[55] Testing should end on 30 June 2020 and will be a new step in the process that will lead to Italy having the technology for fifth-generation mobile networks. For telecommunication companies in possession of the necessary bandwidth, 5G is a great opportunity to provide new services and increase efficiency in managing products, as well as to create new business models enabled by this technology. In fact, 5G will make it possible to have smart objects connected together (IoT– Internet of Things) which exchange a large quantity of data rapidly and with low latency and which communicate with sensors, enabling the creation of smart cities.
On this point, in October 2018 the tender procedure for the assignment of the rights of use of the frequencies for 5G organised by the MED came to an end: the companies that were awarded the various batches of frequencies are Telecom Italia, Vodafone Italia, Wind 3, Iliad Italia and Fastweb[56].

As regards the development of fibre optics, and in particular in the areas where the market has failed, the so-called white areas, in the last three years Infratel has issued public calls for tenders for the award of the concession for the construction and management of an ultra-broadband infrastructure in approximately 7,500 Italian municipalities in 19 regions[57]. The three awards were assigned to Open Fiber, which was awarded the installation of optical fibre in approximately 9.6 million property units scattered all over Italy[58]. At the end of 2019 the network was operative in 5 municipalities, in another 310 work had been finished, awaiting approval testing. According to Infratel numbers, work is in progress in 1,614 municipalities; 220 are awaiting the approval of the final project, in 474 Open Fiber has launched the application for authorisation.[59]
In June 2019, Open Fiber had reached a market share of 70%, as regards the ultra-broadband sector, that is equal to or more than 100 Mega. This figure represents growth of 15 per cent compared to the 55% recorded at the end of 2018. According to the estimates of the said Open Fiber, 2019 ended with a total of 7.9 million homes, offices and businesses cabled by the operator[60].
As regards the land line network an annual drop in accesses of 780,000 lines was recorded; the downward trend in accesses through the copper network continued: -23.1% on an annual basis.
Within land line accesses, according to the data published by Agcom for the third quarter of 2019, broadband accesses reached almost 17.4 million units, with an increase on an annual basis of 380,000 units. ADSL lines decreased by 1.75 million units compared to the same period of 2018, coming out at a figure of 7.47 million lines.
In September 2019, more than 25.8% of broadband lines were sold with a speed of 10 Mbit/s or more and lines with speeds of 30 Mbit/s or more grew by approximately 340,000 units on a quarterly basis, rising to 15.6% of total broadband and ultra-broadband lines. Accesses with speeds of between 10 and 30 Mbit/s fell to just less than 25.8% of the total (4.49 million units) and accesses with speeds of less than 10 Mbit/s decreased, by almost 0.84 million units. On an annual basis both accesses with speeds of more than 100 Mbit/s and those with speeds of between 30 and 100 Mbit/s also increased, up respectively by 1.77 and 2.12 million units.

As regards mobile telephony, the French operator Iliad, which entered the Italian market in 2018, was confirmed also for 2019 as the fourth infrastructured operator in the country, after TIM, Vodafone and WindTre.
Total lines recorded an increase of 0.5 million units on an annual basis, due to the gradual diffusion of "M2M" SIM cards[61].
Observing the trend of data traffic on an annual basis, the number of SIM cards with access to the Internet fell, going down from 57.3 million units in 2018 to 54.6 in 2019; total data traffic from the beginning of the year increased by 60.4% compared to the first 9 months of 2018.

The environment market

The environmental sector is a market which is highly fragmented and heterogeneous at various levels of the chain, from collection and transport to plants. The waste sector is made up of two main segments: Municipal Waste (MW) of domestic origin and Special Waste (SW) mainly from productive activities. As regards the

[55] Stato dell'arte delle sperimentazioni precommerciali 5G (State of the Art of 5G Precommercial Testing) - Ugo Bordoni Foundation
[56] MED: Press release of 2 October 2018 - 5G Call for Tenders completed: total offers 6,550,422,258.00 euro.
[57] Report on the Telecommunications Supply Chain in Italy 2018 – Digital Innovation Observatories (Milan Polytechnic)
[58] www.corrierecomunicazioni.it/digital-economy/open-fiber-si-aggiudica-la-terza-gara-infratel/
[59] https://www.ilsole24ore.com/art/banda-ultralarga-terminata-solo-un-comune-mille-guarda-mappa-ACoHOBy?refresh_ce=1
[60] https://www.hdblog.it/mobile/articoli/n511670/open-fiber-70-percento-mercato-banda-ultralarga/
[61] Machine to machine, it refers to SIM cards dedicated exclusively to data traffic.

municipal waste market, the country is organised into 57 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 data on the waste situation in Italy reveal that in 2018 municipal waste production was 30.2 million tonnes, up by 2% or 590,000 tonnes compared to 2017, which were managed in 646 plants: 339 dedicated to treatment of the organic fraction, 131 for intermediate mechanical or mechanical/biological treatment, 127 landfill sites, 38 incineration and 11 co-incineration plants. Over the last few years the number of processing plants has increased with respect to landfills, in line with the European guidance to replace conferment 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 2035[62]. In 2018 municipal waste management mainly involved for 49% the recycling of the different fractions originating from separate collection (47% in 2017), for 22% disposal in landfills (23% in 2017) and for 18% incineration (18% in 2017)[63].
As regards the percentage of separate collection in Italy, in 2018 it came out at 58.1% (17.5 million tonnes), up by 2.6% compared to 2017. The figures in the North were higher at 67.7%, below the national average was Central Italy with 54.1%, lower in the South (46.1%). In the national table, Veneto is the region with the highest percentage of separate collection at 73.8%, followed by Trentino Alto Adige with 72.5% and Lombardy with 70.7%.[64]
In waste treatment the North represents an advanced area, in which the recovery of material and energy is maximised, thanks to the widespread use of plants for treating the organic fraction of waste which enable the production of biogas and biomethane and of plants for recovering energy for the residual unseparated fraction. In 2018 approximately 98% of the biomethane produced came from plants located in Northern Italy.
The waste management system in the South is instead still very dependent on landfills, to which 36% of municipal waste produced is destined, while the Central area has less plant capacity than it needs, so it is necessary to send excess waste to the plants in the North or abroad.
If we concentrate on the Tuscany region we can observe that this is divided into 3 OTAs: South Tuscany, in which the service is managed by SEI Toscana SRL, Central Tuscany, managed by Alia Servizi Ambientali SpA and Coastal Tuscany, which differs from the others for a fragmentation of management of the waste collection and treatment service, where a corporate reorganisation process has also been launched for direct “in-house providing” assignment to RetiAmbiente SpA[65]. According to the data of the latest ISPRA Municipal Waste Report, in 2018 the Tuscany Region reached 56.1% of separate collection, the highest figure since 2013.[66] The turnover of the main companies operating in the waste management segment in Tuscany is more than € 700 million (2018 data).
There are 44 municipal waste treatment and disposal plants in Tuscany, and over the last few years they have remained more or less unchanged, with the exception of the number of landfills, which have decreased by 6.
In 2019 important legislative updates were made in the environmental sector. The so-called Unlock Building Sites Decree (Italian Law Decree 32 of 18 April 2019), converted with Italian Law no. 55 of 14 June 2019, assigned to the Regions the power to put an end to the classification as waste, making reference to the types and recycling activities provided for and regulated in the Ministerial Decree of 5 February 1998 and subsequent decrees. These criteria for the concession of authorisations for recycling, from which the cessation of the classification as waste derives, included 5 sectors, of which 3 defined at the EU level (iron, steel and aluminium scrap, glass cullet, copper scrap) and 2 at the Italian level (secondary solid fuel and nappies). Therefore, these rules did not permit the recycling of types of waste with origin or characteristics not provided for in the Ministerial Decree, recycling with recovery activities not provided for or obtaining products not contemplated by the Ministerial Decree of 5 February 2019. Business Crisis Decree 101/2019, converted with Italian Law no. 128/2019 of 2 November 2019, was intended to fill the legislative void for the excluded cases, stating that, in the absence of specific criteria, the authorisations must be issued or renewed observing the conditions laid down in Art. 6 of the framework directive on waste 98/2008/EC.
Following the attribution of the regulation tasks in the municipal waste sector to the Authority, in 2019 ARERA introduced the first single tariff method for the integrated municipal waste service for the period 2018-2021 (ARERA Resolution 443/2019/R/Rif). This resolution regulates the tariff approval procedure, the definition of the adjustment components for the years 2018 and 2019, and also the tariff components

[62] Directive 2018/851/EU
[63] “ISPRA Rapporto Rifiuti Urbani 2019” (2019 Municipal Waste Report)
[64] “ISPRA Rapporto Rifiuti Urbani 2019” (2019 Municipal Waste Report)
[65] RetiAmbiente – http://www.retiambiente.it/index.php/home/chi-siamo
[66] “ISPRA Rapporto Rifiuti Urbani 2019” (2019 Municipal Waste Report)

for 2020 and 2021. Limits are also introduced on tariff increases, on the basis of changes in the service quality and operating perimeter.

As regards the latest updated data of the Special Waste sector, in 2017 national production was 138.9 million tonnes (+2.9% compared to 2016), of which 129.2 million non-hazardous and 9.7 million hazardous. The national table sees Lombardy in first place with more than 20% of the total (30.8 million tonnes), followed by Veneto (15.1 million tonnes) and Emilia-Romagna (13.7 million tonnes). Among the economic activities that contribute most to the production of special waste, the construction and demolition sector accounts for 41.3% of the total, followed by waste processing and reclamation activities (25.7%) and manufacturing activities (21.5%). As regards special waste management activity, in 2017 the total managed was 147.1 million tonnes (+4.1% compared to 2016), of which 137.6 million non-hazardous and 9.5 million hazardous[67]. Special waste management is divided into activities for the recovery of material or energy, such as processing for recycling and reuse and co-incineration, and disposal activities, such as disposal in landfills and incineration. Special waste management also includes storage activities, prior to both recovery activities (so-called Putting into reserve) and disposal activities (so-called Preliminary deposit). In 2017 the recovery of material or energy made up 68.8% of the total of special waste managed (+7.7% compared to 2016), followed by disposal activities with 20.0% of the total (-13.2% compared to 2016) and storage (+8.6% compared to 2016). In 2017 the plant assets at the national level consisted of 11,209 plants, of which 6,416 in the North, 2,165 in the Centre and 2,628 in the South[68].
Therefore, the North is the main macro-area for quantities of special waste managed, with 66.5% of waste recovered and 54.8% of waste disposed of compared to the national total for each category.
As regards Tuscany it is the fifth region for tonnes produced at the national level, with 10.3 million tonnes in 2017, of which 95.3% (9.9 million tonnes) is made up of non-hazardous waste and the remaining 4.7% (483,000 tonnes) of hazardous waste. The main types of waste produced consist of waste from construction and demolition operations (39.6% of total regional production) and that deriving from processing of waste and waste water (34.5%). The recovery of material is the prevalent form of management that Special Waste undergoes, more than 70% of the total. In addition, Tuscany is distinguished by a high concentration of plants compared to the other regions of central Italy, with 837 plants in 2017 (approximately 40% of the plant assets of the macro-area)[69].
Additionally, in the environmental reclamation segment, at the national level, 41 Sites of National Interest (SNIs) and more than 20,000 Sites of Regional Interest (SRIs) were active in the first quarter of 2019[70]. In Tuscany, there are 4,315 sites involved in reclamation procedures, of which 1,753 with procedures closed, 411 certified for completed reclamation, while 2,151 sites involved in reclamation procedures are active with a total area of 11,350.6 ha[71]. The contamination of the sites involved derives mainly from industrial activities, waste management and disposal and fuel distribution, which together make up more than 85% of the area to be reclaimed.

5. 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 (IFRSs);
- (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.

[67] "ISPRA Rapporto Rifiuti Urbani 2019" (2019 Municipal Waste Report)
[68] "ISPRA Rapporto Rifiuti Urbani 2019" (2019 Municipal Waste Report)
[69] "ISPRA Rapporto Rifiuti Urbani 2019" (2019 Municipal Waste Report)
[70] Statues of reclamation procedures December 2018 – Ministry of the Environment
[71] Annuario dei dati ambientali (Environmental Data Yearbook) ARPAT 2019

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 Revenues** are calculated adding together "Revenues from sales and services" and "Other operating revenues" indicated in the Group's consolidated income statement.
- **Total Adjusted Revenues** corresponds to Total Revenues, defined above, adjusted to exclude non-recurring revenues 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** corresponds 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 Estra's 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 revenues and costs as defined above. This parameter is not identified as an accounting measure in the context of the EU-IFRSs 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 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 result, coming from the Group's consolidated financial statements, adjusted to exclude significant non-recurring revenues and costs as defined above. This parameter is not identified as an accounting measure in the context of the EU-IFRSs 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 revenues and costs as defined above. This parameter is not identified as an accounting measure in the context of the EU-IFRSs 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 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 ratio

- Days sales outstanding are defined as the ratio between Trade receivables and Revenues 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 ratios

- The EBITDA margin is calculated as the ratio between Adjusted EBITDA and Total Adjusted Revenues.
- 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.

6. BUSINESS PERFORMANCE – ECONOMIC DATA

Financial year 2019 shows better results compared to the corresponding period of the previous year.

Referring you to the next paragraph for comments on the operating performance by business segments, we can note that the income statement of the year was affected:

- by entry into force from 1 January 2019 of IFRS 16, which establishes that at the commencement date of the leasing contract (that is at the date on which the asset is made available for use) the lessee must recognise, in the balance sheet, an asset, representing the right of use of the asset (hereinafter also "right-of-use asset"), and a liability representing the obligation to make the payments provided for in the contract (hereinafter also "leasing liability" or "lease liability"). Adoption of the new standard produces insignificant effects on the net profit for the year but determines an increase in the gross operating margin of € 4,730 thousand as a result of the recognition of lower costs for use of third-party assets against higher depreciation of € 4,310 thousand and financial expenses of € 376,000, as wells as the related tax expenses;

- by non-recurring revenue deriving from Resolution 32/2019/R/gas of 29/01/2019 - Compliance with Council of State Judgement 4825/2016 cancelling the Authority's decision ARG/gas 89/10 – ways to settle economic items between sellers and final customers for the period 2010-2012. With the aforementioned Resolution, ARERA defined the ways to settle natural gas economic items between sellers and final customers for the period 2010-2012, in compliance with Council of State Judgement 4825/2016. This judgement had cancelled the value of the coefficient K, then in force in the QE formula of the regulated gas tariff, and enabled ARERA to redefine a more consistent value with respect to the arguments of the judgement. The resolution in question provides for the recovery of the necessary amounts, through an indirect mechanism, based on the application of an additional variable component of the distribution tariff to certain categories of customers. The income deriving from this component will be collected by the CSEA and paid in three sessions to the sellers with the right to it, on the basis of a system certifying the gas natural gas volumes withdrawn by the respective final customers in protection in the period considered. The procedure of recovery and payment of the amounts was launched during 2019. As a result of this Resolution, the natural gas sales companies of the Group were granted refunds for a total of € 7,312 thousand, recognised in the item "other operating revenue" of the present consolidated financial statements.
  We can note that Confartigianato and other entities presented an appeal against Resolution 32/2019/R/gas for the part in which ARERA provided for the socialisation of the tariff receivables in question (instead of bringing them into the strict context of the contractual relationships in being among the parties involved) and for the part in which, in any case, a subjective and discriminatory limit was place on the socialisation, referring it to users with current consumption of less than 200,000 Sm^3/year, although not served in protection in the two years 2010 – 2012, because they were not set up, or, in any case, were not covered by the protection service. With judgement no. 38/2020 in the meantime the RAC did not censure Resolution 32/2019 for providing in itself for a criterion for socialising the price, but rather for having, doing this, breached the principles of reasonableness. In substance, the refund to the sellers and the power to socialise the tariff component in question, on the part of ARERA, are legitimate in the opinion of the Court, but the Authority must take into account the rulings contained in judgement no. 38/2020 on the socialisation perimeter, adopting therefore a new regulatory measure on the subject. To this end ARERA published CD 90/2020 in which it illustrated its orientations in relation to the implementation of judgement 38/2020, to redetermine in fact the subjective scope of application of resolution 32/2019.

The main income data for the financial years ended 31 December 2019 and 2018 are shown in the table below:

Income statement (amounts in thousands of euro)	**Year ended 31 December**				**Change 2019-2018**	
	2019		**2018**			
	Amount	**Proportion**	**Amount**	**Proportion**	**Absolute**	**%**
Total Revenues	**996,922**	**100%**	**842,973**	**100%**	**153,949**	**18%**
External consumption	(864,594)	-87%	(731,275)	-87%	(133,320)	18%
Personnel costs	(39,348)	-4%	(36,604)	-4%	(2,744)	7%
Income/(expenses) from commodity risk management	3,582	0%	(4,419)	-1%	8,001	-181%
Portion of income/(expenses) from measurement of non-financial investments using the equity method	679	0%	558	0%	120	22%
Gross operating margin (EBITDA)	**97,240**	**10%**	**71,234**	**8%**	**26,006**	**37%**
Depreciation, amortisation and write-downs	(47,693)	-5%	(34,912)	-4%	(12,781)	37%
Provisions	(11,744)	-1%	(8,354)	-1%	(3,390)	41%
Operating result	**37,803**	**4%**	**27,969**	**3%**	**9,835**	**35%**
Financial management	(10,552)	-1%	(12,830)	-2%	2,277	-18%
Profit before taxes	**27,251**	**3%**	**15,139**	**2%**	**12,112**	**80%**
Income taxes for the year	(10,343)	-1%	(5,109)	-1%	(5,234)	102%
Net profit/(loss) from continuing operations	**16,908**	**2%**	**10,030**	**1%**	**6,878**	**69%**
Net profit/(loss) from discontinued operations / assets held for sale	(208)	0%	(2,320)	0%	2,112	-91%
Net profit	**16,700**	**2%**	**7,711**	**1%**	**8,989**	**117%**
Profit/(loss) of non-controlling interests	72	0%	380	0%	(308)	-81%
Group profit/(loss)	16,628	2%	7,330	1%	9,298	127%

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 2019 and 2018:

Income Statement (amounts in thousands of euro)	**ADJUSTED Year ended 31 December**				**Change 2019-2018**	
	2019		**2018**			
	Amount	**Proportion**	**Amount**	**Proportion**	**Absolute**	**%**
Total Revenues	**985,784**	**100%**	**839,699**	**100%**	**146,085**	**17%**
External consumption	(863,662)	-88%	(728,072)	-87%	(135,591)	19%
Personnel costs	(39,348)	-4%	(36,604)	-4%	(2,744)	7%
Income/(expenses) from commodity risk management	3,582	0%	(4,419)	-1%	8,001	-181%
Portion of income/(expenses) from measurement of non-financial investments using the equity method	679	0%	558	0%	120	-
Adjusted gross operating margin (Adjusted EBITDA)	**87,034**	**9%**	**71,163**	**8%**	**15,871**	**22%**
Depreciation, amortisation and write-downs	(45,145)	-5%	(34,912)	-4%	(10,233)	29%
Provisions	(11,744)	-1%	(8,354)	-1%	(3,390)	41%
Adjusted operating result (Adjusted EBIT)	**30,145**	**3%**	**27,898**	**3%**	**2,247**	**8%**
Adjusted financial management	(10,552)	-1%	(10,711)	-1%	158	-1%
Adjusted gross profit	**19,593**	**2%**	**17,187**	**2%**	**2,406**	**14%**
Adjusted income taxes for the year	(8,485)	-1%	(6,368)	-1%	(2,117)	33%
Net profit/(loss) from continuing operations	**11,108**	**1%**	**10,819**	**1%**	**289**	**3%**
Net profit/(loss) from discontinued operations / assets held for sale	0	0%	0	0%	(0)	0%
Adjusted net profit/(loss)	**11,108**	**1%**	**10,819**	**1%**	**289**	**3%**
Profit/(loss) of non-controlling interests	72	0%	380	0%	(308)	-81%
Adjusted Group profit/(loss)	11,036	1%	10,439	1%	597	6%

The Group's consolidated income statement 2019 and 2018 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 2019 and 2018 is presented below:

(amounts in thousands of euro)	Financial year ended 31-Dec 2019	Financial year ended 31-Dec 2018
Settlement agreements on sale of Andali Energia S.r.l.	(1,547)	(3,274)
Coefficient k - Resolution 32/2019/R/gas of 29/01/2019	(7,312)	
Change of criterion for recognition of gas distribution security incentives	(2,280)	
Total non-recurring revenue	**(11,138)**	**(3,274)**
Accruing to previous years from Gas Settlement		1,387
IPO extraordinary costs		1,816
Capital losses on electronic meters	932	
Total non-recurring costs and revenues with impact on EBITDA	**(10,206)**	**(71)**
Impairment of hydroelectric plant	346	
Impairment of gas distribution electronic meters	2,202	
Total non-recurring costs and revenues with impact on Operating Profit (EBIT)	**(7,658)**	**(71)**
Extraordinary financial expenses for redemption of bond loan		2,119
Total non-recurring costs and revenues with impact on Profit before taxes	**(7,658)**	**2,048**
Adjustment to estimated realisable value of net assets of the subsidiary Useneko	208	2,320
Total non-recurring costs and revenues connected with discontinued operations / assets held for sale	**208**	**2,320**
Total non-recurring costs and revenues	**(7,450)**	**4,368**

In financial year 2019, the following non-recurring elements can be noted (with a total positive impact on the Group's pre-tax profit of € 7,450 thousand):

- Revenues of € 1,547 thousand as a result of the signing of agreements related to the company Andali Energia S.r.l., sold in 2017, as described in the paragraph of the notes to the statements "Agreements related to the sale of Andali Energia S.r.l.";
- Revenues of € 7,312 deriving from Resolution 32/2019/R/gas of 29/01/2019 as described above;
- Higher revenues for security incentives on the gas distribution activity recognised in financial year 2019, following the change in the accounting criterion described in the notes to the statements in the comment on the item "other operating revenue" (€ 2,280 thousand);
- Financial capital losses on the extraordinary elimination of malfunctioning electronic meters of € 932,000;
- Write-downs of property, plant and equipment for impairment of the mini-hydro power station built for the Municipality of Castel San Niccolò (AR) and of electronic meters for gas distribution, of € 346,000 and € 2,202,000 respectively, as described in the paragraph "Impairment testing pursuant to IAS 36 on the value of property, plant and equipment" and "Intangible assets";
- Result achieved by the subsidiary held for sale Useneko in the fraction of the year prior to the sale of € 208,000.

The adjustments have a fiscal effect of € 1,858 thousand (higher income taxes).

The adjustments had an effect only on the Group's profit.

In financial year 2018, the following non-recurring elements can be noted (with a total negative impact on the Group's pre-tax profit of € 4,368 thousand):

- Revenues of € 3,274 thousand as a result of the signing of agreements related to the company Andali Energia S.r.l., sold in the previous year, as described in the paragraph of the notes to the statements "Agreements related to the sale of Andali Energia S.r.l.";
- Operating costs of € 1,387 thousand after determining the adjustment items deriving from the outcome of the adjustment sessions for the years 2013-2017 governed by the Authority with Resolution 670/2017/R/gas of 5 October 2017, ("settlement") for the newly-acquired company Gas Marca S.r.l.;
- Extraordinary costs of € 1,816 thousand related to the process of admission to listing of Estra shares on the Mercato Telematico Azionario (Electronic Share Market) managed by Borsa Italiana S.p.A. approved by the Shareholders' Meeting on 5 March 2018 and subsequently postponed after noting the unfavourable conditions on the financial markets;
- Extraordinary financial expenses following the operation for a partial repurchase of securities related to the bond loan known as "E.S.TR.A. S.p.A. Euro 80,000,000, 2.45 per cent. Guaranteed Notes due 2023" for a nominal value of € 30 million, carried out on 3 March 2018 for a total of € 2,119 thousand;
- Revision of the probable realisable value of the company held for sale Useneko of € 2,320 thousand.

The adjustments have a fiscal effect of € 488,000 (lower income taxes). We can also note that the 2018 income taxes were exceptionally affected by the recognition of deferred tax assets on previous tax losses of € 771,000.
The adjustments had an effect only on 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, Distribution of natural gas and the SBU "Others" which includes the segments of telecommunications, energy services, renewables, waste selection and storage 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 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.
The division into SBUs reflects the reporting used by the Management for the analysis and planning of the businesses managed.

The table below illustrates the total adjusted revenues, including revenues from sales and services and other revenues and shown net of the non-recurring items of each Strategic Business Unit (SBU) of the Estra Group for the financial years ended 31 December 2019 and 2018, with an indication of the significance, in percentage terms, compared to the Group's total consolidated revenues.

	Year ended 31 December				Change in the period	
Total Adjusted Revenues (amounts in thousands of euro)	**2019**	**% of Total Adjusted Revenues**	**2018**	**% of Total Adjusted Revenues**	**2019 vs 2018**	**%**
Sale of natural gas and electricity	892,973	91%	750,633	89%	142,340	19%
Distribution of natural gas	103,842	11%	110,179	13%	-6,338	-6%
Corporate and other business areas	64,087	7%	52,728	6%	11,359	22%
Adjustments and eliminations	-75,118	-8%	-73,841	-9%	-1,277	2%
Total Adjusted Revenues	**985,784**	**100%**	**839,699**	**100%**	**146,085**	**17%**

Trend of 2019 Operations compared to 2018

At 31 December 2019 the Group had achieved total adjusted revenues of € 985.8 million, an increase of 17% compared to 2018. The growth in revenues is referred, mainly, to the Gas and electricity sales SBU with an increase of € 142 million of which € 105 million on the gas segment and € 37 million on the electricity segment, owing mainly to the higher volumes for more customers and a different customer mix. The decrease in revenues of the Natural Gas Distribution SBU (-€ 6.3 million) was due to lower revenues for the trading of energy efficiency certificates which more than offset the growth of revenues owing to the wider operating perimeter due to the acquisition of Murgia Srl (€ 6.8 million). The revenues of the Corporate SBU and other business areas owing both to consolidation of Ecolat Srl (€ +4.6 million) and to the increase of the turnover of telecommunications and energy services.

External costs increased by € 135.6 million (19%) with a proportion of revenues that went up from the 86.7% of 2018 to 87.6% of 2019. The increase in the external costs of the gas and electricity sales SBU of € 147 million includes the increase of € 40 million of pass-through costs for gas distribution, transport and electricity dispatching expenses. The external costs of gas distribution decreased by € 13 million as a result of the reduction in costs for the trading of energy efficiency certificates compared to 2018 (-€ 16 million) offset by the higher external costs for the management of Murgia's networks.

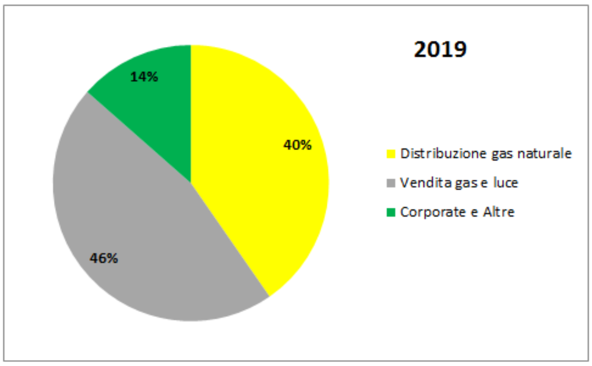
The increase in the adjusted cost of labour which went up from € 36.6 to 39.3 million was due, for € 2.3 million, to the changes in the consolidation scope, and for € 1 million (+2.7%) to changes in the remuneration of employees.

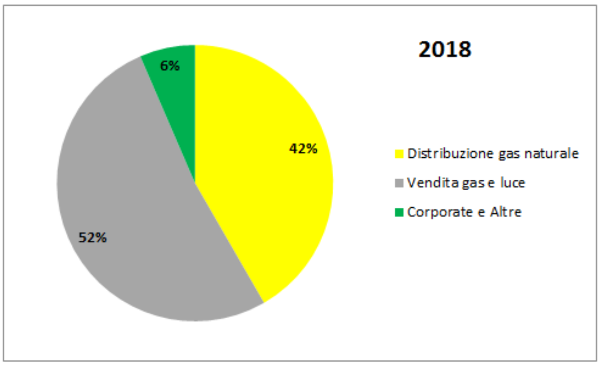
Commodity risk management expenses recorded, in financial year 2019 a positive value of € 3.6 million compared to € 4.4 million of expenses recorded in 2018 mainly owing to the change in fair value of commodity swaps used in the gas sales business.

Income from measurement of equity investments of a non-financial nature, € 679,000 in 2019 (€ 558,000 in 2018) are related to the result for the year of the company Edma Reti Srl.

The adjusted EBITDA was € 87.0 million, with an increase of € 15.9 million (+22%) compared to the € 71.2 million of 2018. The proportion of revenues went up from 8.5% to 8.8%. M&A operations contributed approximately € 4 million to consolidated EBITDA.

The detail of the breakdown of EBITDA among the various SBUs for the financial year ended 31 December 2019 is provided below; this is compared with the previous year which shows the higher proportion of EBITDA of the Corporate SBU and others to consolidated EBITDA owing to the growth of the Telecommunications, Energy Services and Environment segments. The EBITDA of Gas and electricity sales (€ 3.3 million) and Gas distribution (€ 5.5 million) also increased.





Adjusted depreciation, amortisation and impairment losses amounted to € 45.1 million, up compared to the figures of the previous year (€ 34.9 million) owing to corporate acquisition operations and new investments for development of the group's commercial network. Provisions increased, going up from € 8.4 to 11.7 million mainly as a result of higher provisions for the impairment of receivables in the natural gas and electricity sales sector, in correlation to the growth in turnover.

As a result of all of the above, the Adjusted EBIT went up from € 27.9 million in 2018 to € 30.1 million in 2019 with a positive change of € 2.2 million Euro.

Adjusted financial management presented a negative balance of € 10.6 million in line with the figures of the previous year (€ 10.7 million).

The adjusted profit before taxes came out at € 19.6 million (€ 17.2 million in 2018).

Adjusted income taxes amounted to € 8.5 million.

The adjusted net profit for the year was € 11.1 million, up compared to the € 10.8 million of 2018. The share of the profit for the year pertaining to non-controlling interests fell from € 380,000 in 2018 to € 72,000 in 2019, with the group profit for the year up from € 10.4 to 11 million, an increase of 6%

7. BUSINESS PERFORMANCE - STATEMENT OF FINANCIAL POSITION

The main financial position data at 31 December 2019 and 2018 are provided below.

7.1 2019 FINANCIAL MEASURES COMPARED WITH 2018

Reclassified Balance Sheet	Financial year ended 31 December 2019		Year ended 31 December 2018	
(amounts in thousands of euro)	**Amount**	**Proportion**	**Amount**	**Proportion**
Intangible fixed assets	477,239	76.2%	425,885	72.4%
Property, plant and equipment	109,570	17.5%	84,778	14.4%
Equity investments and non-current financial assets	38,789	6.2%	34,986	5.9%
Fixed assets	**625,598**	**99.9%**	**545,649**	**92.7%**
Other non-current assets and liabilities	(52,174)	-8.3%	(43,389)	-7.4%
Net working sales capital	90,903	14.5%	109,332	18.6%
Other current assets and liabilities	(39,363)	-6.1%	(23,905)	-4.1%
Assets and Liabilities held for sale	0	0.0%	650	0.1%
Net Invested Capital	**625,964**	**100.0%**	**588,337**	**100.0%**
Shareholders' Equity	**321,792**	**51.4%**	**325,253**	**55.3%**
Net current financial debt	(73,690)	-11.8%	(109,993)	-18.7%
Non-current financial debt	377,863	60.4%	373,077	63.4%
Net Financial Debt	**304,173**	**48.6%**	**263,084**	**44.7%**
Total sources of financing	**625,965**	**100.0%**	**588,337**	**100.0%**

With reference to the financial year ended 31 December 2019, fixed assets went up from € 545.6 million to € 625.6 million. Besides the result of recognition of rights of use on buildings, plants and other assets of approximately € 16 million, at 1 January 2019, following the application of IFRS 16, the fixed assets recorded an increase as a result of the investments in the various business areas and of the business combinations that occurred in financial year 2019, among which we can note the acquisitions of Murgia Srl in the Gas distribution segment and of Ecolat Srl in the Corporate and other segment (environment branch).

Commercial working capital recorded a significant reduction of € 18.4 million as the combined effect due to an increase in inventories (€ 16 million), higher volumes of gas in storage at the end of the year, and a reduction in trade receivables (€ 70 million), partially offset by a reduction in trade payables (€ 38 million).

The increase in current liabilities (€ 16 million compared to 2018) was due, mainly, to payables for dividends to be distributed and to the increase in tax liabilities for consumption taxes and gas and electricity surcharges.

The net invested capital amounted to € 626 million, showing an increase of 6.4% compared to 2018.
Shareholders' equity at 31 December 2019 amounted to € 321.8 million (€ 325.3 million in 2018). The changes that occurred in the year are attributable to the net profit for the period and to the distribution of dividends. The proportion of shareholders' equity to capital raised was 51.4%, down compared to the 55.3% of 2018.

The net financial debt was € 304.2 million (€ 263.1 million in 2018), with a proportion of capital raised up from 44.7% to 48.6%, owing to the cash absorption of investing activities.

7.2 FINANCIAL STRUCTURE 2019 COMPARED WITH 2018

The composition of net financial debt at 31 December 2019 and 2018 is shown below. This derives from the consolidated financial statements for the years ended on the same dates, in compliance with the ESMA update of the CESR recommendations. The consistent implementation of Commission Regulation (EC) No 809/2004 implementing the "Prospectus Directive" dated 20 March 2013 (formerly CESR Recommendation 05-054b of 10 February 2005).

	(amounts in thousands of euro)	Year ended 31 December 2019	Year ended 31 December 2018
A.	Cash	17	15
B.	Cash equivalents	195,731	228,678
C.	Securities held for trading	-	-
D.	**Cash and cash equivalents (A) + (B) + (C)**	**195,748**	**228,693**
E.	Current financial receivables	**34,797**	**17,422**
	- current derivative financial instruments	*34,130*	*16,974*
	- Interest income due from banks	*667*	*448*
F.	Current bank debt	31,601	10,528
G.	Current portion of non-current debt	88,271	104,780
	- bank debts	*82,182*	*67,322*
	- bonds issued	-	*35,691*
	- payables to other lenders for financial leases	*341*	*331*
	- payables to other lenders for operating leases	*4,313*	-
	- payables to shareholders for loans	*1,435*	*1,435*
H.	Other current financial debt	36,983	20,814
	- current derivative financial instruments	36,983	20,814
I.	**Current financial debt (F) + (G) + (H)**	**156,855**	**136,122**
J.	**Net current financial debt (I) - (E) - (D)**	**(73,690)**	**(109,992)**
K.	Non-current bank debts	206,810	210,724
L.	Bonds issued	145,292	147,584
M.	Other non-current debt	25,761	14,769
	- payables to other lenders for financial leases	*4,753*	*5,094*
	- payables to other lenders for operating leases	*12,768*	-
	- payables to shareholders for loans	*8,240*	*9,675*
No.	**Non-current financial debt (K) + (L) + (M)**	**377,863**	**373,077**
O.	**Net financial debt (J) + (N)**	**304,173**	**263,084**

At 31 December 2019, net financial debt was € 304.2 million, up compared to € 263.1 million in financial year 2018. The main changes in the composition of net financial debt are related to the decrease in cash and cash equivalents (from € 228.7 million in 2018 to 195.7 in 2019), to the increase in current financial debt which went up from € 136.1 to 156.9 million owing to an increase in current bank debt (from € 10.5 million in 2018 to 31.6 in 2019) due to greater use of credit lines on bank current accounts.
Non-current financial debt went up from € 373.1 to 377.9 million owing to the combined effect deriving from an increase from the recognition of operating leases of € 12.8 million and from a decrease in non-current bank debts which went down from € 210.7 to 206.7 million. Payables for bonds issued represent 38.4% of non-current financial debt in line with the 2018 figure of 39.6%.

7.3 MAIN FINANCIAL MEASURES 2019 AND 2018

The main financial measures are presented below on the basis of the consolidated financial statements at 31 December 2019 and 2018:

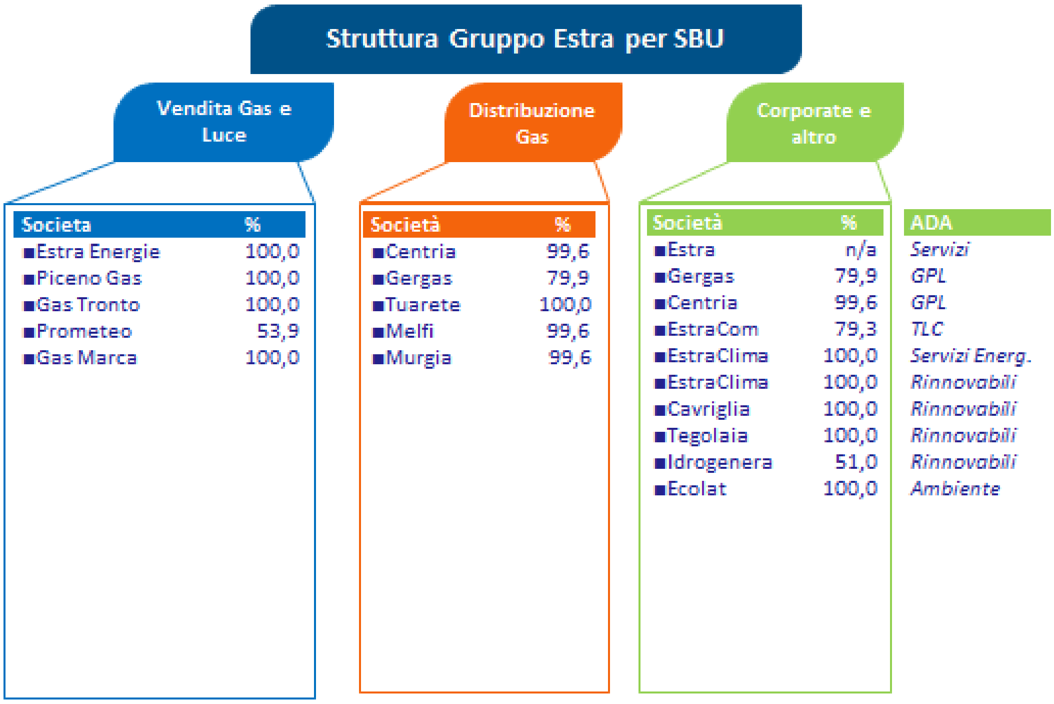
Consolidated financial measures	**Year ended 31 December**	
	2019	**2018**
Solvency ratio (total non-current assets / total assets)	53.2%	47.2%
Elasticity ratio (total current assets / total assets)	46.8%	52.7%
Availability ratio (total non-current assets / total current assets)	113.6%	89.5%
Net Financial Debt /Equity Ratio - (Leverage)	0.9	0.8
Net Financial Debt /Adjusted EBITDA Ratio	3.5	3.7
Short-term Financial Debt Ratio	0.5	0.5
Long-term Financial Debt Ratio	1.2	1.4

The main economic measures are presented below on the basis of the adjusted results of the consolidated financial statements at 31 December 2019 and 2018:

Economic measures	Year ended 31 December	
	2019	**2018**
EBITDA margin	8.8%	8.5%
ROE	3.5%	3.3%
ROI	4.8%	4.7%

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

The chart below represents the Estra Group, with details of the companies that operate within the Strategic Business Units (SBUs), or business segments, with an indication of the related percentage of possession by the Parent Company Estra S.p.A.:



Below are the income statements for the financial years ended 31 December 2019 and 2018 divided among the various strategic business units.

The income statements include the economic transactions between the business areas, measured at market prices.

2019 Business segments **(amounts in thousands of euro)**	**Natural gas distribution**	**Gas and electricity sales**	**Corporate and Others**	**Adjustments and eliminations**	**Total**
Total Revenues	103,842	892,973	64,087	-75,118	985,784
External costs	-54,536	-845,592	-38,653	75,118	-863,662
Personnel costs	-14,194	-10,808	-14,346		-39,348
Income/(expenses) from commodity risk management	0	3,582	0	0	3,582
Portion of profit/(loss) from non-financial associates and joint ventures	0	0	679	0	679
EBITDA	**35,112**	**40,155**	**11,767**	**0**	**87,034**
Amortisation/ depreciation	-17,290	-15,334	-12,521	-	-45,145
Provisions	-166	-11,331	-247	-	-11,744
Operating result (EBIT)	**17,656**	**13,490**	**-1,001**	**0**	**30,145**

2018 Business segments **(amounts in thousands of euro)**	**Natural gas distribution**	**Gas and electricity sales**	**Corporate and Others**	**Adjustments and eliminations**	**Total**
Total Adjusted Revenues	110,179	750,633	52,728	-73,841	839,699
Adjusted external costs	-67,738	-698,450	-35,725	73,841	-728,073
Adjusted personnel costs	-12,790	-10,870	-12,945	0	-36,604
Income/(expenses) from commodity risk management	0	-4,419	0	0	-4,419
Portion of profit/(loss) from non-financial associates and joint ventures	0	0	558	0	558
Adjusted EBITDA	**29,651**	**36,895**	**4,616**	**0**	**71,162**
Adjusted depreciation and amortisation	-13,066	-12,492	-9,354	0	-34,912
Adjusted provisions	-62	-8,225	-65	0	-8,353
Adjusted EBIT	**16,523**	**16,177**	**-4,803**	**0**	**27,898**

8.1 NATURAL GAS DISTRIBUTION

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 2019 and 2018.

Distribution of Natural Gas	**Year ended 31 December**					**Change in the period**	
Income statement of the operating segment **(amounts in thousands of euro)**	**2019**	**% of Total Adjusted Revenues**	**2018**	**% of Total Adjusted Revenues**	**% of Total Adjusted Revenues**	**2019 vs 2018**	**%**
Total Adjusted Revenues	**103,842**	**100%**	**110,179**	**100%**	**100%**	**-6,338**	**-6%**
Adjusted external costs	-54,536	-53%	-67,738	-61%	-61%	13,202	**-19%**
Personnel costs	-14,194	-14%	-12,790	-12%	-12%	-1,404	**11%**
Adjusted EBITDA	**35,112**	**34%**	**29,651**	**27%**	**27%**	**5,461**	**18%**
Depreciation, amortisation and write-downs	-17,290	-17%	-13,066	-12%	-12%	-4,224	32%
Provisions	-166	0%	-62	0%	0%	-104	**167%**
Adjusted EBIT	**17,656**	**17%**	**16,523**	**17%**	**17%**	**1,133**	**7%**

The table below shows the main operating data of the Estra Group related to the distribution of natural gas for the financial years ended 31 December 2019 and 2018.

	Year ended 31 December		Change in the period	
Operating measures	**2019**	**2018**	**2019 vs 2018**	**%**
Gas input into the network (Mln m³)	663	654	8	1.3%
Active PoDs ('000)	516	447	69	15.3%
Km of network	6,984	6,378	606	9.5%

Trend of 2019 compared to 2018

At 31 December 2019 the Natural gas distribution SBU showed revenues from transmission tariffs of € 65 million, up compared to the € 58 million of the previous year. The difference was due to the management of approximately 66,000 PoDs in the Bari 2 and Foggia 1 ATEMs, recognised by 2i Rete Gas following the disposal procedure related to the plants, with the start of management on 1 April 2019. In addition, Melfi Reti Gas Srl, a company that manages approximately 16,000 PoDs in Molise, consolidated starting from the second quarter of 2018, produced economic effects for the whole of financial year 2019. Revenues increased owing to investments in internal works that went up from € 19.7 million to € 21.1 million. There was a considerable decrease in revenues for trading of energy efficiency certificates which went down from € 25 million to € 9.7 million with a corresponding reduction in purchase costs. This reduction was due to the purchase, by the GME, of "virtual" certificates, which did not lead to the recognition of cost and revenue (as for the others), but only the accounting (among costs) of the amount that the GME held back for their purchase. The EBITDA was € 35.1 million, an increase of € 5.5 million compared to 2018 (18%). The contribution of M&A operations amounted to € 3.2 million.
Depreciation/amortisation for corporate acquisitions and investments made, mainly in the metering segment, increased by € 4.2 million.
The EBIT was € 17.7 million (16.5 in 2018) with a positive change of 7%.
The main operating data related to active PoDs and km of network went up, thanks to the expansion of the perimeter managed and to new investments made.

8.2 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 2019 and 2018.

Gas and electricity sales	**Year ended 31 December**				**Change in the period**	
Income statement of the operating segment (amounts in thousands of euro)	**2019**	**% of Total Adjusted Revenues**	**2018**	**% of Total Adjusted Revenues**	**2019 vs 2018**	**%**
Total Adjusted Revenues	**892,973**	**100%**	**750,633**	**100%**	**142,340**	**19%**
External costs	-845,592	-95%	-698,450	-93%	-147,142	21%
Personnel costs	-10,808	-1%	-10,870	-1%	61	-1%
Income/(expenses) from commodity risk management	3,582	**0**	-4,419	**-0**	8,001	**-2**
income/(expenses) from equity investments of a non-financial nature	-	**-**	-	**-**	-	**-**
Adjusted EBITDA	**40,155**	**4%**	**36,895**	**5%**	**3,261**	**9%**
Depreciation, amortisation and write-downs	-15,334	-2%	-12,492	-2%	-2,842	23%
Provisions	-11,331	-1%	-8,225	-1%	-3,106	38%
Adjusted EBIT	**13,490**	**2%**	**16,177**	**2%**	**-2,687**	**-17%**

The tables below show the main operating data of the Estra Group related to the sale of natural gas and electricity for the financial years ended 31 December 2019 and 2018.

	Financial year to 31 December				**Change in the period**	
Number of gas PoDs	**2019**	**% of TOT**	**2018**	**% of TOT**	**2019 vs 2018**	**%**
Free final market	363,261	57.2%	328,074	51.0%	35,187	10.7%
Protected final market	272,313	42.8%	315,387	49.0%	-43,074	-13.7%
TOTAL	**635,574**	**100.0%**	**643,461**	**100.0%**	**-7,887**	**-1.2%**

	Year ended 31 December				**Change in the period**	
Gas volumes (Mln m³)	**2019**	**% of TOT**	**2018**	**% of TOT**	**2019 vs 2018**	**%**
Free final market	1,251	84.1%	1,055	71.1%	196	18.6%
Protected final market	236	15.9%	282	19.0%	-46	-16.4%
PSV market	444	29.9%	146	9.8%	299	>100%
TOTAL	**1,931**	**100.0%**	**1,483**	**90.2%**	**448**	**30.2%**

	Financial year to 31 December				**Change in the period**	
Number PoD ee	**2019**	**% of TOT**	**2018**	**% of TOT**	**2019 vs 2018**	**%**
Free final market	145,662	88.4%	110,598	84.6%	35,064	31.7%
Protected final market	19,197	11.6%	20,146	15.4%	-949	-4.7%
TOTAL	**164,859**	**100.0%**	**130,744**	**100.0%**	**34,115**	**26.1%**

	Year ended 31 December				**Change in the period**	
Ee volumes (Gwh)	**2019**	**% of TOT**	**2018**	**% of TOT**	**2019 vs 2018**	**%**
Free final market	734	94.3%	604	93.0%	130	21.6%
Protected final market	44	5.7%	45	7.0%	-1	-2.4%
TOTAL	**778**	**100.0%**	**649**	**100.0%**	**129**	**19.9%**

	Financial year to 31 December				**Change in the period**	
Number of gas and electricity customers	**2019**	**% of TOT**	**2018**	**% of TOT**	**2019 vs 2018**	**%**
Free final market	508,923	63.6%	438,672	56.7%	70,251	16.0%
Protected final market	291,510	36.4%	335,533	43.3%	-44,023	-13.1%
TOTAL	**800,433**	**100.0%**	**774,205**	**100.0%**	**26,228**	**3.4%**

	Year ended 31 December		**Change in the period**	
Trading (Mln m³)	**2019**	**2018**	**2019 vs 2018**	**%**
Volumes traded	1,020	1,013	7	0.7%

Trend of 2019 compared to 2018

The revenues of the gas and electricity sales segment recorded an increase of € 142.3 million compared to the previous year mainly as a result of:

- an increase in sales in the gas segment of € 48 million above all in relation to business and wholesale customers;
- an increase in sales on the PSV and for balancing operations with revenues that went up from € 45 million in 2018 to € 89 million in 2019;
- an increase in sales to customers of the electricity segment of € 14 million;
- an increase in pass-through components of gas distribution (€ +15 million) and electricity transport and balancing (€ +23 million).

Gas revenues were approximately 84% of the total revenues of the SBU in line with the figures of the previous year.
The EBITDA of the Gas and Electricity Sales SBU was € 40.2 million, up by 9% compared to the previous year and represented 46% of consolidated EBITDA (52% in 2018).
Depreciation, amortisation and impairment losses, which amounted to € 15.3 million, rose compared to the figures of the previous year (€ 12.5 million at 31 December 2018), as a result of investments for customer acquisitions. Provisions also increased, going from € 8.2 to 11.3 million in relation to the considerable increase in turnover. The adjusted EBIT was € 13.5 million (16.2 in 2018).

8.3 CORPORATE AND OTHER ACTIVITIES

The segment "Corporate and Other Activities" includes the services of the telecommunications, energy (heat and cogeneration), renewables and environment segment, 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 2019 and 2018.

Corporate and Others	Year ended 31 December				Change in the period	
Income statement of the operating segment (amounts in thousands of euro)	2019	% of Total Adjusted Revenues	2018	% of Total Adjusted Revenues	2019 vs 2018	%
Total Revenues	**64,087**	**100%**	**52,728**	**100%**	11,359	**22%**
External costs	-38,653	-60%	-35,725	-68%	-2,928	8%
Personnel costs	-14,346	-22%	-12,945	-25%	-1,401	11%
Income/(expenses) from commodity risk management	-	0%	-	0%	-	-
Portion of profit/(loss) from non-financial associates and joint ventures	679	1%	558	1%	120	22%
Gross operating margin (EBITDA)	**11,767**	**18%**	**4,616**	**9%**	**7,151**	**155%**
Adjusted Depreciation, Amortisation and Impairment Losses	-12,521	-20%	-9,354	-18%	-3,167	34%
Adjusted provisions	-247	0%	-65	0%	-182	279%
Adjusted EBIT	**-1,001**	**-2%**	**-4,803**	**-9%**	**3,802**	**-79%**

Trend of 2019 compared to 2018

The increase in revenues of the Corporate and other activities SBU was due mainly to the acquisition of Ecolat which contributed to the increase in revenues of the SBU for € 4.7 million. Significant increases were also recorded in the Telecommunications and Energy Services segment.
At 31 December 2019 the adjusted EBITDA of the Corporate and Other SBU was € 11.8 million compared to € 4.6 million in the previous year, an increase of more than € 7 million.
The increase can be attributed: i) to the environment branch which contributes for € 0.9 million to the EBITDA of the SBU, *ii)* to an improvement in the margins of the Telecommunications (+0.5) and Energy Services and Renewables (+1.1) segments; *iii)* to a reduction in the external costs of the holding with margins that increased by € 2.4 million and *iv)* to the effects of first application of the accounting standard IFRS 16 which had an impact on the EBITDA of the parent company of € 2.1 million.
The EBITDA of the corporate and other activities SBU accounted for 13.5% of the group's EBITDA (6.5% in 2019).
Depreciation, amortisation and impairment increased, going up from € 9.4 to 12.5 million owing to the investments made in the various segments and to the application of the accounting standard IFRS 16 (€ +1.6 million). The EBIT was a negative € 1 million compared to a negative result of € 4.8 million in 2019.

9. RECONCILIATION BETWEEN THE GROUP PROFIT/(LOSS) FOR THE PERIOD AND SHAREHOLDERS' EQUITIES 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.

	Financial year 2019	
(thousands of euro)	**Group profit for the year**	**Total shareholders' equity**
Shareholders' equity and profit for the year as shown in the holding company's financial statements	**9,707**	**413,840**
Income and elimination of book value of fully consolidated companies	22,950	17,439
Reversal of write-downs of equity investments	-	382
Elimination of effects on intercompany capital gains	4,190	-122,182
Consolidation Accounts, Equity Method	590	1,740
Other	-	-145
Depreciation/amortisation of consolidation differences	-5,889	-19,166
Elimination of effects of intercompany mergers	2,301	5,169
Elimination of intercompany dividends	-17,220	-1,021
Group profit for the year and shareholders' equity as shown in the consolidated financial statements	**16,629**	**296,057**
Profit and shareholders' equity attributable to minority interests	72	25,737
Profit for the year and shareholders' equity as shown in the consolidated financial statements	**16,701**	**321,793**

10. SUBSEQUENT EVENTS

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

Investment agreement for the acquisition of Bisenzio Ambiente S.r.l.

At the beginning of April 2020, Estra S.p.A., Consiag S.p.A. (Shareholder with 45% of Estra S.p.A.) and Cipeco S.r.l signed investment agreements for the purpose of proceeding with corporate operations aimed at the gradual acquisition by Estra S.p.A. of a controlling equity investment of up to 85% in the share capital of Bisenzio Ambiente S.r.l., currently wholly owned by Cipeco S.r.l..

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 plant for the processing of hazardous and non-hazardous liquid special waste, in the start-up stage.

The investment agreements provide for Estra's 2020 entry into the share capital of Bisenzio Ambiente at 5% through the subscription of a share capital increase resolved by the shareholder Cipeco in favour of third parties of € 39,000 and at the same time the disbursement of a loan of € 461,000. Estra S.p.A. is also obliged to issue to the Tuscany Region a financial guarantee of a maximum amount of € 4 million in accordance with the provisions pursuant to Tuscany Regional Executive Decree no. 743 of 6 August 2012 as amended.

The initiative is part of the Group's strategy of investing in the environmental sector also with a view to diversification of the business.

COVID-19 epidemiological emergency

At the date of preparation of the present report, a novel coronavirus known as COVID-19, initially detected in Wuhan, China, is infecting thousands of people in numerous countries worldwide and Italy is one of the countries that are, at the moment, experiencing a particularly high level of contagion.
The Board of Directors of Estra, right from the start, monitored with extreme attention the evolution of the events in order to comply with the laws issued on implementing the measures to contain the contagion and identified promptly the measures considered most appropriate in support of the workers, safety and services, guaranteeing continual information to all employees.
In particular, through a specially set up Committee for management of the emergency, various precautionary measures aimed at containing the spread of the novel coronavirus and at safeguarding health and safety in the workplace were immediately put in place. The measures regarded, in particular:

- The cleaning and sanitising of workplaces;
- A reduction in the numbers of workers in workplaces at the same time, above all through i) the activation as far as possible of smart working or other forms of work that do not require presence in the company, ii) the use of untaken holidays owed, contractual leave, recovery of overtime hours, etc., iii) in any case, observance of minimum safe distances;
- The regulation of accesses to workplaces and, in particular, the regulation of accesses by employees to the company and to common areas to avoid gatherings and non-observance of safe distances and the reduction to the indispensable of access to company offices by various consultants, customers or suppliers;
- Prevention and management of any persons with symptomatology;
- Arrangement of an insurance policy in support of workers in the case of infection by COVID-19. The policy provides for insurance cover the validity of which is extended to all employees, up to 31 December 2020 inclusive;
- The reduction of all movements of natural persons to only movements for proven work needs or situations of necessity.

Given their nature of "essential" services, the Group has not recorded at the moment interruptions of activities, but only some limitations.
With reference to the main business activities, we can note:

- for distribution of natural gas: a sharp reduction/suspension of all activities postponable because they are not directly linked to the security and continuity of the service;
- for the sale of natural gas and electricity: i) the decision to close all offices to the public offering alternative channels for contact, through which it is possible to carry out, remotely, the same procedures that would be carried out at offices, ii) the decision not to apply interest on arrears normally provided for on bills past due or falling due between 9 March and 20 April.

The Board of Directors believes that the emergency situation may have impacts above all on the natural gas and electricity sales sector, which generates approximately 45% of consolidated gross operating margin in particular as a result of i) a foreseeable reduction in the consumption of retail and business customers (following the closure of "non-essential" businesses ordered by the ministerial prescriptions that came into force on 10 March 2020) and ii) a possible increase in past-due and bad receivables in relation to domestic, retail and business customers and the public administration.

Despite this, considering the rapid evolution of the situation and the contagion and the great uncertainties related to the duration of the emergency situation and to the extension of the economic and social effects of the COVID-19 Coronavirus, it is not at the moment possible to assess reliably what may be the real impacts on the performance and the Group's financial and equity situation.

11. BUSINESS OUTLOOK

The Group will continue in its constant commitment to generating value and growth, focusing its attention on the objectives of improving its operating performance and consolidating its presence in the business segments in which it operates, also through industrial operations.

As well as by the implementation of its strategies, the Group's 2020 results may be affected by the COVID-19 emergency as illustrated in the preceding paragraph, as well as by other changes in the business conditions such as, in particular, any new tariff measures issued by the Regulatory Authority, changes in the market context, the evolution of consumption, the trends in supplies, prices and policies for the procurement of commodities.

12. INDUSTRY REGULATIONS

The following is a summary of the highlights of legislative changes in 2018 in relation to the various areas of Estra Group business.

Natural gas sales

RESOLUTION 27 DECEMBER 2018 - 709/2018/R/gas; RESOLUTION 26 MARCH 2019 - 108/2018/R/gas; RESOLUTION 25 JUNE 2019 - 264/2019/R/gas; RESOLUTION 24 SEPTEMBER 2019 - 384/2019/R/gas. Quarterly update of the economic conditions of supply of natural gas for the protection service. These measures update, for each quarter of 2019, the economic conditions of the supply of natural gas to the protected customer.

RESOLUTION 25 JUNE 2019– 271/2019/R/gas. Provisions related to the process of making available to the Integrated Information System (IIS) the technical data of the points of delivery and the metering data and amendment of the communication standards with reference to the gas sector. This measure contains the provisions related to the process of making available the technical data of the points of delivery to the IIS and the metering data and amendment of the communication standards with reference to the gas sector.

RESOLUTION 03 SEPTEMBER 2019– 366/2019/R/gas. Economic conditions of supply of natural gas for the protection service – amendments to the Integrated Tax on Gas Sales (TIVG) starting from 1 January 2020. The resolution amends the TIVG as regards the arrangement of the tariff for the natural gas transport service provided for starting from January 2020.

RESOLUTION 26 NOVEMBER 2019– 493/2019/R/gas. Update of the methods and timing of entry into operation of the provisions related to the process of making available to the Integrated Information System the technical data of the points of delivery and the metering data with reference to the gas sector. This measure accepts the requests for an extension received with reference to the entry into operation of the rationalisation of the information flows containing metering data and technical data of the points of delivery, provided for with resolution 271/2019/R/gas.

RESOLUTION 27 DECEMBER 2019– 577/2019/R/gas. Update, for January 2020, of the economic conditions of supply of gases other than natural gas, following the change in the element covering procurement costs related to the raw material, confirmation of the QVD component for gases other than natural gas and amendments to the TIVG. This measure updates, for January 2020, the economic conditions of supply of gases other than natural gas, following the change in the element covering procurement costs related to the raw material, confirms the values of the QVD component for the period 1 January 2020 - 31 December 2021 and amends the TIVG.

Electricity sales

RESOLUTION 27 DECEMBER 2018 - 708/2018/R/eel; RESOLUTION 26 MARCH 2019 - 109/2019/R/eel; RESOLUTION 25 JUNE 2019 - 263/2019/R/eel; RESOLUTION 24 SEPTEMBER 2019 - 383/2019/R/eel. Quarterly update of the economic conditions of sale of electricity in greater protection. These measures update, for each quarter of 2019, the economic conditions of the supply of electricity in higher protection.

RESOLUTION 05 FEBRUARY 2019– 39/2019/R/eel. Provisions on the subject of adjustment of the guarantees for the transmission of electricity. Confirmation, with operating additions, of Authority resolution 655/2018/R/eel. This measure confirms the changes approved in resolution 655/2018/R/eel, to the standard network code for the electricity transmission service in the cases of non-adjustment or non-integration of the guarantees given by the transmission user, introducing also operating rules related to communications in the management of the guarantees.

CONSULTATION 12 FEBRUARY 2019– 49/2019/R/eel. Fraudulent withdrawals of final electricity customers. Orientations for the revision of the mechanism pursuant to article 16-bis of the TIV. This consultation document contains the Authority's orientations on the revision of the mechanism of compensation for fraudulent withdrawals pursuant to article 16bis of the TIV.

CONSULTATION 19 MARCH 2019– 100/2019/R/eel. Second-generation smart metering systems for the measurement of low-voltage electricity. Update for the three years 2020-2022 of the provisions on the subject of putting into service and recognising the costs of 2G smart metering systems. This consultation document illustrates the Authority's orientations with regard to the updating of the methods for recognising the costs related to second-generation (2G) smart metering systems for the measurement of low-voltage electricity for the period 2020-2022.

RESOLUTION 19 MARCH 2019– 103/2019/R/eel. Further provisions on the division of the significant network into zones, after the revision process carried out under the terms of Regulation (EU) 2015/1222 (CACM). With this measure the Authority completes the process of revising the market zones launched with resolution 22/2018/R/eel, defining the new zonal configuration which will be applied starting from 2021.

RESOLUTION 02 APRIL 2019– 119/2019/R/eel. Measures to make more efficient the management of fraudulent withdrawals of final customers with greater protection and revision of the mechanism pursuant to article 16bis of the TIV. This measure introduces provisions to make more efficient the management of fraudulent withdrawals of final customers with greatest protection and revises the mechanism pursuant to article 16bis of the TIV on the compensation for amounts not collected in relation to such withdrawals.

RESOLUTION 28 MAY 2019– 202/2019/R/eel. Instructions to distributor companies and sellers for companies with high electricity consumption on the invoicing and payment in instalments of adjustments related to the year 2017 and measures for the reduction of the financial expenses of sellers. With this measure the Authority gives instructions to the distributor companies and sellers on the invoicing and payment in instalments of adjustments accruing in the year 2017 related to application of the A_E component and of what is provided for in paragraph 2.1, letter b), of resolution 518/2014/R/eel for companies with high electricity consumption. Amendments and additions to resolution 629/2017/R/eel are also introduced.

RESOLUTION 25 JUNE 2019– 272/2019/R/eel. Instructions functional to the extension of the ex-ante verification of the value of annual average power with reference to requests for switching presented by each dispatching user. This measure contains the instructions functional to the extension of the *ex-ante* verification of the value of annual average power with reference to requests for switching presented by each dispatching user.

RESOLUTION 26 SEPTEMBER 2019– 396/2019/R/eel. Launch of the proceeding for the implementation of the actions provided for in Italian Law no. 124 of 4 August 2017 (annual law for the market and competition) on the establishment of the safeguarding service for domestic customers and small enterprises of the electricity sector. This measure launches a proceeding for the purpose of acquiring the first items of information useful for the preparation of the regulation of the safeguarding service for domestic final customers and enterprises connected in low voltage with less than fifty employees and annual turnover of not more than ten million euro which are without a supplier, after the cessation of the greater protection service, implementing article 1, paragraph 60 of Italian Law 124/17.

CONSULTATION 26 SEPTEMBER 2019– 397/2019/R/eel. Safeguarding service for domestic final customers and small enterprises of the electricity sector pursuant to art. 1, paragraph 60 of Italian Law no. 124/17. This consultation document is aimed at acquiring the first items of information useful for the preparation of the regulation of the safeguarding service for domestic final customers and enterprises connected in low voltage with less than fifty employees and annual turnover of not more than ten million euro which are without a supplier, after the cessation of the greater protection service, implementing article 1, paragraph 60 of Italian Law 124/17.

RESOLUTION 15 OCTOBER 2019– 409/2019/R/eel. Conclusion of the proceeding on the subject of version “2.1” of low-voltage electricity smart meters. This resolution concludes the proceeding launched with resolution 289/2017/R/eel for the definition of any additional requirements related to "version 2.1" of the second-generation (2G) smart meter for the measurement of low-voltage electricity.

RESOLUTION 19 NOVEMBER 2019– 479/2019/R/eel. Simplification and centralisation in the context of the Integrated Information System of the contents and operating methods of the information flows between electricity distributors and sellers in relation to the technical and metering data of points of delivery and to data functional to supplier change management. This measure approves the rationalisation of the information flows in relation to the technical and metering data of points of delivery and to data functional to supplier change management, and the introduction of a technical data information service for commercial counterparties in the context of the IIS.

Natural gas and electricity sales

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

CONSULTATION 29 JANUARY 2019– 33/2019/R/com. Rules on withdrawal from electricity and gas supply contracts for points of delivery not connected in low voltage and for points of delivery in which annual consumption of more than 200,000 sm^3 is recorded. This consultation document contains the orientations on the methods of exercising the right of withdrawal from supply contracts for final customers with significant consumption of electricity and natural gas.

RESOLUTION 19 FEBRUARY 2019– 59/2019/R/com. Voluntary guidelines for the promotion of electricity and natural gas offers in favour of purchase groups aimed at domestic final customers and small enterprises. This measure defines the content of the guidelines for promoting commercial offers of electricity and natural gas in favour of purchase groups, with particular reference to the comparability, transparency and advertising of the offers, and to the creation of IT platforms designed to facilitate the aggregation of small consumers" in compliance with the rules pursuant to article 1, paragraph 65 of Italian Law no. 124 of 4 August 2017.

RESOLUTION 19 FEBRUARY 2019– 61/2019/R/com. Amendments to article 5, paragraph 5.3 bis, of the Integrated Text of methods for applying the regimes of compensation for expenses incurred by disadvantaged domestic customers for supplies of electricity and natural gas. This measure approves amendments to the Integrated Text of methods for applying the regimes of compensation for expenses incurred by disadvantaged domestic customers for supplies of electricity and natural gas, on the basis of Italian Law Decree no. 4 of 28 January 2019.

RESOLUTION 05 MARCH 2019– 85/2019/R/com. Refinements of the regulation on operation of the offers portal pursuant to Italian Law no. 124 of 4 August 2017 and amendments to Authority resolution 51/2018/R/com. This measure amends Authority resolution 51/2018/R/com of 1 February 2018 making some specific changes to the Regulation on operation of the Offers Portal pursuant to Italian Law no. 124/17.

RESOLUTION 21 MAY 2019– 196/2019/R/com. Supplement to the rules on the subject of methods of exercising the right of withdrawal from electricity and gas supply contracts on the part of final

customers of a large size. This measure supplements the rules on the methods of exercising the right of withdrawal from electricity and gas supply contracts on the part of final customers of a large size.

RESOLUTION 21 MAY 2019– 197/2019/R/com. Launch of a proceeding for the definition of regulatory instruments for information and the empowerment of final customers in the retail electricity and natural gas markets by sellers. Additions to Authority Resolution 746/2017/R/com. This draft measure launches the proceeding related to the definition of regulatory instruments for informing and empowering final customers in the retail electricity and natural gas markets and introduces additions to resolution 746/2017/R/com in the context of information obligations on sellers, in relation to going beyond price protections, in the same markets.

RESOLUTION 18 JUNE 2019– 246/2019/R/com. Additions and amendments to Authority resolution 712/2018/R/com, on electronic invoicing, following the provisions of Italian Law 205/2017. This measure supplements and amends the provisions of Authority resolution 712/2018/R/com on summary bills for final customers and accounting documents for the natural gas distribution and electricity transmission service, for a more convenient implementation for the various parties involved, of the coordination of the Authority's regulation with the legislative provisions on the subject of electronic invoicing.

RESOLUTION 25 JUNE 2019– 270/2019/R/com. Establishment of the Electricity and Natural Gas Consumption Portal implementing Italian Law 205/2017. This measure defines the rules for the creation and management of the Consumption Portal to make available to final customers the electricity and natural gas consumption, provided for in Italian Law 205/17.

RESOLUTION 17 SEPTEMBER 2019– 376/2019/R/com. Adjustment of the rules related to the fund to cover any debt deriving from non-fulfilment of operators on the natural gas market and on the electricity market for amounts exceeding the guarantees enforced. This measure expands the operations of the MGAS Fund to establish a single safeguard guaranteeing creditor operators on the electricity and gas markets.

RESOLUTION 26 SEPTEMBER 2019– 386/2019/E/com. Checks and controls on enterprises carrying on the business of retail sale of electricity and gas. The measure approves the launch of a documentary survey in relation to retail sellers of electricity and gas, which provides also for the collaboration of the Finance Police in the collection of information.

CONSULTATION 19 DECEMBER 2019– 564/2019/R/com. Strengthening of the disclosure obligations of the code of commercial conduct to the advantage of final customers of the retail market. This consultation document presents the Authority's orientations aimed at strengthening the transparency of the disclosure obligations of sellers to the advantage of final customers in the pre-contractual stages through revision of the Code of Commercial Conduct for the sale of electricity and natural gas to final customers.

<u>Natural gas distribution</u>

RESOLUTION 05 MARCH 2019– 75/2019/R/gas. Determination of the bonuses and penalties related to recoveries of security of the natural gas distribution service for the year 2015 and amendment of the Gas Distribution Quality Regulation (GDQR). This measure determines, for the year 2015, the bonuses and penalties related to recoveries of security of the natural gas distribution service and amends the GDQR in relation to management of data correction.

RESOLUTION 19 MARCH 2019– 99/2019/R/gas. Redetermination of tariffs of reference for the services of distribution and metering of gas, for the years 2011-2017. This measure redetermines the tariffs of reference for the services of distribution and metering of gas for the years 2011-2017, on the basis of requests for correction of data received by 15 February 2019.

RESOLUTION 09 April 2019– 128/2019/R/gas. Determination of the provisional tariffs of reference for the services of distribution and metering of gas, for the year 2019. This measure approves the provisional tariffs of reference for the services of distribution and metering of gas for the year 2019, on the basis of the provisions of article 3, paragraph 2, of the RTDG, considering the requests for correction of data presented by 15 February 2019.

RESOLUTION 09 APRIL 2019– 130/2019/R/gas. Redetermination of bi-monthly advance equalisation amounts related to the natural gas distribution service, for the year 2019. This measure redetermines the value of the bi-monthly advance equalisation amount related to the natural gas distribution service, pursuant to article 45 of the RTDG, for the year 2019, previously approved with resolution 667/2018/R/gas.

CONSULTATION 07 MAY 2019– 170/2019/R/gas. Lines of action for the regulation of tariffs and quality of the gas distribution and metering services in the fifth regulatory period. This consultation document illustrates the main lines of action for the definition of the criteria of tariff and quality regulation of the gas distribution and metering services in the fifth regulatory period.

RESOLUTION 09 JULY– 301/2019/R/gas. Public procedures for identifying suppliers of last resort and suppliers of the default distribution service, starting from 1 October 2019. This measure governs the competitive procedures for identifying suppliers of last resort and suppliers of the default service of natural gas starting from 1 October 2019 and updates the rules on providing the said services.

CONSULTATION 30 JULY 2019– 338/2019/R/gas. Orientations for the duration of the regulatory period and for the regulation of the quality of the gas distribution and metering services in the fifth regulatory period. This consultation document illustrates the Authority's orientations in relation to the duration of the regulatory period and to the criteria of regulation of the quality that will be applied starting from the year 2020.

RESOLUTION 08 OCTOBER 2019– 406/2019/R/gas. Observations regarding the value of the refund to be granted to holders of assignments and concessions for the natural gas distribution service for the municipalities of the Prato ATEM. With the resolution in question the Authority expresses its observations on the RIVs of the municipalities of the Prato ATEM with difference between RIV and RAB of more than 10%, in relation to the provisions pursuant to article 15, paragraph 5 of Italian Legislative Decree 164/00, as amended most recently by article 1, paragraph 16, of Italian Law Decree 145/13.

CONSULTATION 15 OCTOBER 2019– 410/2019/R/gas. Criteria for the tariff regulation of the gas distribution and metering services in the fifth regulatory period. This consultation document illustrates the Authority's orientations in relation to the tariff regulation criteria for the gas distribution and metering services that will be applied starting from the year 2020.

RESOLUTION 26 NOVEMBER 2019– 486/2019/R/gas. Redetermination of tariffs of reference for the services of distribution and metering of gas, for the years 2014-2018. This measure redetermines the tariffs of reference for the services of distribution and metering of gas for the years 2014-2018, on the basis of requests for correction of data received by 15 September 2019.

RESOLUTION 27 DECEMBER 2019– 569/2019/R/gas. Approval of the regulation of the quality of the gas distribution and metering services for the 2020-2025 regulatory period - Part I of the Consolidated Text on the regulation of the quality and tariffs of the gas distribution and metering services for the 2020-2025 regulatory period. The resolution approves the regulation of the quality of the gas distribution and metering services for the 2020-2025 regulatory period.

RESOLUTION 27 DECEMBER 2019– 570/2019/R/gas. Tariff regulation of the gas distribution and metering services for the 2020-2025 period. With this resolution the regulation of the tariffs of the gas distribution and metering services for the 2020-2025 regulatory period is approved.

RESOLUTION 27 DECEMBER 2019– 571/2019/R/gas. Update of the tariffs for the gas distribution and metering services, for the year 2020. This measure approves the obligatory tariffs for the natural gas distribution, metering and marketing services, pursuant to article 42 of the RTDG, the different gas tariff options, pursuant to article 70 of the RTDG, and the amounts of bi-monthly equalisation in advance related to the natural gas distribution service, pursuant to article 47 of the RTDG, for the year 2020.

Supply, transportation and storage of natural gas

Gas Settlement

RESOLUTION 05 MARCH 2019– 81/2019/R/gas. Amendment of the p1 parameter for incentives pursuant to article 9 of the Consolidated Text on Balancing (Testo Integrato del Bilanciamento -

TIB). The resolution approves a change in the method of calculating the p1 incentive parameter pursuant to paragraph 9.2, letter a), of the TIB and a change to Table 1 pursuant to resolution 480/2018/R/gas.

RESOLUTION 09 APRIL 2019– 132/2019/R/gas. Transitional provisions on calculating and making available the parameter related to the annual withdrawal functional to application of the gas settlement rules, for thermal year 2019 – 2020. The resolution defines transitional provisions functional to transmission to the Integrated Information System by distribution companies of information functional to the calculation, according to simplified methods, of the parameter related to the annual withdrawal for thermal year 2019/2020.

RESOLUTION 16 APRIL 2019– 148/2019/R/gas. New provisions on preparation of provisional financial statements and publication of the new Consolidated Text of provisions for the settlement of physical and economic items of the natural gas balancing service (TISG). This measure approves the new "Consolidated Text of provisions for the settlement of physical and economic items of the natural gas balancing service (TISG)", which replaces the one approved with resolution 72/2018/R/gas, incorporating the new rules on the subject of provisional financial statements and management of the chain of commercial relationships in the context of the Integrated Information System.

RESOLUTION 16 APRIL 2019– 155/2019/R/gas. Definition of the process of updating the correspondence relationship between balancing user and point of delivery of the distribution network. This measure contains the provisions functional to enabling the process of updating the correspondence relationship between balancing user and point of delivery of the distribution network in the context of the Integrated Information System.

RESOLUTION 28 MAY 2019– 208/2019/R/gas. Provisions functional to procurement of the resources necessary for operation of the gas system. This resolution approves provisions on procurement by the balancing manager of the quantities to cover: consumption, network leaks, changes in the linepack and gas not accounted for. In this sense, it provides for amendments to the Consolidated Text on Balancing, also in relation to the mechanisms of neutrality of the Balancing Manager (BM), and to introduction of a new performance indicator.

CONSULTATION 17 SEPTEMBER 2019– 378/2019/R/gas. Methods of procurement of the resources necessary for operation of the system by the balancing manager. This consultation document follows the issue of resolution 208/2019/R/gas with which the Authority approved provisions on procurement by the balancing manager of the resources necessary for operation of the system and, on the basis of the proposal presented by the BM, puts out for consultation the organisational and operating aspects concerning procurement of the aforesaid quantities on the MGAS Platform, in observance of the principles set forth in the aforementioned resolution.

RESOLUTION 05 NOVEMBER 2019– 448/2019/E/GAS Approval of a programme of audits on the settlement of physical and economic items of the natural gas balancing service. The measure approves an audit programme aimed at verifying the correctness of the data and procedures used by a number of distribution companies for the purposes of the natural gas balancing service.

RESOLUTION 05 NOVEMBER 2019– 451/2019/R/gas. Further provisions on procurement of the resources necessary for operation of the gas system by the balancing manager. This resolution approves further provisions on procurement by the balancing manager of the quantities of gas necessary for operation of the system, starting from the proposal presented by the balancing manager under the terms of paragraph 2.7 of the TIB as amended and supplemented by resolution 208/2019/R/gas.

CONSULTATION 17 DECEMBER 2019– 544/2019/R/gas. Incentive system for the balancing manager - Report on the activity and definition of the parameters for the fourth period (4PI). This consultation document presents the orientations on the system of incentives to the major transport company for efficient management of the balancing, valid starting from 15 February 2020.

Transport of natural gas

RESOLUTION 28 MARCH 2019– 114/2019/R/gas. Criteria for tariff regulation for the service of transport and metering of natural gas for the fifth regulatory period (2020-2023). This measure adopts the tariff regulation criteria for the natural gas transport service for the fifth regulatory period

(5PRT), following the proceeding launched with resolution 82/2017/R/gas of 23 February 2017.

RESOLUTION 16 APRIL 2019– 147/2019/R/gas. Reform of the processes of conferment of capacity at the points of exit and delivery of the transport network. The resolution reforms process of conferment at the points of exit of the transport network that feed distribution networks (city-gates).

CONSULTATION 28 MAY 2019– 203/2019/R/gas. Criteria for quality regulation of the natural gas transport service for the fifth regulatory period. This document, which follows consultation document 420/2018/R/GAS of 2 August 2018 on quality and innovation of the transport service, is part of the proceeding launched with the resolution of the Regulatory Authority for energy, networks and the environment of 23 February 2017, 82/2017/R/gas, for the formation of measures on the subject of tariffs and quality for the natural gas transport service for the fifth regulatory period (5TRP) and contains the Authority's final guidelines on the subject of quality of the natural gas transport service.

RESOLUTION 04 JUNE 2019– 223/2019/R/gas. Approval of the costs incurred by the major transport company in relation to the activity of monitoring the wholesale gas market carried out in 2018 and of the estimate of costs for the year 2019. Amendments and additions to Authority resolution 137/2016/R/com– TIUC. This measure approves, under the terms of article 7.3 of the TIMMIG, the final costs incurred by the major transport company during 2018 for the activity of monitoring the wholesale natural gas market carried out and the costs in the estimate for the activity of monitoring the wholesale natural gas market related to 2019. This measure, in addition, updates the regulation on accounting separation (unbundling) contained in the TIUC to insert also a segment related to monitoring of the wholesale natural gas market.

RESOLUTION 26 SEPTEMBER 2019– 395/2019/R/gas. Provisions related to the rules of the transport default service, starting from 1 October 2019, in relation to regional transport networks. This measure defines provisions related to the rules of the transport default service on regional transport networks starting from 1 October 2019, following the non-performance of the procedures for identifying the FT_{T}s.

RESOLUTION 10 DECEMBER 2019– 522/2019/R/gas. Process of rearrangement of the gas metering activity in the entry and exit points of the transport network. The resolution, in the context of the proceeding launched with resolution 82/2017/R/gas, defines principles and objectives in relation to the process of rearrangement of the gas metering activity in the entry and exit points of the transport network, giving a mandate to Snam Rete Gas S.p.A. to submit for public consultation a document with the operating lines of action.

RESOLUTION 19 DECEMBER 2019– 554/2019/R/gas. Criteria for quality regulation of the natural gas transport service for the fifth regulatory period (2020-2023). This measure adopts the quality regulation criteria for the natural gas transport service for the fifth regulatory period 2020-2023 (5TRP), following the proceeding launched with resolution 82/2017/R/gas of 23 February 2017.

Natural gas storage

RESOLUTION 26 FEBRUARY 2019– 67/2019/R/gas. Regulation of access to the storage services and their supply. Provisions for the conferment of storage capacity for thermal year 2019/ 2020. The measure approves the regulation for access to the storage services and for their supply (RAST). The measure contains, in addition, the provisions for the conferment of storage capacity for the year 2019/2020 under the terms of the decree of the Ministry of Economic Development of 15 February 2019.

RESOLUTION 07 MAY 2019– 168/2019/R/gas. Regulation criteria of the conditions, including economic conditions, for access and supply of the services offered through LNG storage depots and provisions on accounting separation for small scale LNG services. Amendments and additions to Authority resolution 137/2016/R/com– TIUC. This measure defines the regulation criteria of the conditions, including economic conditions, for access and supply of the services offered through LNG storage depots and provisions on accounting separation for small scale LNG services, in application of the legislative provisions pursuant to articles 9 and 10 of Italian Legislative Decree no. 257 of 16 December 2016.

CONSULTATION 02 JULY 2019– 288/2019/R/gas. Criteria for tariff and quality regulation of the natural gas storage service for the fifth regulatory period (5SRP). This document is part of the proceeding launched with the resolution of the Regulatory Authority for energy, networks and the environment of 8 February 2018, 68/2018/R/gas, and contains the guidelines for the formation of measures on the subject of tariffs and quality for the natural gas transport service for the fifth regulatory period (running from 2020).

RESOLUTION 23 OCTOBER 2019– 419/2019/R/gas. Criteria for tariff and quality regulation of the natural gas storage service for the fifth regulatory period (2020-2025). This resolution, adopted following the proceeding launched with the resolution of the Regulatory Authority for energy, networks and the environment of 8 February 2018, 68/2018/R/gas, defines the tariff and quality regulation criteria of the natural gas storage service for the fifth regulatory period (2020-2025).

Renewable energy systems

MINISTERIAL DECREE 4 JULY 2019 FER 1, published in Italian Official Journal no. 186 of 9 August 2019: the decree introduces new incentive mechanisms for newly-constructed photovoltaic, on-shore wind, hydroelectric and purification gas systems. The method of assigning incentives is provided for: through entry in the registers for systems with power of more than 1 kW and less than 1 MW; through participation in reverse auction procedures on the incentive tariff for systems with power of more than 1 MW.

RESOLUTION 22 JANUARY 2019– 16/2019/R/efr. Determination of the average sale price of electricity for 2018, for the purposes of quantification, for the year 2019, of the value of the incentives replacing green certificates. This measure determines, for the purposes of quantification for the year 2019 of the value of the incentives that replace green certificates, the annual average figure recorded in the year 2018 of the selling price of electricity, of € 61.91/MWh.

RESOLUTION 30 JULY 2019– 340/2019/R/efr. Launch of a proceeding for the adoption of measures of the Regulatory Authority for Energy, Networks and the Environment for the purposes of implementing the inter-ministerial decree of 4 July 2019. This resolution launches the proceeding for the adoption of measures of the Authority for the purposes of implementing the decree of the Ministry of Economic Development, in agreement with the Ministry for the Environment and Land and Sea Protection, 4 July 2019**.**

Energy and Energy Efficiency Services

RESOLUTION 28 MAY 2019– 209/2019/R/efr. Approval of the methods proposed by the Italian Energy Services Operator, implementing the provisions of article 14-bis, paragraphs 6 and 8, of the inter-ministerial decree of 10 May 2018 on energy efficiency certificates. Amendments to Authority Resolution 487/2018/R/efr. This measure approves the implementation methods, prepared by the Energy Services Operator, pursuant to article 14-bis, paragraphs 6 and 8, of the inter-ministerial decree of 11 January 2017 on EECs not corresponding to projects. The measure also approves an amendment to the rules for determining the tariff contribution to be paid to distributors that fulfil the energy saving obligations.

RESOLUTION 25 JUNE 2019– 273/2019/R/efr. Approval of the update of the Regulation on bilateral transactions of energy efficiency certificates. This document approves the update of the Regulation on bilateral transactions of EECs prepared by the GME with the methods provided for in the Regulation previously in force, under the terms of Resolution 209/2019/R/efr. The Regulation comes into force after this resolution on publication by the GME on its website.

RESOLUTION 25 JUNE 2019 – 278/2019/R/tlr. Completion of the provisions on exercising the right of withdrawal in the district heating and district cooling service. The resolution changes the methods of exercising the right of withdrawal provided for in the *TUAR*, introducing rules differentiated on the basis of the user's characteristics.

RESOLUTION 16 JULY 2019 – 313/2019/R/tlr. Provisions on the subject of transparency in the district heating and district cooling service. The resolution defines the provisions on the subject of transparency in the district heating service for the regulatory period 1 January 2020 - 31 December 2023.

The scope of the intervention includes the minimum contents of supply contracts and invoicing documents, the methods of publication of the prices applied by the operators and of other information related to the quality of the service and environmental performance. The launch of a price monitoring system by the Authority is also provided for.
RESOLUTION 15 OCTOBER 2019 – 408/2019/E/tlr. Launch of a proceeding for extension to the district heating and district cooling sector of the protection system for dealing with complaints and the out-of-court resolution of disputes of final customers and end users of the regulated sectors. This measure launches a proceeding for gradual extension to the district heating and district cooling sector of the protection system for managing complaints and disputes of final customers and end users of the regulated sectors.

RESOLUTION 03 DECEMBER 2019 – 502/2019/R/efr. Approval of the fees, related to the year 2020, for operation of the organised markets and registration platforms of bilateral trades of guarantees of origin and energy efficiency certificates managed by the energy markets manager, Gestore dei Mercati Energetici S.p.A. This measure approves the fees, related to the year 2020, for operation of the Organised Markets and Registration Platforms of bilateral trades of guarantees of origin and energy efficiency certificates.

RESOLUTION 10 DECEMBER 2019– 529/2019/R/efr. Launch of the proceeding of reform of the tariff contribution to be granted to distributors in execution of the Lombardy RAC judgement 2538/2019 and urgent actions in the context of the mechanism of energy efficiency certificates. This measure launches a proceeding for reform of the tariff contribution to be granted to distributors that fulfil the energy saving obligations in the context of the EEC mechanism, in execution of the Lombardy RAC judgement no. 2538/2019. The measure also confirms a number of aspects of the regulation previously in force, following the said judgement.

RESOLUTION 17 DECEMBER 2019 – 548/2019/R/tlr. Regulation of the technical quality of the district heating and district cooling service for the regulatory period 1 July 2020– 31 December 2023. The resolution defines the rules of the technical quality of the district heating service, with particular reference to the security and continuity of the service, for the regulatory period 1 July 2020– 31 December 2023.

<u>Telecommunications</u>

AGCOM RESOLUTION OF 22/05/2019 - 82/19/CIR. Regulation of the procedures for passage of customers of fixed network operators that use FTTH networks of wholesale operators other than TIM. Resolution that governs the case of passage of customers of fixed network operators that use FTTH networks of wholesale operators other than TIM ensuring that the migration of the physical access and the associated numbering takes place in a synchronised manner, technically efficient and in the shortest possible time.

AGCOM RESOLUTION OF 16/07/2019 - 101/19/CIR. Approval with amendments, for the year 2018, of the offer of reference of Telecom Italia related to the services of collection and termination of calls in the fixed public telephone network and of technical and procedural conditions of the offer of reference of Telecom Italia related to dedicated transmission capacity services. The main changes regard the economic conditions of the services subject to orientation to the cost and the technical and procedural conditions.

AGCOM RESOLUTION OF 16/07/2019 - 103/19/CIR. Universal service on the subject of electronic communication services for the years 2004, 2005, 2006 and 2007. This measure approves the results of the public consultation on renewal of the proceeding related to the applicability of the mechanism of division of the net cost of the universal service incurred by Telecom Italia S.p.A. for the years 2004, 2005, 2006 and 2007.

AGCOM RESOLUTION OF 18/07/2019 - 327/19/CONS. Launch of the proceeding for identification and analysis of the interconnection services markets in the fixed public telephone network (markets no. 1/2014 and no. 2/2007). The resolution launches the 4th cycle of analysis of the interconnection services markets on the fixed network, currently subject to regulation under the terms of resolution no. 425/16/CONS.

AGCOM RESOLUTION OF 16/12/2019 - 193/19/CIR. Launch of the proceeding and the public consultation concerning the approval of the offers of reference of Telecom Italia related to the services of wholesale access to the fixed network (ULL/SLU, Colocation, WLR, NGAN Infrastructures, End to End, Backhaul) for the years 2019 and 2020. In the context of the consultation document, the preliminary tests and studies carried out by the Authority are provided, with particular regard to the economic conditions of services that are subject to orientation to the cost.

AGCOM RESOLUTION OF 16/12/2019 - 194/19/CIR. Launch of the proceeding and the public consultation concerning the approval of the offers of reference of Telecom Italia related to the VULA services for the years 2019 and 2020. In the context of the consultation document, the preliminary tests and studies carried out by the Authority are provided, with particular regard to the economic conditions of services that are subject to orientation to the cost.

AGCOM RESOLUTION OF 16/12/2019 - 195/19/CIR. Launch of the proceeding and the public consultation concerning the approval of the offers of reference of Telecom Italia related to the services of wholesale access to the fixed network (Bitstream copper and NGA) for the years 2019 and 2020. In the context of the consultation document, the preliminary tests and studies carried out by the Authority are provided, with particular regard to the economic conditions of services that are subject to orientation to the cost.

AGCOM RESOLUTION OF 16/12/2019 - 481/19/CONS. Launch of the proceeding and the public consultation concerning the minimum level of take-up of the ultra-fast broadband access services provided on very high capacity networks expected in 2020 and the methods of checking the prices of TIM's VULA services offered in contestable Municipalities and the definition of flagship offers. The resolution in question launches the enquiry proceeding under the terms of article 17, paragraph 7, of resolution no. 348/19/CONS and the related public consultation.

<u>Environment</u>

CONSOLIDATED LAW ON THE ENVIRONMENT (Italian Legislative Decree 152/2006), and subsequent amendments and additions. National measure of reference on the subject of environmental impact assessment, integrated environmental authorisation, defence of the soil, protection of waters, waste management, packaging, reclamation of contaminated sites, reduction of atmospheric pollution, compensation for environmental damage.

ITALIAN LEGISLATIVE DECREE NO. 205 OF 3 DECEMBER 2010- Provisions implementing Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste that abrogates a number of directives. This transposes at the national level the framework directive on waste amending the Fourth part of Italian Legislative Decree 152/2006 – Consolidated Law on the Environment – supplementing it with the principles established by the directive.

DECREE OF THE MINISTRY OF THE ENVIRONMENT OF 7 OCTOBER 2013 - The Italian National Waste Prevention Programme (NWPP) is adopted. With the subsequent decree n° 185 of 08/07/2014, for the purposes of activating and implementing the Plan, the Ministry of the Environment set up a Technical/Scientific Committee which has the function of supporting the Ministry in defining the implementing measures of the Programme in the priority sectors of action.

EUROPEAN UNION ACTION PLAN FOR THE CIRCULAR ECONOMY - COM (2015) 614/2. The action plan defines 54 measures for "closing the circle" of the product life cycle: from production and consumption up to waste management and the market of secondary raw materials. In addition, it identifies priority sectors to accelerate the transition along their value chain (plastics, food waste, essential raw materials, construction and demolition, biomass and biological materials).

ITALIAN LAW 221/2015 - (so-called Law on the Green Economy). This presents an important package of measures aimed at the "green economy", which amend the existing environmental legislation precisely in the direction of a greener and more sustainable economy.

DIRECTIVE (EU) 2018/849; DIRECTIVE (EU) 2018/850; DIRECTIVE (EU) 2018/851; DIRECTIVE (EU) 2018/852. The new Directives of the "circular economy package" amend 6 directives on waste, packaging, landfills, waste of electric and electronic equipment (WEEE), end of life vehicles and batteries: in force since 4 July 2018, they must be transposed by the member states by 5 July 2020.

ITALIAN LAW 55/2019 – END OF WASTE LAW (so-called Unlock Building Sites Law) This assigns to the Regions the power to put an end to the classification as waste, making reference to the types and recycling activities provided for and regulated in the Ministerial Decree of 5 February 1998 and subsequent decrees. Therefore, these rules did not permit the recycling of types of waste with origin or characteristics not provided for in the ministerial decree, recycling with recovery activities not provided for or obtaining products not contemplated by the Ministerial Decree of 5 February 2019.

ITALIAN LAW 128/2019 – END OF WASTE LAW (so-called Company Crisis Law) This establishes that, in the absence of specific criteria, the authorisations for recycling activities must be issued or renewed observing the conditions laid down in art. 6 of the framework directive on waste 98/2008/EC.

ARERA Municipal Waste Regulations:

RESOLUTION 27 DECEMBER 2018 – 714/2018/R/rif. Request for information on the subject of the municipal and assimilated waste treatment service. This measure makes a request for information to waste disposal service providers.

RESOLUTION 27 DECEMBER 2018 – 715/2018/R/rif. Launch of proceeding for the establishment of a tariff monitoring system of the integrated service of waste management, including separated, municipal and assimilated waste and of the single services that make up the management activities for the years 2018 and 2019. This measure launches a proceeding for the establishment of a tariff monitoring system for the years 2018 and 2019 on the subject of the waste cycle, introducing disclosure obligations for service providers and database obligations.

RESOLUTION 09 JULY 2019 – 303/2019/R/rif. Unification of the proceedings pursuant to Authority resolutions 225/2018/R/rif and 715/2018/R/rif, aimed at regulating and monitoring tariffs on the subject of the waste cycle, including separated, municipal and assimilated waste - with identification of a single deadline for conclusion of the same. In order to increase the effectiveness of the regulations in the sector, this measure merges the proceedings launched with resolutions 225/2018/R/rif and 715/2018/R/rif - aimed at regulating and monitoring tariffs on the subject of the waste cycle, including separated, municipal and assimilated waste - providing for their conclusion by 31 October 2019.

CONSULTATION 30 JULY 2019– 351/2019/R/gas Orientations for covering efficient operating and investment costs of the integrated waste service for the period 2018-2021. The consultation document presents the orientations for covering efficient operating and investment costs of the integrated waste service for the period 2018-2021.

CONSULTATION 30 JULY 2019– 352/2019/R/gas Provisions on the subject of transparency in the municipal and assimilated waste management service. General framework and first guidelines. In the context of the proceeding on the quality of the service, launched with resolution 226/2018/R/rif, the consultation document illustrates the first orientations for regulation of the obligatory minimum information contents that must be guaranteed to users of the integrated municipal waste (MW) management service, on websites, in invoicing documents or payment notices/invitations and in communications to the said users.

RESOLUTION 31 OCTOBER 2019 – 443/2019/R/rif. Definition of the criteria for recognition of the efficient operating and investment costs of the integrated waste service, for the period 2018-2021. This measure defines the criteria for recognition of the efficient operating and investment costs for the period 2018-2021, adopting the Tariff Method for the integrated Waste management service (WTM).

RESOLUTION 31 OCTOBER 2019 – 444/2019/R/rif. Provisions on the subject of transparency of the municipal and assimilated waste management service for the regulatory period 1 April 2020 - 31 December 2023, in the context of the proceeding launched with resolution 226/2018/R/rif. The context of the action includes the minimum items of information to be made available through websites, the minimum items of information to be included in collection documents (payment notices or invoices) and individual communications to users related to significant changes in the management.

Transversal issues

RESOLUTION 18 JUNE 2019 – 242/2019/ A. 2019-2021 Strategic Framework of the Regulatory Authority for Energy, Networks and the Environment. The measure contains the adoption of the Authority's Strategic Framework for the three years 2019-2021, taking into account the results of consultation 139/2019/A, including those that emerged from the periodic auditions of 8 and 9 May 2019.

EU DIRECTIVE 2019/904 – SINGLE-USE PLASTIC
Directive 2019/904 of the European Parliament and of the Council of the European Union of 5 June 2019 on the reduction of the impact of certain plastic products on the environment. Each Member State must transpose this directive into the national context by 3 July 2021.

EU DIRECTIVE 2019/944 – INTERNAL MARKET FOR ELECTRICITY
Within the "Clean energy for all Europeans package", Directive 2019/944 of 5 June 2019 lays down the common rules for the internal market for electricity and amends Directive 2012/27.

2020 BUDGET LAW

Energy efficiency
The budget law extends to 31 December 2020 the tax deduction for work on the energy redevelopment of buildings and building renovation (so-called Eco-bonus)

Electric mobility
The budget law establishes that from 1 January 2020 public administration must purchase or hire vehicles used for road transport powered by electricity, hybrid or hydrogen, equivalent to at least 50% of the related vehicles in possession on the occasion of renewal of the same.

Green Climate Fund
The budget law authorises annual spending of € 33 million from 2020 to 2023 and of 66 million from 2024 to 2028 for the replenishment of the Green Climate Fund[72], as provided for in Italian Law no. 204/2016, ratifying the Paris Agreement (COP21).

13. 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 associated companies are presented in the notes to the statements (note no. 14 "Related parties").

14. RISKS MANAGEMENT

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

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

[72] The Green Climate Fund is a fund established within the United Nations Framework Convention on Climate Change (UNFCC) which supports developing countries in adaptation to these changes.

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 revenues, 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:

(a) 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;

(b) 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:

a) *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.

b) *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.
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 non-obtainment of new concessions could have negative effects on the business and prospects of the Issuer 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 arising from the approval of new tariff systems***

On the basis of the current tariff system, the Group's revenues 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 revenues.

- ***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 revenues are 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.

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

The activities of Estra 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 Estra'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 Estra 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***

Estra 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. Estra and the Group enjoy a high standing with the banking system, as confirmed by the A3.1 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 Estra 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 Estra'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 2019, 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. 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. 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 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 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 IFRSs, 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 contained 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 revenues 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.

15. 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.

16. NON-FINANCIAL DECLARATION

2019 is the third 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 revenues above the thresholds provided for in art. 2 paragraph 1, is subject to application of Italian Legislative Decree no. 254 of 30 December 2016.

The non-financial declaration 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 declaration which constitutes a distinct report with respect to that on operations of the consolidated financial statements.

The 2019 consolidated non-financial declaration drawn up according to the GRI "core" reporting standard, approved by the Board of Directors on 06 April 2020, is available on the Group's website.

17. 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 PARAGRAPH 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. A stimulation to improve the Internal Control System on Financial Disclosure was given by parliament with Italian Law 262/05.

The incorporation of the principles and rules established by the aforesaid law constitutes for Estra an important opportunity for improvement of its Internal Control System on Financial Disclosure, in order to make it constantly monitored, and methodologically more defined and documented, also to enable the subjects to which the control activity is entrusted to carry out their audits.

The system used for the formation of the 2019 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 QSE (quality, environment and safety)

The Company has also launched a process of defining 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.

18. INFORMATION TECHNOLOGY ORGANIZATION

The architecture of Estra's IT system is characterised by a latest-generation software which has as database a management programme, certified at the international level, named SAP which contains the vertical SAP-ISU for managing energy (gas and electricity) customers on a standard DB2 database produced by IBM. The SAP IS-U 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.

The IT system is based on ERP (Enterprise Resources Planning) software which integrates not only all the classical business functions typical of ERP but also CRM (Customer Relationship Management) functions and is integrated with a Business Intelligence programme named SAP-BW.

Besides the SAP application indicated above other specialised software programmes are used. A group of these programmes is connected to the SAP 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 SAP 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 SAP or HR module ADP + Micronterl on a dedicated platform for the production of payslips and for managing the personnel.

The electronic invoicing project was completed and brought into production and the perimeter of the software for electronic storage widened.

With the acquisition of Murgia Reti Gas the complete suite for the distribution of GAS on the NET@ platform was introduced, including the accounting and management part of the operating teams.

Starting from the last quarter of the year a wide-ranging and complex process of assessment and analysis of a different ERP solution was launched. This will be integrated with and extended to all the areas of the Estra Group, with a view to possible replacement of the current one.
All the specialised software programmes present in ESTRA will be integrated with the new suite but not replaced except in particular cases. The project is still in progress and will continue at least for the whole of 2020.

19. PERSONNEL AND TRAINING

The average workforce in 2019, taking into account seconded personnel, was 761 employees. The table below shows the numbers by category and the comparison with 2018:

Position	31/12/2019	31/12/2018
Managers	21	21
Office workers and middle managers	578	552
Manual workers	162	134
Total	**761**	**707**

Most of the Group companies apply the gas and water National Collective Labour Agreement (CCNL). In this regard we can note that on 7 November 2019, 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 2019 – 2021. The main changes in the agreement concern: economic treatment, contracts and contractual dumping, reform of the grading system, contractual welfare and availability.

In Estra Group, promotion of human resources is a key element in close correlation with the strategies and objectives of growth, innovation and development, to create value for the enterprise and to guarantee high standards of quality and safety while respecting the territory.
In all this training of personnel is an instrument of fundamental importance, not only to ensure the necessary professional preparation for tackling the challenges of the future, but also for encouraging and maintaining a working environment characterised by a positive climate, collaboration and strong corporate identity.
Particular attention is paid to continual training on technical, professional and/or managerial skills, based on legislative obligations and on the analysis of specific individual and corporate training needs.

Training during 2019 totalled 23,439 hours on a wide range of subjects, including accounting and administrative aspects, safety in the workplace, Risk Management, energy efficiency certificates, industry 4.0 and the Organisation, Management and Control Model.

Total number and average number of training hours

	2019	**2018**
Total number of training hours	23,439	29,996
Average number of training hours per worker	29	43

The training was organised by the Human Resources Service and carried out both in and out of the company offices, with the support of internal/external trainers, making use in part of professional funds.

20. QUALITY, ENVIRONMENT AND SAFETY

To achieve the objectives set on the subject of quality, environment and safety, during financial year 2019 Estra SpA and the group companies Estra Energie and Estracom, finalised their activity through concrete actions to optimise their management system, adopting an Integrated System at the company level for the UNI EN ISO 9001:2015, UNI EN ISO 14001:2015, OHSAS 18001:2007 and UNI CEI ISO/IEC 27001:2014 certifications.

During 2019 the internal audits were regularly carried out as were those planned for maintaining the existing system and/or acquiring new certifications with a positive result.
In detail the certifications are presented for each company:

- Estra SpA - adoption of an integrated system for the standards UNI EN ISO 9001:2015, UNI EN ISO 14001:2015; OHSAS 18001:2007 with transition to UNI ISO 45001:18 and UNI CEI ISO/IEC 27001:2014;

- Estra Energie - adoption of an integrated system for the standards UNI EN ISO 9001:2015, UNI EN ISO 14001:2015; OHSAS 18001:2007 with transition to UNI ISO 45001:18;
- Estracom - adoption of an integrated system for the standards UNI EN ISO 9001:2015, UNI EN ISO 14001:2015; OHSAS 18001:2007 with transition to UNI ISO 45001:18 and UNI CEI ISO/IEC 27001:2014;
- Centria - adoption of an integrated system for the standards UNI EN ISO 9001:2015; UNI EN ISO 14001:2015; EMAS Regulation; OHSAS 18001:2007 with transition to UNI ISO 45001:18; UNI CEI ISO/IEC 27001:2014; SA 8000:2014; as well as UNI CEI EN ISO 50001:2011; UNI EN ISO 3834-2:2006; UNI 11024:2003; UNI EN ISO 15838:2010 and UNI 11200:2010; UNI EN ISO18295; UNI ISO 55001:2015; ISO IEC 17025:2005;
- Estra Clima - adoption of an integrated system UNI EN ISO 9001:2015; UNI EN ISO 14001:2015; OHSAS 18001:2007 with transition to UNI ISO 45001:18; as well as UNI CEI 11352:2014; Regulation (EC) 303-2008;
- Gergas - adoption of an integrated standard UNI EN ISO 9001:2015, UNI EN ISO 14001:2015; OHSAS 18001:2007 with transition to UNI ISO 45001:18;
- Edma Reti Gas - adoption of an integrated system UNI EN ISO 9001:2015; UNI EN ISO 14001:2015; EMAS Regulation: OHSAS 18001.2007
- Ecolat - adoption of the standards UNI EN ISO 9001:2015, UNI EN ISO 14001:2015; OHSAS 18001:2007;

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:
- environmental damages for which the company was found guilty in the final judgement;
- final sanctions or penalties imposed on the company for offences or environmental damage;

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

Regulation (EU) 2016/679 (known as the GDPR, General Data Protection Regulation) on the protection of natural persons with regard to personal data processing, and to the free circulation of such data, was applied in all EU member states from 25 May 2018.
Significant principles were introduced, as well as new formalities for data controllers such as, for example, the principle of accountability or responsibility, the principle of privacy by design and privacy by default, the data protection impact assessment (DPIA), the verification and notification of data breaches to the Privacy Authority and communication in the most serious cases to the data subject, the preparation and constant updating of a Processing Register.
In addition, taking into account the indications of Art. 37 of the GDPR, the opportunity was assessed of appointing the figure of the DPO consequently notified, according to the procedures provided for by the Privacy Authority, on 25 May 2018.
During financial year 2019 the personnel training activities were completed; these were divided into classes, made up by type and depth of the type of processing, with differentiation of the hours administered.
New methods were implemented for prior verification of possession, by suppliers, of the necessary requisites before contracts are signed for data processing.
The organisational models on privacy were updated, on the basis of the evidence, and according to the evolution of the corporate organisation. The periodic revision of the privacy forms was carried out, with specific attention to those submitted to customers.
We can note that the activity of ensuring compliance and with and maintaining observance of the provisions of Regulation (EU) 679/2016 and of the subsequent Italian Legislative Decree 101/2018 was carried out using the support of the specific structure of the company Estra S.p.A. and regulated by a service contract.

21. 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 2019 the Group performed various research activities in several business segments, also in partnership with Universities, Research Institutes and specialised software production companies. These activities saw important investments by the Group not only in software development and process and product innovation activities, but also in the development of the skills of internal personnel.

For a description of the most important initiatives carried out in 2019 please see the Non-Financial Declaration.

22. TRANSACTIONS WITH SUBSIDIARIES, ASSOCIATES, PARENT COMPANIES AND COMPANIES UNDER THE CONTROL OF THESE LAST

Estra and the Group companies carry out transactions with related parties based on principles of transparency and correctness; they 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 related companies are presented in the notes to the statements.

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, 06 April 2020

On behalf of the Board of Directors
The Chairperson of the Board of Directors
Francesco Macrì

Consolidated financial statements schedules

Consolidated Income Statement at 31 December 2019 and 2018

Consolidated Income Statement		Year ended 31 December			
		2019		2018	
(amounts in thousands of euro)	Notes	Amount	of which referring to Related parties (note 14)	Amount	of which referring to Related parties (note 14)
Revenue from sale of goods and services	8.1.1	967,943	3,681	805,421	4,140
Other operating revenue	8.1.2	28,979	889	37,552	773
Raw materials, ancillary materials and goods	8.2.1	(592,046)	(53)	(481,267)	(114)
Costs for services	8.2.2	(255,970)	(14,321)	(218,249)	(16,390)
Personnel costs	8.2.3	(39,348)	526	(36,604)	627
Depreciation, amortisation, provisions and write-downs	8.2.4	(59,437)		(43,265)	
Other operating costs	8.2.5	(16,579)	(29)	(31,760)	(93)
Income/(expenses) from commodity risk management	8.3	3,582		(4,419)	
Portion of income/(expenses) from measurement of non-financial investments using the equity method	8.4	679		558	
Operating result		**37,803**	**(9,308)**	**27,969**	**(11,058)**
Financial income	8.5	2,733	185	2,113	185
Financial expenses	8.6	(13,231)	(573)	(15,368)	(366)
Gains or losses on currency conversions		(1)		-	
Portion of income/(expenses) from measurement of financial equity investments using the equity method	8.7	(53)		427	
Profit before taxes		**27,251**	**(9,696)**	**15,139**	**(11,239)**
Income taxes for the year	8.8	(10,343)		(5,108)	
Net profit/(loss) from continuing operations		**16,909**	**(9,696)**	**10,031**	**(11,239)**
Net profit/(loss) from discontinued operations / assets held for sale	8.9	(208)		(2,320)	
Net profit		**16,701**	**(9,696)**	**7,711**	**(11,239)**
Profit/(loss) of non-controlling interests		72		380	
Group profit/(loss)		16,629		7,331	

Earnings per share (Note 11)	Year ended 31 December	
	2019	2018
Basic earnings per share ordinary shares	0.07	0.03
Diluted earnings per share ordinary shares	0.07	0.03

Earnings per share from continuing operations (Note 11)	Year ended 31 December	
	2019	2018
Basic earnings per share ordinary shares	0.07	0.04
Diluted earnings per share ordinary shares	0.07	0.06

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 Comprehensive Income at 31 December 2019 and 2018

Consolidated Statement of Comprehensive Income (amounts in thousands of euro)	Notes	31-Dec-19	31-Dec-18
Net profit		**16,701**	**7,711**
of which:			
Profit/(loss) of non-controlling interests		*72*	*380*
Group profit/(loss)		*16,629*	*7,331*
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**	**(2,490)**	**185**
- Gains (losses) for the year from measurement		*(3,277)*	*244*
- Taxes		*786*	*(59)*
Total other comprehensive income components that will subsequently be reclassified under profit/loss for the year (net of taxes)		**(2,490)**	**185**
Other comprehensive income components that will not subsequently be reclassified under profit/loss for the year (net of taxes)			
Actuarial gains/(losses)	**9.2**	**(338)**	**166**
- Actuarial gains/(losses)		*(445)*	*219*
- Taxes		*107*	*(53)*
Total other comprehensive income components that will not subsequently be reclassified under profit/loss for the year (net of taxes):		**(338)**	**166**
Total other comprehensive income components net of taxes	**9**	**(2,828)**	**352**
of which:			
related to non-controlling interests		*(21)*	*1*
related to the Group		*(2,807)*	*351*
Result of comprehensive income statement		**13,872**	**8,063**
of which:			
Net comprehensive result pertaining to non-controlling interests		*51*	*381*
Net comprehensive result Group		*13,822*	*7,682*

Statement of consolidated financial position at 31 December 2019 and 2018

Statement of consolidated financial position	Notes	Year ended 31 December			
		2019		2018	
			of which referring to Related parties		of which referring to Related parties
(amounts in thousands of euro)		Amount	(note 14)	Amount	(note 14)
Property, plant and equipment	**10.1.1**	109,570		84,778	
Goodwill	**10.1.3**	29,436		29,436	
Intangible assets	**10.1.5**	447,805		396,448	
Equity investments	**10.1.6**	27,250	27,250	22,217	22,217
Other non-current financial assets	**10.1.7**	11,539	4,873	12,769	5,087
Other non-current assets	**10.1.8**	5,285	443	4,713	
Deferred tax assets	**10.1.9**	30,718		27,295	
NON-CURRENT ASSETS		**661,604**	**32,566**	**577,657**	**27,304**
Inventories	**10.2.1**	24,768		8,674	
Trade receivables	**10.2.2**	281,434	9,293	351,022	10,587
Tax receivables	**10.2.3**	12,400		19,881	
Other current assets	**10.2.4**	33,419		20,006	
Other current financial assets	**10.2.5**	34,797		17,422	
Cash and cash equivalents	**10.2.6**	195,748		228,693	
CURRENT ASSETS		**582,566**	**9,293**	**645,698**	**10,587**
Assets held for sale	**10.2.7**			**930**	**930**
TOTAL ASSETS		**1,244,170**	**41,858**	**1,224,285**	**38,821**
Share capital		228,334		228,334	
Reserves		51,094		61,082	
Group profit (loss) for the year		16,629		7,331	
Total Group Shareholders' Equity		**296,057**		**296,747**	
Capital and reserves attributable to non-controlling interests		25,665		28,125	
Profit (loss) attributable to non-controlling interests		72		380	
Total Shareholders' Equity attributable to non-controlling interests		**25,737**		**28,505**	
TOTAL SHAREHOLDERS' EQUITY	**10.3**	**321,793**		**325,253**	
Provisions for risks and charges	**10.4.1**	9,504		9,869	
Employee severance indemnity	**10.4.2**	8,281		7,242	
Non-current portion of medium/long-term loans	**10.4.3**	377,863	17,335	373,077	9,675
Deferred tax liabilities	**10.4.4**	44,949		41,834	
Other non-current liabilities	**10.4.5**	4,320		1,721	
Contractual liabilities	**10.4.6**	21,123		14,732	
NON-CURRENT LIABILITIES		**466,040**	**17,335**	**448,474**	**9,675**
Current portion of medium/long-term loans	**10.4.3**	88,271	3,729	104,780	1,435
Short-term borrowings	**10.5.1**	31,601		10,528	
Trade payables	**10.5.2**	215,299	5,227	250,364	6,295
Contractual liabilities	**10.4.6**	656		1,165	
Tax liabilities	**10.5.3**	18,726		15,283	
Other current liabilities	**10.5.4**	64,800	14,638	47,343	
Other current financial liabilities	**10.5.4**	36,983		20,814	
CURRENT LIABILITIES		**456,336**	**23,594**	**450,278**	**7,730**
Liabilities directly associated with assets held for sale	**10.2.7**			**280**	**280**
TOTAL LIABILITIES and Shareholders' Equity		**1,244,170**	**40,929**	**1,224,285**	**17,685**

Statement of changes to consolidated shareholders' equity at 31 December 2019 and 2018

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 31 December 2017	**228,334**	**26,156**	**7,650**	**(599)**	**211**	**29,162**	**11,020**	**301,934**	**29,986**	**331,920**
IFRS 9 first application						(1,361)		(1,361)	(322)	(1,683)
Balances at 31 December 2017 restated	**228,334**	**26,156**	**7,650**	**(598)**	**210**	**27,803**	**11,020**	**300,575**	**29,664**	**330,238**
Allocation of 2017 profit										
- *Consolidated profit for the previous year*			889			(2,042)	1,153			
- *Dividends*							(12,173)	(12,173)	(996)	(13,170)
Other changes						664		664	(543)	121
Result of income statement							7,331	7,331	380	7,711
Other comprehensive income				184	166			351	1	352
Balances at 31 December 2018	**228,334**	**26,156**	**8,539**	**(414)**	**376**	**26,425**	**7,331**	**296,747**	**28,505**	**325,253**
Allocation of 2018 profit										
- *Consolidated profit for the previous year*			903			(6,210)	5,307			
- *Dividends*							(12,638)	(12,638)	(1,138)	(13,776)
- *Distribution of shareholders' equity reserves*						(2,000)		(2,000)		(2,000)
Other changes					1	125		126	(1,682)	(1,556)
Result of income statement							16,629	16,629	72	16,701
Other comprehensive income				(2,490)	(317)			(2,807)	(21)	(2,828)
Balances at 31 December 2019	**228,334**	**26,156**	**9,442**	**(2,904)**	**61**	**18,339**	**16,629**	**296,057**	**25,737**	**321,793**

Consolidated cash flow statement at 31 December 2019 and 2018

	Consolidated cash flow statement (amounts in thousands of euro)	Year ended 31 December 2019	2018
	Profit (loss) for the year	16,701	7,711
	Income taxes	10,343	5,108
	Interest expense (income)	10,499	13,255
	(Gains) Losses from the sale of assets	1,940	-
	Profit for year before taxes and interest	**39,482**	**26,074**
	Depreciation/amortisation of tangible and intangible assets	45,145	34,902
	Write-downs of tangible and intangible assets	2,548	10
	Portion of contributions to financing for investments	(681)	(621)
	Fair value changes recognised in operating profit/(loss)	(4,109)	2,757
	Write-downs (revaluations) of investments	(626)	(985)
	Write-downs (revaluations) of assets held for sale/disposal	208	2,320
	Employee severance indemnity provision	177	182
	Allocations/(reversals) to provisions for risks and other allocations	1,319	(748)
	Cash flows before changes in net working capital and other assets and liabilities	**83,462**	**63,890**
	Changes to trade receivables	71,228	(48,013)
	Changes to inventories	(16,094)	14,016
	Changes to trade payables	(44,552)	30,956
	Changes in other current assets and liabilities	(10,388)	(3,628)
	Changes in tax assets and liabilities	(2,691)	6,458
	Change in employee severance indemnity (net of allocation)	(591)	(560)
	Cash flows after changes in net working capital and other changes	**80,374**	**63,120**
	Interest received	2,733	2,113
	Interest paid	(10,789)	(13,364)
	Taxes paid	(2,429)	(12,385)
	Utilisation of provisions	(1,724)	(765)
A	**Cash flows from operating activities**	**68,165**	**38,720**
	of which with related parties	**(9,470)**	**(6,385)**
	Investments in tangible assets	(9,278)	(9,136)
	Investments in intangible assets	(35,312)	(30,586)
	Divestment of tangible and intangible assets	758	355
	(Investments)/divestments of equity investments	440	1,338
	Dividends received from equity-accounted companies	478	581
	(Investments)/Divestments of assets held for sale/ disposal	442	(715)
	(Acquisition) or disposal of subsidiaries net of cash and cash equivalents	(47,504)	(30,068)
	Other changes from investment activities	82	(115)
B	**Cash flows from investment activities**	**(89,894)**	**(68,345)**
	of which with related parties	**-**	**-**
	Increases/(decreases) in non-current financial assets and liabilities	937	(898)
	Increases/(decreases) in current financial assets and liabilities	(281)	55
	Increases/(decreases) in other non-current assets and liabilities	3,610	2,006
	Increase (decrease) in short-term bank loans	20,180	69
	Opening of new bank loans	121,500	162,000
	Repayment of bank loans	(111,027)	(86,318)
	Buy back bond loans	(38,800)	(32,200)
	Repayment of shareholder loans	(1,435)	(1,435)
	Repayment of other lenders	(332)	(322)
	Repayment of lease liabilities	(3,766)	-
	Opening loan expenses	(665)	(1,244)
	Purchase of treasury shares	-	-
	Effect of contributions on cash and cash equivalents	-	-
	Payment of dividends to Parent Company shareholders	-	(12,173)
	Payment of dividends to third parties	(1,138)	(996)
C	**Cash flows from financing activities**	**(11,217)**	**28,545**
	of which with related parties	**(1,663)**	**(1,962)**
	Increase (decrease) in liquidity (A+B+C)	**(32,946)**	**(1,081)**
E	**Cash and cash equivalents at 1 January**	**228,693**	**229,774**
F	**Cash and cash equivalents at 31 December**	**195,748**	**228,693**

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 the note Business Segments, whereas information on the Group structure is found in the note Group information. Information on the Group's interaction with related parties is provided in the note Transactions with related parties.

The financial statements for the year ended 31 December 2019 were submitted for the approval of the Company's Board of Directors on 06/04/2020.

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

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 as of 31 December 2019 and 2018.
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 intercompany 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 significant accounting policies

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) Investments in associates companies 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 techniques, discretionary measurements and significant accounting estimates: note Discretionary measurements and significant accounting estimates;
- Quantitative information on the fair value measurement hierarchy: note Financial instruments and fair value measurements;
- Financial instruments (including those measured at amortised cost): note Financial instruments and fair value measurements.

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. Rendering 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 activities

Revenue from trading in natural gas is recognised as follows:

- Revenue from trading transactions that meet the so-called "own use exception" 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 exception", 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. Contract-based 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.

iv) **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.

j) 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.

k) 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.

l) 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

Regarding 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.

Leasing (with reference to the comparative 2018)

The definition of a contractual agreement as a leasing operation (or containing a leasing operation) is based on the substance of the agreement and an assessment as to whether the performance of the agreement depends on the use of one or more specific assets or whether the agreement transfers the right to use the asset. The check as to whether an agreement contains a lease is done at the start of the agreement.

A leasing contract is classified either as a financial lease or operating lease at the start of the lease itself. A lease contract that essentially transfers all the risks and benefits deriving from ownership of the leased asset to the Group is classified as a financial lease.
Financial leases are capitalised at the starting date of the lease at the fair value of the leased asset, or the current rentals if this is lower. Rentals are divided into the principal and interest portions, so as to apply a consistent interest rate to the residual debt balance. Financial expenses are charged to the income statement.
Leased goods are depreciated on the basis of their useful life. Nonetheless, where there is no reasonable certainty that the Group will obtain ownership of the asset at the end of the contract, the asset is depreciated over the shorter time period between the asset's estimate useful life and the term of the lease contract.
An operating lease is one that does not qualify as a financial lease. Rentals on operating leases are recognised as costs in the income statement in equal amounts over the duration of the contract.

For the effects starting from 01 January 2019 following entry into force of the new standard IFRS 16 please see the paragraph "Changes to accounting standards and disclosure".

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.

m) 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 any 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 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.

n) Financial instruments - Recognition and measurement

A financial instrument is any contract that gives rise to a financial asset for an entity and to a financial liability or an equity instrument for another entity.

o) 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 no 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 whose cash flows 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.

p) 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 most significant category for the Group. After the 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 discount or premium on acquisition and the fees or 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.

q) 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 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. Changes to the fair value of derivatives 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".

r) 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.

s) 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].

t) 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.

u) 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.

v) 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.

w) Post-employment benefits

The employee severance indemnity (TFR) and pension funds are determined applying an actuarial method; 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

During the year the Group adopted for the first time:
- the option, with reference to derivatives that comply with the provisions of the new accounting standard IFRS 9 for hedge accounting, for the recognition of changes to fair value in Shareholders' Equity in a specific cash flow hedging reserve;
- IFRS 16 Leases;

The impact and the nature of the changes following adoption of the above are described below.

Several other amendments and interpretations apply for the first time in 2019, but they have no impact on the Group's consolidated financial statements.

The Group has not adopted in advance any other standards, interpretations or amendments published but not yet in force.

IFRS 9 Financial Instruments – Implementation of Hedge Accounting

IFRS 9 Financial Instruments replaced IAS 39 Financial Instruments: Recognition and Measurement for periods starting 1 January 2018 or thereafter, combining all three aspects relating to accounting for financial instruments: classification and measurement, impairment and hedge accounting.

In the financial statements for the year ended 31 December 2018, the Group availed itself, with reference to Hedge Accounting, of the option to continue to measure and account for hedging instruments in being at the end of the period under the terms of IAS 39.

As regards Hedge Accounting, the standard introduced a new model for the purpose of adjusting the requirements provided for in the current IAS 39 which sometimes were considered too strict and not capable of reflecting the company's risk management policies. The main changes in the document regard: a) the increase in the types of transactions eligible for hedge accounting, including also the risks of non-financial assets/liabilities eligible to be managed in hedge accounting; b) the change in the method of accounting for forward contracts and options when they are included in a hedge accounting relationship in order to reduce the volatility of the income statement; c) the changes to the effectiveness test through the replacement of the current methods based on the 80-125% parameter with the principle of the economic relationship between hedged item and hedging instrument; in addition, a retrospective assessment of the effectiveness of the hedging relationship will no longer be required. The greater flexibility of the new accounting rules is counterbalanced by additional disclosure requirements on risk management activities.

In the consolidated financial statements for the year to 31 December 2018, changes to the fair value of these instruments, not meeting the conditions, including formal ones, required by IAS 39 to qualify as hedging instruments, were recognised in the income statement.

In these consolidated financial statements, the Group opted instead, with reference to derivatives entered into in 2019 that comply with the provisions of the new accounting standard IFRS 9 for hedge accounting, for the recognition of changes to fair value in Shareholders' Equity in a specific cash flow hedging reserve.

The process of adopting the standard entailed the implementation of specific management policies for price risk deriving from specific transactions for gas purchase at a fixed price and resale at a variable price (or vice versa) at different times, as well as of IT applications aimed at the accounting management of the standard itself and at performing effectiveness tests.

The standard was applied for Commodity Swaps entered into by the Group during 2019 for hedging purposes, with a negative fair value as of 31 December 2019 of € 3,470 thousand, recognised, net of the related tax effects, in a specific shareholders' equity reserve.

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".

Adoption of IFRS 16

IFRS 16 replaced IAS 17 Leases, IFRIC 4 Determining Whether an Arrangement Contains a Lease, SIC-15 Operating Leases - Incentives and SIC-27 Evaluating the Substance of Transactions in the Legal Form of a Lease. IFRS 16 contains the principles for the recognition, measurement, presentation and disclosure of leasing contracts and requires the lessee to recognise most leases in the financial statements.

The standard provides a new definition of lease and introduces a criterion based on control (right of use) of an asset to distinguish leases from contracts for services, identifying as discriminants: the identification of the asset, the right to replace the same, the right to obtain substantially all the economic benefits deriving from use of the asset and the right to control the use of the asset underlying the contract.
The accounting for the lessor in the context of IFRS 16 remains substantially unchanged with respect to IAS 17. The lessee will continue to classify leases as either operating or financial following principles similar to those included in the previous IAS 17. IFRS 16 therefore has no impacts on the accounting for leases in which the Group is the lessor.

For the lessee, the provisions of IFRS 16 establish that at the commencement date of the leasing contract (that is at the date on which the asset is made available for use) the lessee must recognise, in the balance sheet, an asset, representing the right of use of the asset (hereinafter also "right-of-use asset"), and a liability representing the obligation to make the payments provided for in the contract (hereinafter also "lease liability").

In particular, the lease liability is recognised initially at an amount equal to the present value of the following payments due for the lease not yet made at the commencement date: (i) fixed (or substantially fixed) payments, net of any incentives to be received; (ii) variable payments that depend on indices or rates; (iii) estimate of the payment, by the lessee, as guarantee of the residual value; (iv) payment of the exercise price of the purchase option, if the lessee is reasonably certain to exercise it; and (v) payment of contractual penalties for termination of the lease, if the lessee is reasonably certain to exercise this option.
The present value of the said payments is calculated adopting a discount rate equal to the implicit interest rate of the lease or, if this is not easily determinable, using the lessee's incremental borrowing rate.
After initial recognition, the lease liability is measured at amortised cost using the effective interest rate and is redetermined, offsetting the carrying amount of the related right-of-use asset, in the presence of a change in the payments due for the lease following: (i) contractual renegotiations; (ii) changes in indices or rates (variable payments); or (iii) changes in the measurement regarding the exercise of the options contractually provided for (options to purchase the leased asset, options for extension or termination of the contract).

On the basis of the transitional provisions of IFRS 16, at 1 January 2019 the effects connected with the cases existing at that date were recognised, without making the restatement of the previous comparative period (so-called "modified retrospective approach") and recognising the right of use for an amount equal to the related financial liability. After initial recognition, the right-of-use asset is adjusted to take into account the accumulated depreciation, any impairment losses and the effects associated with any redeterminations of the lease liability.

The Group completed the project of assessment of the impacts related to the introduction of the new standard at the date of first application (1 January 2019). This process was divided into several stages, including the complete mapping of the contracts potentially capable of containing a lease and the analysis of the same, in order to understand their main clauses relevant for the purposes of IFRS 16. The process of adoption of the standard also entailed the implementation of a specific IT tool aimed at the accounting management of the standard.

In adopting the IFRS 16 standard the Group availed itself of the exemption granted by paragraph 5 a) in relation to leases with a term of less than 12 months and the exemption granted by paragraph 5 b) as regards leasing contracts for which the underlying asset is classified as one of low value, that is when the assets underlying the leasing contract did not exceed the value as new of € 5,000. For these contracts the introduction of IFRS 16 did not entail the recognition of financial liabilities and the related right of use. The leasing instalments will therefore be recognised in the income statement on a straight-line basis for the duration of the respective contracts. The amount of the instalments paid for these contractual cases was not significant as of 31 December 2019.

In addition, with reference to the transitional rules, the Group availed itself of the following practical expedients:

- use of the assessment carried out at 31 December 2018 according to the rules of IAS 37 "Provisions, Contingent Liabilities and Contingent Assets" in relation to accounting for onerous contracts as an alternative to application of the impairment test on the value of the right of use at 1 January 2019;
- exclusion of the initial direct costs from the measurement of the right of use at 1 January 2019;

- use of the information present at the transition date for determining the term of the contract, with particular reference to exercising the options of extension and early closure.

The table below shows the impacts of adoption of IFRS 16 at the transition date (1 January 2019) and at the reporting date (31 December 2019):

Non-current assets	***Balance at 01/01/2019***	***Balance at 31/12/2019***
Right of use - land and buildings	15,232	13,181
Right of use - plant and machinery		192
Right of use - industrial equipment		779
Right of use - other assets	2,769	2,489
Total non-current assets	**18,001**	**16,642**
Current assets		
Other current assets	(29)	(29)
Total-current assets	**(29)**	**(29)**
Total assets	**17,972**	**16,613**
Non-current liabilities		
Non-current lease liabilities	14,416	12,768
Total non-current liabilities	**14,416**	**12,768**
Current liabilities		
Current lease liabilities	3,740	4,313
Trade payables	(184)	(646)
Total-current liabilities	**3,556**	**3,667**
Total liabilities	**17,972**	**16,435**

The adoption of IFRS 16 entailed the recognition of rights of use of € 18,001 thousand at 01 January 2019 and € 16,642 thousand at 31 December 2019 and of financial liabilities of € 18,156 thousand at 01 January 2019 and € 17,081 thousand at 31 December 2019, including the amount of instalments past-due and unpaid at the reporting date, reclassified from the item trade payables.

In the income statement of the year the adoption of IFRS 16 entailed an increase of € 420,000 at the level of operating profit due to the elimination of instalments for leased assets of € 4,730 thousand, in part offset by the recognition of the depreciation of the right of use of € 4,310 thousand.
The accounting for operating leases in accordance with IFRS 16, also entailed the recognition of higher financial expenses of € 376,000.

The main accounting effects of the standard derive from the treatment as operating leases relevant for the purposes of IFRS 16 of the rental contracts in being between Estra and the Shareholders for the company offices of 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 2018.

The fees paid to shareholders in 2019 amounted to € 2,135 thousand. 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 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 the rental of the properties beyond this date at the current contractual conditions.

The Group did not change the initial carrying amount of the lease assets and liabilities recognised at the date of initial application for contracts previously classified as finance leases (i.e., the assets for the right of use and the lease liabilities are exactly equal to the lease assets and liabilities recognised under the terms of IAS 17). The requirements of IFRS 16 were applied to these leases starting from 1 January 2019.

IFRIC Interpretation 23 Uncertainty over Income Tax Treatments

The Interpretation defines the accounting treatment for income tax when the tax treatment creates uncertainty effecting the application of IAS 12, and is not applied to taxes that do not fall within the scope of IAS 12, nor does it specifically include requirements relating to interest or sanctions attributable to uncertain tax treatments. The interpretation deals specifically with the following points:

- Whether an entity should consider uncertain tax treatments separately
- The entity's assumptions for tax authorities' examinations of tax treatments
- How an entity should determine taxable profit (or tax loss), the tax base, unused tax losses, unused tax credits and tax rates
- How an entity should treat changes in facts and circumstances.

The Group defines whether to consider each uncertain tax treatment separately or together with other (one or more) uncertain tax treatments and uses the approach that best provides for resolution of the uncertainty.

The Group applies significant judgement in identifying the uncertainties on fiscal treatments of income taxes.

At the moment of adopting the interpretation, the Group examined the existence of uncertain tax positions, and did not perceive any risk situations. The interpretation, therefore, did not have any impact on the Group's consolidated financial statements.

Amendments to IFRS 9: Prepayment Features with Negative Compensation

Under the terms of IFRS 9, a debt instrument can be measured at amortised cost or at fair value in the comprehensive income statement, on condition that the cash flows that are "solely payments of principal and interest on the reference amount" (SPPI principle) and the instrument is classified in the appropriate business model. The amendments to IFRS 9 clarify that a financial asset pass the SPPI principle independently of the event or circumstances that cause the contract's early termination, and independently of which party pays or receives reasonable compensation for the early termination of the contract. These amendments did not have any impact on the Group's consolidated financial statements.

Amendments to IAS 19: Plan Amendment, Curtailment or Settlement.

The amendments to IAS 19 set out the accounting rules in the case of a plan amendment, curtailment or settlement occurring during the reference period. The amendments stipulate that when a plan amendment, curtailment or settlement occurs during the period, it is mandatory for the entity to determine the cost of the service for the remaining period subsequent to the plan amendment, curtailment or settlement, using the actuarial reference assumptions for remeasuring the net liability/(asset) for defined benefits so that it reflects the benefits offered by the plan and the plan's assets after this event. It is also mandatory for the entity to determine the net interest for the remainder of the period after the plan amendment, curtailment or settlement using: the net defined benefit liability (asset) reflecting the benefits offered under the plan and the plan assets after that event; and the discount rate used to remeasure that net defined benefit liability (asset).

These amendments did not have any impact on the consolidated financial statements, as the Group, in the period of reference, did not record any amendment, curtailment or settlement of the plans.

Amendments to IAS 28: Long-term Interests in Associates and Joint Ventures

The amendments specify that an entity applies IFRS 9 to long-term interests in associates or joint ventures, to which the equity method is not applied but that, in substance, form part of the net investment in the associate or joint venture (long-term interests).

This clarification is relevant because it implies that the expected credit loss model in IFRS 9 applies to such long-term interests.

The amendments also clarified that, in applying IFRS 9, an entity does not take account of any losses of the associate or joint venture, or any impairment losses on the net investment, recognised as adjustments to the net investment in the associate or joint venture that arise from applying IAS 28 Investments in Associates and Joint Ventures.

These amendments did not have any impact on the consolidated financial statements.

Annual Improvements 2015-2017 Cycle

- **IFRS 3 Business Combinations**

The amendments clarify that when an entity obtains control of a business that is a joint operation, it applies the requirements for a business combination, which is realised over several stages, including the remeasurement of the fair value in the previously held interest in the joint operation's assets and liabilities. In doing so, the purchaser remeasures the interest previously held in the joint operation.

An entity should apply these amendments to business combinations with acquisition dates on or after 1 January 2019. Earlier application is permitted.

This amendment did not have any impact on the Group's consolidated financial statements because no business combination in which joint control was obtained occurred.

- **IFRS 11 Joint Arrangements**

An entity that participates in a joint operation, without having joint control, may obtain joint control over the joint operation if the activity of the same constitutes a business as defined in IFRS 3.

The amendments clarify that interests previously held in this joint operation are not remeasured. An entity must apply the amendments to transactions in which it obtains joint control as from the financial period starting 1 January 2019 or after. Earlier application is permitted.

This amendment did not have any impact on the Group's consolidated financial statements because no business combination in which joint control was obtained occurred.

- **IAS 12 Income Taxes**

The amendments clarify that the tax effects on dividends are associated with past transactions or events that generated the distributable profits, rather than the distribution to shareholders. The entity must therefore recognise the income tax consequences deriving from dividends in profit or loss, other comprehensive income or equity, consistently with where the entity previously recognised these transactions or past events.

The entity applies these amendments for the financial years starting 1 January 2019 or subsequently, and early application is allowed. When applying these amendments for the first time, the entity applies them to the effects that the taxes had on the dividends recognised as from the start of the first financial period. Given that the Group's current practices are consistent with these amendments, the Group did not recognise any impact deriving from these amendments on its consolidated financial statements.

- **IAS 23 Borrowing Costs**

The amendments clarify that an entity treats as non-specific borrowing, any borrowing made that from the outset was intended to develop an asset, if all the necessary actions to prepare this asset for use or sale have been completed.

An entity applies these amendments to the financial expenses incurred as from the start of the period in which the entity applies these amendments for the first time. An entity applies these amendments for the financial years starting 1 January 2019 or subsequently, and early application is allowed. Given that the

Group's current practices are consistent with these amendments, the Group did not recognise any impact deriving from these amendments on its consolidated financial statements.

Standards issued but not yet in force

The standards and interpretations that had already been issued but were not yet in force at the reporting date of the Group's consolidated financial statements are set out below. The Group intends to adopt these standards and interpretations when they come into force, if applicable.

IFRS 17 Insurance Contracts

In May 2017, the IASB issued IFRS 17 Insurance Contracts (IFRS 17), a new complete standard related to insurance contracts that covers recognition and measurement, presentation and disclosure. When IFRS 17 comes into force it will replace IFRS 4 Insurance Contracts which was issued in 2005. IFRS 17 applies to all insurance contracts (for example: life, non-life, direct insurance, re-insurance) irrespective of the type of entity that issues them, as also some guarantees and financial instruments with discretionary participation features.
Limited exceptions will apply to the scope. The general objective of IFRS 17 is to present an accounting model for insurance contracts that is more useful and consistent for insurers. In contrast with the provisions of IFRS 4 which are largely based on maintaining the previous accounting policies, IFRS 17 provides a complete model for insurance contracts that covers all the significant accounting aspects. The core of IFRS 17 is the general model, supplemented by:

- A specific adaptation for contracts with direct participation features (the variable fee approach);
- A simplified approach (the premium allocation approach) mainly for short-term contracts.

IFRS 17 will be in force for financial years that begin on 1 January 2021 or subsequently, and will require the presentation of the comparative balances. Early application is permitted, in which case the entity must have adopted also IFRS 9 and IFRS 15 at the date of first application of IFRS 17 or previously. This standard does not apply to the Group.

Amendments to IFRS 3: Definition of a Business

In October 2018, the IASB issued amendments to the definition of a business in IFRS 3 Definition of a Business to support entities in determining whether a set of activities and assets acquired constitutes a business or not. The amendments clarify what the minimum requirements are for having a business, remove the assessment on the possibility for market participants to replace any missing elements, add guidance for supporting entities in assessing whether an acquired process is substantive, narrow the definitions of a business and of outputs, and introduce an optional test on the concentration of fair value. New illustrative examples were published together with the amendments.
As the amendments apply prospectively to transactions or other events that become manifest at the date of first application or subsequently, the group is not impacted by these amendments at the date of first application.

Amendments to IAS 1 and IAS 8: Definition of Material

In October 2018, the IASB issued amendments to IAS 1 Presentation of Financial Statements and IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors, to align the definition of 'material' in the standards and to clarify certain aspects of the definition. The new definition indicates that an information is significant (material) if, as a consequence of its omission, or following its mistaken or incomprehensible presentation ('obscuring'), it could reasonably be expected to influence the decisions that the main users of the financial statements would make on the basis of the financial information contained therein.
The changes to the definition of material are not expected to have a significant impact on the group's consolidated financial statements.

3. Significant accounting judgements, estimates and assumptions

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 Judgements

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) Assets held for sale or disposal

The Group had designated as non-current assets held for sale/disposal, the Polish company Useneko, operating in the distribution of gas in Poland, controlled 100% by Estra S.p.A., on the basis of the following reasons:

- The subsidiary Useneko represents a separate geographic area, specifically, the only one outside of Italy;
- the investment’s carrying value will primarily be recovered in a sales transaction, instead of its continued use;
- the asset is available for immediate sale in its current condition, subject to conditions that are usual for the sale of these assets. The sale is deemed highly probable;
- Management is involved in planning the asset’s disposal and negotiations with the potential buyer are at an advanced stage;
- the finalisation of the sale has gone on for over a year due to events and circumstances beyond the entity’s control, associated with certain critical aspects that emerged with interventions to restore the network and procedures to regularise contracts for rights of access, representing preparatory work for the sale of the business;
- The Group has undertaken actions to resolve these critical aspects in order to dispose of the company.

Based on this designation, the subsidiary was presented in accordance with IFRS 5: Useneko’s assets and liabilities were presented on a single line under “asses/liabilities held for sale”, and the effect of the measurement of the same at its estimated realisable value was recognised as net Profit (loss) deriving from assets held for sale.

The disposal process was completed in financial year 2019, as described in the paragraph on Business combinations and corporate sales.

(ii) Joint control of an entity in which the Group holds less than the majority of shares

The Group with the shareholder Viva Servizi S.p.A. jointly controls the company EDMA Reti Gas S.r.l. at 31 December 2019, even though individually it holds 45% of the share capital. This is because on the basis of the Articles of Association and shareholder agreements that require the unanimous consent of both parties in decisions relating to significant assets, the Group jointly decides on the financial, management and strategic policies of the subsidiary together with Viva Servizi S.p.A.

Given the non-financial nature of the investment and the management and operational role played by the Group, the portion of the subsidiary's result attributable to the Group is measured using the equity method, and recorded in the income statement before the operating result.

(iii) 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 gas distribution CGU
* Gergas gas distribution 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).

(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) Assets estimated useful life

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 measurement 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 allowance for bad debt

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 net of the estimate of any network losses; 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 on distributed and allocated volumes, subject to adjustments, 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

In addition, 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 second 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 second 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 2.5%.

In relation to financial year 2018, before adoption of IFRS 16, we can note that the Group, with reference to commercial rental contracts entered into, had assessed, on the basis of the contractual terms and conditions, such as the fact that the contractual terms do not cover most of the economic life of the commercial property or the fair value of the asset, that all the significant risks and benefits typical of ownership of the assets remained with the lessor; it followed that these contracts were accounted for as operating leases.

4. Segment Information

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) Natural gas distribution

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 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 in Italy, with the exception of the discontinued operation related to the subsidiary Useneko located in Poland and sold at the end of financial year 2019. For the effects of the discontinued operation, please see the specific paragraph in this document.

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 2019 and 2018 financial periods:

Operating results by segment

Operating sectors	Natural gas distribution		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)	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**
Total Revenues	106,121	110,179	900,285	750,633	65,634	56,002	(75,118)	(73,841)	996,922	842,973
External costs	(55,468)	(67,738)	(845,592)	(699,837)	(38,653)	(37,541)	75,118	73,841	(864,594)	(731,276)
Personnel costs	(14,194)	(12,790)	(10,808)	(10,870)	(14,346)	(12,945)			(39,348)	(36,604)
Income/(expenses) from commodity risk management			3,582	(4,419)					3,582	(4,419)
Portion of profit/(loss) from non-financial associates and joint ventures					679	558			679	558
Gross operating margin (EBITDA)	**36,459**	**29,651**	**47,467**	**35,508**	**13,314**	**6,074**	**-**	**-**	**97,241**	**71,233**
Depreciation, amortisation and write-downs	(19,492)	(13,066)	(15,334)	(12,492)	(12,867)	(9,354)			(47,693)	(34,912)
Provisions	(166)	(62)	(11,331)	(8,225)	(247)	(65)			(11,744)	(8,353)
Operating result (EBIT)	**16,801**	**16,523**	**20,802**	**14,790**	**200**	**(3,345)**	**-**	**-**	**37,804**	**27,969**

Asset values by segment

Operating sectors	Natural gas distribution		Gas and electricity sales		Corporate and Others		Adjustments and eliminations		Total	
Sector activities	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)	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**
Non-current assets	356,241	298,800	179,052	176,990	126,315	101,870	(4)	(4)	661,604	577,657
Current assets	55,054	81,698	345,706	384,774	245,771	224,236	(63,965)	(45,010)	582,566	645,698
Assets held for sale						930				930
Total assets	**411,295**	**380,498**	**524,757**	**561,764**	**372,086**	**327,036**	**(63,969)**	**(45,014)**	**1,244,170**	**1,224,285**

Investments and business combinations by segment

Investments per operating sector	Natural gas distribution		Gas and electricity sales		Corporate and Others		Total	
(amounts in thousands of euro)	Year ended 31 December		Year ended 31 December		Year ended 31 December		Year ended 31 December	
	2019	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**
Investments in intangible assets	21,547	20,888	11,600	7,050	2,643	2,647	35,789	30,586
Investments in intangible assets deriving from business combinations	53,591	12,690	-	15,116	-	3	53,591	27,809
Total investments (including business combinations) in intangible assets	**75,137**	**33,578**	**11,600**	**22,167**	**2,643**	**2,650**	**89,380**	**58,395**
Investments in tangible assets	417	510	515	215	9,403	8,411	10,335	9,136
Investments in tangible assets deriving from business combinations	437	84	-	75	8,960	420	9,397	580
Total investments (including business combinations) in property, plant and equipment	**854**	**594**	**515**	**291**	**18,362**	**8,831**	**19,732**	**9,716**
Total	**75,992**	**34,172**	**12,115**	**22,457**	**21,005**	**11,481**	**109,111**	**68,111**

Net income reconciliation

	Year ended 31 December	
(amounts in thousands of euro)	**2019**	**2018**
Result for sectors (net of adjustments and eliminations)	**37,803**	**27,969**
Financial income	2,733	2,113
Financial expenses	(13,231)	(15,368)
Gains or losses on currency conversions	(1)	(2)
Portion of income/(expenses) from valuation of financial investments using the equity method	(53)	427
FINANCIAL MANAGEMENT	**(10,552)**	**(12,830)**
PROFIT BEFORE TAXES	**27,251**	**15,139**
Income taxes for the year	(10,343)	(5,108)
NET PROFIT/(LOSS) FROM OPERATING ACTIVITIES	**16,909**	**10,031**
Net profit/(loss) from discontinued operations / assets held for sale	(208)	(2,320)
NET PROFIT/(LOSS) FOR THE YEAR	**16,701**	**7,711**

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**	
		2019	**2018**
	Cash and cash equivalents(1)	(195,748)	(228,678)
	Current financial receivables (2)	34,797	17,422
	Current financial debt (3)	156,855	136,122
	Net current financial debt	**(73,690)**	**(109,993)**
	Non-current financial debt (4)	377,863	373,077
D	**Net financial debt**	**304,173**	**263,084**
E	**Shareholders' equity**	**321,793**	**325,253**
D/E	***Leverage***	**0.94**	**0.81**

(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 2019, there were no violations of covenants associated with funding and loans during the current period.

Please see paragraph Liquidity Risk for additional information.

6. Group Information

Scope of Consolidation

The table below shows the consolidation scope at 31 December 2019 compared with the consolidation scope at 31 December 2018:

			31/12/2019				31/12/2018			
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.TR.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.TR.A. Energie S.r.l.	Siena (SI)	Gas sales	**100.00%**	100.00%			**100.00%**	100.00%		
Gergas S.p.A.	Grosseto (GR)	Gas distribution	**79.93%**	79.93%			**79.93%**	79.93%		
Centria S.r.l.	Arezzo (AR)	Gas distribution	**99.65%**	99.65%			**99.65%**	99.65%		
Gas Tronto S.r.l.	Spinetoli (AP)	Gas sales					**100.00%**		100.00%	(1)
Prometeo S.p.A.	Osimo (AN)	Gas and electricity sales	**56.53%**		56.53%	(1)	**53.09%**		53.09%	(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%		
TuAreti S.r.l.	Arezzo (AR)	Gas distribution					**100.00%**	100.00%		
Gas Marca S.r.l.	Civitanova Marche (MC)	Gas sales	**100.00%**		100.00%	(1)	**100.00%**		100.00%	(1)
Melfi Reti Gas S.r.l.	Pettoranello (IS)	Gas distribution					**99.65%**		100.00%	(3)
Idrogenera 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%						
Murgia Reti Gas S.r.l.	Arezzo (AR)	Gas distribution	**99.65%**		100.00%	(3)				
Equity-consolidated joint ventures										
EDMA Reti Gas S.r.l.	Ancona (AN)	Gas distribution	**45.00%**	45.00%			**45.00%**	45.00%		
Nuova Sirio S.r.l.	Siena (SI)	Renewable energies	**50.00%**	50.00%			**50.00%**	50.00%		
Companies held for sale/disposal										
USENEKO	(POLAND)	Gas distribution	**100.00%**	100.00%			**100.00%**	100.00%		
Sin.It. S.r.l.	Milan (MI)	Gas sales	**11.05%**	11.05%			**11.05%**	11.05%		
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	**38.70%**		38.70%		**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	**26.01%**		49.00%	(2)	**26.01%**		49.00%	(2)
Notes										
(1) through Estra Energie Srl										
(2) through Prometeo S.r.l.										
(3) through Centria										

The changes that took place in the **consolidation scope at 31 December 2019** compared to 31 December 2018 are the following:

- **Subsidiaries**

  - Entry into the perimeter of fully-consolidated companies of Ecolat S.r.l. following the increase in the equity investment held by the Parent Company from 12% at 31/12/2018 to 100% at

31/12/2019 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 Murgia Reti Gas S.r.l. following the purchase of 100% of the company's shares by the Parent Company as described in the paragraph "Business combinations and disposals of assets, and acquisition and disposal of non-controlling interests" below;
- Increase in the Group's percentage of control in Prometeo S.p.A. from 53.09% at 31 December 2018 to 56.53% at 31 December 2019, following the acquisition of an additional 3.44% stake during 2019 by Estra Energie;

We can also note the following corporate reorganisation and rationalisation operations within the Group, of fully-consolidated companies and therefore without effects on the consolidation scope:
- merger by incorporation of Gastronto S.r.l into Estra Energie S.r.l.;
- merger by incorporation of TuaReti S.r.l. into Centria S.r.l. after acquisition of the shares by the Parent Company;
- merger by incorporation of Melfi Reti Gas S.r.l. into Centria S.r.l..

➢ **Companies held for sale or disposal**

- Exit from the perimeter of the Group of the Polish company Useneko, operating in the gas distribution business in Poland, following completion of the disposal process at the end of financial year 2019, as described in the paragraph "Business combinations and disposals of assets, and acquisition and disposal of non-controlling interests" below.

7. Business combinations and disposals of assets, and acquisition and disposal of non-controlling interests

7.1 Financial year 2019

➢ **Acquisition of Murgia Reti Gas S.r.l.**

On 01 April 2019, the Group acquired 100% of the share capital of Murgia Reti Gas S.r.l., a company newly incorporated by 2i Rete Gas, to which the ATEM Bari 1 business unit relating to concessions for the distribution service in the Municipalities of Conversano, Putignano, Rutigliano, Triggiano and Valenzano was contributed, together with the ATEM Foggia 2 business unit, relating to the concessions for the distribution service in the Municipalities of Chieuti, Lesina, San Severo, Serracapriola and Torremaggiore.

Through the transaction, the Estra Group acquired the management of approximately 544 km of distribution network (302 km in Bari 1 and 242 km in Foggia 2), for a total of around 66,000 Points of Delivery (PoDs).

In these consolidated financial statements for consolidation purposes the accounting situation as of 01 April 2019, the acquisition date of the company's shares, was taken as a reference.
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	437
Intangible assets IFRIC 12	53,591
Deferred tax assets	641
	54,669
CURRENT ASSETS	
Tax receivables	1
Other current assets	623
Cash and cash equivalents	10
	634
TOTAL ASSETS	**55,302**

Balance Sheet	Fair value
NON-CURRENT LIABILITIES	
Non-current portion of medium/long-term loans	440
Employee severance indemnity	833
Other non-current liabilities	46
Deferred tax liabilities	5,293
Contractual liabilities	4,762
	11,374
CURRENT LIABILITIES	
Other current liabilities	1,843
	1,843
TOTAL LIABILITIES	**13,218**
TOTAL NET IDENTIFIABLE ASSETS	**42,085**
Price of the acquisition	**42,085**

As a result of the purchase price allocation, the following were recognised: *i)* networks, plants, connections and other capital assets related to natural gas distribution, accounted for according to the "intangible asset method" provided for in IFRIC 12 for concession relationships, of € 53,591 thousand and *ii)* a deferred tax liability of € 3,174 thousand. The higher value allocated to the asset pursuant to point *i)* is € 19,535 thousand.

The intangible asset is recognised at fair value, determined on the basis: *i)* of the estimate of the industrial value (VIR) of the plants, value of reference for the purposes of the determination of the right to indemnity/reimbursement related to the networks when, following tender procedures that will be organised for assignment of the concessions, the Group loses possession of its concessions and *ii)* of the present value of the cash flows generated by the concession in the period estimated prior to the organisation and performance of the tender procedures.
Deferred tax assets and liabilities make reference to the time differences between the carrying amount and the fiscal value of the items.

The contractual liabilities make reference to the contributions received from users on the connections accounted for in accordance with IFRS 15 Revenue.

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, Murgia Reti Gas contributed, net of intra-group eliminations, to the Group's financial year 2019 revenue for € 5,322 thousand, to the gross operating margin for € 3,177 thousand, with a not very significant contribution to net operating profit.

- **Acquisition of Ecolat S.r.l.**

On 26 February 2019 Estra completed the acquisition of the company Ecolat S.r.l., in which it already had a 12% stake at 31 December 2018 following the subscription of a capital increase of € 124,000.

Full control was acquired through the sale by ETH S.r.l. of the equity investment representing the remaining 88% of the share capital at a price of € 6,380 thousand.

For the Group the acquisition represents entry into the integrated waste cycle, as the company, besides being the holder of an equity investment in SEI Toscana S.r.l., is the operator of a plant for the mechanical selection of mixed-material packaging coming from the separate collections of the Optimal Areas Tuscany South, Centre and Coast, and operator of a platform for the storage of municipal recoverable, assimilated and special waste and for selection of bulky waste, managing also the waste intermediation activity. The company also manages a collection centre which has an agreement with the municipality of Grosseto to enable private citizens to confer recoverable waste directly.

The company occupies a building which hosts the offices and the changing rooms for employees, an industrial shed that hosts the plant for mechanical selection of mixed-material packaging and an industrial shed used for garaging.

The company also holds other lesser assets on the basis of finance leases, accounted for under the terms of IFRS 16 and entered among balance sheet assets with recognition of the financial liability for the residual payments up to expiry of the related contracts.

In these consolidated financial statements for consolidation purposes the available accounting situation closest to the acquisition date, 01 January 2019, was taken as a reference.

The fair value of the identifiable assets and liabilities at the acquisition date was € 6,505 thousand as in the table below:

Balance Sheet	Fair value
NON-CURRENT ASSETS	
Property, plant and equipment	8,960
Equity investments	5,007
Other non-current financial assets	2,900
Deferred tax assets	36
	16,903
CURRENT ASSETS	
Trade receivables	1,640
Current financial assets	93
Other current assets	108
Cash and cash equivalents	951
	2,792
TOTAL ASSETS	**19,695**
NON-CURRENT LIABILITIES	
Provisions for risks and charges	40
Non-current portion of medium/long-term loans	1,272
Employee severance indemnity	176
Deferred tax liabilities	1,640
	3,128
CURRENT LIABILITIES	
Current portion of medium/long-term loans	391
Trade payables	9,671
	10,062
TOTAL LIABILITIES	**13,190**
TOTAL NET IDENTIFIABLE ASSETS	**6,505**
Price of the acquisition	**6,505**

At the moment of allocation of the price paid, the property, plant and equipment of the company acquired were measured at fair value.

In particular, the fair values of the building and the industrial shed were determined as amounts obtainable from a sale on the basis of expert appraisals of € 2,219 thousand. The fair value of the selection plant was determined as value in use discounting the future cash flows expected to derive from its continuous use, of € 5,358 thousand. The price for redemption, recognised in the item trade payables, amounts to a total of € 1,678 thousand.

The equity investment in Sei Toscana S.r.l. was maintained at cost (€ 5,008 thousand), considering that this approximates to its fair value. As regards the corresponding portion of share capital, please see the description of the dispute in being with Sei Toscana in the paragraph "Main current litigations".

Financial payables are related to the recognition of the payments of the remaining instalments of the leasing contracts for lesser assets of € 1,258 thousand expiring in 2023 for other assets, as well as a loan of € 405,000.

From the acquisition date, Ecolat contributed, net of intra-group eliminations, to revenues for the year for € 4,422 thousand, to gross operating margin for € 902,000 and to net operating profit for € 173,000.

- **Sale of Useneko S.p.z.oo**

As a result of designation as asset held for sale of Useneko, a Polish company operating in the gas distribution business in Poland and 100% controlled by Estra S.p.A., the investee was presented in the consolidated financial statements at 31 December 2018 in accordance with IFRS 5: the assets and liabilities of Useneko presented on a single line under “asses/liabilities held for sale”, and the effect of the measurement of the same at its estimated realisable value recognised in a single line under Net gain/(loss) deriving from assets held for sale.

The process of disposing of the equity investment was completed at the end of financial year 2019 through the signing of a sale contract at the price of € 650,000, corresponding to the carrying amount at the end of the previous financial year.

As a result of the sale, the subsidiary was deconsolidated in the financial statements for the year ended 31 December 2019.

- **Agreements related to the sale of Andali Energia S.r.l.**

You are reminded that on 15 December 2017, through the subsidiary Solgenera S.r.l., the Group sold to the company Sunshine S.r.l. a 100% stake in the share capital of Andali Energia S.r.l., which held the Single Authorisation to build a 36 MW wind plant in Andali (CZ), and which had brought arbitration proceedings against Terna Rete Elettrica Nazionale S.p.a. to obtain, inter alia, the termination of the connection contract and compensation for the damage suffered and to be suffered.
The sale agreement provided for, among other things, a price for the sale of the entire equity investment in Andali of € 1 with clauses of incremental revision of the price subordinated to the fulfilment of certain conditions.
As a result of these contractual clauses, during financial year 2019 Solgenera S.r.l., now incorporated into Estra S.p.A., obtained the right to an incremental revision of the price of € 1,547 thousand following the completed construction and commissioning of the plant. The amount is recognised in the item other revenue of these consolidated financial statements at 31 December 2019.

- **Acquisitions of additional interests in companies already controlled**

During financial year 2019 we can note the acquisition of 3.44% of Prometeo S.p.A., at a price of € 1,557 thousand. After this operation, the Group holds 56.53% of the share capital of Prometeo S.p.A. through the subsidiary Estra Energie S.r.l..
A summary is provided below of the considerations paid, the carrying amount of the net assets acquired and the effects recognised in shareholders’ equity in accordance with the IFRS 10 accounting standard:

Company	% Acquired	Carrying value of interest acquired	Consideration paid	Retained earnings/losses	IAS 19 discounted reserve
Prometeo	3.44%	1,683	1,557	125	1

7.2 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 2019	% of Non-Controlling Interests 2018
Prometeo S.p.A.	Osimo (AN)	Euro	Gas and electricity sales	43.47%	46.91%

Income statement (thousands of Euro)	Prometeo 2019	Prometeo 2018
Operating revenue		
Revenue from contracts with customers	123,674	122,628
Other operating revenue	2,492	1,108
	126,166	**123,736**
Operating costs		
Raw materials, ancillary materials and goods	69,111	69,888
Costs for services	45,571	42,785
Costs for Rentals and Leases	51	271
Personnel costs	1,906	1,915
Depreciation, amortisation, provisions and write-downs	6,790	4,879
Other operating costs	187	221
	123,618	**119,959**
OPERATING PROFIT/(LOSS)	**2,548**	**3,777**
Financial income	267	166
Financial expenses	288	510
FINANCIAL MANAGEMENT	**(21)**	**(344)**
PROFIT BEFORE TAXES	**2,527**	**3,433**
Income taxes for the year	944	1,167
NET PROFIT/(LOSS) FOR THE YEAR	**1,583**	**2,265**

Balance Sheet (thousands of Euro)	Prometeo 2019	Prometeo 2018
NON-CURRENT ASSETS		
Property, plant and equipment	642	155
Goodwill	6,604	7,311
Intangible assets	3,347	2,928
Equity investments	1,071	1,071
Other non-current assets	40	29
Deferred tax assets	4,234	3,412
	15,938	**14,906**
CURRENT ASSETS		
Trade receivables	47,460	59,185
Tax receivables	3,950	531
Other current assets	2,437	603
Cash and cash equivalents	6,647	9,496
	60,494	**69,815**
TOTAL ASSETS	**76,432**	**84,721**
TOTAL SHAREHOLDERS' EQUITY	**16,578**	**16,623**
NON-CURRENT LIABILITIES		
Provisions for risks and charges	198	156
Employee severance indemnity	429	357
Non-current portion of medium/long-term loans	1,630	-
	2,257	**513**
CURRENT LIABILITIES		
Current portion of medium/long-term loans	186	-
Short-term borrowings	47	3
Trade payables	50,017	59,956
Tax liabilities	414	2,552
Other current liabilities	6,933	5,074
	57,597	**67,585**
TOTAL LIABILITIES and SE	**76,432**	**84,721**

7.3 Equity investments in joint ventures

At 31 December 2019 the Group holds a 45% equity interest in EDMA Reti Gas S.r.l., over which it exercises joint control with Viva Servizi S.p.A., shareholder with 55%, on the basis of the Articles of Association and shareholder agreements that require the unanimous consent of both parties in decisions relating to significant assets and to the financial, management and strategic policies of the investee.

The company operates in the natural gas distribution sector, managing gas intake and distribution plants and networks in the province of Ancona.

The equity investment was recognised at 31 December 2019 for € 9,971 thousand (€ 9,688 thousand at 31 December 2018) and accounted for using the equity method.

The table below shows the main economic and financial figures:

Balance Sheet	**31/12/2019**	**31/12/2018**
Assets under concession	28,565	26,373
Cash and cash equivalents	5,776	3,954
Equity	22,682	22,348
Bank loans	8,297	6,136

Income statement	**31/12/2019**	**31/12/2018**
Operating revenue	30,637	31,627
Operating costs	26,233	28,001
Depreciation, amortisation and provisions	2,597	2,440
Operating result	1,807	1,315
Net profit for the year	1,212	925

8. Notes on the main income statement items

8.1 Revenue

In the financial periods ended 31 December 2019 and 31 December 2018, revenue amounted to € 996,922 thousand and € 842,973 thousand respectively. The table below shows the breakdown between revenue from contracts with customers and other operating revenue:

	Year ended 31 December	
(amounts in thousands of euro)	**2019**	**2018**
Revenue from sale of goods and services	967,943	805,421
Other operating revenue	28,979	37,552
Total revenues	**996,922**	**842,973**

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 at 31 December 2019 compared to the year ended 31 December 2018:

	Year ended 31 December	
(amounts in thousands of euro)	**2019**	**2018**
Revenue from methane gas distribution	37,739	28,557
Equalisation methane gas distribution	(10,676)	(10,585)
Revenue from sales and distribution of LPG	3,091	3,416
Revenue from sales of methane gas	736,982	629,212
Revenue from sales of electricity	146,177	110,058
Revenue from telecommunication services	4,853	4,643
Revenue from selection and conferment of waste	4,487	
Revenue from other Group operations	19,732	15,654
Increases in non-current assets from in-house production	21,176	19,750
Current portion of contributions received	2,119	1,943
Revenue from post meter services and ancillary services	2,262	2,773
Revenue from sale of goods and services	**967,943**	**805,421**

The main changes refer to:

- "Revenue from methane gas distribution": the item recorded an increase of € 8,342 thousand mainly as a result of the change in the perimeter and, in particular, of the start of management in the Municipalities of Conversano, Putignano, Rutigliano, Triggiano, Valenzano, Chieuti, Lesina, San Severo, Serracapriola and Torremaggiore from 1 April 2019 following the acquisition of the company Murgia Reti Gas S.r.l.;

- "Revenue from sales of methane gas": the item records an increase of € 107,770 thousand primarily due to the higher gas volumes sold to final customers and greater gas balancing activity;

- "Revenue from sales of electricity": the item records an increase of € 36,119 thousand primarily due to the higher electricity volumes sold;

- Revenue from selection and conferment of waste: the item appears in financial year 2019 as a result of acquisition of the company Ecolat S.r.l.;

- "Revenue from other Group operations" is referred mainly to the Parent Company's revenue for service contracts in place with Shareholders, associates and jointly-controlled companies (€ 3,437 thousand), revenue from heat and maintenance management typical of the subsidiary Estra Clima S.r.l.. (€ 10,183 thousand) and revenue for electricity production from the photovoltaic systems located in Cavriglia (AR) of € 5,027 thousand. The change was mainly due to the increase in the Parent Company's business and to the increase in revenue for energy efficiency actions;
- "Increases from in-house production": refers primarily to the in-house costs for the work on distribution networks under concession, which were up by € 1,426 thousand;

Revenue from the sale of methane gas and electricity at 31 December 2019 and 2018 includes the provision for the estimate on the electricity and gas supplies provided to final customers and not yet invoiced at 31 December. The estimate was based on the volumes distributed and assigned, as obtained from transporters, and subject to potential adjustments. In particular, the estimate of revenue accrued but not yet invoiced is determined as the difference between consumption already invoiced to customers by the end of the year and the quantities of gas and electricity input into the distribution network, net of the estimate of any network losses, taking into account the data made available at the end of the year by transporters, subject to potential revisions in subsequent years, as provided for in the reference law. This difference is measured, according to the type of customer, on the basis of the proportion of the respective volumes already invoiced and the related average tariff, in force during the year.

A list is provided below of the Group's revenue from contracts with customers at 31 December 2019, according to operating sector:

Year ended 31 December 2019		**Business segments**		
(amounts in thousands of euro)	**Total**	**Natural gas distribution**	**Gas and electricity sales**	**Corporate and Others**
Revenue from methane gas distribution	37,739	37,739		
Equalisation methane gas distribution	(10,676)	(10,676)		
Revenue from sales and distribution of LPG	3,091	3,091		
Revenue from sales of methane gas	736,982		736,982	
Revenue from sales of electricity	146,177		146,177	
Revenue from telecommunication services	4,853			4,853
Revenue from selection and conferment of waste	4,487			4,487
Revenue from other Group operations	19,732	83		19,649
Increases in non-current assets from in-house production	21,176	21,176		
Current portion of contributions received	2,119	616		1,503
Revenue from post meter services and ancillary services	2,262		2,262	
Revenue from sale of goods and services	**967,943**	**52,030**	**885,420**	**30,493**
Adjustments and eliminations	63,997	38,236	2,009	23,752
Total revenues gross of adjustments and eliminations between business segments	**1,031,940**	**90,266**	**887,429**	**54,245**

Since the end of financial year 2019 the Group has operated only in Italy, following the sale of the investee Useneko located in Poland.
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 at 31 December 2019, compared with the year ended 31 December 2018:

	Year ended 31 December	
(amounts in thousands of euro)	**2019**	**2018**
Energy Efficiency Certificates	9,683	25,080
Release of risk provisions	18	2,443
Revenue owing to Arera Resolution 32/2019/R/Gas	7,312	
Other revenues	11,939	10,013
Gains extra-feature management	27	16
Other operating revenue	**28,979**	**37,552**

The item "Energy Efficiency Certificates" (EECs) contains the value of the said certificates related to the year 2019 as tariff contribution pursuant to the ARERA resolutions, sharply down compared to the previous year, owing mainly to the purchase made by the company of a significant amount of "virtual" certificates, that is ones purchased directly from the GME and which did not lead to the recognition of costs and revenues, but only the recording (among costs) of the amount withheld by the GME at the moment of disbursement of the contribution for the obligation year 2018.

The item "Revenue owing to Arera Resolution 32/2019/R/Gas" is related to the recognition of the amounts related to the redetermination of the coefficient k for the years 2010-2012 as provided for in Arera Resolution 32/2019/R/Gas, which determined a positive effect of € 7,312 thousand, as described in the report on operations. The amount will be paid by the Authority in three instalments, of which the first by 1 April 2020, the second by 31 December 2020 and the third by 31 December 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, revenues for document checks, refund of default expenses, work debited to third parties, ancillary services invoiced with the transmission and security incentives.

As regards this last amount, we can note that up until the previous year the Group accounted for revenue for security incentives at the moment of definitive ascertainment of the amounts by ARERA, normally coinciding with the publication by the latter of a specific resolution. During financial year 2019, we can note that the Group, as well as having acquired greater precision and promptness in the process of estimating the amounts due, overcame with the Authority a number of significant interpretative uncertainties on the recognition of certain incentives. This enabled the precise quantification and consequent recognition in the accounts of the revenue for security incentives due, as well as for the work performed in financial year 2017 (€ 1,145 thousand), also for the incentives due for the work performed in financial years 2018 (€1,180 thousand) and 2019 (€1,100 thousand) even in the absence of a specific resolution.

The 2019 balance also includes the revenue for price revision regarding the sale of Andali of € 1,547 thousand, as described in the paragraph "Agreements related to the sale of Andali Energia S.r.l.".

8.2 Operating costs

In the financial years ended 31 December 2019 and 31 December 2018, operating costs amounted to € 963,380 thousand and € 811,144 thousand respectively:

	Year ended 31 December	
(amounts in thousands of euro)	**2019**	**2018**
Raw materials, consumables and goods for resale	592,046	481,267
Costs for services	245,694	204,124
Costs for Rentals and Leases	10,276	14,125
Personnel costs	39,348	36,604
Depreciation, amortisation, provisions, write-downs	59,437	43,265
Other operating costs	16,579	31,760
Operating costs	**963,380**	**811,144**

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 amount to € 592,046 thousand at 31 December 2019 and to € 481,267 thousand at 31 December 2018.

	Year ended 31 December	
(amounts in thousands of euro)	**2019**	**2018**
Purchase of raw and ancillary materials and goods	608,028	471,761
Changes in inventories	(15,638)	9,803
	592,391	**481,564**
minus:		
- increases from in-house production	(345)	(297)
Raw materials, consumables and goods for resale	**592,046**	**481,267**

The most significant component in this item refers to the gas purchase, transport and storage costs for € 542,977 thousand (€ 415,085 thousand in 2018) and the costs to purchase electricity for € 51,560 thousand (€ 40,881 thousand in 2018).
The changes in inventories are related to more natural gas in storage at the end of financial year 2019.
The costs to purchase gas include the purchase costs deriving from the long-term contract for delivery to Tarvisio between Sinergie Italiane S.r.l. and Gazprom Export LLC, with the resale of the same to the sale company Estra Energie S.r.l..
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 2019 increased compared to 2019, in relation to revenue trends.

8.2.2 Costs for services

The table below shows the breakdown of the Group's costs for services at 31 December 2019, compared with the year ended 31 December 2018:

	Year ended 31 December	
(amounts in thousands of euro)	**2019**	**2018**
Professional fees	7,801	10,214
Cost for the renovation of third party plants and for tenders and maintenance	17,351	10,283
Costs for waste transport and disposal	1,284	
Insurance	1,318	1,700
Technical, fiscal, administrative and notary fees and consulting services	6,881	8,048
Costs related to customer management and for the printing and delivery of bills	4,773	4,943
Telecommunications services	2,440	1,849
Costs for gas distribution to users	111,160	94,839
Costs for electricity transport and dispatching	76,726	54,812
Costs for advertising and sponsoring the Group's products	2,602	3,324
Expenses for gas concessions	9,091	8,356
Rental of company offices		2,719
Various rentals and leases	1,184	3,050
Other costs for services	15,474	14,928
minus:		
- increases from in-house production	(2,115)	(817)
Costs for services	**255,970**	**218,249**

The item "renovation of third party plants and for tenders and maintenance" recorded a increase of € 7,068 thousand, mainly as a result of the increase of activities in energy efficiency work, benefiting from the tax incentives provided for in 2019, and more work on gas distribution networks.
The item "Costs for waste transport and disposal" appears in financial year 2019 as a result of the acquisition of the company Ecolat S.r.l., operating in the activity of selection and storage of municipal waste.
The costs for gas distribution to users and for electricity transport and dispatching show a significant increase in financial year 2019 compared to the previous year as a result of the increase in volumes of gas

and electricity sold.
The decrease in costs for professional services, advice and advertising and sponsorship expenses is mainly related to the exceptional costs incurred in the previous year with reference to the listing process launched.
Expenses for gas concessions refer to the fees paid to Municipalities that awarded the natural gas distribution and measuring service, and primarily:
- € 2,619 thousand to Municipalities that awarded services to Centria S.r.l. and shareholders of Coingas S.p.A., Consiag S.p.A. and Intesa S.p.A. (€ 2,516 thousand in 2018);
- € 544,000 to Municipalities that awarded the service to Gergas S.p.A. (Grosseto) (€ 571,000 in 2018);
- € 5,393 thousand to the Municipalities for which the natural gas distribution and measuring service was acquired in concession following public tender procedures (€ 4,931 thousand in 2018).

The increase in this item is due to the inclusion of Murgia Reti Gas S.r.l. within the consolidation scope during financial year 2019; the latter manages the gas distribution service under concession in the Bari 1 and Foggia 2 ATEMs.

The item rental of company offices was reduced to zero at 31 December 2019 as a result of the application of the new standard IFRS 16 in force from 1 January 2019.
The item various rentals and leases is mainly related to costs for the rental of assets 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 at 31 December 2019, compared with the year ended 31 December 2018:

	Year ended 31 December	
(amounts in thousands of euro)	**2019**	**2018**
Wages and salaries	28,397	26,336
Social security contributions	9,307	8,572
Employee severance indemnity	1,658	1,559
Other costs	124	114
Seconded personnel from third parties	78	143
minus:		
- increases from in-house production	(216)	(120)
Personnel costs	**39,348**	**36,604**

The increase in this item is attributable mainly to the increase in the number of staff, following the company acquisitions during 2019.

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 at 31 December 2019, compared with the year ended 31 December 2018:

	Year ended 31 December	
(amounts in thousands of euro)	**2019**	**2018**
Amortisation of intangible assets	33,123	27,846
Depreciation of tangible assets	12,022	7,055
Write-down of intangible assets	2,202	
Write-down of tangible assets	346	10
Write-down of trade receivables	11,682	8,320
Other provisions	62	32
Depreciation, amortisation, provisions and write-downs	**59,437**	**43,265**

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 other operating costs at 31 December 2019, compared with the year ended 31 December 2018:

	Year ended 31 December	
(amounts in thousands of euro)	**2019**	**2018**
Other operating expenses	3,063	4,093
Various indirect taxes	1,213	1,331
Purchase of Energy Efficiency Certificates	9,708	25,357
Membership fees	655	683
Losses on disposals	1,940	296
Other operating costs	**16,579**	**31,760**

The item "Purchase of Energy Efficiency Certificates" refers to the costs incurred to obtain energy saving certificates to fulfil the obligation imposed for 2019. 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)* we can note that the QA component in the VRT refunding the distribution companies will continue to be recognised in the transmission tariffs.

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:

	Year ended 31 December	
(amounts in thousands of euro)	**2019**	**2018**
Margin of gas trading activity	(263)	(984)
Change in fair value of commodity swaps used in the marketing of electricity	(43)	(63)
Change in fair value of commodity swaps used in the marketing of gas	3,889	(3,372)
Total expenses from commodity risk management	**3,582**	**(4,419)**

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

In the years ended 31 December 2019 and 31 December 2018, income from the valuation of non-financial investments using the equity method amounted to € 679,000 and € 558,000 respectively.
The item refers to the portion attributable to the Group of the profit of the joint venture EDMA Reti Gas S.r.l., measured using the equity method. 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.

8.5 Financial income

In the financial periods ended 31 December 2019 and 31 December 2018, financial income amounted to € 2,733 thousand and € 2,113 thousand respectively. The breakdown is as follows:

	Year ended 31 December	
(amounts in thousands of euro)	**2019**	**2018**
Income from associates	185	185
Various income from others	2,371	1,759
Revaluation IRS derivatives	177	169
Financial income	**2,733**	**2,113**

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 interest income accrued on bank and postal current accounts for Euro 596 thousand (Euro 516 thousand at 31 December 2018) and interest income from delayed payments charged to customers for Euro 1,611 thousand (Euro 1,241 thousand at 31 December 2018).

8.6 Financial expenses

In the financial periods ended 31 December 2019 and 31 December 2018, financial expenses amounted to € 13,231 thousand and € 15,368 thousand respectively. The breakdown is as follows:

	Year ended 31 December	
(amounts in thousands of euro)	**2019**	**2018**
Interest payable on current bank accounts	218	39
Interest payable on loans and financial transactions	5,408	3,965
Interest payable on bonds	6,479	10,057
Other interest payable	346	366
Interest on arrears	13	467
Interest on employee severance costs	62	108
Interest payable on Shareholder loans	323	366
Interest payable on leases IFRS 16	376	
Financial expenses	**13,231**	**15,368**

In relation to the decrease in the item, we can note that financial expenses of financial year 2018 were impacted by extraordinary components (interest advanced and partial reversal of loan opening expenses) for € 2,119 thousand, recognised in the item "Interest payable on bonds" related to the early repayment of bond loans for a nominal value of € 30 million.

8.7 Portion of income/expenses from measurement of financial equity investments using the equity method

In the years ended 31 December 2019 and 31 December 2018, the measurement of financial equity investments using the equity method resulted in expenses of € 53,000 in 2019 and income of € 427,000 in 2018.
The item refers to the portion attributable to the Group of the result of associates and joint ventures, measured using the equity method.

8.8 Income taxes for the year

In the financial periods ended 31 December 2019 and 31 December 2018, income taxes for the year amounted to € 10,343 thousand and € 5,108 thousand respectively:

	Year ended 31 December	
(amounts in thousands of euro)	**2019**	**2018**
Current taxes	15,944	11,034
Taxation of previous years	100	(406)
Current taxes	**16,045**	**10,627**
Deferred tax assets	(1,885)	(1,154)
Deferred taxes	(3,817)	(4,365)
Taxes for the year	**10,343**	**5,108**

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%: Estra Clima S.r.l., Centria S.r.l., Estra Energie S.r.l, Gergas S.p.A. and Estracom S.p.A.

8.9 Net result for discontinued/held for sale assets

In the financial periods ended 31 December 2019 and 31 December 2018, the result for discontinued/held for sale assets amounted to € (208) thousand and € (2,320) thousand respectively.
The Group designated as non-current assets held for sale/disposal the Polish company Useneko, which operates in the gas distribution business in Poland, following the initiation of a disposal/sale of the two companies.
The process to dispose of the business extended beyond the time frame initially envisaged due to critical aspects emerging with certain network recovery issues and the regularising of contracts for certain rights of access, which were needed for the sale. At the end of the previous financial year the business was classified under assets held for sale based on what is set out in the paragraph of note 3.1 i).
The process of disposing of the equity investment was completed at the end of financial year 2019 through the signing of a sale contract at the price of € 650,000, corresponding to the carrying amount at the end of the previous financial year.

The item net profit/(loss) of discontinued/held for sale assets of € 208,000 contains the result of the subsidiary for the fraction of the year before the sale.

8.10 Non-recurring items and/or unusual significant transactions

The income statement for 2019 and 2018 were not influenced by any non-recurring aspects, pursuant to CONSOB Resolution number 15519 of 27 July 2006.

9. Notes on the main comprehensive income statement items

9.1 Change in cash flow hedge reserve

In the financial periods ended 31 December 2019 and 31 December 2018, the change in the cash flow hedge reserve was a negative € 2,490 thousand and a positive € 185,000.
The item represents the component of comprehensive income incorporating the change to the "Cash flow hedge reserve" recorded for the effective position of hedging IRS derivatives.

9.2 Actuarial gains/(losses)

In the financial year ended 31 December 2019 the actuarial loss amounted to € 388,000; in the financial year ended 31 December 2018 actuarial gains amounted to € 166,000.

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 Tangible assets

In the financial periods ended 31 December 2019 and 31 December 2018, tangible assets amounted to € 109,570 thousand and € 84,778 thousand respectively.

	Year ended 31 December	
(amounts in thousands of euro)	**2019**	**2018**
Land and buildings	22,968	7,169
of which for rights of use	*13,181*	
Plants and machinery	70,384	66,230
of which for rights of use	*192*	
Industrial and commercial equipment	1,580	758
of which for rights of use	*779*	
Other assets	7,298	5,820
of which for rights of use	*2,489*	
Payments on accounts and assets under construction	7,340	4,801
Tangible assets	**109,570**	**84,778**

Tangible assets are primarily represented by the following investments:

- a wood biomass co-generation plant and the related district heating network in the Municipality of Calenzano for € 1,950 thousand;
- plants and machinery relating to the implementation of telematic and telecommunications structures arising from activities undertaken by Estracom S.p.A. for € 12,477 thousand;
- a trigeneration plant located in Sesto Fiorentino owned by the subsidiary Estra Clima S.r.l. for € 779,000;
- photovoltaic systems, owned or leased, accounted for according to IAS 16 for € 45,456 thousand;
- 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 of € 2,814 thousand;
- a municipal waste selection plant, with annexed premises, acquired during financial year 2019 with the consolidation of Ecolat S.r.l. for € 5,033 thousand.

With reference to photovoltaic systems, we can 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 in accordance with IAS 17.50 as a sale and leaseback transaction (IAS 17.59) for € 29,895 thousand. 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. The accounting treatment applied by the Group on first application of IFRS16 did not entail adjustments.

The following changes were recorded in this item for the year ended 31 December 2019:

thousands of Euro	**Land and buildings**	**Plants and machinery**	**Industrial and commercial equipment**	**Other assets**	**payments on accounts and assets under construction**	**Total**
Cost or valuation						
At 01 January 2019	**9,880**	**101,869**	**3,138**	**24,319**	**4,801**	**144,007**
Effect 01 January 2019 IFRS 16	15,232			2,769		18,001
Increases	1,185	3,152	180	1,955	3,862	10,334
of which for rights of use	*471*			*900*		*1,371*
Sales/eliminations	(75)	(267)	(28)	(6,194)		(6,564)
of which for rights of use	*(75)*			*(41)*		*(116)*
Reclassifications		1,302		21	(1,323)	
Corporate acquisitions	2,708	6,126	974	8		9,816
Write-downs		(346)				(346)
At 31 December 2019	**28,930**	**111,836**	**4,264**	**22,878**	**7,340**	**175,248**
Depreciation						
At 01 January 2019	**(2,712)**	**(35,639)**	**(2,380)**	**(18,499)**		**(59,229)**
Depreciation for the year	(3,217)	(5,497)	(330)	(2,978)		(12,022)
of which for rights of use	*(2,894)*	*(73)*	*(195)*	*(1,149)*		*(4,310)*
Sales/eliminations	10	55	26	5,901		5,992
of which for rights of use	*10*			*10*		*20*
Reclassifications						
Corporate acquisitions	(43)	(372)		(4)		(420)
At 31 December 2019	**(5,962)**	**(41,452)**	**(2,684)**	**(15,580)**		**(65,678)**
Carrying amount						
At 31 December 2018	7,169	66,231	758	5,820	4,801	84,778
At 31 December 2019	22,968	70,384	1,580	7,298	7,340	109,570

We specifically note the following for 2019:

- effects deriving from first application of IFRS 16, as described in the paragraph of the notes “Changes to accounting standards and disclosure” and indicated distinctly in the above table. The effects regard: (i) the category “Land and buildings” mainly for the company offices of Prato, Siena and Arezzo occupied by the Group on the basis of rental contracts entered into with Consiag, Intesa and Coingas, respectively; (ii) the category “Other assets” mainly for motor vehicles and IT equipment functional to the Group’s areas of business;

- investments of the year of Euro 10,334 thousand mainly attributable (i) to the category “Land and buildings”, for a total of € 1,185 thousand among which we can note in particular the purchase of a property in Montepulciano (SI) used as an archive; (ii) to the category “Plants and machinery”, for a total of € 3,152 thousand referred mainly to plants and machinery related to the creation of telematic and telecommunications structures and to the purchase of a cogeneration plant with district heating located in the Municipality of Ancona (iii) to the category “Investments in progress and payments on account”, for a total of € 3,862 thousand related mainly to the creation of infrastructural cabling of the industrial areas in FTTH;

- net increases for corporate acquisitions for € 9,396, mainly related to the full consolidation of Ecolat S.r.l., as described in the paragraph of the notes on business combinations.

- depreciation for the period for € 12,022 thousand;

- write-downs of € 346,000, for which please refer to the paragraph "Impairment tests pursuant to IAS 36 on the value of property, plant and equipment" below.

The following changes were recorded in this item for the year ended 31 December 2018:

thousands of Euro	Land and buildings	Plants and machinery	Industrial and commercial equipment	Other assets	Payments on accounts and assets under construction	Total
Cost or valuation						
At 1 January 2018	**7,368**	**98,335**	**2,647**	**23,017**	**2,947**	**134,314**
Increases	2,243	2,521	359	1,245	2,769	9,136
Sales/eliminations		(2)	(10)	(396)		(408)
Reclassifications	270	419	63	315	(916)	151
Corporate acquisitions		607	78	138		823
Write-downs		(10)				(10)
At 31 December 2018	**9,880**	**101,869**	**3,138**	**24,319**	**4,801**	**144,007**
Depreciation						
At 1 January 2018	**(2,415)**	**(30,577)**	**(2,212)**	**(17,077)**		**(52,281)**
Depreciation for the year	(275)	(4,960)	(120)	(1,699)		(7,055)
Sales/eliminations		1	9	393		404
Reclassifications	(21)		(31)			(52)
Corporate acquisitions		(103)	(25)	(116)		(244)
At 31 December 2018	**(2,712)**	**(35,639)**	**(2,380)**	**(18,499)**		**(59,229)**
Carrying amount						
At 31 December 2017	**4,953**	**67,758**	**435**	**5,940**	**2,947**	**82,033**
At 31 December 2018	**7,169**	**66,231**	**758**	**5,820**	**4,801**	**84,778**

We specifically note the following for 2018:

- investments in the year for € 9,136 thousand attributed primarily to (i) "Land and buildings" for a total of € 2,243 thousand including the acquisition of full ownership of the property in Pettoranello del Molise, which houses the office of Melfi Reti Gas S.r.l. (Euro 2,048 thousand); (ii) "Plants and machinery", for a total of € 2,521 thousand referring mainly to the plants and machinery related to implementing telematic and telecommunication structures and the purchase of 3 photovoltaic systems related to the property in Pettoranello del Molise (iii) "Payments on accounts and assets under construction", for a total of € 2,769 thousand referring mainly to the laying of the infrastructure cabling in the FTTH industrial areas;

- net increases for corporate acquisitions for € 580 due mainly to the full consolidation of Idrogenera S.r.l., with the acquisition of full control. The compliance has a hydroelectric plant located in Castel San Niccolò (AR);

- amortisations for the period for € 7,055 thousand.

10.1.2 Impairment tests pursuant to IAS 36 on the value of property, plant and equipment

Financial year 2019

The directors noticed indications of impairment in reference to the mini-hydro power station built in the Municipality of Castel San Niccolò (AR) used for the purpose of hydroelectric production of the subsidiary Idrogenera S.r.l., recognised at a net carrying amount of € 76,000 at 31 December 2019.
The write-down made, of € 346,000, became necessary following the operating results lower than the plan forecasts and estimated cash flows insufficient to recover the cost of the investment. The plant is related to electricity production from renewable sources included in "Other business segments".

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 estimate future cash flows was considered, which supposes that they will derive from the asset's continued use and disposal of the asset at the end of its useful life. 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 management could make based on the main assumptions underlying the plant's operations over the period 2020-2043 (annual production of electricity, maintenance costs and investments in the plant, energy sales tariffs).
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 6.5%. To complete this analysis, the directors recorded impairment in the current year for € 346,000 against a carrying amount, after depreciation of the period, of € 422,000 at 31 December 2019, which was recognised in the Income Statement under write-downs of property, plant and equipment. The net value of the asset amounted to € 76 thousand at 31 December 2019, after the write-down booked.
The calculation of the value in use is especially sensitive to the following assumptions:

- gross margin;
- 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.

Financial year 2018

The directors, in the light of the current conditions, both internal and external, did not notice indicators of impairment with reference to property, plant and equipment.

10.1.3 Goodwill

Goodwill recorded in the consolidated financial statements at 31 December 2019 (and 31 December 2018) refers to:

i) the following business combination operations prior to the FTA date, and for which the Group opted not to retrospectively apply IFRS 3:
   - goodwill recorded following the acquisition of Gergas S.p.A. relating to the "Gergas gas distribution" CGU (€ 1,369 thousand);
   - 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 thousand).

ii) the following business combination operations after the date of FTA which amounted to € 17,380 thousand 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 thousand);
   - goodwill resulting from the Purchase Price Allocation from the acquisition of Gas Marca S.r.l. in 2018 (€ 6,544 thousand).

The Group conducted impairment testing at 31 December 2019 and 31 December 2018, which as stated above, did not show any losses in value.

10.1.4 Impairment testing 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" and "Gergas gas distribution" cash generating units:

Carrying value of goodwill allocated to each cash generating unit:

	Gas and electricity sales		Gas distribution		Total	
	2019	**2018**	**2019**	**2018**	**2019**	**2018**
Goodwill	28,067	28,067	1,369	1,369	29,436	29,436

The Group conducted its own impairment test at 31 December 2019 and 2018.
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 Business Plan referred to the period 2019--2021 for the impairment test at 31 December 2019). The discount rate applied to the cash flow projections, net of tax is 5.9% in 2019 (6.8% in 2018). Cash flows were extrapolated using a growth rate of 1.5% in 2019 (1.5% in 2018), 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 Euro 28,067 thousand.

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 figures over the three years prior to the start of the Plan's time frame, prudently 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.

Gas Distribution - 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 gas distribution 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 gas distribution unit, including goodwill for € 1,369 thousand.

10.1.5 Intangible assets

In the financial periods ended 31 December 2019 and 31 December 2018, intangible assets amounted to € 447,805 thousand and € 396,448 thousand respectively.

	Year ended 31 December	
(amounts in thousands of euro)	**2019**	**2018**
Industrial patent rights, licences and trademarks	3,538	4,361
Assets under concession	318,709	265,170
Customer lists	110,662	117,743
Other intangible assets	13,871	8,924
Intangible assets under construction	1,025	250
Intangible assets	**447,805**	**396,448**

Industrial patent rights, licences and trademarks refer mainly to third-party software user licences, amortized over 3 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.
Following malfunctioning noted on a significant number of electronic meters, in preparing these consolidated financial statements the need for their replacement was taken into account. This will be done according to a staged plan, before the end of their useful life. An estimate was therefore made of the recoverable value of the assets, determined on the basis of the present value of the future cash flows that are expected to originate from the asset along its residual useful life.
In particular, in the case of electronic meters, the cash flow was estimated taking into consideration the remuneration produced by the same at the tariff level up to their decommissioning. From the comparison between the present value of the cash flows and the carrying amount there emerged the need to proceed with a write-down of € 2,202 thousand.
Customer lists mainly refers to determining the purchase price allocation (PPA) of the customer portfolios of the companies 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 2019 and 31 December 2018, the customer lists were amortised over a 20-year time frame. The Group deemed this amortisation policy to also be consistent for the customer lists recorded when allocating the fee for the companies acquired during 2018, based on the estimate of their useful life.
The item Other intangible assets refer mainly to the costs to acquire customers (contract costs) incurred by the Group's commercial companies, amortised over 5-years at a decreasing rate.
The Group checks annually whether there are any impairment indicators; specifically, for the customer lists 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 2019 with regard to intangible assets with a defined useful life.

The following changes were recorded in this item for the year ended 31 December 2019:

thousands of Euro	**Industrial patent rights, licences and trademarks**	**Assets under concession**	**Customer lists**	**Other intangible assets**	**Intangible assets under construction**	**Total**
Cost or valuation						
At 01 January 2019	**39,982**	**428,839**	**137,963**	**22,775**	**250**	**629,809**
Increases	2,458	20,517	204	11,275	858	35,312
Sales/eliminations	(107)	(5,012)		(47)		(5,166)
Reclassifications				83	(83)	-
Corporate acquisitions		86,499				86,499
Write-downs		(2,202)				(2,202)
At 31 December 2019	**42,333**	**528,641**	**138,167**	**34,087**	**1,025**	**744,253**
Amortisation and write-downs						
At 01 January 2019	**(35,621)**	**(163,669)**	**(20,220)**	**(13,851)**		**(233,361)**
Amortisation for the year	(3,174)	(16,294)	(7,285)	(6,370)		(33,123)
Sales/eliminations		2,939		5		2,944
Reclassifications						-
Corporate acquisitions		(32,909)				(32,909)
At 31 December 2019	**(38,795)**	**(209,933)**	**(27,505)**	**(20,216)**		**(296,449)**
Carrying amount						
At 31 December 2018	4,361	265,170	117,743	8,924	250	396,448
At 31 December 2019	3,538	318,709	110,662	13,871	1,025	447,805

We specifically note the following for 2019:

- investments for the period € 35,312 thousand, referring primarily to:

  - the category "Assets under concession" for a total of € 20,517 thousand for investments made regarding the gas distribution networks;

- the category "Industrial patent rights, licences and trademarks" for a total of € 2,458 thousand relating mainly to software costs;
- the category "Other Intangible Assets" for a total of € 11,275 thousand, relating mainly to the costs to acquire customers incurred by the Group's gas and electricity sales companies;

- net increases deriving from the acquisition of 100% of Murgia Reti Gas S.r.l. the consolidation of which brought in intangible assets for a total of € 53,590 thousand attributable to the gas distribution networks included in the scope of application of IFRIC 12;

- sales/eliminations for € 2,222 thousand mainly related to gas meters;

- amortisations for the period of € 33,123 thousand.

The following changes were recorded in this item for the year ended 31 December 2018:

thousands of Euro	**Industrial patent rights, licences and trademarks**	**Assets under concession**	**Customer lists**	**Other intangible assets**	**Intangible assets under construction**	**Total**
Cost or valuation						
At 1 January 2018	**35,988**	**373,560**	**122,589**	**15,643**	**363**	**548,143**
Effect 1 January 2018 IFRS 15		15,076				15,076
Increases	3,635	20,028		6,797	125	30,586
Sales/eliminations		(1,685)				(1,685)
Reclassifications		(59)		146	(238)	(151)
Corporate acquisitions	358	21,920	15,374	188		37,841
At 31 December 2018	**39,982**	**428,839**	**137,963**	**22,775**	**250**	**629,809**
Amortisation and write-downs						
At 1 January 2018	**(31,526)**	**(142,239)**	**(12,827)**	**(9,174)**		**(195,866)**
Effect 1 January 2018 IFRS 15		(1,002)				(1,002)
Amortisation for the year	(3,759)	(12,462)	(6,990)	(4,636)		(27,847)
Sales/eliminations		1,334				1,334
Reclassifications		31		21		52
Corporate acquisitions	(336)	(9,231)	(403)	(62)		(10,032)
At 31 December 2018	**(35,621)**	**(163,669)**	**(20,220)**	**(13,851)**		**(233,361)**
Carrying amount						
At 31 December 2017	**4,462**	**231,221**	**109,762**	**6,469**	**363**	**352,277**
At 31 December 2018	**4,361**	**265,170**	**117,743**	**8,924**	**250**	**396,448**

We specifically note the following for 2018:

- Net effect of the first application of IFRS 15 € 14,073 thousand, as detailed in the relevant paragraph of the notes;

- investments for the period of € 30,586 thousand, referring primarily to:

  - "Assets under concession" for a total of € 20,028 thousand for investments made regarding the gas distribution networks;
  - "Industrial patent rights, licences and trademarks" for a total of € 3,635 thousand relating mainly to software costs;
  - "Other intangible assets" for a total of € 6,797 thousand, relating mainly to the costs to acquire customers incurred by the Group's gas and electricity sales companies;

- net increases resulting from the 100% acquisition of Melfi Reti Gas S.r.l., where the relevant consolidation contributed intangible assets for a total of € 12,690 thousand referring to the gas distribution networks falling within the scope of application of IFRIC 12; from the 100% acquisition of Metania S.r.l, where the relevant consolidation contributed intangible assets for a total of € 6,702 thousand referring to the customer lists acquired; from the completion of the 100% acquisition of Gas Marca S.r.l, where the relevant consolidation contributed intangible assets for a total of € 8,362 thousand (referring mainly to customer listings for € 8,238 thousand) as outlined in the comments on changes in the consolidation scope;

- sales/eliminations for € 351,000 mainly related to gas meters;

- amortisations for the period of € 27,847 thousand.

10.1.6 Equity investments

In the financial periods ended 31 December 2019 and 31 December 2018, equity investments amounted to € 27,250 thousand and € 22,217 thousand respectively.

Equity investments (amounts in thousands of euro)	Balance at 31 December 2018	Business combinations	Increases/ (decreases)	Other changes	Revaluation/ (write-down)	Balance at 31 December 2019
Edma Reti Gas S.r.l.	9,688				283	9,971
Nuova Sirio S.r.l.	37				(20)	17
Equity investments in companies subject to joint control	**9,725**		**-**	**-**	**263**	**9,988**
Blugas Infrastrutture S.r.l.	7,396				(115)	7,281
AES Fano	643				115	758
Monte Urano S.r.l.	905				(39)	866
SIG S.r.l	3,156				(16)	3,140
Equity investments in associates	**12,100**		**-**	**-**	**(55)**	**12,045**
Ecolat S.r.l.	125			(125)		-
AISA S.p.A.	77				(32)	45
Sinergie Italiane S.r.l.	-					-
Sei Toscana S.r.l.		5,008				5,008
Casole Energia S.r.l.	167				(29)	138
Other companies	23		3			26
Equity investments in other companies	**392**	**5,008**	**3**	**(125)**	**(61)**	**5,217**
Total equity investments	**22,217**	**5,008**	**3**	**(125)**	**147**	**27,250**

The increases/(decreases) in the year refer to:

- The cancellation of the 12% equity interest in Ecolat S.r.l. held at 31 December 2018 following the purchase of 100% of the company's shares and full consolidation of the same;
- The acquisition of the equity investment in Sei Toscana S.r.l., deriving from the full consolidation of Ecolat S.r.l.. As regards the related percentage due, please see the description of the dispute in being provided in note "7. Business combinations and corporate sales";

The other changes in equity investments result from applying the equity method.
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 2019 of € 2,353, 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 Ministry for Economic Development with the 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 (expected in 2019), 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 opportune legal action to request the cancellation of this Resolution, so that the business revenue could be restored as per the original project. Therefore, following the rejection by the Lombardy RAC of the application, Edison Stoccaggio then presented an appeal to the Council of State, which is still pending.
Without prejudice to the fact that the Company deems its arguments underlying the appeal to be valid, from estimates undertaken on the impact on the revenue of the multiple year project plan, there are no impairment indicators, in consideration of both the economic results that are in any case positive, and the implicit gains on the company’s assets; no write-down for impairment was thus made on the equity investment and the financial receivables.
With regard to the 11.05% shareholding in Sinergie Italiane S.r.l. we remind you that the company was put into liquidation with a shareholders' meeting resolution dated 13 April 2012. Previously, on 29 March 2012, the shareholders meeting had covered the deficit of € 88.7 million and reconstructed the share capital to € 1 million, through a cash contribution of € 89.7 million.
During subsequent years the company continued its business mainly limited to the purchase of gas from the Russian supplier Gazprom Export LLC and resale of the same to the shareholders or to the commercial companies owned by the Shareholders (Estra Energie S.r.l. for the shareholder Estra S.p.A.) The interim liquidation financial statements at 30 September 2019, prepared in compliance with art. 2490 of the Italian Civil Code, closed with negative shareholders’ equity of € 3.1 million (€ 6.5 million at 30 September 2018), after liquidation adjustments of € 32.8 million and profit for the period of € 3.5 million. Given the positive results expected over future years, it is reasonable to expect a return to equilibrium in the Company’s balance sheet with future profits able to cover the current deficit.
We can note that, following the audit conducted on the investee by the Revenues Agency in relation to the periods 1 October 2012 – 30 September 2013 and 1 October 2013 – 30 September 2014 for income tax (IRES and IRAP) and VAT purposes, a formal tax audit report was issued, on 2 August 2019. This report contested an alleged over-invoicing by the investee in relation to the shareholders and the related commercial companies, including Estra Energie, for a total of € 14,854,462 in the period 2012/2013 and € 14,144,208 in the period 2013/2014. In particular, the Revenues Agency, believing that the Company had increased in the above years the selling price of natural gas to the commercial companies taking it up to more than what was provided for on the market, refused to recognise any of the mark-up applied by Sinergie Italiane S.r.l. in liquidation to the cost of natural gas purchased from the Russian supplier Gazprom Export LLC. On 17 January 2020 the investee presented its rebuttal arguments in order to reply to what was indicated by the Revenues Agency in the tax audit report to affirm the legitimacy of its operations. In relation to the ascertainment, the Revenues Agency also carried out an inspection at the Parent Company, to acquire documentation in relation to the transactions between Estra and the company Sinergie Italiane s.r.l. with reference to the tax year 2012 and subsequent years. The audit was completed on 30 September 2019 with the absence of substantial breaches and the ascertainment that between Estra and the company Sinit there have never been commercial transactions as these took place only and exclusively with the subsidiary Estra Energie S.r.l. for the purchase of natural gas.

10.1.7 Other non-current financial assets

In the financial periods ended 31 December 2019 and 31 December 2018, other non-current financial assets amounted to € 11,539 thousand and € 12,769 thousand respectively.

	Year ended 31 December	
(amounts in thousands of euro)	**2019**	**2018**
Loans to companies subject to joint control	230	150
Loans to associates	4,643	4,937
Receivables from others	6,666	7,682
Other non-current financial assets	**11,539**	**12,769**

The tables below show the composition of loans to subsidiaries and their changes at 31 December 2019 compared to the previous financial period:

(amounts in thousands of euro)	Balance at 31 December 2018	Increases	Decreases	Other changes	Balance at 31 December 2019
Nuova Sirio S.r.l.	150	80			230
Loans to companies subject to joint control	**150**	**80**			**230**

(amounts in thousands of euro)	Balance at 31 December 2018	Increases	Decreases	Other changes	Balance at 31 December 2019
Blugas Infrastrutture S.p.A.	4,153				4,153
A.E.S. Fano Distribuzione Gas S.r.l.	784		(294)		490
Loans to associates	**4,937**		**(294)**		**4,643**

The item receivables from others refers mainly:

- for € 5,000 thousand to the amount paid at the time of being awarded the gas distribution contract for the Municipality of Rieti, and which will be refunded once the concession ends, and all plants, networks and other distribution service installations are delivered to the replacement operator;
- for € 1,364 thousand to the receivable claimed by Ecolat S.r.l. in relation to Sei Toscana S.r.l., as described in the paragraph of the notes to the statements on business combinations.

10.1.8 Other non-current assets

In the financial periods ended 31 December 2019 and 31 December 2018, other non-current financial assets amounted to € 5,285 thousand and € 4,713 thousand 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 2019 and 31 December 2018, deferred tax assets amounted to € 30,718 thousand and € 27,295 thousand respectively.

The table below shows the composition of deferred tax assets and their changes at 31 December 2019 compared to the previous financial period:

(amounts in thousands of euro)	Balance at 31 December 2018	Corporate acquisitions	Reversals/Uses	Allocations	Balance at 31 December 2019
Amortisation/ depreciation	6,393	628	(203)	827	7,644
Risk provisions	1,276		(414)	236	1,099
Provision for write-downs	11,463		(907)	2,378	12,935
Contributions received on connections	3,302		(128)		3,174
Write-down of fixed assets	550		(16)	528	1,062
Provision for early retirement of employees	95		(95)		-1
Lease accounting	143		(6)	29	167
Reversal intangible assets	223	27	(38)	23	236
Fair value derivatives	302			809	1,111
Discounted employee severance indemnity	127	22	(11)	110	247
Other	3,420		(1,332)	955	3,045
Total	**27,295**	**677**	**(3,149)**	**5,896**	**30,718**

The table below shows the composition of deferred tax assets and their changes at 31 December 2018 compared to the previous financial period:

(amounts in thousands of euro)	Balance at 31 December 2017	IFRS 9 first application	Corporate acquisitions	Reversals/Uses	Allocations	Balance at 31 December 2018
Amortisation/ depreciation	5,475		14	(121)	1,025	6,393
Risk provisions	1,759			(883)	400	1,276
Provision for write-downs	10,191	531	257	(1,568)	2,052	11,463
Contributions received on connections	3,376			(99)	25	3,302
Write-down of fixed assets	1,310			(760)		550
Provision for early retirement of employees	125			(30)		95
Lease accounting	131			(1)	14	143
Reversal intangible assets	474		4	(274)	19	223
Fair value derivatives	360			(59)		302
Discounted employee severance indemnity	167		3	(48)	5	127
Other	1,985		11	(874)	2,299	3,420
Total	**25,353**	**531**	**289**	**(4,717)**	**5,839**	**27,295**

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.

10.2 CURRENT ASSETS

10.2.1 Inventories

In the financial periods ended 31 December 2019 and 31 December 2018, inventories amounted to € 24,768 thousand and € 8,674 thousand respectively.
The item can be broken down as follows:

	Year ended 31 December	
(amounts in thousands of euro)	**2019**	**2018**
Materials inventories	4,128	4,028
Natural gas storage inventories	20,653	4,585
LPG inventories	236	309
Provision for stock devaluations	(249)	(249)
Inventories	**24,768**	**8,674**

Inventories primarily comprise:

- Spare parts for the maintenance and operation of gas distribution plants for € 3,209 thousand at 31 December 2019 (2,916 thousand at 31 December 2018), 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 € 20,653 thousand (€ 4,585 thousand at 31 December 2018). The balance at 31 December 2019 also includes stored gas held for trading for € 445,000, measured at fair value in relation to official quotations on the reference market at the reporting date.

We can note a significant increase in natural gas storage inventories at the end of financial year 2019 compared to the inventories at the end of the previous financial year, which were influenced by a sale transaction carried out in the last quarter.

10.2.2 Trade receivables

In the financial periods ended 31 December 2019 and 31 December 2018, trade receivables amounted to € 281,434 thousand and € 351,022 thousand respectively.
The item can be broken down as follows:

	Year ended 31 December	
(amounts in thousands of euro)	**2019**	**2018**
Receivables from users and customers	272,141	340,435
Receivables from joint ventures	5,269	6,687
Receivables from associates	1,427	1,175
Receivable from holding companies	2,596	2,726
Trade receivables	**281,434**	**351,022**

The adjustment of the nominal value of receivables to their estimated realisable 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 final customers. Changes in the provision are shown in the table below:

(amounts in thousands of euro)	Balance at 31 December 2018	Business combinations	Uses during the year	Allocations for the year	Balance at 31 December 2019
Provision for write-downs	**53,193**	40	(5,989)	11,681	**58,925**

(amounts in thousands of euro)	Balance at 31 December 2017	IFRS 9 first application	Business combinations	Uses during the year	Allocations for the year	Balance at 31 December 2018
Provision for write-downs	**47,813**	2,213	1,800	(6,953)	8,320	**53,193**

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 Tax receivables

In the financial periods ended 31 December 2019 and 31 December 2018, tax receivables amounted to € 12,400 thousand and € 19,881 thousand respectively.
The item can be broken down as follows:

	Year ended 31 December	
(amounts in thousands of euro)	**2019**	**2018**
VAT credit	5,244	6,749
IRES/IRAP credit	2,217	9,644
UTIF	3,879	2,428
Other tax receivables	1,060	1,059
Tax receivables	**12,400**	**19,881**

The reduction of IRES and IRAP credits is related to the use in the year in progress of advances paid during financial year 2018 and found to be excessive.

10.2.4 Other current assets

In the financial periods ended 31 December 2019 and 31 December 2018, other current assets amounted to € 33,419 thousand and € 20,006 thousand respectively.
The item can be broken down as follows:

	Year ended 31 December	
(amounts in thousands of euro)	**2019**	**2018**
Receivables from the Energy Authority and GSE	21,502	8,333
Advances	3,281	4,453
Other receivables	5,739	5,037
Prepaid expenses	2,897	2,183
Other current assets	**33,419**	**20,006**

The item "Receivables from the Energy Authority" refers mainly to:
- the amounts due in application of the equalisation mechanism related to the restriction of total distribution revenues for subsidiaries operating in the sector, and for contributions related to reaching the energy saving targets;

- the amounts due to the Group companies operating in the natural gas sales sector under the terms of Arera resolution 32/2019/R/Gas in relation to redetermination of the coefficient k for the years 2010-2012, as described in the comments on other operating revenue.

The item "Advances" mainly includes the payment made by the parent company to the Municipality of Prato for € 1,700 thousand against the agreement signed in 17 November 2011, referred to in paragraph "Main pending disputes".
Receivables recognised under current asses 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 can 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 2019 and 31 December 2018, other current financial assets amounted to € 34,797 thousand and € 17,422 thousand respectively, while other current financial liabilities amounted to € 36,983 thousand and € 20,814 thousand.

Current financial assets can be broken down as follows:

	Year ended 31 December	
(amounts in thousands of euro)	**2019**	**2018**
Interest income from banks	667	448
Derivative instruments	34,130	16,974
Other current financial assets	**34,797**	**17,422**

Derivative instruments included in other current financial assets are made up as follows:

	Year ended 31 December	
(amounts in thousands of euro)	**2019**	**2018**
Forward commodity contracts	30,502	16,704
Cash Flow Hedge Commodity Swaps	1,533	269
Commodity Swaps with change in fair value through profit or loss	2,095	
Derivative instruments	**34,130**	**16,974**

Current financial liabilities are broken down as follows:

	Year ended 31 December	
(amounts in thousands of euro)	**2019**	**2018**
Payable derivative financial instruments	36,983	20,814
Other current financial liabilities	**36,983**	**20,814**

Derivative instruments included in other current financial liabilities are made up as follows:

	Year ended 31 December	
(amounts in thousands of euro)	**2019**	**2018**
Forward commodity contracts	29,476	15,393
Cash Flow Hedge Commodity Swaps	5,003	4,305
Commodity Swaps with change in fair value through profit or loss	1,736	
Cash flow hedge Interest Rate Swaps	374	545
Interest Rate Swaps not designated as hedging instruments	394	571
Derivative instruments	**36,983**	**20,814**

Receivables from banks refer to the interest accrued on cash at the reporting date, 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 2019 and 31 December 2018:

	Year ended 31 December 2019		Year ended 31 December 2018	
(amounts in thousands of euro)	**Positive/(negative) Fair Value**	**Notional**	**Positive/(negative) Fair Value**	**Notional**
IRS Fixed Rate/Variable Rate maturing 28/06/2019 (Intesa)	-	-	(16)	1,389
IRS Fixed Rate/Variable Rate maturing 28/10/2019 (Cariparma)	-	-	(6)	2,046
IRS Fixed Rate/Variable Rate maturing 30/06/2021 (MPS)	(20)	749	(47)	1,229
IRS Fixed Rate/Variable Rate maturing 28/12/2021 (UniCredit)	(394)	7,000	(571)	9,000
IRS Fixed Rate/Variable Rate maturing 28/06/2024 (Intesa)	(354)	3,061	(475)	3,652
IRS	**(768)**	**10,810**	**(1,116)**	**17,317**

Please see the paragraph "Interest rate Risk" for additional information.

10.2.6 Cash and cash equivalents

In the financial periods ended 31 December 2019 and 31 December 2018, cash and cash equivalents amounted to € 195,748 thousand and € 228,693 thousand respectively.
The item can be broken down as follows:

	Year ended 31 December	
(amounts in thousands of euro)	**2019**	**2018**
Bank and postal deposits	195,731	228,678
Cash and cash equivalents	17	15
Cash and cash equivalents	**195,748**	**228,693**

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 Assets held for sale and the directly associated liabilities

In the financial statements for the year ended 31 December 2019 there are no assets and liabilities held for sale.
The balances in the comparative figures for 31 December 2018 of assets and liabilities, € 930,000 and € 280,000 respectively, made reference to the investee Useneko S.p.z.oo., sold during the year and held for sale/disposal as described in the notes Significant accounting judgements, estimates and assumptions and Net profit/(loss) of assets held for sale/disposal.
In accordance with the standard IFRS 5, the assets and liabilities of the subsidiary were measured at fair value and presented on a single line among "assets/liabilities held for disposal".

10.3 SHAREHOLDERS' EQUITY

In the financial periods ended 31 December 2019 and 31 December 2018, shareholders' equity amounted to € 321,793 thousand and € 325,253 thousand respectively.
The change in the Group's equity at 31 December 2019 compared to 31 December 2018 is mainly due to:

- distribution of dividends to Shareholders (profit for the year 2018 and reserves) by the Parent Company (€ 14,638 thousand);
- Effects resulting from the acquisition of non-controlling interests in the already-controlled company Prometeo S.p.A.. (€ 127 thousand). 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 (€ 13,822 thousand);

The change in the Group's shareholders' equity at 31 December 2018 compared to 31 December 2017 (adjusted on first application of the new standard IFRS 9 Financial Instruments of € 1,683 thousand, of which € 1,361 thousand of the Group and € 326,000 of Non-Controlling Interests) is mainly due to:

- distribution of dividends to shareholders by the Parent Company (Euro 12,173 thousand);
- Effects resulting from the acquisition of minority interests in companies already controlled (€ 259,000). 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 (€ 7,682 thousand);

The change in shareholders' equity attributable to Non-Controlling Interests at 31 December 2019 compared to 31 December 2018 is mainly due to:

- Effects resulting from the acquisition of non-controlling interests in companies already controlled (- € 1,683 thousand). 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 parties (- € 1,138 thousand).
- result of the Group's comprehensive income statement related to Non-Controlling Interests (€ 50,000);

The change in shareholders' equity attributable to Non-Controlling Interests at 31 December 2018 compared to 31 December 2017 is mainly due to:

- Effects resulting from the acquisition of minority interests in companies already controlled (- € 534,000). 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 parties (- € 996,000).
- result of the Group's comprehensive income statement related to Non-Controlling Interests (€ 381,000);

10.4 NON-CURRENT LIABILITIES

10.4.1 Provisions for risks and charges

In the financial periods ended 31 December 2019 and 31 December 2018, the provisions for risks and charges amounted to € 9,504 thousand and € 9,869 thousand respectively.

The table below shows the composition of the item and the change that occurred in 2019:

(amounts in thousands of euro)	31 December 2018	Corporate acquisitions	Allocations	Uses	Reversal	31 December 2019
Agency indemnities	138		62	(14)		186
Disputes and legal defence expenses	4,161			(138)		4,023
Energy Efficiency Certificates	951		759	(649)		1,061
Other risks	4,137	40	494	(923)	(18)	3,730
Plant dismantling provision	482		22			504
Provisions for risks and charges	**9,869**	**40**	**1,337**	**(1,724)**	**(18)**	**9,504**

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 refer 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 refer 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 Cavriglia 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 2019 referred mainly to:

- Provisions for risks for Energy Efficiency Certificates of € 759 thousand to cover the risks associated with the performance of the market of energy efficiency certificates, considering the remainder of certificates to be purchased for all the obligation years still open and a loss of 10 €/EEC. In relation to EECs it is opportune to specify that, despite the indeterminacy of the contribution due to the cancellation of the ARERA resolutions that established the method of quantifying the tariff contribution (Resolution 487/2018/R/EFR and the subsequent Resolution 209/19/R/EFR) and given that as of today new Resolutions have not been issued, reference was made to the regulations in force previously and so a cap of the value at 250 €/EEC was considered and, therefore, an estimated loss of 10 €/EEC (considering that the purchase cost is approximately 260 €/EEC);
- Use of risk provisions for Energy Efficiency Certificates of € 649 thousand to cover the losses on EECs made in 2019 for the obligation year 2018;
- Provisions for € 494,000 primarily referring to the estimate for the risk of sanctions and/or penalties pertinent to the gas distribution activity.
- Uses for € 923,000 of provisions for risks and sanctions set aside in previous years, mainly related to the gas distribution business.

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 thousand plus VAT.

During 2016, Estra and Centria submitted an application before the Court of Prato against the Municipality of Prato and Toscana Energia to order Toscana Energia, or alternatively the Municipality of Prato, to pay the amount of € 9,613 thousand, as the lesser amount recognised to the outgoing operator Centria for delivery of the networks compared to what had been provided for in the tender, due to the application of a disputed indexing and revaluation mechanism used by the latter in relation to the intervening time that had lapsed between the announcement of the tender 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 thousand to Toscana Energie (of which, € 1,700 thousand 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 thousand 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 thousand based on an alleged different composition of the network from what had been represented by the outgoing operator.

The Company, supported by the legal opinions it received, will legitimately oppose the application from the Municipality of Prato for the payment of the residual amount of € 6,000 thousand.

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 € 1,742 thousand.

At 20 December 2017, the judge handed down an order, whereby, inter alia:

- the court-appointed technical expert requested by Estra/Centria was allowed, limited to the alleged different extent of the network compared to what was represented by the outgoing operator;

- the court-appointed technical expert request by Toscana Energia was denied, regarding the estimate of the benefits that Estra/Centria would have obtained from running the plant in the intervening period between 1 July 2011 (reference date for plant estimate) and 31 August 2015 (date plant delivered to the new operator).

In addition to what is set out above, the judge raised (i) a question on the possible invalidity of the aforementioned settlement agreement of 2011, based on the possible non-availability of the compensation due to the outgoing operator pursuant to articles 14-15 of Italian Legislative Decree 164/2000, and (ii) a question on the effects of the invalidity on the clause relating to determining the compensation could have on the validity of the entire agreement. The judge, therefore, invited the parties to file a defensive brief regarding the two questions raised by the judge, which were submitted by both parties to the proceedings on 20 February 2018. In the event that the judge should confirm the invalidity of the clause in the 2011 settlement agreement governing the determination of the compensation due to the outgoing operator, the validity of the tender deeds and contracts signed between the Municipality of Prato and Toscana Energia (as well as between Centria and Toscana Energia) could be brought into question.

At the hearing on 13 September 2018, Toscana Energia's lawyers challenged certain points of the technical report with specific reference to the question on the status of the cogenerator and related reactivation costs, and the question regarding the benefits gained by Toscana Energia. Through the external legal consultant of the companies Estra/Centria, the Group challenged these arguments, arguing on the contrary for the completeness of the technical report and asking that a hearing be fixed to set out the closing arguments. The judge upheld the complete nature of the technical report, accepted the company's request, and adjourned the case for presentation of closing arguments to the hearing set for 21 November 2019.

At this hearing a concluding brief was therefore filed by the lawyers of the two Companies Estra and Centria and the case was adjourned for a decision.

The companies filed their concluding briefs on 20/01/2020 and the rebuttals were presented by 10/02/2020. Estra and Centria, supported by their legal team, believe that they have good arguments to support the validity of the settlement agreement. However, the Company believes that the risk of losing the case cannot be excluded and the amount present in the Financial Statements as provisions for risks represents the best possible estimate of the liability that could emerge from the case.

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 been received for 2015, the provision for € 350,000 can be confirmed at the reporting date of the financial statements at 31 December 2019.

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 € 148,614, 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.

Supported by its consultants, the Group believes the allegation raised to be unfounded, and therefore no provision has been made against the risks deriving from losing the dispute.

In March the first-level hearing was held and the Group received a favourable judgement.

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 latter equity investments had subsequently (on 13/12/2016) been transferred to the company E.s.tr.a. S.p.A. at that moment already a shareholder of the said Estra Clima S.r.l. with a 15.88% stake in the share capital.

The Group companies have presented an appeal, considering illegitimate the notices received and no provision has therefore been set aside in these consolidated financial statements.

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 and 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.

In relation to the Arno Valley Municipalities, the annual concession fees of which amount contractually to approximately € 2,200 thousand, an Arbitration Procedure launched by Centria in relation to the said Municipalities is still in being, with partial rulings, issued in September 2019 and January 2020, which did not resolve the dispute.

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. In the impossibility of quantifying the possible reduction of the fees, in these financial statements, in continuity with the previous years, it was therefore decided to continue to recognise at cost the entire amount contractually provided for.

Dispute of Ecolat on capital increase in Sei Toscana S.r.l.
The company acquired is at the moment in dispute with the investee Sei Toscana S.r.l., on the share capital increase of the latter resolved in December 2014 for € 30 million, to be subscribed in two tranches of € 12 million and € 18 million respectively, with maturity at 15 December 2015 and 30 September 2018.

In particular, with reference to the first tranche of € 12 million, Ecolat declared that it would pay up 75% of its quota by offsetting of its receivables deriving from a shareholder loan. The denial of this possibility by SEI triggered a dispute which saw, on the one hand, SEI Toscana proceeding to the sale pursuant to 2466 to the detriment of Ecolat transferring to the other shareholders a portion equivalent to 5.14% of the capital, on the other, Ecolat paying the amount of 75% of the capital increase twice, a first time by offsetting receivables and a second by payment in cash, giving rise to a receivable from SEI Toscana of € 1,365 thousand.

The amount is representative of the double payment of € 1,016 thousand and the amount of € 348,000 for the purchase of the quota of 1.09% made in fulfilment of the procedure pursuant to 2466 applied also to the detriment of the shareholder Cooplat. The quota of 5.14% is today the subject of judicial confiscation, while awaiting to be definitively freed with the conclusion hearing today set for January 2021.

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 2019 to the obligations for defined benefits and the fair value of the plan's assets:

Obligations for defined benefits 01/01/2019	Acquisitions	Costs for services	Interests	Settled benefits	Expected obligations 31/12/2019	Actuarial losses/(gains) from experience	Actuarial losses/(gains) from changes to financial assumption	Obligations for defined benefits 31/12/2019
7,242	1,009	115	62	(590)	7,838	(46)	489	8,281

The main assumptions are summarised in the table below:

Summary of the Economic Technical Basis

	Year ended 31 December 2019	Year ended 31 December 2018
Annual discount rate	0.77%	1.57%
Annual inflation rate	1.50%	1.50%
Annual severance indemnity increase rate	2.63%	2.63%
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
1.05%	0.50%

A quantitative analysis follows below summarising sensitivity in respect of the significant assumptions at 31 December 2019 and 2018:

Assumptions	Changes	Year ended 31 December 2019	Year ended 31 December 2018
Turnover frequency	+1/4%	7,882	7,121
	- 1/4%	8,060	7,206
Inflation rate	+1/4%	8,109	7,311
	- 1/4%	7,825	7,014
Discount rate	+1/4%	7,749	6,943
	- 1/4%	8,190	7,388

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				
	2,020	2021	2022	2023	2024
Total	828	483	142	163	213

The average duration of the defined benefit plan obligation at the close of the 2019 financial period is approximately 15.7 years (approx. 16.7 at 31 December 2018).

10.4.3 Medium/long terms loans

In the financial periods ended 31 December 2019 and 31 December 2018, medium/long-term loans amounted to € 466,134 thousand and € 477,857 thousand respectively.

The item can be broken down as follows:

(amounts in thousands of euro)	Year ended 31 December 2019 Carrying Amount	Nominal Amount	Year ended 31 December 2018 Carrying Amount	Nominal Amount l
Bonds maturing within 12 months	-	-	35,691	36,000
Bonds maturing after 12 months	145,292	147,200	147,584	150,000
Total payables for bonds	**145,292**	**147,200**	**183,275**	**186,000**
Shareholders' loans maturing within 12 months	1,435	1,435	1,435	1,435
Shareholders' loans maturing after 12 months	8,240	8,240	9,675	9,675
Total Shareholders loans	**9,675**	**9,675**	**11,110**	**11,110**
Loans maturing within 12 months	82,182	82,182	67,322	67,322
Loans maturing after 12 months	206,810	208,161	210,724	212,149
Total payables for loans	**288,992**	**290,343**	**278,046**	**279,472**
Leasing within 12 months	4,654	4,654	331	331
Leasing after 12 months	17,521	17,521	5,094	5,094
Total payables for leasing	**22,175**	**22,175**	**5,425**	**5,425**
Total within 12 months	88,271	88,271	104,780	105,089
Total after 12 months	377,863	381,122	373,077	376,918
Total medium/long term loans	**466,134**	**469,393**	**477,857**	**482,007**

The changes during 2019 are shown below:

(amounts in thousands of euro)	Balance at 31 December 2018	First application of IFRS16	Corporate acquisitions	Amount granted	Amount repaid	Interest amortised cost	Balance at 31 December 2019
Bonds	183,275				(38,800)	817	145,292
Loans	278,046		405	121,500	(111,027)	68	288,992
Leases	5,425	18,156	1,698	994	(4,098)		22,175
Shareholders' loans	11,110				(1,435)		9,675
Total medium/long term loans	**477,857**	**18,156**	**2,103**	**122,494**	**(155,360)**	**885**	**466,134**

We can note in particular:

- The repayment of the bond loan of an original € 50,000 thousand, for an outstanding amount of € 38,800 thousand, which reached maturity in July 2019;
- Opening of new medium/long-term loans and repayments for € 121,500 thousand and € 111,027 thousand, respectively;
- Effects deriving from first application of IFRS 16 for € 22,175 thousand at 31 December 2019 (€ 18,156 thousand at 01 January 2019).

The table below shows the carrying amount at 31 December 2019 and 31 December 2018 for each bond loan issued:

(amounts in thousands of euro)	Year ended 31 December 2019	2018
MINIBOND 2014-2019	-	35,691
BOND 2015-2022	96,233	98,744
BOND 2016-2023	49,058	48,840
Bonds	**145,292**	**183,275**

Shareholders' loans include 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 thousand, repayable in 24 instalments starting from 30 June 2015, with constant principal amounts at an annual rate of 3% and the residual debt at 31 December 2019 of € 8,750 thousand;
- debt to the shareholder Coingas originally of € 1,850 thousand 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 2019 for € 925 thousand.

10.4.4 Deferred tax liabilities

In the financial periods ended 31 December 2019 and 31 December 2018, deferred tax liabilities amounted to € 44,949 thousand and € 41,834 thousand respectively.

The composition and changes in 2019 in the item are as follows:

(amounts in thousands of euro)	Balance at 31 December 2018	Corporate acquisitions	Allocations	Utilisation/Reversal	Balance at 31 December 2019
Dividends not collected	26		9	(19)	16
Amortised cost bond loans	365			(111)	254
Deferrals on capital gains	2,048			(2,048)	-
Capital gains on assets under concession	6,485	5,293		(149)	11,628
Capital gains on intangible assets	32,743		237	(1,864)	31,116
Capital gains on property, plant and equipment	55	1,640	55	(94)	1,657
Other	111		168	(2)	278
Deferred tax liabilities	**41,834**	**6,933**	**470**	**(4,287)**	**44,949**

The composition and changes in 2018 in the item are as follows:

(amounts in thousands of euro)	Balance at 31 December 2017	Corporate acquisitions	Allocations	Utilisation/Reversal	Balance at 31 December 2018
Dividends not collected	460		13	(447)	26
Amortised cost bond loans	572			(206)	365
Deferrals on capital gains	4,097			(2,048)	2,048
Capital gains on assets under concession	3,410	3,220		(145)	6,485
Capital gains on intangible assets	29,997	4,290	237	(1,781)	32,743
Capital gains on property, plant and equipment	55				55
Other	76		36	(1)	111
Deferred tax liabilities	**38,667**	**7,510**	**286**	**(4,629)**	**41,834**

10.4.5 Other non-current liabilities

In the financial periods ended 31 December 2019 and 31 December 2018, other non-current liabilities amounted to € 4,320 thousand and € 1,721 thousand respectively and mainly refer to multiple year deferred income for fibre optic rentals for the year relating to data transmission in the telecommunication sector.

10.4.6 Non-current and current contractual liabilities

At 31 December 2019 non-current and current contractual liabilities amounted to € 21,123 thousand and € 656,000 respectively (€ 14,732 thousand and € 1165 thousand at 31 December 2018) 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 2019 and 31 December 2018, short-term borrowings amounted to € 31,601 thousand and € 10,528 thousand respectively.

The item can be broken down as follows:

	Year ended 31 December	
(amounts in thousands of euro)	**2018**	**2018**
Bank advances and current account uses	29,619	7,495
Payables to bondholders for interest accrued	1,982	3,034
Short-term borrowings	**31,601**	**10,528**

10.5.2 Trade payables

In the financial periods ended 31 December 2019 and 31 December 2018, trade payables amounted to € 215,299 thousand and € 250,364 thousand respectively.
The item can be broken down as follows:

	Year ended 31 December	
(amounts in thousands of euro)	2019	2018
Payables to suppliers	210,072	244,069
Payables to subsidiaries	4,455	4,259
Payables to holding companies	755	2,034
Payables to associates	16	2
Trade payables	**215,299**	**250,364**

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 reduction in the balance at the end of financial year 2019 compared to the end of financial year 2018 is due mainly to the drop in raw material prices recorded in the last months of the year.
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 Tax liabilities

In the financial periods ended 31 December 2019 and 31 December 2018, tax liabilities amounted to € 18,726 thousand and € 15,283 thousand respectively.
The item can be broken down as follows:

	Year ended 31 December	
(amounts in thousands of euro)	2019	2018
Irpef withholding agents	1,059	889
VAT payable	1,550	4,285
IRES/IRAP payables	5,137	2,795
Excise duty and additional taxes	10,970	7,310
Other payables	10	4
Tax liabilities	**18,726**	**15,283**

10.5.4 Other current liabilities

In the financial periods ended 31 December 2019 and 31 December 2018, other current liabilities amounted to € 64,800 thousand and € 47,343 thousand respectively.
The item can be broken down as follows:

	Year ended 31 December	
(amounts in thousands of euro)	2019	2018
Payables due to staff for salaries	4,735	4,460
Payables to social security institutions	1,844	1,794
Payables to Energy and Environmental Services Fund [CSEA]	12,661	9,516
Payables for the purchase of equity investments in Tegolaia and Cavriglia	-	2,611
Payables for the purchase of equity investment in Ecolat	1,000	
Payables for dividends resolved	14,638	-
Accruals and deferrals	584	2,700
Payables for employees early retirement	-	337
Guarantee deposits	20,920	20,876
Other payables	8,417	5,048
Other current liabilities	**64,800**	**47,343**

The balance of the item mainly refers to guarantee deposits made by customers as guarantees on gas consumption.
The payable for the purchase of equity investment in Ecolat is related to the balance of the purchase price of the equity investment at 88% of the share capital, contractually due in March 2020.
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, up compared to the previous year.

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 2019 and 31 December 2018.

FINANCIAL ASSETS	Year ended 31 December 2019		Year ended 31 December 2018	
	Carrying amount	Fair value	Carrying amount	Fair value
Financial assets at fair value with changes recognised in income statement	**32,597**	**32,597**	**16,974**	**16,974**
Forward commodity contracts	30,502	30,502	16,704	16,704
Commodity Swaps	2,095	2,095	269	269
Financial liabilities at fair value with changes recognised in shareholders' equity	**1,533**	**1,533**		
Commodity Swaps	1,533	1,533		
Receivables and loans	**292,259**	**292,259**	**361,270**	**361,270**
Loans to companies subject to joint control	230	230	150	150
Loans to associates	4,643	4,643	4,937	4,937
Medium/long term guarantee deposits	5,285	5,285	4,713	4,713
Trade receivables	281,434	281,434	351,022	351,022
Receivables from banks	667	667	448	448
Cash and cash equivalents	**195,748**	**195,748**	**228,693**	**228,693**
Non-current assets held for sale	**-**	**-**	**930**	**930**
TOTAL ASSETS	**522,137**	**522,137**	**607,868**	**607,868**

FINANCIAL LIABILITIES	Year ended 31 December 2019		Year ended 31 December 2018	
	Carrying amount	Fair value	Carrying amount	Fair value
Financial liabilities at fair value with changes recognised in income statement	**31,606**	**31,606**	**20,269**	**20,269**
Forward commodity contracts	29,476	29,476	15,393	15,393
Commodity Swaps	1,736	1,736	4,305	4,305
IRS derivatives not designated as hedging instruments	394	394	571	571
Financial liabilities at fair value with changes recognised in shareholders' equity	**5,377**	**5,377**	**545**	**545**
Cash flow hedge IRS derivatives	374	374	545	545
Commodity Swaps	5,003	5,003		
Liabilities at amortised cost	**733,076**	**733,076**	**758,311**	**758,311**
Trade payables	215,299	215,299	250,364	250,364
Medium/long terms loans	466,134	466,134	477,857	477,857
Short-term borrowings from banks	31,601	31,601	10,528	10,528
Guarantee deposits	20,042	20,042	19,562	19,562
Liabilities directly associated with assets held for sale	**-**	**-**	**280**	**280**
TOTAL LIABILITIES	**770,059**	**770,059**	**779,405**	**779,405**

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.

Financial asses held for sale were measured at fair value determined as the best estimate for the realisable price obtainable on their disposal.

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 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 three years.
The values used to calculate the result per basic share are shown below.

	Year ended 31 December	
	2019	**2018**
Net income pertinent to Parent Company shareholders (thousands of Euro)	16,629	7,331
- Operating activities	16,909	9,651
- Assets held for sale	(208)	(2,320)
Average number ordinary shares in circulation in period	227,834,000	227,834,000
Result per basic and diluted ordinary shares (Euro)	**0.07**	**0.03**
Result from operating activities per basic and diluted ordinary shares (Euro)	**0.07**	**0.04**

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 2019 and 2018:

Guarantees issued on behalf of associates	**31 December 2019**	**31 December 2018**
Surety issued to Banca Popolare Emilia and UniCredit in favour of Sinergie Italiane S.r.l.	9,169	9,169
Guarantee issued to Unicredit in favour of Blugas Infrastrutture S.r.l. for funding	4,257	4,257
Total	**13,426**	**13,426**
Guarantees granted in the interests of others	**31 December 2019**	**31 December 2018**
Sureties issued to the Tax/Customs Authorities for tax refunds	8,293	3,872
Sureties to other parties	431	789
Guarantees issued on behalf of local entities for work or concessions relating to the use of public land	10,832	10,046
Sureties issued to INPS	1,084	1,084
Total	**20,640**	**15,791**
Total guarantees	**34,066**	**29,217**

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 2019, after evaluating the effects of IRS, around 62% (55% in 2018) of the Group's loans were at a fixed rate.

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 2019 and 2018:

SENSITIVITY OF FINANCIAL FLOWS	31-Dec-19				31-Dec-18			
	FINANCIAL EXPENSES		CASH FLOW HEDGE RESERVE		FINANCIAL EXPENSES		CASH FLOW HEDGE RESERVE	
	50 BP INCREASE	50 BP DECREASE	50 BP INCREASE	50 BP DECREASE	50 BP INCREASE	50 BP DECREASE	50 BP INCREASE	50 BP DECREASE
TOTAL DEBT FOR DERIVATIVES AND LEASES	(192)	70			(312)	85		
CHANGES TO FAIR VALUE	66	(67)	44	(41)	106	(107)	102	(73)
TOTAL	(126)	3	44	(41)	(206)	(23)	102	(73)

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.

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 2019 and 2018:

Trade receivables	Year ended 31 December			
(amounts in thousands of euro)	2019		2018	
Gross trade receivables	340,359	100%	404,215	100%
Provisions for write-downs	-58,925	-17%	-53,193	-13%
Trade receivables	**281,434**	**83%**	**351,022**	**87%**

The table below provides details on gross trade receivables according to ageing at 31 December 2019 and 2018:

Trade receivables	Year ended 31 December			
(amounts in thousands of euro)	2019		2018	
Falling due	244,257	72%	334,341	83%
Due from 0-30 days	19,005	6%	7,125	2%
Due from 31-90 days	5,942	2%	4,718	1%
Due from 91-180 days	7,513	2%	3,726	1%
Due from 181-365 days	13,528	4%	13,568	3%
Due over 365 days	50,113	15%	40,737	10%
Gross trade receivables	**340,359**	**100%**	**404,215**	**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 2019 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 2019.

(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	147,200			147,200	
Bank loans	290,343	82,610	83,579	117,327	6,825
Leases	22,175	4,654	3,934	9,832	3,756
Medium/long terms loans to shareholders	9,675	1,435	1,435	4,305	2,500
Total	**469,393**	**88,699**	**88,948**	**278,664**	**13,081**

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 2019 and 2018 is shown below. This derives from the consolidated financial statements for the years ended on the same dates, in compliance with the ESMA update of the CESR recommendations. *The consistent implementation of Commission Regulation (EC) No 809/2004 implementing the "Prospectus Directive*" dated 20 March 2013 (formerly CESR Recommendation 05-054b of 10 February 2005).

	(amounts in thousands of euro)	Year ended 31 December 2019	Year ended 31 December 2018
A.	Cash	17	15
B.	Cash equivalents	195,731	228,678
C.	Securities held for trading	-	-
D.	**Cash and cash equivalents (A) + (B) + (C)**	**195,748**	**228,693**
E.	Current financial receivables	**34,797**	**17,422**
	- current derivative financial instruments	*34,130*	*16,974*
	- Interest income due from banks	*667*	*448*
F.	Current bank debt	31,601	10,528
G.	Current portion of non-current debt	88,271	104,780
	- bank debts	*82,182*	*67,322*
	- bonds issued	-	*35,691*
	- payables to other lenders for financial leases	*341*	*331*
	- payables to other lenders for operating leases	*4,313*	-
	- payables to shareholders for loans	*1,435*	*1,435*
H.	Other current financial debt	36,983	20,814
	- current derivative financial instruments	36,983	20,814
I.	**Current financial debt (F) + (G) + (H)**	**156,855**	**136,122**
J.	**Net current financial debt (I) - (E) - (D)**	**(73,690)**	**(109,992)**
K.	Non-current bank debts	206,810	210,724
L.	Bonds issued	145,292	147,584
M.	Other non-current debt	25,761	14,769
	- payables to other lenders for financial leases	*4,753*	*5,094*
	- payables to other lenders for operating leases	*12,768*	-
	- payables to shareholders for loans	*8,240*	*9,675*
N o.	**Non-current financial debt (K) + (L) + (M)**	**377,863**	**373,077**
O.	**Net financial debt (J) + (N)**	**304,173**	**263,084**

At 31 December 2019, net financial debt stood at € 304,173 thousand up on the € 263,084 thousand of the previous year, owing mainly to the high level of investments made in the year.

At 31 December 2019, 19% of the Group's debt fell due in under twelve months, calculated on the basis of the notional debt value in the financial statements. The Group assessed the concentration of risk regarding debt refinancing and found that it was low.

There was sufficient access to funding sources and debts falling due within 12 months may be extended with the current lenders.

At 31 December 2019, the Group holds extensive unused lines of credit, mainly concentrated with the Parent Company, for € 134 million.

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:

non-performance of the obligations arising from convictions, on condition that predetermined relevance threshold are exceeded;

a) 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; and
b) 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, 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). 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 RAB (higher than 1.30 x);
- the ratio between net financial debt and shareholders' equity (lower than 1.2x);
- the ratio between EBITDA and interest payable (higher than 3.3x)

With regard to the net financial debt and RAB ratio, the parameter originally set at 0.85 was:
- At the bondholders' meeting of 18 December 2018, eliminated from the original bond loan of € 100,000,000 issued on 13 July 2015, listed on the Irish Global Exchange Market ("GEM") multilateral trading facility.
- At the bondholders' meeting of 7 March 2019, raised to 1.30 in the Bond Loan of an original € 80,000,000 issued on 28 November 2016 and listed on the regulated market of the Dublin Stock Exchange, with the earlier partial repayment option remaining in favour of Bondholders, on the ratio going higher than 1.

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.

Finally, 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, by way of example, 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 2019 and 2018 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 revenues. 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 2019, the Group had the following derivatives included among other current financial assets and liabilities:

	Year ended 31 December	
Current financial assets (amounts in thousands of euro)	**2019**	**2018**
Forward commodity contracts	30,502	16,704
Cash Flow Hedge Commodity Swaps	1,533	269
Commodity Swaps with change in fair value through profit or loss	2,095	
Derivative instruments	**34,130**	**16,974**

	Year ended 31 December	
Current financial assets (amounts in thousands of euro)	**2019**	**2018**
Forward commodity contracts	29,476	15,393
Cash Flow Hedge Commodity Swaps	5,003	4,305
Commodity Swaps with change in fair value through profit or loss	1,736	
Derivative instruments	**36,215**	**19,698**

The net balance of the fair values of derivative instruments in being at 31 December 2019 was, therefore, a negative € 2,085 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 would improve by € 128,000, going from a negative balance of € 2,085 thousand to a negative balance of € 1,957 thousand.
In particular:

- the effect referred to the change in the natural gas price would be an improvement of € 115,000, for derivatives that meet the IFRS 9 criteria for hedge accounting and a worsening of € 39,000 for derivatives with change in fair value in the income statement, not meeting the IFRS 9 criteria for hedge accounting;

- the effect referred to the change in the electricity price would be an improvement of € 53 thousand, of which € 28 thousand referred to derivatives with change in fair value in the income statement, not meeting the criteria of IFRS 9 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 2019, the Group received the following contributions from public Entities.

Beneficiary	Granting entity – Company name	Granting entity – Tax number	Type of operation	Amount
CENTRIA SRL	MUNICIPALITY OF AREZZO	00176820512	Plants account contribution (gas distribution networks)	25,272
CENTRIA SRL	AZIENDA USL RIETI	00821180577	Plants account contribution (gas distribution networks)	18,135
CENTRIA SRL	MUNICIPALITY OF CAVRIGLIA	00242200517	Plants account contribution (gas distribution networks)	15,210
CENTRIA SRL	MUNICIPALITY OF MURLO	80003070523	Plants account contribution (gas distribution networks)	68,129
CENTRIA SRL	MUNICIPALITY OF COLLE VAL D'ELSA	00134520527	Plants account contribution (gas distribution networks)	14,000
CENTRIA SRL	MUNICIPALITY OF SCANDICCI	00,975,370,487	Plants account contribution (gas distribution networks)	30,287

15. Related parties

The following table presents the total amount of transactions that have been entered into with related parties for the financial years ended 31 December 2019 and 2018. 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 2019

	Year ended 31 December 2019							
Related parties/ FS item	**Revenue from sale of goods and services**	**Other operating revenue**	**Raw materials, ancillary materials and goods**	**Costs for services**	**Personnel costs**	**Other operating costs**	**Financial income**	**Financial expenses**
Consiag S.p.A.	796	315			(253)	8		412
Intesa S.p.A.	406	115		48	(287)			83
Coingas S.p.A.	82	15	49	4				77
Viva Servizi S.p.A.	32	5		437	66	1		
Shareholders	**1,317**	**451**	**49**	**489**	**(475)**	**9**		**573**
Edma Reti Gas S.r.l.	2,260	320	4	13,476	(19)	21		
Nuova Sirio S.r.l.	15	2						
Companies subject to joint control	**2,275**	**322**	**4**	**13,476**	**(19)**	**21**		
Blugas Infrastrutture S.r.l.		7					145	
Monte Urano S.r.l.	14	4						
A.E.S. Fano Distribuzione Gas S.r.l.	70	54		51	(3)		39	
SIG S.r.l.	4	50			(29)			
Associates	**89**	**115**		**51**	**(33)**		**185**	
Total	**3,681**	**889**	**53**	**14,015**	**(526)**	**29**	**185**	**573**
Percentage incidence on corresponding FS item	***0.38%***	***3.07%***	***0.01%***	***5.48%***	***(1.34%)***	***0.18%***	***6.75%***	***4.33%***

Financial year 2018

	Year ended 31 December 2018							
Related parties/ FS item	**Revenue from sale of goods and services**	**Other operating revenue**	**Raw materials, ancillary materials and goods**	**Costs for services**	**Personnel costs**	**Other operating costs**	**Financial income**	**Financial expenses**
Consiag S.p.A.	1,006	167		1,022	(251)			328
Intesa S.p.A.	408	136		635	(297)			
Coingas S.p.A.	80	17	30	365				37
Viva Servizi S.p.A.		14		712	69	1		
Shareholders	**1,494**	**334**	**30**	**2,734**	**(479)**	**1**		**366**
Edma Reti Gas S.r.l.	2,536	328	84	13,638	(133)	92		
Nuova Sirio S.r.l.	16	7						
Companies subject to joint control	**2,552**	**335**	**84**	**13,638**	**(133)**	**92**		
Blugas Infrastrutture S.r.l.		14					145	
Monte Urano S.r.l.		13						
A.E.S. Fano Distribuzione Gas S.r.l.	31	43		18			39	
SIG S.r.l.	64	34			(15)			
Associates	**94**	**104**		**18**	**(15)**		**185**	
Total	**4,140**	**773**	**114**	**16,390**	**(627)**	**93**	**185**	**366**
Percentage incidence on corresponding FS item	***0.53%***	***2.07%***	***0.02%***	***7.51%***	***(1.97%)***	***0.29%***	***8.73%***	***2.38%***

- **Asset transactions**

Financial year 2019

Related parties/ FS item	Trade receivables	Other non-current financial assets	Other non-current assets	Trade payables	Current and non-current financial debt	Other current liabilities
	Year ended 31 December 2019					
Consiag S.p.A.	1,815		262		13,716	5,795
Intesa S.p.A.	522		180	254	3,417	3,688
Coingas S.p.A.	114			63	3,931	3,688
Viva Servizi S.p.A.	144		1	439		1,467
Shareholders	**2,596**		**443**	**755**	**21,064**	**14,638**
Edma Reti Gas S.r.l.	5,193			4,455		
Nuova Sirio S.r.l.	77	230				
Companies subject to joint control	**5,269**	**230**		**4,455**		
Monte Urano S.r.l.	57					
Blugas Infrastrutture S.r.l.	1,143	4,153				
A.E.S. Fano Distribuzione Gas S.r.l.	162	490		16		
SIG S.r.l.	65					
Associates	**1,427**	**4,643**		**16**		
Total	**9,293**	**4,873**	**443**	**5,227**	**21,064**	**14,638**
Percentage incidence on corresponding FS item	***3.30%***	***42.23%***	***8.38%***	***2.43%***	***4.52%***	***22.59%***

Financial year 2018

Related parties/ FS item	Trade receivables	Other non-current financial assets	Trade payables	Current and non-current financial debt
	Year ended 31 December 2018			
Consiag S.p.A.	1,443		256	10,000
Intesa S.p.A.	512		340	
Coingas S.p.A.	119		232	1,110
Viva Servizi S.p.A.	652		1,206	
Shareholders	**2,726**		**2,034**	**11,110**
Edma Reti Gas S.r.l.	6,630		4,259	
Nuova Sirio S.r.l.	57	150		
Companies subject to joint control	**6,687**	**150**	**4,259**	
Monte Urano S.r.l.	26			
Blugas Infrastrutture S.r.l.	984	4,153		
A.E.S. Fano Distribuzione Gas S.r.l.	112	784	2	
SIG S.r.l.	52			
Associates	**1,175**	**4,937**	**2**	
Total	**10,587**	**5,087**	**6,295**	**11,110**
Percentage incidence on corresponding FS item	***3.01%***	***39.83%***	***2.51%***	***0.23%***

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 ESTRA 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

- Service contract from Estra Group companies to EDMA Reti Gas;
- Gas distribution services costs from EDMA Gas networks to Estra Group companies Energie and Promoteo.

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 an 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 2019 amount to € 855,000.

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 have a three-year term and are tacitly renewable for an additional 3, starting from 01 January 2019. The fees paid to shareholders in 2019 amounted to € 2,135 thousand. 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 and the shareholders Consiag S.p.A. and Coingas S.p.A., with the following features:
- Existing loan contract with the shareholder Consiag S.p.A. originally for € 15,000 thousand, repayable in 24 instalments starting from 30 June 2015, with constant principal amounts at an annual rate of 3% and the residual debt at 31 December 2019 for € 8,750 thousand;
- Loan contract entered into with the shareholder Coingas S.p.A. originally for € 1,850 thousand 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 2019 of € 925,000.

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 2019 for any reason and in any form by the Estra Group to Strategic Managers amounted to € 764,000 and included the General Manager Paolo Abati, who in additional to being a strategic manager is also a member of the Board of Directors.

16. Compensation for directors, statutory auditors and independent auditors

The table below shows the emoluments to directors, statutory auditors and independent auditors for 2019 and 2018.

Beneficiaries	Year ended 31 December 2019			Year ended 31 December 2018		
	At the parent company	At other Group companies	Total	At the parent company	At other Group companies	Total
Directors	341	311	652	363	315	678
Board of Statutory Auditors	131	304	435	178	319	497
Independent Auditors	114	229	343	113	224	337

The table below shows the fees paid for 2019 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**	**2019 fees (Thousands of euro)**
Independent audit of accounts	Parent Company independent auditor	Parent company	71
		Subsidiaries	163
Certification services (1)	Parent Company independent auditor	Parent company	43
		Subsidiaries	23

(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.

17. Subsequent events

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

Investment agreement for the acquisition of Bisenzio Ambiente S.r.l.

At the beginning of April 2020, Estra S.p.A., Consiag S.p.A. (Shareholder with 45% of Estra S.p.A.) and Cipeco S.r.l signed investment agreements for the purpose of proceeding with corporate operations aimed at the gradual acquisition by Estra S.p.A. of a controlling equity investment of up to 85% in the share capital of Bisenzio Ambiente S.r.l., currently wholly owned by Cipeco S.r.l..
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 plant for the processing of hazardous and non-hazardous liquid special waste, in the start-up stage.
The investment agreements provide for Estra's 2020 entry into the share capital of Bisenzio Ambiente at 5% through the subscription of a share capital increase resolved by the shareholder Cipeco in favour of third parties of € 39,000 and at the same time the disbursement of a loan of € 461,000. Estra S.p.A. is also obliged to issue to the Tuscany Region a financial guarantee of a maximum amount of € 4 million in accordance with the provisions pursuant to Tuscany Regional Executive Decree no. 743 of 6 August 2012 as amended.
The initiative is part of the Group's strategy of investing in the environmental sector also with a view to diversification of the business.

COVID-19 epidemiological emergency

At the date of preparation of the present report, a novel coronavirus known as COVID-19, initially detected in Wuhan, China, is infecting thousands of people in numerous countries worldwide and Italy is one of the countries that are, at the moment, experiencing a particularly high level of contagion.

The Board of Directors of Estra, right from the start, monitored with extreme attention the evolution of the events in order to comply with the laws issued on implementing the measures to contain the contagion and identified promptly the measures considered most appropriate in support of the workers, safety and services, guaranteeing continual information to all employees.
In particular, through a specially set up Committee for management of the emergency, various precautionary measures aimed at containing the spread of the novel coronavirus and at safeguarding health and safety in the workplace were immediately put in place. The measures regarded, in particular:

- The cleaning and sanitising of workplaces;
- A reduction in the numbers of workers in workplaces at the same time, above all through i) the activation as far as possible of smart working or other forms of work that do not require presence in the company, ii) the use of untaken holidays owed, contractual leave, recovery of overtime hours, etc., iii) in any case, observance of minimum safe distances;
- The regulation of accesses to workplaces and, in particular, the regulation of accesses by employees to the company and to common areas to avoid gatherings and non-observance of safe distances and the reduction to the indispensable of access to company offices by various consultants, customers or suppliers;
- Prevention and management of any persons with symptomatology;
- Arrangement of an insurance policy in support of workers in the case of infection by COVID-19. The policy provides for insurance cover the validity of which is extended to all employees, up to 31 December 2020 inclusive;
- The reduction of all movements of natural persons to only movements for proven work needs or situations of necessity.

Given their nature of “essential” services, the Group has not recorded at the moment interruptions of activities, but only some limitations.
With reference to the main business activities, we can note:

- for distribution of natural gas: a sharp reduction/suspension of all activities postponable because they are not directly linked to the security and continuity of the service;
- for the sale of natural gas and electricity: i) the decision to close all offices to the public offering alternative channels for contact, through which it is possible to carry out, remotely, the same procedures that would be carried out at offices, ii) the decision not to apply interest on arrears normally provided for on bills past due or falling due between 9 March and 20 April.

The Board of Directors believes that the results and the Group’s financial and equity situation may be impacted by the emergency situation mainly as a result of: i) a foreseeable reduction in the consumption of retail and business customers (following the closure of “non-essential” businesses ordered by the ministerial prescriptions that came into force on 10 March 2020) and ii) a possible increase in past-due and bad receivables in relation to domestic, retail and business customers and the public administration.
Despite this, considering the rapid evolution of the situation and the contagion and the great uncertainties related to the duration of the emergency situation and to the extension of the economic and social effects of COVID-19, it is not at the moment possible to assess reliably what may be the real impacts on the performance and the Group’s financial and equity situation.

Prato, 06 April 2020

On behalf of the Board of Directors
The Chairperson of the Board of Directors
Francesco Macrì

Building a better working world

E.S.TR.A. S.p.A.

Consolidated financial statements as at December 31, 2019

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

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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.TR.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.TR.A. Group (the Group), which comprise the statement of consolidated financial position as at December 31, 2019, and the consolidated income statement, the consolidated statement of comprehensive income, statement of changes to consolidated shareholders' equity and consolidated cash flows statement 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, 2019, 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.TR.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:

EY S.p.A.
Sede Legale: Via Po, 32 - 00198 Roma
Capitale Sociale Euro 2.525.000,00 i.v.
Iscritta alla S.O. del Registro delle Imprese presso la C.C.I.A.A. di Roma
Codice fiscale e numero di iscrizione 00434000584 - numero R.E.A. 250904
P.IVA 00891231003
Iscritta al Registro Revisori Legali al n. 70945 Pubblicato sulla G.U. Suppl. 13 - IV Serie Speciale del 17/2/1998
Iscritta all'Albo Speciale delle società di revisione
Consob al progressivo n. 2 delibera n.10831 del 16/7/1997

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Key Audit Matter	Audit Response
Recognition of revenues for unbilled gas and electricity sales and accruals for invoices to be issued	
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, 2019, 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 information systems and non-accounting data. 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, net of estimated network losses, considering the data communicated at end of the year by the service distributors, subject to potential future adjustments, as required by applicable laws and regulations. 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. The disclosures included in note "Significant accounting estimates" of the consolidated financial statements as at December 31, 2019 describe the revenues recognition principles adopted by the Group for gas and electricity sales.	Our audit procedures responsive to this key audit matter included, among others: • 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 information 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. Lastly, we reviewed the adequacy of the disclosures included in the notes to the financial statements.

Business Combination

During the financial year 2019, the Group acquired 100% of Murgia Reti Gas S.r.l. for a cash consideration of Eur 42,1 million and the remaining 88% of Ecolat S.r.l. for a cash consideration of Eur 6,4 million.

At December 31, 2019 management completed the process for allocating the purchase price of Ecolat S.r.l. recognizing tangible assets related to buildings and to plants and machinery for Eur 7,6 million; while, as allowed by IFRS 3, it has provisionally allocated the purchase price of Murgia Reti Gas S.r.l. to the assets, liabilities and contingent liabilities, recording an higher value of intangible assets related to assets under concession for Eur 19,5 million

The processes and accounting policies for acquisition transactions are based on complex assumptions , that require, by their nature, management's judgment, in particular with reference to the allocation of purchase price to fair values of the assets acquired and liabilities assumed, the alignment of the accounting principles of the acquiree with those of the Group, and the determination of the results since the acquisition date for the purpose of their inclusion in the consolidated financial statements of the Group.

Considering the significance of the purchase price amounts, the degree of management's judgment involved and the complexity of the assumptions made in the allocation of the purchase price to fair values of the assets acquired and the liabilities assumed, we have determined that this area constitutes a key audit matter.

The disclosures included in note "Business combinations and disposals of assets, and acquisition and disposal of non-controlling interests – Year ended as at December 31, 2019" of the consolidated financial statements as at December 31, 2019 describe the aforementioned business combination sand related accounting implications.

Our audit procedures responsive to this key audit matter included, among others:

- analysis of the executed acquisition agreements in order to gain an understanding of key terms and conditions;
- testing of the fair value estimate of the identified assets acquired and liabilities assumed at the acquisition date;
- analysis of the reports provided by management's specialists that assisted the Group in determining the fair value, including the assessment of their competence, capability and independence;
- assessment of the financial forecasts of the entities acquired and of the reasonableness of the assumptions used in the valuation, such as growth rate and discount rate, also involving our valuation specialists;
- assessment of the methodologies involved and the arithmetical accuracy of the purchase price allocation;
- assessment of the accounting treatment adopted in the consolidated financial statements of E.S.TR.A. S.p.A..

Lastly, we reviewed the adequacy of the disclosures included in the notes to the financial statements in relation to these acquisitions.

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.TR.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 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 with them all matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

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.TR.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.TR.A. S.p.A. are responsible for the preparation of the report on operations and the specific section on corporate governance as provided for by article 123-bis, paragraph 2, subparagraph d) of Legislative Decree n. 58 of Group E.S.TR.A. as at December 31, 2019, 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 section on corporate governance as provided for by article 123-bis, paragraph 2, subparagraph d), of Legislative Decree n. 58, dated 24 February 1998, with the consolidated financial statements of E.S.TR.A. Group as at December 31, 2019 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 section on corporate governance are consistent with the consolidated financial statements of E.S.TR.A. Group as at December 31, 2019 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.TR.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 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, 29 April 2020

EY S.p.A.
Signed by: Beatrice Amaturo, Auditor

This report has been translated into the English language solely for the convenience of international readers.