# Interim Report

at 30 june **2018**

iren

# Summary

# COMPANY OFFICERS

**Board of Directors** [(1)]

| | |
|---|---|
| Chairperson | Paolo Peveraro [(2)] |
| Deputy Chairperson | Ettore Rocchi [(3)] |
| Chief Executive Officer | Massimiliano Bianco [(4)] |
| Directors | Moris Ferretti [(5)] |
| | Lorenza Franca Franzino [(6)] |
| | Alessandro Ghibellini [(7)] |
| | Fabiola Mascardi |
| | Marco Mezzalama [(8)] |
| | Paolo Pietrogrande [(9)] |
| | Marta Rocco [(10)] |
| | Licia Soncini [(11)] |
| | Isabella Tagliavini [(12)] |
| | Barbara Zanardi [(13)] |

**Board of Statutory Auditors** [(14)]

| | |
|---|---|
| Chairperson | Michele Rutigliano |
| Standing Auditors | Cristina Chiantia |
| | Simone Caprari |
| Supplementary Auditors | Donatella Busso |
| | Marco Rossi |

**Financial Reporting Manager**

Massimo Levrino

**Independent Auditors**

PricewaterhouseCoopers S.p.A. [(15)]

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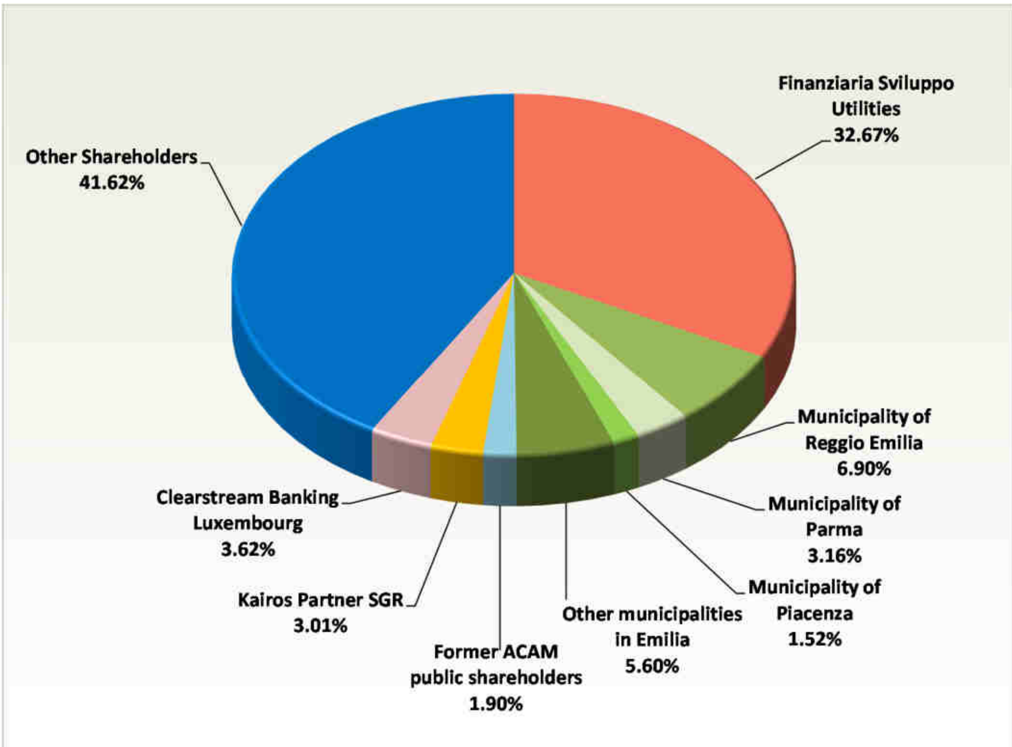
(1) Appointed by the Shareholders' Meeting of 9 May 2016 for the three years 2016-2017-2018.
(2) Appointed Chairperson by the Shareholders' Meeting of 9 May 2016.
(3) Appointed Deputy Chairperson at the meeting of the Board of Directors of 9 May 2016.
(4) Appointed Chief Executive Officer at the meeting of the Board of Directors of 9 May 2016.
(5) Member of the Remuneration and Appointments Committee, appointed on 12 May 2016.
(6) Member of the Transactions with Related Parties Committee, appointed on 12 May 2016.
(7) Member of the Control, Risk and Sustainability Committee appointed on 12 May 2016.
(8) Member of the Control, Risk and Sustainability Committee appointed on 12 May 2016.
(9) Member of the Control, Risk and Sustainability Committee appointed on 12 May 2016. Mr. Pietrogrande was also appointed Chairperson of the said Committee during the Committee meeting held on 18 May 2016.
(10) Member of the Remuneration and Appointments Committee, appointed on 12 May 2016. Ms. Rocco was also appointed Chairperson of the Remuneration and Appointments Committee during the Committee meeting held on 24 May 2016.
(11) Member of the Transactions with Related Parties Committee, appointed on 12 May 2016.
(12) Member of the Remuneration and Appointments Committee, appointed on 12 May 2016.
(13) Member of the Transactions with Related Parties Committee, appointed on 12 May 2016. Ms. Zanardi was also appointed Chairperson of the Transactions with Related Parties Committee during the Committee meeting held on 24 May 2016.
(14) Appointed by the Shareholders' Meeting of 19 April 2018 for the three years 2018-2019-2020.
(15) Appointed by the Shareholders' Meeting of 14 May 2012 for the nine years 2012–2020.

# SHAREHOLDING STRUCTURE

During the period, following the completion of the merger between Iren and the ACAM Group, which took place in April, Iren S.p.A.'s capital increased with the issuing of 24,705,700 new ordinary shares subscribed by 27 public entities which already hold shares in ACAM itself.

At 30 June 2018, the Company's share capital therefore amounted to 1,300,931,377 euro, fully paid up, and is entirely made up of ordinary shares with a face value of 1 euro each. At the same date, on the basis of the available information, the Iren shareholding structure was as follows:




We can note that, following the non-proportional partial demerger of Finanziaria Sviluppo Utilities (at 30 June 2018 held equally by the Municipality of Genoa and Finanziaria Città di Torino Holding – FCT), with effect from 27 July 2018, the same is entirely held by the Municipality of Genoa and holder of an equity interest in Iren S.p.A. of 16.335%, corresponding to half the shares previously held. Iren shares are assigned for the same percentage stake (16.335%) to the other shareholder, FCT, as the beneficiary of the demerger. For more details, refer to the section "Significant subsequent events".

# A century of **history**

**1905**
The Parma municipal company for electric lighting is founded

**1907**
The Turin municipal company AEM is founded

**1922**
The Genoa municipal company for gas is founded

**1936**
The Genoa municipal company becomes AMGA

**1962**
The Reggio Emilia municipal company AMG is founded

**1965**
The Parma municipal company becomes AMPS

**1972**
The Piacenza municipal company ASM is founded

**1994**
From the Reggio Emilia municipal company AGAC is set up

# Mission

Offering our customers and our territories the best integrated management of energy, water and environmental resources with innovative and sustainable solutions to create value over time.

For everyone, every day.

1996
AMGA Genoa is listed on the Stock Exchange

2000
AEM Turin is listed on the Stock Exchange and ASM Piacenza becomes TESA

2005
AMPS, TESA and AGAC set up ENIA

2006
AEM Turin and AMGA Genoa set up IRIDE

2007
ENIA is listed on the Stock Exchange

2010
IRIDE and ENIA set up IREN

A company that has been attentive to the **development of its territories** and its **customers’** needs for more than **110 years.**

# Vision

Improving people’s quality of life. Making companies more competitive. Looking at territorial growth with a focus on change. Merging development and sustainability into one unique value. We are the multi-utility company that wants to realise this future through innovative choices.

For everyone, every day.

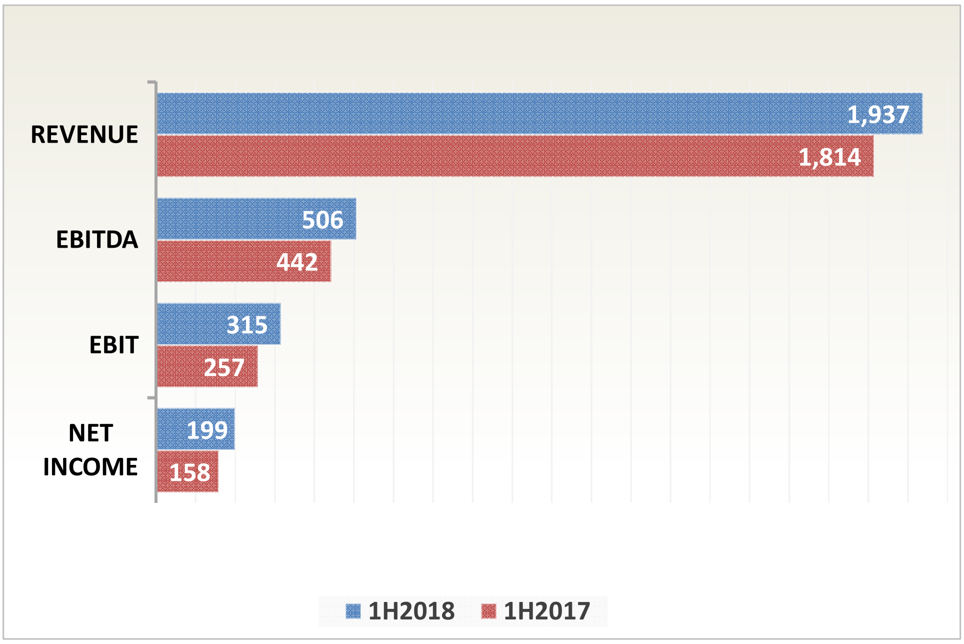
# KEY FIGURES OF THE IREN GROUP: HIGHLIGHTS - FIRST HALF 2018

## Economic data

millions of euro

| | First half 2018 | First half 2017 Restated (*) | Changes % |
|---|---|---|---|
| Revenue | 1,937 | 1,814 | 6.8 |
| EBITDA | 506 | 442 | 14.4 |
| EBIT | 315 | 257 | 22.7 |
| Net profit | 199 | 158 | 26.4 |
| | | | |
| EBITDA Margin (EBITDA/Revenue) | 26.1% | 24.4% | |

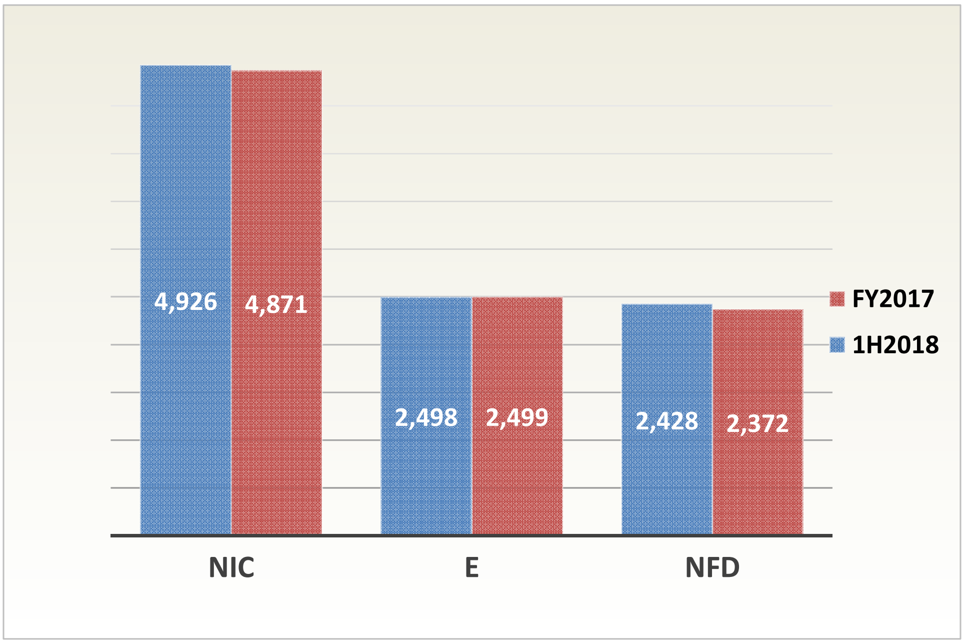
(*) As provided for in IFRS 3, the economic balances of the first half of 2017 were restated to take into account the effects deriving from the completion, at the end of financial year 2017, of the allocation of the purchase price at the definitive fair value of the acquired assets and liabilities (Purchase Price Allocation) of REI – Ricupero Ecologici Industriali and Salerno Energia Vendite.
For further information, please see the paragraph entitled "Restatement of amounts at 30 June 2017" in the section "Content and structure of the condensed consolidated interim report".



## Financial position data

millions of euro

| | 30.06.2018 | 31.12.2017 | Changes % |
|---|---|---|---|
| Net Invested Capital (NIC) | 4,926 | 4,871 | 1.1 |
| Equity (E) | 2,498 | 2,499 | (0.0) |
| Net financial debt (NFD) | 2,428 | 2,372 | 2.4 |
| | | | |
| Debt/Equity (Net financial debt/Equity) | 0.97 | 0.95 | |

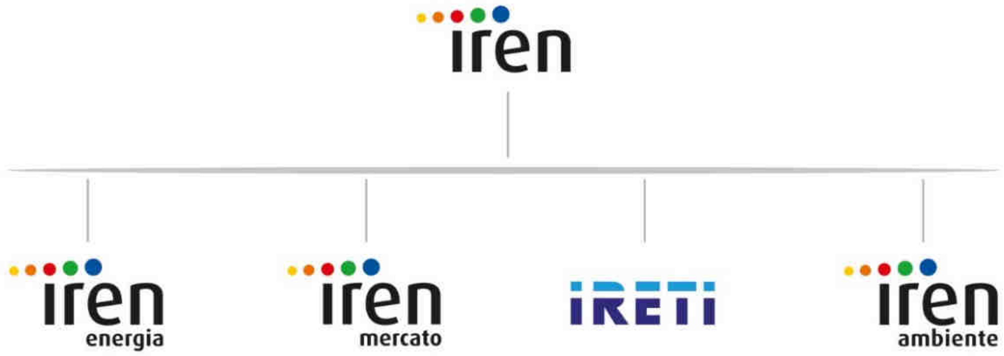



## Technical and commercial data

| | First half 2018 | First half 2017 | Changes % |
|---|---|---|---|
| Electricity produced (GWh) | 4,426 | 5,128 | (13.7) |
| Thermal energy produced (GWht) | 1,680 | 1,657 | 1.4 |
| Electricity distributed (GWh) | 1,861 | 2,023 | (8.0) |
| Gas distributed (mln $m^3$) | 789 | 736 | 7.2 |
| Water distributed (mln $m^3$) | 90 | 87 | 3.4 |
| Electricity sold (GWh) | 7,263 | 8,034 | (9.6) |
| Gas sold (mln $m^3$)* | 1,434 | 1,558 | (8.0) |
| District heating volume (mln $m^3$) | 87 | 85 | 2.4 |
| Waste handled (tonnes) | 1,098,005 | 941,017 | 16.7 |

* of which, 734 mln $m^3$ for internal use in the first half of 2018 (871 mln $m^3$ in the first half of 2017, -15.7%)

# THE CORPORATE STRUCTURE OF THE IREN GROUP




Note that this is the organisational structure for management purposes.
The presentation includes the Companies directly and entirely controlled by Iren S.p.A. In addition, Iren S.p.A. has a direct equity interest in the associate Plurigas S.p.A. – this company was placed in voluntary liquidation by the Shareholders' Meeting of 27 March 2013.

The Group is structured according to a model which provides for an industrial holding company, with registered office in Reggio Emilia, Italy, and four companies responsible for the single business lines operating in the main Italian operating bases of Genoa, Parma, Piacenza, Reggio Emilia, Turin, Vercelli and since this past April, also La Spezia.
The Holding is responsible for the strategic, development, coordination and control activities, while the four Business Units (BUs) have been entrusted with the coordination and guidance of the Companies operating in their respective sectors:

- Energy Business Unit operating in the sectors of electricity production, district heating and energy efficiency
- Market Business Unit active in the sale of electricity, gas and heat
- Networks Business Unit, which operates in the field of the integrated water cycle, and in the gas distribution and electricity distribution sectors
- Waste Management Business Unit which performs the activities of waste collection and disposal

The Group has an important customer portfolio and a significant number of plants supporting operating activities; with reference to the most recent approved financial statements, some indicators of the group's size are reported below:

Electrical and thermal energy production: a considerable number of electricity and heat production plants for urban district heating production, for a total capacity of approximately 2,850 MW of electricity.

Gas Distribution: through its network of approximately 7,984 kilometres Iren serves more than 742,000 customers.

Electricity Distribution: with 7,654 kilometres of high, medium and low voltage underground and overhead networks, the Group distributes electricity to almost 854,000 customers in Turin, Parma and Vercelli.

Integrated water cycle: with around 18,954 kilometres of pipeline networks, almost 10,393 km of sewerage networks and 1,171 treatment plants, Iren provides services to more than 2,640,000 residents.

Waste management cycle: with 145 equipped ecological stations, 3 waste-to-energy plants, 5 landfill sites, 18 treatment, selection, storage and recovery plants and 2 composting plants, the Group serves 145 municipalities for a total of approximately 2,100,000 residents and more than 2,000,000 tonnes managed in 2017.

District heating: through 923 kilometres of dual-pipe underground networks the Iren Group supplies heating for an overall volume of around 87 million m³, equivalent to a population served of over 871,000 residents.

Sales of gas, electricity and heat energy: during 2017 the Group sold almost 2.8 billion m³ of gas, just less than 16,000 GWh of electricity and approximately 3,000 $GWh_t$ of heat for the district heating networks.

On 1 April 2018, the ACAM group, operating in the management of the integrated water and environmental hygiene service in the province of La Spezia, became part of the Iren group.
In particular, ACAM Acque S.p.A. is the group company that carries on its business, as leading operator, in the sector of management of the Integrated Water Service (IWS), overseeing all stages of the water cycle, from water catchment to the subsequent stages of purification and distribution to users, collection and transport of civil and industrial waste water and purification. The company operates in 26 municipalities within the province of La Spezia, serving approximately 206,000 residents through just less than 2,000 kilometres of water network and 857 kilometres of sewer network.
The company ACAM Ambiente S.p.A. is the main manager of the integrated waste cycle in the province of La Spezia and provides urban hygiene services to a catchment area of approximately 200,000 residents (door-to-door collection, road collection and sweeping and urban cleaning) and waste processing through the management of collection centres. Through the company ReCos S.p.A., it manages waste reclamation and processing plants with collection and composting centres and the activity of sending separated materials for recycling.

## ENERGY BU

### Cogenerative production of electricity and heat

The Energia BU installed capacity totals approximately 2,850 MW (in electricity). Specifically, it has 23 electricity production plants directly available to it: 17 hydroelectric plants, 5 thermoelectric cogeneration plants and 1 conventional thermoelectric plant, for a total capacity of approximately 2,700 MW of electricity and 2,300 MW of heat, of which 900 MW through cogeneration. All primary energy sources used – hydroelectric and cogeneration – are eco-friendly. In particular, the hydroelectric production system plays an important role in environmental protection, as it uses a renewable and clean resource without the emission of pollutants. Hydroelectric energy reduces the need to make use of other forms of production that have a greater environmental impact. Environmental protection is a corporate priority for Iren Energia, which has always maintained that the development of hydroelectric production systems, in which it invests heavily each year, is one of the main ways to safeguard the local environment. 40% of total heat production capacity is generated by Group-owned cogeneration plants, while the remainder comes from conventional heat generators. Iren Energia oversees the Group’s electricity and thermal energy planning and dispatching activities.

### District heating

Iren Energia has the largest district heating network in the country, with 923 km of dual pipes. The extension of the dual-pipe network amounts to approximately 568 km in the Turin area, 10 km in the Municipality of Genoa, 220 Km in the Municipality of Reggio Emilia, 102 Km in the Municipality of Parma and 23 km in the Municipality of Piacenza.
The total volume heated at 30 June 2018 amounted to 87 million m³, up by 2.4% compared to the first half of 2017.

### Energy efficiency services

Iren Energia also works in the field of street and monument lighting and traffic lights, and manages, in technological global service, the thermal and electrical systems of the public buildings of the city of Turin and renewable and alternative energy. The company is also responsible for heat management and for running and operating heating and air conditioning systems for private customers, as well as operational management of the heating systems of some public buildings located in the province of Genoa.

**MARKET BU**

Through Iren Mercato the Group sells electricity, gas and heat, through district heating networks, supplies fuel for the Group, and provides customer management services to the Group's investee companies.
On 16 May 2017 the company GEA Commerciale, formerly 100% controlled by Iren Mercato, was merged by incorporation into Salerno Energia Vendite with a consequent extension of the catchment area for gas sales.
Iren Mercato operates at the national level, with a higher concentration of customers served in Central and Northern Italy, and handles the sale of the energy provided by the Group's various sources on the market, represented by end customers and wholesalers.
The main Group energy sources available for its activities are the thermoelectric and hydroelectric plants of Iren Energia.
Iren Mercato also acts as "higher protection" service operator for retail customers in the electricity market in the Province of Turin and the Parma area; historically it operated in the direct sale of natural gas in the territories of Genoa and Turin, and in Emilia.
Lastly, it handles heat sales to district heating customers in the Municipality of Turin and the provincial capitals of Reggio Emilia, Parma, Piacenza and Genoa and sales development in new district heating areas.
During the first half of 2018, the new downstream business line became fully operational; this was launched during 2017 and sells retail customers innovative products in the areas of home automation, energy saving and domestic plant maintenance.
During the first half of 2018, "IrenGO at zero emissions" was launched; this is an innovative offer for electric mobility aimed at private, corporate and business customers and public entities with the objective of reducing the environmental impact of mobility.
The Group has already tested the potentials and benefits of e-mobility through the internal launch of a series of initiatives, such as the installation of recharging infrastructures and the gradual introduction of electric vehicles, adopting and applying the electric mode. All the IrenGO internal and external electric mobility initiatives have 100% green energy supply coming from the Group's hydroelectric plants.

**Sale of Natural Gas**
Total volumes of natural gas procured during the first half of 2018 were approximately 1,540 million $m^3$ of which 700 million $m^3$ were sold to final customers outside the Group and 734 million $m^3$ were used within the Iren Group both for electricity and thermal energy production and for the provision of heating services.
At 30 June 2018, gas customers managed by the Market Business Unit amounted to approximately 898,000, principally spread throughout the traditional Genoa, Turin and Emilia Romagna catchment area and surrounding development areas, and customers of the catchment areas of Vercelli brought in by Atena Trading and the area in Campania brought in by Salerno Energia Vendite. In particular, Salerno Energie Vendite is present in almost all the provinces in Campania as well as in a number of municipalities of the Basilicata and Calabria regions.

**Sale of electricity**
The volumes sold in the first half of 2018 by the Market BU amounted to 3,876 GWh. Retail electricity customers managed at 30 June 2018 were more than 839,000, distributed mainly in the areas traditionally served, corresponding to Turin and Parma, and in the other areas covered commercially by Iren Mercato and by Atena Trading.

**Sale of heat through the district heating network**
Iren Mercato manages the sale of heat, purchased from Iren Energia, to customers receiving district heating in the Municipalities of Genoa, Turin and Nichelino, and in the provinces of Reggio Emilia, Piacenza and Parma. The total district heating volumes at 30 June 2018 amounted to 87.1 million $m^3$.

## NETWORKS BU

The lead company IRETI and the business unit's subsidiaries handle the integrated water cycle, electricity distribution, natural gas distribution and other minor activities.

### Integrated Water Services

IRETI, directly and through the operating subsidiaries Iren Acqua, Iren Acqua Tigullio, and also ASM Vercelli as mentioned above, operates in the field of water supply, sewerage and waste water treatment in the provinces of Genoa, Savona, Piacenza, Parma, Reggio Emilia, Vercelli, La Spezia, and several municipalities in the regions of Piedmont, the Valle d'Aosta, Lombardy and Veneto.
Overall, in the optimal territorial areas (OTAs – ["Ambiti Territoriali Ottimali"]) managed, the service is provided in 242 municipalities serving over 2.6 million residents.
During the first half of 2018, the Networks BU distributed approximately 90 million $m^3$ of water, through a distribution network of around 19,000 km. As regards waste water, the company manages a total sewerage network spanning almost 10,400 Km.

### Gas distribution

IRETI distributes natural gas in 75 municipalities of the Provinces of Reggio Emilia, Parma and Piacenza, in the Municipality of Genoa and in 19 other municipalities nearby. Through ASM Vercelli it distributes gas in the City of Vercelli and in 11 other municipalities of the province. The distribution network made up of 7,984 km of high, medium and low-pressure pipes serves a catchment area of approximately 742,000 customers. During the first half of 2018, IRETI introduced approximately 789 million cubic metres of gas into the network.

### Electricity distribution

IRETI provides the electricity distribution service in the cities of Turin and Parma with approximately 7,654 km of network in medium and low voltage. ASM Vercelli distributes electricity in the City of Vercelli. Electricity distributed in the first half of 2018 amounted to 1,861 GWh.

## WASTE MANAGEMENT BU

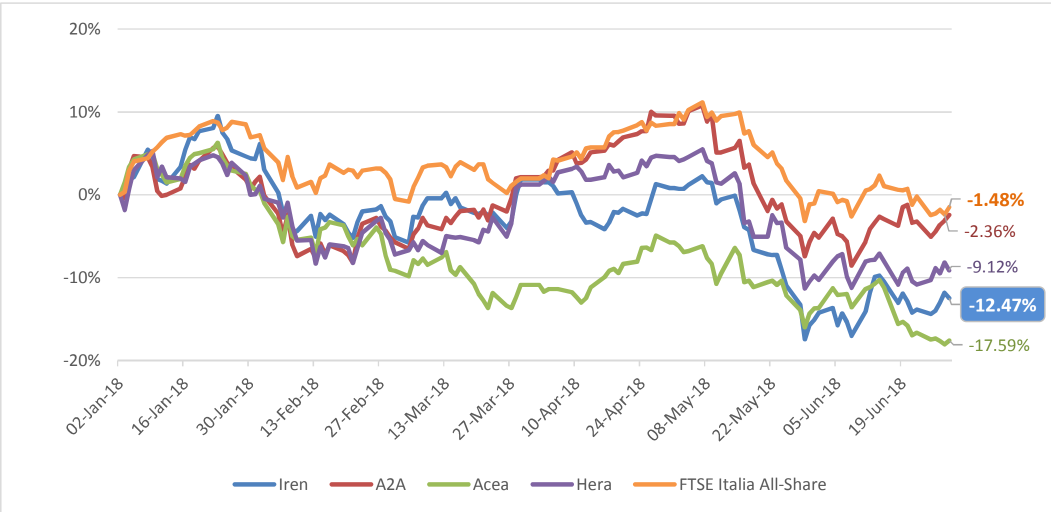
The Waste Management Business Unit carries out waste collection and disposal activities mainly through five companies: Iren Ambiente, operating in the Emilia area, AMIAT, TRM and ASM Vercelli and REI operating in the Piedmont area. The plant network of the BU was increased with the purchase of the company REI situated in the Piedmont area, and with the equity interest in ReCos operating in the Liguria area.
During the first half of 2017, the network was expanded further with the acquisition of a 45% stake in GAIA Asti S.p.A.—which is building 2 waste treatment plants— following the award of the tender for management of the waste service of the municipalities that are members of the Waste Catchment Area Consortium of the Asti Area.
The Waste Management BU carries out all the activities of the urban waste management chain (collection, selection, recovery and disposal) with particular attention to sustainable development and to environmental protection confirmed by growing levels of separated waste collection; it also manages an important customer portfolio to which it provides all the services for special waste disposal. In particular, through TRM S.p.A., the Business Unit manages the waste-to-energy plant in Turin, with a waste-to-energy capacity of approximately 500,000 tonnes/year of waste with recovery of energy. The single-plant company REI was set up for the creation of a new landfill site for hazardous waste, excluding municipal waste, based in Pianezza (TO), Italy; the company began operations in the second quarter of 2017.

# INFORMATION ON THE IREN SHARE IN THE FIRST HALF OF 2018

**Iren share performance on the Stock Exchange**

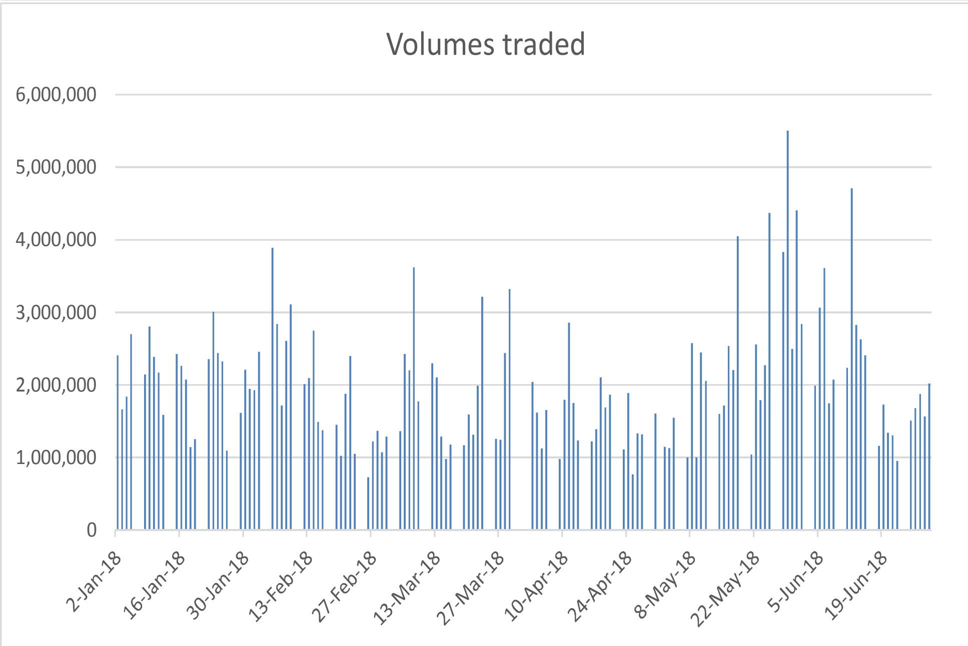
During the first half of 2018, the FTSE Italia All-Share (the main Borsa Italiana index) decreased around 1.48% due mainly to the political uncertainty that had arisen in the period and, more generally, to fears of a slowdown in global growth associated with expectation of potential increases in customs duties. This negative context was reflected also in the performance of Iren stock, interrupting the trend of constant growth which had characterised the share price over the last four years (in particular in 2017 with the best performance compared to the direct competitors), and causing a reduction of 12.47% in the first six months of 2018.

**Performance of Iren share compared to competitors**




At 29 June 2018, the last day of Stock Exchange trading in the first half of the year, Iren stock stood at 2.19 euro per share, with average trading volumes during the period of approximately 2.0 million units per day. The average price in the period was 2.42 euro per share, reaching the highest point since the foundation of Iren (2.74 euro per share) on 23 January and a low for the year, 2.066 euro per share, on 29 May.

The two graphs below show the pricing trend and volumes traded in Iren share over the first half of 2018.


**Stock coverage**
During the period the Iren Group was followed by eight brokers: Banca IMI, Banca Akros, Equita, Fidentiis, Intermonte, KeplerCheuvreux, Main First and Mediobanca.

# **Directors'** Report

at 30 june **2018**

# MARKET CONTEXT

## THE MACROECONOMIC SCENARIO

Global growth continues to follow the positive trend of the last two years, driven by the expansion of the economy in the United States.
Growth in the euro zone remains solid, and in the first quarter recorded +0.4%, was boosted by higher consumption of final goods, more expansive tax policies compared to the last few years and private investments. Positive signs are coming also from the labour market, with the number of unemployed falling in May by another 124,000, and the lowest unemployment rate in 10 years at 8.4%.
The Governing Council of the ECB, after the meeting held in Riga, Latvia on 14 June, announced that the extraordinary purchase of government bonds through Quantitative Easing (QE) will end on 31 December of this year. The market reactions following publication of the news, already expected for some time, were however not negative. Already since March 2017, the capital obtained by the ECB from bonds reimbursed on maturity has in fact been reinvested, and it is reasonable to expect that this activity of reinvestment in the European economy will continue for quite some time.
In the first quarter of the year, the expansive phase continued also for the Italian economy, although it already showed the first signs of a slowdown compared to last year: +0.3% on a quarterly basis compared to the +0.4% of the previous quarter. Economic growth was boosted by changes in inventories and consumption of final goods, while it was slowed down by the trend in foreign demand and by investments, although these components provided positive impulses to the economy in the last two quarters. In the period considered, the added industry value, in a strict sense, decreased (-0.1%), and the expectations for the coming months are for a reduction, considering the 2% drop in industrial orders.
At the end of the first half of 2018, the consumer price index increased sharply year over year (+1% in May and +1.6% in June). Inflation, therefore, shows signs of recovering after the period of weakness at the beginning of the year, although the recent acceleration depended particularly on the most volatile components: energy prices, up owing to rising prices of raw materials, the euro falling against the dollar and food products. Core inflation, that is the indicator that excludes the prices of highly-volatile goods (energy and food) came out instead year over year at 0.8%.

### Household spending

During the period, further positive news was received on the employment front, after the increase recorded already from the first quarter and driven mainly by temporary contracts and, to a lesser extent, by permanent and self-employment contracts. In April and May, in fact, employment increased respectively by 0.3% and 0.2% on a monthly basis. The unemployment rate also showed slight signs of improvement, coming out in May at 10.7%, down by 0.3 percentage points compared to April.
In the first quarter of the year, the increase in household spending for final consumption was notable, recording +0.8% on a quarterly basis, accelerating with respect to the previous quarter. For Italian households, this expansion of spending was accompanied by an increase in disposable income of 0.2%, a lower growth rate than that of consumption; as a consequence, marginal propensity to consume declined, coming out at 7.6%, slightly down (0.5 percentage points) compared to the last quarter of 2017. In the same period, the purchasing power of Italian households recorded a reduction of 0.2%. However, at the end of the period consumer confidence was substantially unchanged compared to the end of 2017.

### Investments

Although 2017 ended with a net increase in spending for investments, in 2018 this expansion seems to be running out of steam, owing probably both to the approaching end of fiscal incentives (2019) and to a situation of overcapacity. In addition, the drop in business confidence owing to political uncertainty and expectation of increasing US customs tariffs for goods coming from European Union countries plays an important role.
In the first quarter of 2018, the margins of companies in the industrial segment remained at levels higher than before the crisis, ensuring greater stability in a context of general difficulty of access to bank loans. From this point of view, a risk factor could be associated with the official ECB rates, which are expected to rise with the end of QE after summer 2019, without forgetting further assessments associated with European inflation rates remaining under the 2% threshold.

**Exports**

In the early months of the year there was a significant slowdown in international trade, although this does not seem to indicate the end of the cycle of global expansion. The risk of a contraction in global exports, however, is high owing to the protectionist policies of the United States in relation to China, the EU, Canada and Mexico, with potential risks at the level of international relations and strong repercussions on the global economy.

As regards Italy, while 2017 was particularly positive for exports (+5.4%), 2018 began with a contraction in the volume of Italian exports, but above all, up to now, it has been characterised by a very clear trend: Italian goods find ever-increasing outlets on European markets and are sold increasingly less on non-EU markets. In fact, exports gradually declined from January to May, with a sharp reduction in the three months February-April of 3.1% on a quarterly basis. The risks related to international trade obviously regard also Italian businesses, and it is likely that the gradual worsening of trade relations outside of European markets has already been taken into account by companies.

## THE OIL MARKET

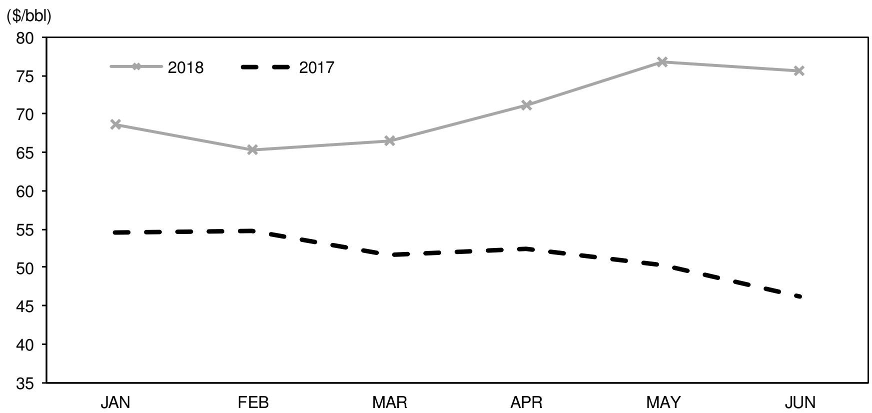
The average spot price of Brent in the first half of 2018 came out at 70.73 USD/bbl, up by 40% compared to the same period of 2017.

After the decline recorded in February, the trend of Brent prices was notably upward starting from the end of the first quarter of the year and for the whole of the second quarter, with price peaks at the threshold of 80 USD/bbl. April ended with an average of 71.11 USD/bbl (4.58 USD/bbl more than the average for March), which increased to 76.86 USD/bbl in May before declining slightly during June, to a level of 75.55 USD/bbl.

The price increase was caused, as well as by diminished stocks in many consumer countries, especially by the geopolitical tensions that saw and still see as protagonists Venezuela and Iran, which besides is expecting American sanctions. We can note that OPEC Plus launched, effective from July, a production increase of approximately a million barrels a day in order to make up for the drop in production.

In June, American production reached the record threshold of 11 Mbbl/d: the rise in oil prices gave an incentive for the activation of numerous production sites, giving a strong impulse to shale oil production. The WTI (West Texas Intermediate), the American benchmark price, also saw the negative spread with Brent growing, up to 11 USD/bbl in the first six months of the year. However, the greater competitiveness of American crude is limited, not only by the lower quality of the raw material, but also by the lack of an internal network of oil pipelines and exportation infrastructures, which is entailing a considerable accumulation of stocks and a situation of excess supply within the country itself.

**BRENT PRICE TRENDS**




*Source: REF-E processing of Reuters data*

## THE ELECTRICITY MARKET

### Supply and demand

In the first half of 2018, the net production of electricity in Italy was 135.7 TWh, down by 3.3% compared with the same period in 2017. The demand for electricity, 156.4 TWh, was met for 86% from domestic production, and for the remaining 14% from foreign imports.
Italian thermoelectric generation was 84.6 TWh, down by 12.7% compared to 2017, and represented 62.3% of national net production; generation from hydroelectric sources was 27.8 TWh (+45.8% on an annual basis) and represented 20.5% of the national figure, while geothermal, wind and photovoltaic sources produced 23.3 TWh (-4.7% compared to 2017), that is 17.2% of total supply.
Consumption in the first half of 2018, although it showed a slight drop (-0.2%), was more or less in line with that of the first six months of the previous year. This reduction was due to falling consumption in Central (-2.7%) and Southern (-7.1%) Italy and in the Islands (-0.7%), attenuated by an increase in demand in the North (+3.4%).

**Demand and supply of accumulated electricity**
**(GWh and changes in trends)**

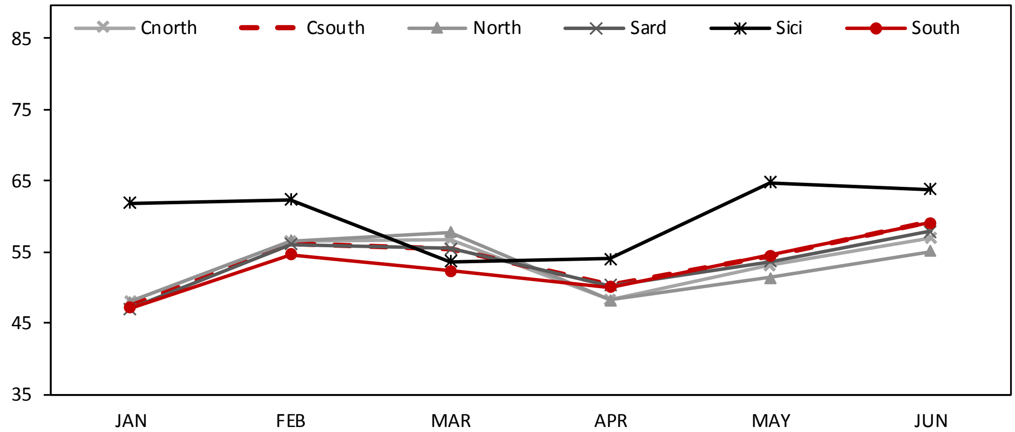
| | up to 30/06/2018 | up to 30/06/2017 | Change % |
|---|---|---|---|
| **Demand** | **156,376** | **156,732** | **-0.2%** |
| **Net production** | **135,718** | **140,404** | **-3.3%** |
| *Hydroelectric* | *27,810* | *19,074* | *45.8%* |
| *Thermoelectric* | *84,616* | *96,879* | *-12.7%* |
| *Geothermoelectric* | *2,861* | *2,899* | *-1.3%* |
| *Wind and photovoltaic* | *20,432* | *21,552* | *-5.2%* |
| **Pumping consumption** | **-1,458** | **-1,290** | **13.0%** |
| **Foreign balance** | **22,115** | **17,618** | **25.5%** |

*Source: Terna*

### Day-Ahead Market (DAM) prices

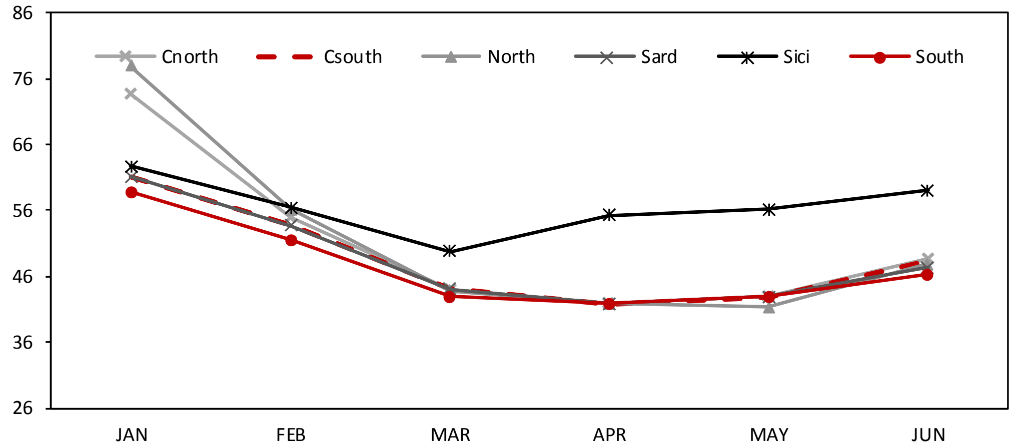
The average Single National Price (SNP) for the first half of 2018 came out at 53.84 €/MWh (51.17 €/MWh in the same period of 2017). In the period, the SNP increased on average by 5% year over year, rising in the second quarter 15% in April, 24% in May and 17% in June.
In the first half of 2018, the zonal prices increased an average of 8% year over year, although this was more accentuated in some zones than in others: North (+3%), Centre-North (+5%), Centre-South (+11%), South (+12%), Sardinia (+10%), Sicily (+6%). This increase was noted particularly in March, when the rise compared to the previous year was 28%. In the second quarter, the largest increase was noted in May, when the rise was 24%.
The zonal prices were more aligned with each other compared to the first half of 2017. Sicily recorded the highest monthly average price in all months except March, although in the second quarter of 2018, the distance from the other zonal prices was less than in 2017. Hydroelectric generation, which as reported was very high compared to the previous year, played a fundamental role in defining prices, in particular in the Northern zone, which recorded the lowest price in all months of the second quarter

**ITALIAN ZONAL PRICE TRENDS FIRST HALF 2018**
(€/MWh)




*Source: REF-E processing on GME data*

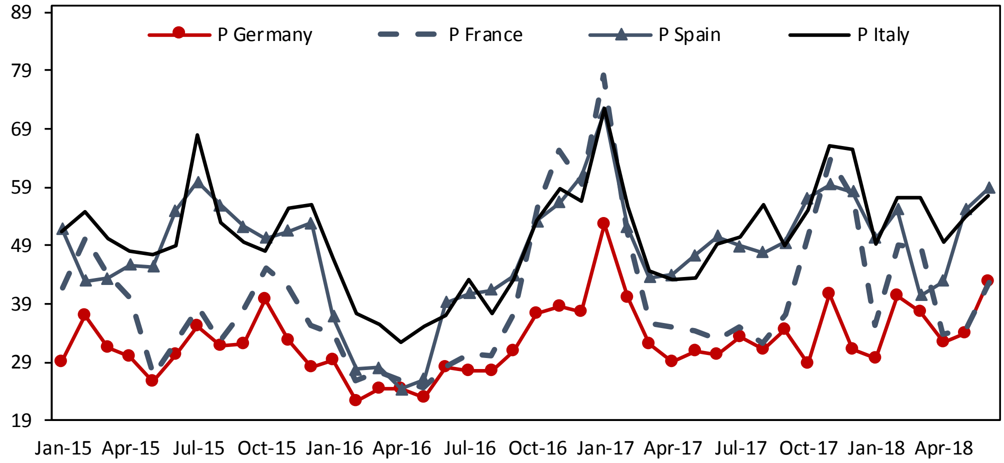
**ITALIAN ZONAL PRICE TRENDS FIRST HALF 2017**
(€/MWh)




*Source: REF-E processing on GME data*

**Trends in the main European power exchanges**
In the first six months of 2018, the European power exchanges expressed an average price of 42.13 €/MWh, down compared to the previous year (-4%) with a negative spread with respect to the SNP of 11.71 €/MWh (up in annual terms compared to the 7.46 €/MWh of 2017). This drop was due in particular to the trend of European prices during the early months of the year. The second quarter, in fact, showed a rise compared to the figure for the corresponding period of the previous year, coming out at considerably higher levels.

**EUROPEAN POWER PRICE TRENDS**
(€/MWh)




*Source: REF-E processing on european power exchange data*

**Futures of Baseload SNP on the EEX**

The table below shows the comparison between the average future prices of the products available for the first half of 2018 referred to the Single National Price. At the monthly level, the prices of futures related to April, May and June recorded a strongly positive trend. Q3-18 and Q4-18 increased in price gradually during the first six months of the year. Q1-19 also showed the same trend recording an increase of 5.9 €/MWh during the last quarter. The annual future, after a drop in the early months of the year, recorded continual rises for the rest of the period, with overall growth of 8.1 €/MWh compared to January. In general, compared to the second quarter of last year, the prices of quarterly and annual futures were much higher, while monthly prices dropped during June.

| April-18 Futures | | May-18 Futures | | June-18 Futures | |
|---|---|---|---|---|---|
| **Monthly** | **€/MWh** | **Monthly** | **€/MWh** | **Monthly** | **€/MWh** |
| May-18 | 49.7 | Jun-18 | 52.6 | Jul-18 | 58.4 |
| Jun-18 | 50.1 | Jul-18 | 59.2 | Aug-18 | 64.9 |
| Jul-18 | 53.6 | Aug-18 | 67.0 | Sep-18 | 63.0 |
| **Quarterly** | | **Quarterly** | | **Quarterly** | |
| Q3 18 | 58.0 | Q3 18 | 64.5 | Q3 18 | 64.6 |
| Q4 18 | 59.0 | Q4 18 | 65.4 | Q4 18 | 66.5 |
| Q1 19 | 57.3 | Q1 19 | 62.8 | Q1 19 | 63.2 |
| **Yearly** | | **Yearly** | | **Yearly** | |
| Y1 19 | 51.9 | Y1 19 | 57.0 | Y1 19 | 57.6 |

*Source: Reuters on EEX data*

## THE NATURAL GAS MARKET

### Supply and demand

In the first half of 2018, there was a drop in gas consumption compared to the same period last year and after an upward trend that had lasted for three years. The slight decline in consumption (-1.6%) was due to a decrease in thermoelectric uses (-13.8%) which was not balanced by the increase in residential (+5%) and industrial (+1,9%) usage.

**Uses and sources of natural gas in the period January-June 2018 and comparison with previous years**

| GAS USED (bln m³)* | 2018 | 2017 | 2016 | % change 2018 vs. 2017 | % change 2017 vs. 2016 |
|---|---|---|---|---|---|
| Industrial use | 7.4 | 7.2 | 6.8 | 1.9% | 6.6% |
| Thermoelectric use | 10.6 | 12.3 | 10.1 | -13.8% | 22.3% |
| Distribution plants | 19.4 | 18.5 | 17.7 | 5.0% | 4.1% |
| Third party network and system consumption / line pack | 1.1 | 1.1 | 1.1 | 0.0% | 0.8% |
| **Total withdrawn** | **38.5** | **39.2** | **35.7** | **-1.6%** | **9.6%** |

**Latest data 30 June 2018*

*Source: REF-E processing of SRG data*

| GAS INPUT (bln m3)* | 2018 | 2017 | 2016 | % change 2018 vs. 2017 | % change 2017 vs. 2016 |
|---|---|---|---|---|---|
| Imports | 35.2 | 35.5 | 31.3 | -0.6% | 13.1% |
| Domestic production | 2.6 | 2.6 | 2.7 | 1.3% | -6.1% |
| Storage | 0.7 | 1.1 | 1.6 | -39.9% | -31.3% |
| **Total input (incl. storage)** | **38.5** | **39.2** | **35.7** | **-1.6%** | **9.6%** |
| Maximum capacity | 67.4 | 65.8 | 65.9 | | |
| **Load Factor** | **52.3%** | **53.9%** | **47.6%** | | |

**Latest data 30 June 2018*

*The figure for storage indicates the net change*

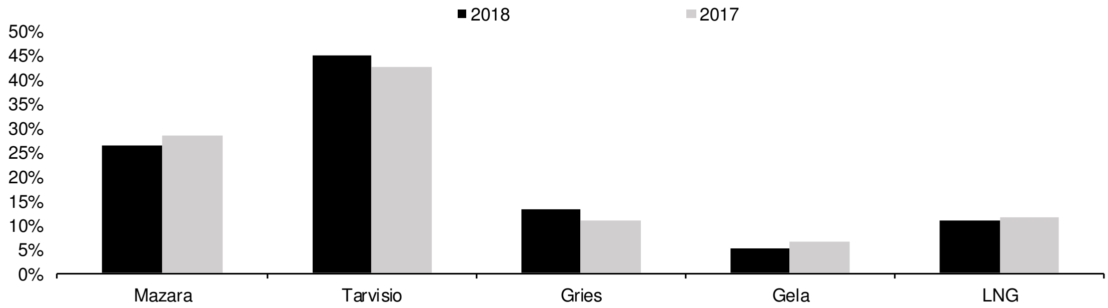
*Source: REF-E processing of SRG data*

The increase in residential demand (almost 1 bln m³) compared to the first half of 2017 was due mainly to the meteorological anomalies that affected the last few weeks of the winter, with bad weather and lower-than-average temperatures that lasted right up to the beginning of spring, causing an increase in residential consumption for heating. Industrial consumption also grew slightly, with 0.2 bln m³ more consumed compared to the same period of last year. The drop in thermoelectric consumption (-1.7 bln m³) is instead is attributable to two factors: lower total demand for electricity recorded during the first quarter of 2018 (with the same level of imports and renewable production, compared to the first quarter of 2017) and a larger contribution from the hydroelectric segment deriving from a higher level of water available for the spring and summer seasons than that recorded during the same period last year.
As regards supply, imports from abroad remained overall in line with the levels related to the first half of last year (-0.3 bln m³): the decrease in the volumes coming from Mazara (approximately -8%), with flows that were down starting from April compared to the winter, and from Gela (-23.7%), due above all to the prolonged maintenance carried out on the infrastructure associated with the Greenstream gas pipeline, were offset by an increase in volumes coming in at Gries Pass (approximately +19%), with a record level of volume in May, and at Tarvisio (+4%). The reduction in imports of liquefied natural gas (LNG) by sea (-6.4%), equivalent in terms of volume to approximately 0.2 billion/m³, was therefore crucial in causing the slight negative difference recorded compared to the first six months of 2017. The level of domestic production

was stable, while a reduction was recorded in the balance of storage systems (outputs +/inputs -) of approximately 0.5 billion/m³ compared to the first half of 2017. This result is attributable to the stringent filling obligations that operators had to (and will have to) comply with for the 2018 thermal year.

**IMPORTS BY PORT OF ENTRY OVER THE TOTAL**

(%)




Latest data 30 june 2018

*Source: REF-E processing of Reuters data*

The first quarter of 2018 was characterised by an import mix which saw in the top spot Russian gas arriving at Tarvisio (almost 45% of the total), followed by Algerian gas (26.4%) arriving at Mazara. The portion consisting of LNG, although down compared to the same time period of 2017, remains more than 10%.

**Wholesale gas price**

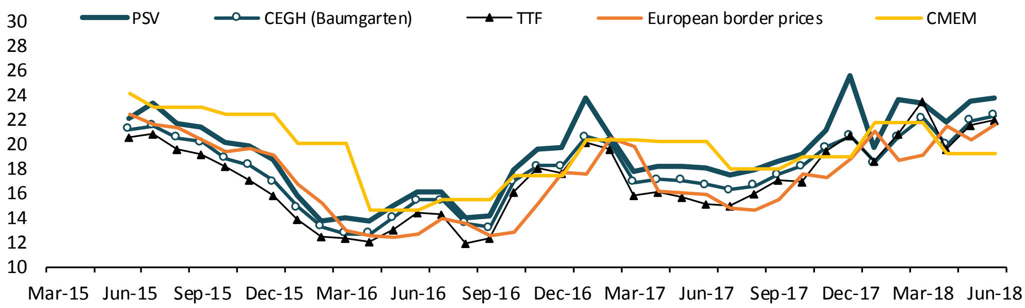
In the first half of 2018, wholesale prices of natural gas recorded an increase compared to the first half of 2017. The anomalous distribution of consumption and withdrawals from storage following the weather contingencies that characterised the first quarter of the year, had important repercussions also on the market trends of the following three months, with prices on delivery higher than those recorded during the winter over the whole quarter.

The Dutch Title Transfer Facility (TTF) market recorded in the first half of 2018 an average figure for spot prices of 21.02 €/MWh, up by 23% compared to the same period of 2017. The CEGH, the Austrian gas market, came out with an average figure of 20.92 €/MWh (again lower than the TTF market), which corresponds to an increase of 15.7% compared to the first half of 2017.

The Italian PSV [*Punto di Scambio Virtuale* - Virtual Trading Point] hub continues to remain higher than the northern European markets, with an average figure of 22.65 €/MWh, an increase of 16.3% compared to the same period of 2017. The spread between PSV and TTF, however, decreased by 0.77 €/MWh (-32%) compared to the first half of 2017, going down from 2.39 €/MWh to 1.62 €/MWh. These effects on prices were due to high demand for gas during the final months of the winter at the same time as a reduction in the output capacity of storages and the impossibility of using additional resources coming from the Groningen field, the production capacity of which is limited for safety reasons.

In the first quarter of 2018, prices at the border, still in part oil-linked and up further during the second quarter of the year, showed an increase compared to the first half of 2017. The European average for the six-month period came out at 20.4 €/MWh, up by almost 16% compared to the same period of last year, boosted in particular by the growth of hub prices and by the sharp increase in Brent prices compared to 2017.

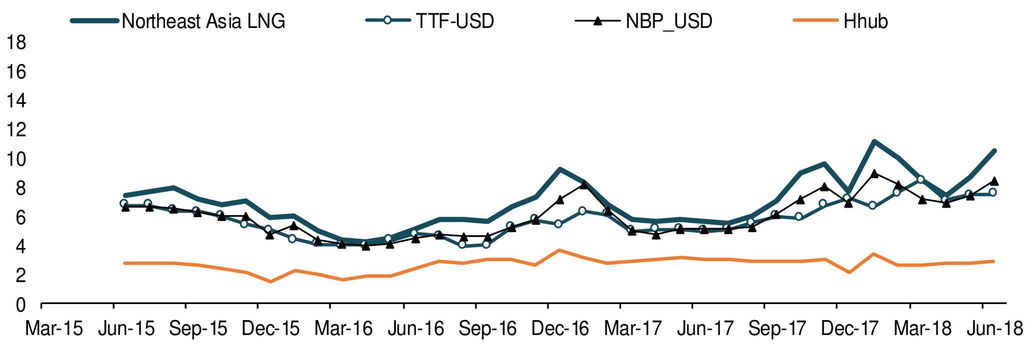
**WHOLESALE PRICES IN EUROPE**
(€/MWh)




Latest data 30 June 2018
*Source: REF-E processing of WGI – ARERA – Alba Soluzioni data*

In the Italian market, the average balancing price of the first half of 2018 was 22.76 €/MWh[1], up compared to the same period of 2017 by 17.5%. Over the same time period, on the markets of the MGAS platform functional to definition of the balancing price, a volume of 1.82 bln m³ was traded, up compared to the first half of last year, in which trades came out at 1.26 billion m³. On the IM intra-day market 73% of the volumes functional to the balancing were traded. The $C_{MEM}$ component, defined by ARERA [*Autorità di Regolazione per Energia Reti e Ambiente* - Italian Regulatory Authority for Energy, Networks and Environment] on the basis of the forward prices of the TTF and understood as reflecting the cost of procuring gas at the price on the protected market, decreased, coming out at 19.22 €/MWh.

**LNG PRICES**
($/MBtu)




Latest data 30 June 2018
*Source: REF-E processing of WGI data*

Looking at international markets, Asian demand for LNG remained high during the spring months. After a short period of decline following the high winter consumption, north-east Asian demand stabilised at levels considerably higher than those seen during the same period of last year. The high level of demand, together with the rising prices of Brent, explains the upward trend of Asian spot prices during the second quarter of the year, with an average of 10.5 USD/MMBtu reached in June. The six-monthly figure reflects an increase of 47.6% compared to the six-monthly average of last year.
Hub prices also rose in Great Britain, with a six-monthly average of 7.8 USD/MMBtu (+2 USD/MMBtu compared to the first half of 2017), while the American gas market, the Henry Hub, recorded a slight decrease with reference to the same period, coming out at around 2.8 USD/MMBtu on average (-0.2 USD/MMBtu compared to the first half of 2017).

[1] The price refers to the SAP, System Average Price, as defined by ARERA Resolution 312/2016/R/gas.

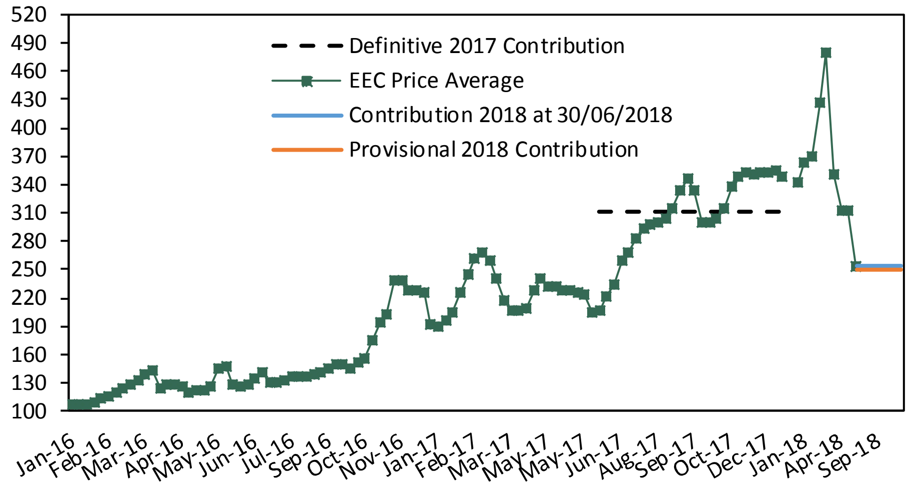
## WHITE CERTIFICATES (EECs)

### Market trend

At the end of the first half of 2018, the prices of Energy Efficiency Certificates (EECs) traded on the exchange decreased, coming out at around 250 €/EEC with the beginning of the new obligation year (value corresponding to the cap applied to the tariff contribution in the near future by the Ministry of Economic Development - MED). The average price related to the six-month period was more than 356 €/EEC (approximately +58% compared to the first half of 2017, despite the drop in prices that occurred at the end of the period).

**EEC: WEIGHTED AVERAGE MARKET PRICE AND TARIFF CONTRIBUTION**

(€/EEC)



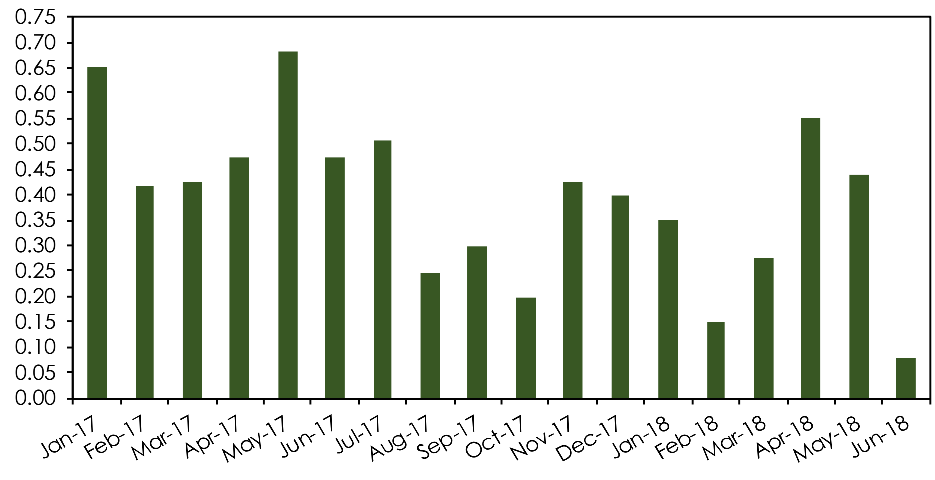

* ARERA, DMRT/EFC/4/2018. ** REF-E calculation using GME data, last listing 30 June 2018

*Source: REF-E processing of GME and ARERA data*

The decrease in prices, which still remain much higher compared to the levels recorded during the first half of last year, is probably the result of an anticipation by the market of the effects of the aforementioned price stabilisation measure issued by the MED (which came into force on 11 July) through which a ceiling of 250 €/EEC will be imposed on the tariff contribution. After the decrease in the quantities traded during the first three months of the year, caused by the sharp increase in the prices of the certificates (the consequence of a significant reduction in supply), the volumes transacted increased gradually between April and May with the approach of the end of the 2017 obligation year, before falling as usual during June. Specifically, in April and May 552 thousand and 439 thousand EECs were traded respectively, while in June the volume declined to only 80 thousand EECs.

**MONTHLY VOLUMES ON EEC MARKET**

(EEC millions)

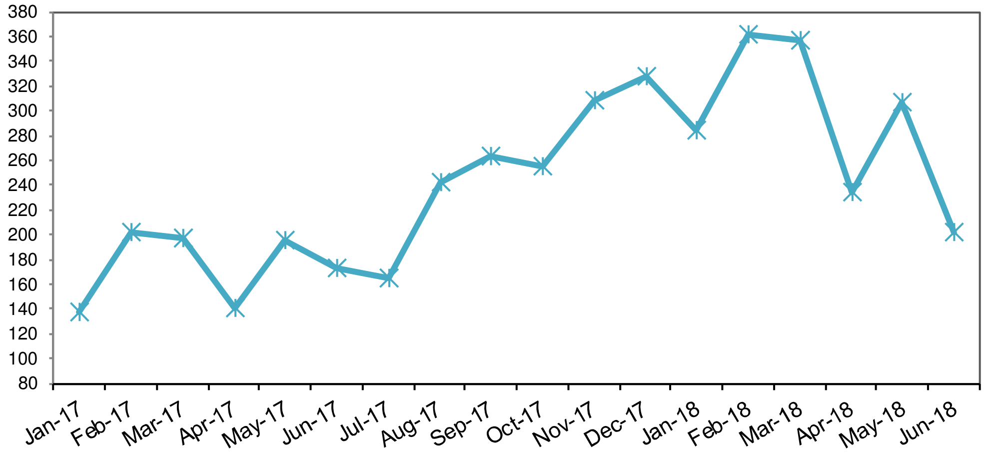



Monthly volumes from start of 2017

*Source: REF-E processing of GME data*

Prices declined also on the OTC market, going above 300 €/EEC only during May. In the period January-June 2018, the average price (approximately 291 €/EEC) was more than 66.5% compared to the same time period in 2017.

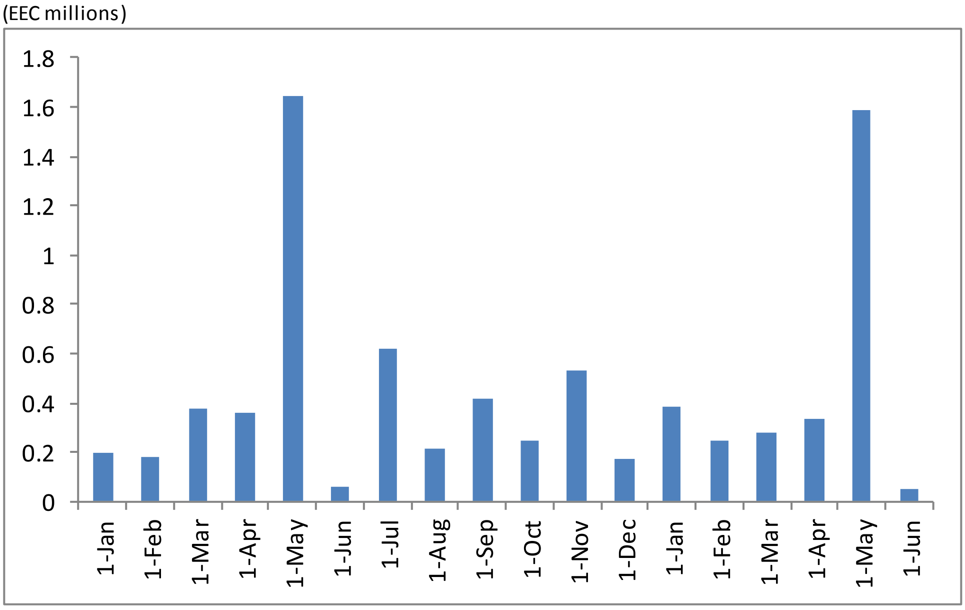
**EEC OTC MONTHLY WEIGHTED AVERAGE PRICE**
(€/EEC)




Monthly prices from start of 2017
*Source: REF-E processing of GME data*

As regards the monthly OTC volumes referred to the first half of 2018, a slightly higher figure was recorded compared to the same period of last year (2.88 million EECs). The highest number of certificates sold was recorded during the compliance month, May (with approximately 1.6 million certificates).

**EEC OTC TOTAL MONTHLY VOLUME**




Monthly volumes from start of 2017
*Source: REF-E processing of GME data*

# SIGNIFICANT EVENTS OF THE PERIOD

**Conversion of 62,305,465 savings shares of Iren S.p.A. into ordinary shares**

On the basis of the delegated power received from the Board of Directors on 20 December 2017, on 8 January 2018 the Deputy Chairperson of Iren S.p.A., Prof. Ettore Rocchi, carried out, with a positive result, the checks on the existence of the requirements pursuant to Art. 6 of the Iren S.p.A. bylaws for investors that acquired all the remaining 62,305,465 savings shares owned by FCT Holding S.p.A., a holding company with the Municipality of Turin as its sole shareholder, to be converted at par into Iren ordinary shares.

On the basis of the article in the Bylaws, the disposal of the savings shares held by FCT Holding S.p.A. entailed in fact their conversion into ordinary shares, after verification that the transfer, for any reason, was made to parties not related to the Municipality of Turin.

The transfer occurred following further requests for conversion (see the explanation in “Significant events of the period” in the financial statements at 31 December 2017) received starting from 20 December 2017, related to the “exchangeable” bonds issued by FCT Holding on 30 December 2015 for an amount of 150,000,000 euro that had as underlying a total of 80,498,014 Iren savings shares and 290,353 Iren ordinary shares owned by the same.

Following the aforementioned conversion, the Company’s share capital is made up of only ordinary shares.

**Award of 4 lots of the Consip tender for supplying electricity to the Public Administration**

The Group, through Iren Mercato, strengthened its presence as an electricity supplier to Public Administrations in the North West with the award in January 2018 of four lots of the Consip EE15 tender, for a total amount for the supply estimated at 365 million euro of revenue.

Iren Mercato is confirmed therefore, also for 2018, as a major supplier for Public Administrations in Lombardy (lots 2 and 3) and Emilia Romagna (lot 6), while it becomes one again for the Public Administrations of Piedmont and Val d’Aosta (lot 1), for a total annual volume of supplies estimated at 2.4 TWh.

Among the players that took part in the tender Iren Mercato’s technical and economic offer was the most competitive and for the supplies it provides for both fixed prices and variable prices linked to the value of energy on the power exchange. In addition, thanks also the Group’s renewable-source production assets, the Public Administrations involved will have the possibility of purchasing certified “green” energy for all the quantities of their energy needs. The agreement with Consip is for a term of 12 months, with the possibility of being extended for a further six. In this context, Iren Mercato can take orders from Public Administrations up to exhaustion of the maximum energy ceilings provided for in each lot.

**Sale of the shareholding held in Mestni Plinovodi**

The transfer of the shareholding - representing 49.88% of the share capital of Mestni Plinovodi d.o.o., a company operating in the distribution and sale of gas in Slovenia - from IRETI, a company controlled by Iren S.p.A, to Adriaplin d.o.o., a company in the ENI group, was completed on 9 March 2018.

The price for the transfer of the shareholding was 8 million euro, with an economic benefit of approximately 3 million euro, which was reported in the financial statements at 31 December 2017 as a recovery in the value of the shareholding in the light of the planned transfer.

The sale of the shareholding falls in the context of the business rationalisation implemented by the Iren Group in the last three years, which also includes the sale of assets and shareholdings deemed non-core, in order to release funds and seize opportunities for growth within the relevant areas.

**Closing of the business combination between Iren and the ACAM Group**

On 11 April 2018 the aggregation was completed between Iren and the ACAM Group, which operates in integrated water service management, environmental service management and, to a lesser extent, energy services in the province of La Spezia.

The aforementioned operation had been launched in May 2017 with the bid made by Iren in the context of the transparent procedure promoted by ACAM to identify an economic operator with which to implement a corporate and industrial business combination, and it continued on 29 December 2017 with the signing of an investment agreement, subject to suspensive conditions, between Iren, ACAM S.p.A. and 31 public entity shareholders of ACAM, with the simultaneous resolution from Iren's Board of Directors to increase the share capital for payment, divisible, reserved for ACAM shareholders who had taken on the commitment to sell to the Company their entire shareholding held in ACAM.

Following the fulfilment of all of the conditions precedent specified in the investment agreement, including the necessary approval by the "Autorità Garante della Concorrenza e del Mercato" [Italian Antitrust Authority], the operation was carried out through:

- the acquisition by Iren of the ACAM shares held by 31 public entities, essentially equal to the entirety of its share capital, against total consideration of 59,000,274.29 euro; and
- the simultaneous subscription, by 27 ACAM shareholders, of a total of 24,705,700 new ordinary shares in Iren S.p.A., in the context of the capital increase reserved for them, representing 1.90% of Iren's share capital after the increase, for a total amount of 52,623,141.00 euro (including share premium).

The subscription price for each newly-issued Iren S.p.A. ordinary share is 2.13 euro, of which 1.00 euro is to be attributed to share capital and 1.13 euro is a premium. The Company offset the subscription price for the newly-issued shares payable by the subscribing ACAM shareholders with the selling price of the ACAM share capital payable by Iren, while the residual price payable by the Company to the selling and non-subscribing shareholders, totalling 6,377,133.29 euro, was paid in cash.

The ACAM shareholders that subscribed the reserved capital increase simultaneously signed the existing shareholders' agreement between the Iren public shareholders, bringing to the blocking and voting syndicate governed by it all the newly-issued shares subscribed by them in the context of the capital increase (with the exception of a single shareholder, which assumed a distinct commitment not to transfer the shares subscribed). The shareholders' agreement will expire in May 2019 and will be renewed tacitly for a further two years, unless terminated.

On the same date, ACAM, ACAM Acque and ACAM Ambiente fully repaid the existing debt exposures to the relevant financial institutions, equal to around 130 million euro.

Following that repayment, the debt restructuring agreement under Article 182 *bis et seq*. of the Budget Law, signed by the companies in the ACAM Group and approved by the Court of La Spezia, and the appended restructuring plan, were terminated, as they had become ineffective due to the obtaining of the objectives specified therein.

For more information regarding the terms and conditions of the operation and capital increase, including all of the related conditions, please refer to the contents of the section "Significant events of the period" in the Directors' Report at 31 December 2017.

The business combination with the ACAM Group enables the expansion of the Iren Group's concession portfolio, with the possibility, among other things, to aim to become the Ligurian regional operator of reference in water services, and to consolidate the current positioning in waste management services.

**Shareholders' Meeting of Iren S.p.A.**

The Iren S.p.A. Ordinary Shareholders' Meeting held on 19 April 2018 approved the Company's Financial Statements in relation to financial year 2017, the 2017 Directors' Report and the first section of the 2017 Remuneration Report, and resolved to distribute a dividend of 0.07 euro for each of the 1,300,931,377 eligible ordinary shares, including the 24,705,700 ordinary shares subscribed by the shareholders of ACAM S.p.A. by virtue of the increase of the share capital reserved for them, resolved by the Iren Board of Directors on 29 December 2017. The dividend was paid starting from 20 June 2018 (ex-dividend date 18 June 2018 and record date 19 June 2018).

With approval of the financial statements at 31 December 2017 the term of office of the Board of Statutory Auditors expired. For the three years 2018-2020 the Shareholders' Meeting therefore appointed, on the basis of the lists presented: three Standing Auditors in the persons of Cristina Chiantia, Simone Caprari and Michele Rutigliano, electing the latter as Chairperson of the Board of Statutory Auditors; two Supplementary Auditors in the persons of Marco Rossi and Donatella Busso. The Board of Statutory Auditors will remain in office up to the date of approval of the financial statements for the year ending 31 December 2020.

# FINANCIAL POSITION, RESULTS OF OPERATIONS AND CASH FLOWS OF THE IREN GROUP

## Income statement

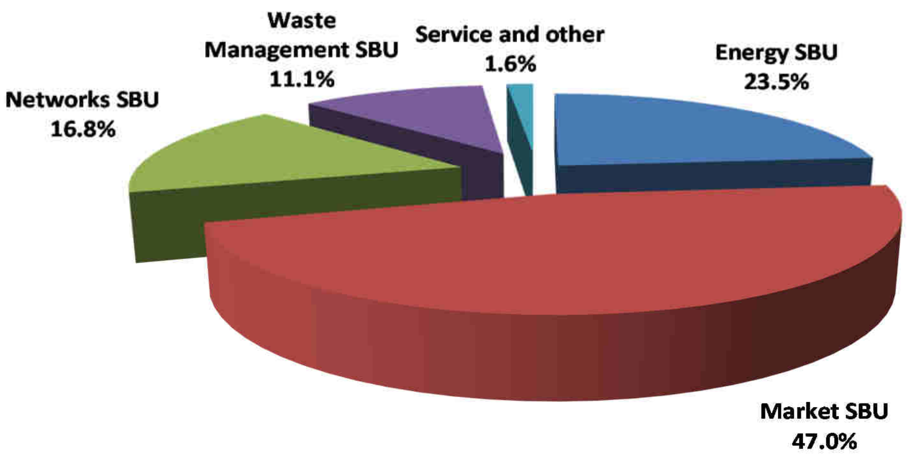
### IREN GROUP INCOME STATEMENT

thousands of euro

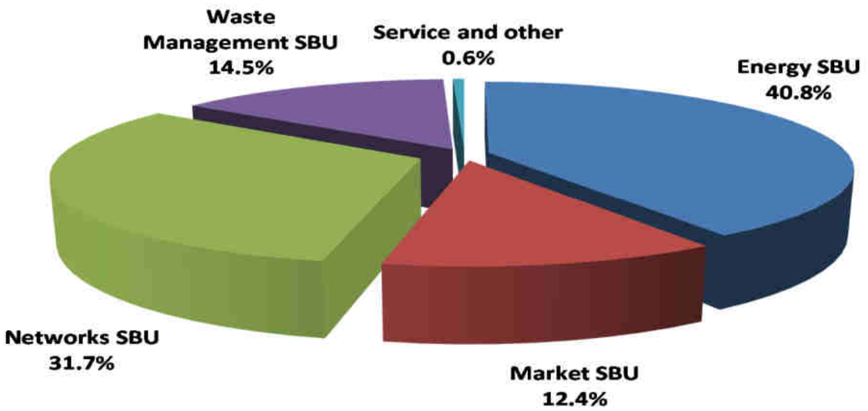
| | First half 2018 | First half 2017 Restated (*) | Change % |
|---|---|---|---|
| **Revenue** | | | |
| Revenue from goods and services | 1,771,999 | 1,701,170 | 4.2 |
| Change in work in progress | 27 | (4,707) | (**) |
| Other income | 164,930 | 117,069 | 40.9 |
| **Total revenue** | **1,936,956** | **1,813,532** | **6.8** |
| **Operating expenses** | | | |
| Raw materials, consumables, supplies and goods | (625,735) | (606,837) | 3.1 |
| Services and use of third-party assets | (598,190) | (549,204) | 8.9 |
| Other operating expenses | (25,344) | (40,961) | (38.1) |
| Capitalised expenses for internal work | 13,804 | 11,637 | 18.6 |
| Personnel expense | (195,644) | (185,900) | 5.2 |
| **Total operating expenses** | **(1,431,109)** | **(1,371,265)** | **4.4** |
| **GROSS OPERATING PROFIT (EBITDA)** | **505,847** | **442,267** | **14.4** |
| **Depreciation, amortisation, provisions and impairment losses** | | | |
| Depreciation and amortisation | (168,972) | (155,448) | 8.7 |
| Provisions for impairment of receivables | (16,436) | (22,501) | (27.0) |
| Other provisions and impairment losses | (5,154) | (7,400) | (30.4) |
| **Total depreciation, amortisation, provisions and impairment losses** | **(190,562)** | **(185,349)** | **2.8** |
| **OPERATING PROFIT (EBIT)** | **315,285** | **256,918** | **22.7** |
| **Financial income and expense** | | | |
| Financial income | 19,305 | 16,472 | 17.2 |
| Financial expense | (49,952) | (56,428) | (11.5) |
| **Total financial income and expense** | **(30,647)** | **(39,956)** | **(23.3)** |
| Share of profit (loss) of associates accounted for using the equity method | 825 | 4,541 | (81.8) |
| Value adjustments on equity investments | 2,061 | 8,579 | (76.0) |
| **Profit (loss) before tax** | **287,524** | **230,082** | **25.0** |
| Income tax expense | (88,314) | (72,529) | 21.8 |
| **Net profit (loss) from continuing operations** | **199,210** | **157,553** | **26.4** |
| Net profit (loss) from discontinued operations | - | - | - |
| **Net profit (loss) for the period** | **199,210** | **157,553** | **26.4** |
| attributable to: | | | |
| - Profit (loss) for the period attributable to shareholders | 187,152 | 144,808 | 29.2 |
| - Profit (loss) for the period attributable to minorities | 12,058 | 12,745 | (5.4) |

(*) As provided for in IFRS 3, the economic balances of the first half of 2017 were restated to take into account the effects deriving from the completion, at the end of financial year 2017, of the allocation of the purchase price at the definitive fair value of the acquired assets and liabilities (Purchase Price Allocation) of REI – Ricupero Ecologici Industriali and Salerno Energia Vendite.
For further information, please see the paragraph entitled "Restatement of amounts at 30 June 2017" in the section "Content and structure of the condensed consolidated interim report".
(**) Change of more than 100%

**Revenue**
At 30 June 2018, the Iren Group achieved revenue of 1,937 million euro, up by +6.8% compared to the 1,814 million euro of the first half of 2017. Salerno Energia Vendite (SEV) and the Iren Rinnovabili group—consolidated respectively from 1st May 2017 and from 1st January 2018—contributed to the increase in revenue, as did, and in particular, the ACAM La Spezia group companies, consolidated as of 1 April 2018.




**Gross Operating Profit (EBITDA)**
The gross operating profit (EBITDA) amounted to 506 million euro, up by +14.4% compared to 442 million euro in the first half of 2017. The first half of 2018 was characterised by a deterioration in the energy scenario, with consequent pressure on margins of the energy sectors of both electricity production and gas sales. However, the improvement in the management of energy efficiency certificates, in part thanks to the recognition of greater quantities and mainly as a result of emergence of contingencies linked to an increase in their value due to the rise in market prices, made it possible to absorb the negative effects of the energy scenario. Besides the operating synergies, the changes in the perimeter connected with the consolidation of Salerno Energia Vendite, of the ACAM La Spezia group and of the Iren Rinnovabili group contributed to the improvement in the profit.




**Operating profit (EBIT)**
Operating profit totalled 315 million euro, an increase of +22.7% compared to the restated figure of 257 million euro in the first half of 2017. Higher depreciation and amortisation of approximately 13 million euro was recorded, of which 5 million euro attributable to the expansion of the consolidation scope, offset by lower provisions set aside of 15 million euro, lower releases of provisions owing to the cessation of the related risk for approximately 6 million euro and higher impairment of 1 million euro.

**Financial income and expense**

Net financial expense totalled a negative balance of 31 million euro. In particular financial expenses amounted to 50 million euro (56 million in the first half of 2017). The change compared to the comparative period was mainly due to the reduction in the average cost of the debt.

Financial income amounted instead to 19 million euro (16 million in the first half of 2017).

**Share of profit (loss) of associates accounted for using the equity method**

The pro-rata results of associates accounted for using the equity method amounted to +0.8 million euro. The figure for the first half of 2017 (+4.5 million) was largely attributable to the profit of the ASTEA Group, affected by the capital gain made on disposal of its subsidiary ASTEA Energia.

**Value adjustments on equity investments**

This item amounted in the period to +2.1 million euro and is related to the write-back referred to the equity investment in the associate Acquaenna (+1.4 million), made to adjust for impairment losses that had occurred in previous years, and to the restatement at fair value, at the control acquisition date, of the non-controlling interest held in ReCos (+0.7 million).

The figure for the comparative period (+8.6 million) regards the restatement at fair value that had affected the non-controlling stakes held in Salerno Energia Vendite at the control acquisition date, in May 2017.

**Profit (loss) before tax**

As a result of the above trends the consolidated profit before tax came out at 287.5 million euro, up on the 230.1 million euro recorded in the first half of 2017 (+25%).

**Income tax expense**

Income taxes for the period were 88.3 million euro, an increase of 21.8% compared to the comparative period, in relation to the increase in the profit before tax, with an effective tax rate estimated today at 30.7% for financial year 2018.

**Net profit (loss) for the period**

As a consequence of the above, in the first half of 2018 we can note a significant increase in the net profit (+26.4% with respect to the comparative period), which came out at 199.2 million euro. The figure is due to the Group’s profit of 187.2 million euro, while profit attributable to non-controlling interests was 12.1 million.

# Statement of Financial Position

## RECLASSIFIED STATEMENT OF FINANCIAL POSITION OF THE IREN GROUP

thousands of euro

| | 30.06.2018 | 31.12.2017 | Change % |
|---|---|---|---|
| Non-current assets | 5,669,366 | 5,412,159 | 4.8 |
| Other non-current assets (liabilities) | (413,028) | (177,981) | (*) |
| Net Working Capital | 166,028 | 181,869 | (8.7) |
| Deferred tax assets (liabilities) | 125,636 | 64,011 | 96.3 |
| Provisions for risks and employee benefits | (622,043) | (618,194) | 0.6 |
| Assets (Liabilities) held for sale | 524 | 8,724 | (94.0) |
| **Net invested capital** | **4,926,483** | **4,870,588** | **1.1** |
| Equity | 2,498,695 | 2,498,803 | (0.0) |
| *Non-current financial assets* | *(171,269)* | *(165,767)* | *3.3* |
| *Non-current financial debt* | *2,794,200* | *3,023,888* | *(7.6)* |
| Non-current net financial debt | 2,622,931 | 2,858,121 | (8.2) |
| *Current financial assets* | *(589,269)* | *(675,468)* | *(12.8)* |
| *Current financial debt* | *394,126* | *189,132* | *(*)* |
| Current net financial debt | (195,143) | (486,336) | (59.9) |
| Net financial debt | 2,427,788 | 2,371,785 | 2.4 |
| **Own funds and net financial debt** | **4,926,483** | **4,870,588** | **1.1** |

(*) Change of more than 100%

The main changes in the statement of financial position for the first half of 2018 are commented on below.
Non-current assets at 30 June 2018 amounted to 5,669 million euro, increasing compared to 31 December 2017, when they were 5,412 million. The increase (+257 million) was essentially due to the algebraic sum of the following determinants:

- technical investments in tangible and intangible fixed assets (164 million), depreciation and amortisation (-169 million) and disposals (-6 million) in the period;
- assets acquired, including goodwill, following the April consolidation of the ACAM group companies and of ReCos, consisting mostly of plants related to the integrated water service and the environmental sector (+270 million);

For more information on the segment details of investments in the first half of 2018, reference should be made to the section "Business Segment Reporting" below.

"Other non-current assets (liabilities)" show a negative balance of 413 million euro. The decrease compared with 31 December 2017, of 235 million, is mostly attributable to the recognition of long-term deferred income, relating both to the cumulative effect at 1 January 2018 of the change in the accounting treatment of connection contributions, adopted as of that date following the entry into force of IFRS 15 - *Revenue from Contracts with Customers* and to the change in the scope due to the consolidation of the ACAM group companies.
Recognition of the tax effect deriving from first adoption of IFRS 15 determined most of the increase in the item Deferred tax assets (liabilities), which increased by 62 million euro compared with the figure at 31 December 2017, coming out at 126 million at the end of the period.

Net Working Capital was 166 million euro (182 million at 31 December 2017); the decrease (-16 million, 8.7%) is attributable to the change in tax payables as a consequence of recognition of the estimated income tax expense for the period, offset by the trend in components of a commercial nature and balances related to energy certificates.

"Provisions for Risks and Employee Benefits " amounted to 622 million euro, substantially unchanged compared with the figure for 31 December 2017.

The decrease in the “Assets (Liabilities) held for sale”, equal to 8 million euro, relates to the sale of the shareholding in the associate Mestni Plinovodi which took place in the period.

Shareholders’ Equity amounted to 2,499 million euro, in line compared to the figure at 31 December 2017. The changes in the period were due, as well as to the profit for the period (+199 million), to the cumulative effect at 1 January 2018 deriving, as mentioned, from first adoption of IFRS 9 and 15 (-138 million), to the capital increase, with the related premium, subscribed by the public entities shareholders of the former ACAM (+52 million) and to dividends paid in the period (-113 million).

Net financial debt at the end of the period was 2,428 million euro, recording an increase of 56 million compared to 31 December 2017 (+2.4%). The change is analysed in detail in the statement of cash flows presented below.

## STATEMENT OF CASH FLOWS OF THE IREN GROUP

### Change in net financial debt

The statement below details the movements in the Group's net financial debt during the first half of 2018.

thousands of euro

| | First half 2018 | First half 2017 Restated (*) | Change % |
|---|---|---|---|
| **A. Opening Net financial (debt)** | **(2,371,785)** | **(2,457,107)** | **(3.5)** |
| **Cash flows from operating activities** | | | |
| Profit (loss) for the period | 199,210 | 157,553 | 26.4 |
| Adjustments for non-financial movements | 326,086 | 301,639 | 8.1 |
| Utilisations of employee benefits | (4,666) | (3,484) | 33.9 |
| Utilisations of provisions for risks and other charges | (11,784) | (15,369) | (23.3) |
| Change in other non-current assets and liabilities | (2,248) | 8,674 | (**) |
| Other financial changes | (19,106) | (5,255) | (**) |
| Taxes paid | - | (57,471) | (100.0) |
| **B. Cash flows from operating activities before changes in NWC** | **487,492** | **386,287** | **26.2** |
| **C. Cash flows from changes in NWC** | **(85,110)** | **(82,309)** | **3.4** |
| **D. Cash flows from/(used in) operating activities (B+C)** | **402,382** | **303,978** | **32.4** |
| **Cash flows from /(used in) investing activities** | | | |
| Investments in property, plant and equipment and intangible assets | (164,179) | (103,207) | 59.1 |
| Investments in financial assets | - | (15,175) | (100.0) |
| Proceeds from the sale of investments and changes in assets held for sale | 13,930 | 2,794 | (**) |
| Changes in consolidation scope | (220,960) | (10,127) | (**) |
| Dividends received | 1,224 | 1,665 | (26.5) |
| **E. Total cash flows from /(used in) investing activities** | **(369,985)** | **(124,050)** | **(**)** |
| **F. Free cash flow (D+E)** | **32,397** | **179,928** | **(82.0)** |
| **Cash flows from /(used in) financing activities** | | | |
| Capital increase | 52,622 | - | - |
| Dividends paid | (112,973) | (88,864) | 27.1 |
| Interest paid | (28,066) | (38,935) | (27.9) |
| Interest received | 7,325 | 7,707 | (5.0) |
| Change in fair value of hedging derivatives | 5,241 | 4,779 | 9.7 |
| Other changes | (12,549) | (10,564) | 18.8 |
| **G. Total cash flows from /(used in) financing activities** | **(88,400)** | **(125,877)** | **(29.8)** |
| **H. Change in net financial (debt) (F+G)** | **(56,003)** | **54,051** | **(**)** |
| **I. Closing Net financial (debt) (A+H)** | **(2,427,788)** | **(2,403,056)** | **1.0** |

(*) As provided for in IFRS 3, the representation of cash flows of the first half of 2017 was restated to take into account the effects deriving from the completion, at the end of financial year 2017, of the allocation of the purchase price at the definitive fair value of the acquired assets and liabilities (Purchase Price Allocation) of REI – Ricupero Ecologici Industriali and Salerno Energia Vendite.
For further information, please see the paragraph entitled "Restatement of amounts at 30 June 2017" in the section "Content and structure of the condensed consolidated interim report".
(**) Change of more than 100%

The increase in financial debt derives from the following determinants:

- operating cash flow of 402 million;
- cash flow from investing activities (-370 million) which reflects the technical investments in the period (164 million, up compared to the 103 million of the first half of 2017) and the effect of the acquisition of the ACAM group companies and of ReCos (221 million, present in the item “changes in consolidation scope”), net of the cash-in deriving from the sale of the equity investment in Mestni Plinovodi and of a number of minor assets (for a total of 14 million, present in the item “Proceeds from the sale of investments and assets held for sale”).
- as regards the cash flow components of financing activities (-88 million), we can note that the cash out related to dividends paid (-113 million) was partially offset by the positive flow deriving from the capital increase reserved for the public shareholders of the former ACAM for 52 million euro.

The statement of cash flows prepared according to the format of a change in cash and cash equivalents is presented in the section “Consolidated financial statements” in this document.

# SEGMENT REPORTING

The Iren Group operates in the following business segments:

- Energy (Hydroelectric Production and production from other renewable sources, Combined Heat and Power, District Heating Networks, Thermoelectric Production)
- Market (Sale of electricity, gas, heat)
- Networks (Electricity Distribution Networks, Gas Distribution Networks, Integrated Water Service)
- Waste Management (Waste collection and disposal)
- Other services (Public Lighting, Global Services energy efficiency services and other minor services).

These operating segments are disclosed pursuant to IFRS 8. Under this standard, the disclosure about operating segments should be based on the elements which management uses in making operational and strategic decisions.
For a proper interpretation of the income statements relating to individual businesses presented and commented on below, revenue and expense referring to joint activities were fully allocated to the businesses based on actual usage of the services provided or according to technical and economic drivers.
Given the fact that the Group mainly operates in one area, the following segment information does not include a breakdown by geographical area.
Net invested capital compared to the figures at 31 December 2017 and income statements at 30 June 2018 (up to the operating performance) are presented below by business segment, compared with the figures for the first half of 2017. As provided for in IFRS 3, with completion of the Purchase Price Allocation, the economic balances of the first half of 2017 were restated to take into account, at the date of acquisition, the definitive fair value of the acquired assets and liabilities of REI - Ricupero Ecologici Industriali (related to the Waste Management SBU) and Salerno Energia Vendite (included in the Market SBU).
In the first half of 2018, non-regulated activities contributed to the formation of gross operating profit for 27% (30% in the first half of 2017), regulated activities accounted for 41% (40% in the first half of 2017), while semi-regulated activities went up from 30% in 2017 to 32% in the first half of 2018. The contribution of regulated activities and non-regulated activities is determined excluding the extraordinary and non-repeatable effect related to the valuation of energy efficiency certificates commented on in the section on energy.

**Statement of financial position by business segment at 30 June 2018**

millions of euro

| | Energy | Market | Networks | Waste Management | Other services | Non-allocable | Total |
|---|---|---|---|---|---|---|---|
| Non-current assets | 1,850 | 136 | 2,494 | 962 | 61 | 166 | 5,669 |
| Net Working Capital | 9 | (31) | 87 | 98 | 3 | | 166 |
| Other non-current assets and liabilities | (118) | (23) | (607) | (167) | 6 | | (909) |
| **Net invested capital (NIC)** | **1,741** | **82** | **1,974** | **894** | **69** | **166** | **4,926** |
| **Equity** | | | | | | | 2,499 |
| **Net financial debt** | | | | | | | 2,428 |
| **Own funds and net financial debt** | | | | | | | **4,926** |

### Statement of financial position by business segment at 31 December 2017

millions of euro

| | Energy | Market | Networks | Waste Management | Other services | Non-allocable | Total |
|---|---|---|---|---|---|---|---|
| Non-current assets | 1,876 | 131 | 2,272 | 933 | 32 | 168 | 5,412 |
| Net Working Capital | 50 | 10 | 59 | 50 | 14 | | 182 |
| Other non-current assets and liabilities | (101) | (25) | (435) | (166) | 4 | | (723) |
| **Net invested capital (NIC)** | **1,825** | **116** | **1,896** | **817** | **49** | **168** | **4,871** |
| **Equity** | | | | | | | 2,499 |
| **Net financial debt** | | | | | | | 2,372 |
| **Own funds and net financial debt** | | | | | | | **4,871** |

### Income Statement by business segment, first half of 2018

millions of euro

| | Energy | Market | Networks | Waste Management | Other services | Netting and adjustments | Total |
|---|---|---|---|---|---|---|---|
| Total revenue and income | 620 | 1,241 | 443 | 294 | 42 | (703) | 1,937 |
| Total operating expenses | (413) | (1,178) | (282) | (221) | (40) | 703 | (1,431) |
| **Gross Operating Profit (EBITDA)** | **207** | **63** | **161** | **73** | **2** | **-** | **506** |
| Am./depr., net provisions and impairment losses | (61) | (20) | (72) | (38) | 1 | - | (191) |
| **Operating profit (EBIT)** | **145** | **43** | **88** | **36** | **3** | **-** | **315** |

### Income Statement by business segment, first half of 2017 restated

millions of euro

| | Energy | Market | Networks | Waste Management | Other services | Netting and adjustments | Total |
|---|---|---|---|---|---|---|---|
| Total revenue and income | 555 | 1,248 | 421 | 270 | 50 | (731) | 1,814 |
| Total operating expenses | (408) | (1,178) | (268) | (199) | (49) | 731 | (1,371) |
| **Gross Operating Profit (EBITDA)** | **147** | **70** | **153** | **71** | **1** | **-** | **442** |
| Am./depr., net provisions and impairment losses | (63) | (21) | (67) | (34) | (0) | - | (185) |
| **Operating profit (EBIT)** | **84** | **49** | **86** | **37** | **1** | **-** | **257** |

Starting from 1 January 2018, the Group's consolidated income statement contains the economic figures of the Iren Rinnovabili group companies and, starting from 1 April 2018, those of the ACAM group companies and of ReCos S.p.A.; the economic results of the first half of 2018 are therefore affected by the inclusion of these figures in the consolidation scope. We can also note that the income statement items include, along the entire time period in question, the results of the subsidiary Salerno Energia Vendite, while in the first half of 2017 they were included starting from 1 May.

**Energy SBU**

In the first half of 2018, the revenue of the Energy SBU totalled 620 million euro, up by 11.8% compared to the 555 million euro of the first half of 2017. Starting from 1 January 2018, as explained, the figures of the Iren Rinnovabili Group are included in the economic results.

| | | **First half 2018** | **First half 2017** | **Δ %** |
|---|---|---|---|---|
| Revenue | €/mln | 620 | 555 | 11.8% |
| Gross Operating Profit (EBITDA) | €/mln | 207 | 147 | 40.3% |
| *EBITDA Margin* | | *33.3%* | *26.5%* | |
| Operating Profit (EBIT) | €/mln | 145 | 84 | 72.5% |
| | | | | |
| Investments | €/mln | 25 | 12 | (*) |
| | | | | |
| Electricity produced | GWh | 4,153 | 4,859 | -14.5% |
| *from hydroelectric and other renewable sources* | *GWh* | 793 | 636 | 24.7% |
| *from cogeneration sources* | *GWh* | 2,965 | 3,391 | -12.6% |
| *from thermoelectric sources* | *GWh* | 395 | 832 | -52.5% |
| | | | | |
| Heat produced | $GWh_t$ | 1,571 | 1,551 | 1.3% |
| *from cogeneration sources* | *$GWh_t$* | 1,301 | 1,366 | -4.8% |
| *from non-cogeneration sources* | *$GWh_t$* | 270 | 185 | 46.4% |
| District heating volumes | Million $m^3$ | 87 | 85 | 2.4% |

(*) Change of more than 100%

At 30 June 2018 electricity produced was 4,153 GWh, down by 14.5% compared to 4,859 GWh in the first half of 2017. The drop regarded mainly the cogeneration and thermoelectric segments.
Total thermoelectric production was 3,360 GWh, of which 2,965 GWh from cogeneration sources, down by 12.6% compared to the 3,391 GWh for the 2017 financial year and 395 GWh from thermoelectric sources in the strict sense, a decrease of 52.5% compared to the 832 GWh of the corresponding period of 2017.
Production from renewable sources was 793 GWh—mainly hydroelectric and marginally, for approximately 10 GWh, from other renewables (photovoltaic)—and overall up by 24.7% compared to the 636 GWh of the corresponding period of 2017.
Heat production in the period amounted to 1,571 GWht, up by 1.3% compared to the 1,551 GWht of the previous financial year, as a result of a more favourable thermal season compared to that of the first half of 2017 and an increase in volumes connected. Overall district heating volumes amounted to approximately 87 million $m^3$, up by 2.4% compared to the 85 million $m^3$ in the first half of 2017.

The gross operating profit (EBITDA) amounted to 207 million euro, an increase compared to the 147 million of the first half of 2017.
The first half of 2018 was characterised by a worsening of the energy scenario compared to the corresponding period of 2017, due to an increase in the cost of gas, which was more than the increase in electricity prices, as well as a significant increase in the proportion of expenses for Emissions Trading System (ETS or also $CO_2$) certificates. Overall, despite the energy scenario, a great improvement was recorded due mainly to the contingent assets that emerged with the valuation of energy efficiency certificates (EECs) assigned in the second quarter and related to the period 2015-2017, as well to a significant increase in market prices. The consolidation of Iren Rinnovabili also contributed to the improvement in the profit.

The operating profit (EBIT) of the energy segment totalled 145 million euro compared to the 84 million euro of the first half of 2017. Besides the positive trend of gross operating profit, the operating profit was characterised by lower provisions and impairment losses of approximately 4 million euro and higher depreciation and amortisation of approximately 2 million euro.

Investments in the period amounted to 25 million euro, of which 9 million euro related to district heating networks, 7 million euro to cogeneration, 6 million euro to thermoelectric production and 3 million euro to hydroelectric production.

**Market SBU**

In the first half of 2018, the revenue of the segment totalled 1,241 million euro, down by 0.6% compared to the 1,248 million euro of the first half of 2017. As of May 2017, the consolidation scope of the Market SBU includes, as mentioned, the company Salerno Energia Vendite (SEV), operating mainly in Grosseto and Salerno in the gas sale sector.

Gross operating profit (EBITDA) amounted to 63 million euro, down 10% on the 70 million euro of the corresponding period of 2017. The reduction in the margin is mainly attributable to gas sales (-7.4%) which were not able to rely on the procurement policies, and particularly the use of storage, which had characterised the corresponding period in 2017, as well as the transfer of the heat management business to another segment following an organisational rationalisation of the group. This decline was partially offset by the settlement of previous cost items.

The operating profit (EBIT) was 43 million euro, down 12% compared to the 49 million recorded in the first half of 2017. The negative trend of the gross operating profit (EBITDA) was partially offset by lower provisions for impairment of receivables for roughly 3 million euro and greater depreciation and amortisation for around 2 million euro.

| | | | **First half 2018** | **First half 2017 restated** | **Δ %** |
|---|---|---|---|---|---|
| Revenue | | €/mln | 1,241 | 1,248 | -0.6% |
| Gross Operating Profit (EBITDA) | | €/mln | 63 | 70 | -10.0% |
| *EBITDA Margin* | | | *5.1%* | *5.6%* | |
| | *from Electricity* | *€/mln* | 11 | 11 | -0.7% |
| | *from Gas* | *€/mln* | 52 | 56 | -7.4% |
| | *from Other sales services* | *€/mln* | *0* | 3 | (*) |
| Operating Profit (EBIT) | | €/mln | 43 | 49 | -12.0% |
| Investments | | | 15 | 10 | 46.9% |
| Electricity Sold | | GWh | 3,876 | 4,763 | -18.6% |
| Gas Purchased | | Million $m^3$ | 1,540 | 1,674 | -8.0% |
| | *Gas sold by the Group* | Million $m^3$ | 700 | 687 | 1.9% |
| | *Gas for internal use* | Million $m^3$ | 734 | 871 | -15.7% |
| | *Gas in storage* | Million $m^3$ | 106 | 116 | -8.4% |

(*) Change of more than 100%

*Sale of electricity*

The volumes of electricity sold amounted to 3,876 GWh (net of pumping, network leaks, dedicated withdrawals and including balancing) down by 18.6% compared to the 4,763 GWh of the first half of 2017.
Volumes sold on the free market, including the segments of business and retail customers, and wholesalers, amounted to a total of 3,584 GWh, down 18.9% compared to the 4,421 GWh of the first half of 2017. The decline in free-market sales is attributable to the wholesale segment, for which sales came to 485 GWh, down by 69.5 % compared with 1,590 GWh in the first half of 2017. Final customer sales increased in both the business segment, coming out at 2,326 GWh compared with 2,078 GWh in the first half of 2017 (+11.9%), and the retail segment, where they amounted to 773 GWh compared with 753 GWh in the first half of 2017 (+2.7%).
Sales in the protected market amounted to 236 GWh, down by 10.7% compared to 264 GWh in the corresponding period of 2017.

The gross operating profit (EBITDA) of the sale of electricity amounted to 11 million euro, down slightly, by 0.7%, compared to the result of the first half of 2017. The trend in gross operating profit was characterised by lower profit related to the rising trend of electricity prices and by some non-replicable positive components of 2017 almost completely absorbed by contingent assets of approximately 4 million euro realised in the first half of 2018 and related to definition of earlier cost items.

*Sale of Natural Gas*

The volumes purchased amounted to 1,540 million m³, down 8%, compared to the 1,674 million m³ of the first half of 2017.
The gas sold by the group amounted to 700 million m³, up by 1.9% compared to the 687 million m³ of the corresponding period in 2017, while internal consumption was 734 million m³, down by 15.7% compared to the 871 million m³ of the first half of 2017.

Gross operating profit (EBITDA) of gas sales amounted to 52 million euro, down (-7.4%) compared to the 56 million euro recorded in the first half of 2017. The lower profit is mainly attributable to the cessation of the favourable procurement conditions guaranteed by the use of storage, which had characterised the first half of 2017, only partially offset by the adjustment of earlier items and by the consolidation of Salerno Energia Vendite.

*Sales of other services*

Heat sales and other services presented a gross operating income at break-even point, whereas the figure was 2 million euro in the first half of 2017. The decline in the margin is mainly attributable to the transfer of the heat management activity to another company in the group, following the intra-group reorganisation.

Investments in the period amounted to 15 million euro.

**Networks SBU**

In the first half of 2018 the Network business segment, which comprises the businesses of Gas Distribution, Electricity and the Integrated Water Service, recorded revenue of 443 million euro, up by +5.2% compared to the 421 million euro of the first half of 2017. The consolidation of ACAM Acque starting from 1 April 2018 contributed to the increase in revenue.

Gross operating profit (EBITDA) amounted to 161 million euro, up 4.9% on the 153 million euro of the 1st half of 2017.

The net operating profit (EBIT) amounted to 88 million euro, up by 2% compared to 86 million euro in the first half of 2017. The positive trend in gross operating profit was partially offset by higher amortisation and depreciation for around 6 million euro.
The main changes in gross operating profit for the segments concerned are illustrated below.

| | | First half 2018 | First half 2017 | Δ % |
|---|---|---|---|---|
| Revenue | €/mln | 443 | 421 | 5.2% |
| Gross Operating Profit (EBITDA) | €/mln | 161 | 153 | 4.9% |
| *EBITDA Margin* | | *36.2%* | *36.3%* | |
| *from Electricity Networks* | *€/mln* | *35* | *35* | *-1.2%* |
| *from Gas Networks* | *€/mln* | *39* | *38* | *1.4%* |
| *from Integrated Water Service* | *€/mln* | 87 | 80 | *9.3%* |
| Operating Profit (EBIT) | €/mln | 88 | 86 | 2.0% |
| | | | | |
| Investments | €/mln | 101 | 65 | 55.4% |
| *in Electricity Networks* | *€/mln* | *15* | *11* | *40.2%* |
| *in Gas Networks* | *€/mln* | *23* | *15* | *54.6%* |
| *in Integrated Water Service* | *€/mln* | 63 | 40 | 59.9% |
| | | | | |
| Electricity distributed | GWh | 1,861 | 2,023 | -8.0% |
| Gas introduced into the network | Million $m^3$ | 789 | 736 | 7.1% |
| Water sold | Million $m^3$ | 90 | 87 | 3.4% |

*Networks SBU - Electricity*

The gross operating profit amounted to 35 million euro, down slightly (-1.2%) compared to the first half of 2017.
The decline in profit is mainly attributable the lower revenue from connections, partially offset by lower operating expenses.
During the period investments for 15 million euro were made, mainly related to new connections, the construction of new LV/MV electric cabins and LV/MV lines.

*Networks SBU - Gas Distribution*

Gross operating profit (EBITDA) of gas distribution networks amounted to 39 million euro, up by 1.4% compared to 38 million euro in the first half of 2017. The increase in the profit was mainly due to an improvement in the Total Revenue Constraint and to a positive effect, from a comparative point of view related to the cessation of a negative one-off in the management of energy efficiency certificates present in the corresponding period of 2017, which made it possible to absorb a number of contingent assets of the first half of 2017 which were no longer repeatable.
Investments made in the period amounted to 23 million euro and regarded the provisions of ARERA resolutions, in particular making the network compliant with cathodic protection, and the installation of electronic meters.

*Networks SBU - Water Cycle*

Gross operating profit for the period amounted to 87 million euro, up (+9.3%) on the 80 million euro of the first half of 2017. The increase in profit is mainly attributable to an increase in Operator Revenue Constraint, to synergies and to rationalisations of operating expenses that made it possible to absorb the effect of extraordinary items of 2017 (insurance payouts and tariff adjustments) which were no longer repeatable in 2018. The consolidation of ACAM Acque, starting from 1 April 2018, also contributed to the improvement in profit.

Investments in the period totalled 63 million euro and concerned the construction, development and maintenance of distribution networks and plants, the sewerage network and water treatment plants.

**Waste Management SBU**

In the first six months of the year, turnover for the segment amounted to 294 million euro, up 9.1% from the 270 million euro of the first half of 2017. The increase was due to higher revenue from collection and intermediation of special waste, to higher energy revenue and to revenue related to an increase in the quantities of waste disposed of. The expansion of the perimeter related to ACAM Ambiente and ReCos, starting from 1 April 2018, contributed to the increase in revenue for approximately 13 million euro; these companies operate respectively in the businesses of collecting and processing waste in the province of La Spezia.

| | | **First half 2018** | **First half 2017 restated** | **Δ %** |
|---|---|---|---|---|
| Revenue | €/mln | 294 | 270 | 9.1% |
| Gross Operating Profit (EBITDA) | €/mln | 73 | 71 | 3.3% |
| *EBITDA Margin* | | *25.0%* | *26.4%* | |
| Operating Profit (EBIT) | €/mln | 36 | 37 | -3.2% |
| Investments | €/mln | 10 | 7 | 30.7% |
| Electricity sold | GWh | 258 | 256 | 0.8% |
| Thermal energy produced | $GWh_t$ | 109 | 106 | 2.7% |
| Waste managed | tonnes | *1,098,005* | 941,017 | 16.7% |
| Emilia area separate waste collection | % | *73.6* | *69.3* | *6.2%* |
| Piedmont area separate waste collection | % | *46.7* | *45.8* | *1.8%* |
| Liguria area separate waste collection | % | *65.8* | - | - |

Gross operating profit of the segment amounted to 73 million euro, an improvement (+3.3%) on the 71 million euro of the corresponding period of 2017. The increase in profit can be attributed mainly to higher revenue from the disposal hubs, in particular of TRM and REI, also due to the higher quantities disposed of compared to the corresponding period of 2017. The consolidation of ACAM Ambiente, starting from 1 April 2018, also contributed to the improvement in profit.

The operating profit amounted to 36 million euro, down 3.2% compared to the 37 million euro in the first half of 2017. The positive trend in gross operating profit was partially absorbed by higher depreciation and amortisation (around 3 million euro) and lower releases of provisions (around 3 million), offset by lower provisions set aside for risks and impairment losses on receivables of 3 million euro.

The investments made in the period amounted to 10 million euro and refer to investments for the maintenance of various plants and investments in equipment and vehicles supporting waste collection based on the door-to-door and separation method.

**Services and other**

Revenue of the period in the segment was 42 million euro, down compared to the 50 million euro recorded in the corresponding period of 2017. The drop in revenue is related mainly to fewer activities associated with public lighting services and allocations of common assets. The activities performed are related to public lighting, traffic lights, heating system and heat management and other activities.

| | | First half 2018 | First half 2017 | Δ % |
|---|---|---|---|---|
| Revenue | €/mln | 42 | 50 | -17.1% |
| Gross Operating Profit (EBITDA) | €/mln | 2 | 1 | (*) |
| *EBITDA Margin* | | *6.2%* | *2.3%* | |
| Operating Profit (EBIT) | €/mln | 3 | 1 | (*) |
| | | | | |
| Investments | €/mln | 14 | 9 | 49.1% |

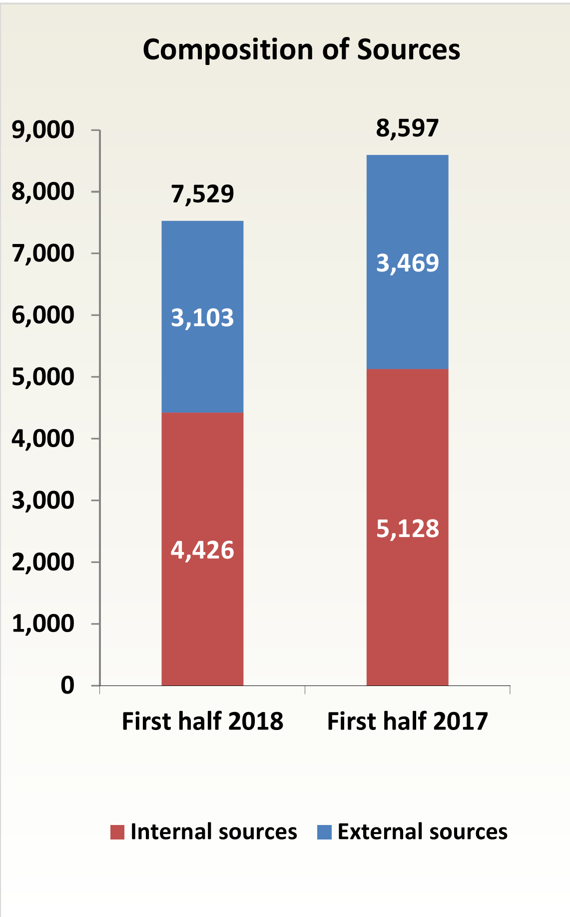
(*) Change of more than 100%

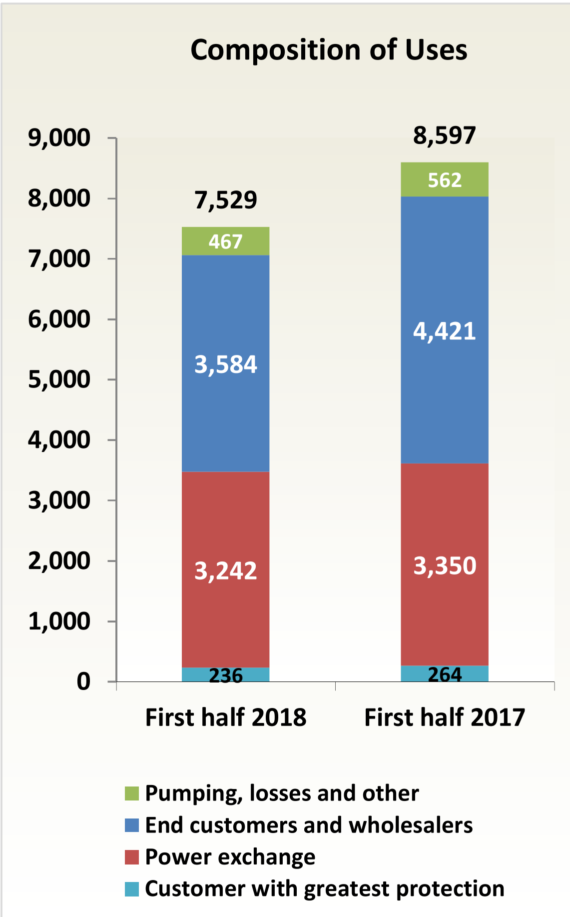
The gross operating profit amounted to 2 million euro, an increase compared to 1 million in the first half of 2017.
The improvement in profit is attributable both to a reorganisation of the group's activities which transferred the heat management activity to other services, while in the first half of 2017 it was presented as heat sold in the market area, and to contingent assets of 0.5 million euro on public lighting.
Investments in the period amounted to 14 million euro and related largely to information technology, vehicles and property services.

## ENERGY BALANCES

### Electricity balance sheet

| GWh | First half 2018 | First half 2017 | Changes % |
|---|---|---|---|
| **SOURCES** | | | |
| The Group's gross production | 4,426 | 5,128 | (13.7) |
| *a) Hydroelectric* | *793* | 636 | 24.7 |
| *b) Cogeneration* | *2,965* | 3,391 | (12.6) |
| *c) Thermoelectric* | *395* | 832 | (52.5) |
| *d) Production from WTE plants and landfills* | *273* | 269 | 1.5 |
| Purchases from Acquirente Unico [Single Buyer] | 250 | 279 | (10.4) |
| Energy purchased on the Power Exchange | 1,716 | 1,994 | (13.9) |
| Energy purchased from wholesalers and imports | 1,137 | 1,196 | (4.9) |
| **Total Sources** | **7,529** | **8,597** | **(12.4)** |
| **USES** | | | |
| Sales to protected customers | 236 | 264 | (10.6) |
| Sales on the Power Exchange | 3,242 | 3,350 | (3.2) |
| Sales to final customers and wholesalers | 3,584 | 4,421 | (18.9) |
| Pumping, distribution losses and other | 467 | 562 | (16.9) |
| **Total Uses** | **7,529** | **8,597** | **(12.4)** |

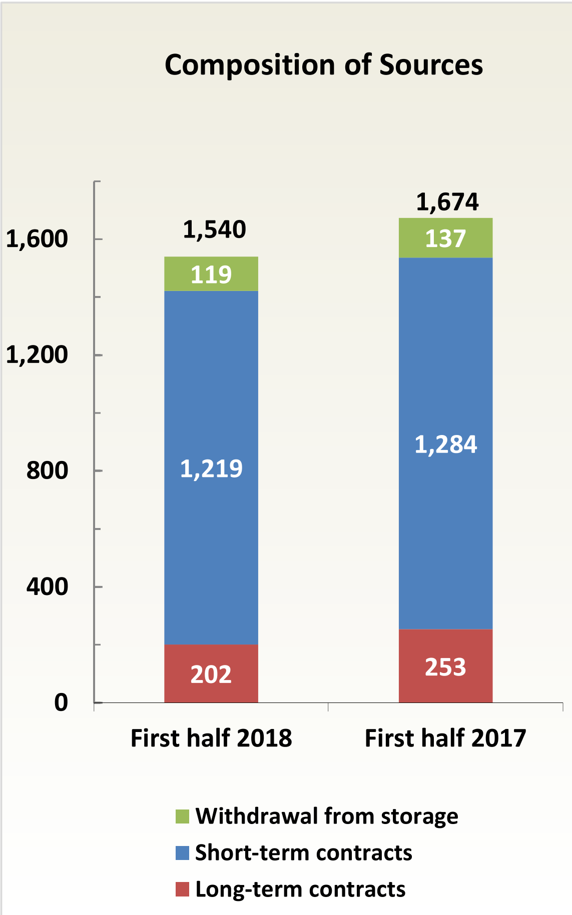


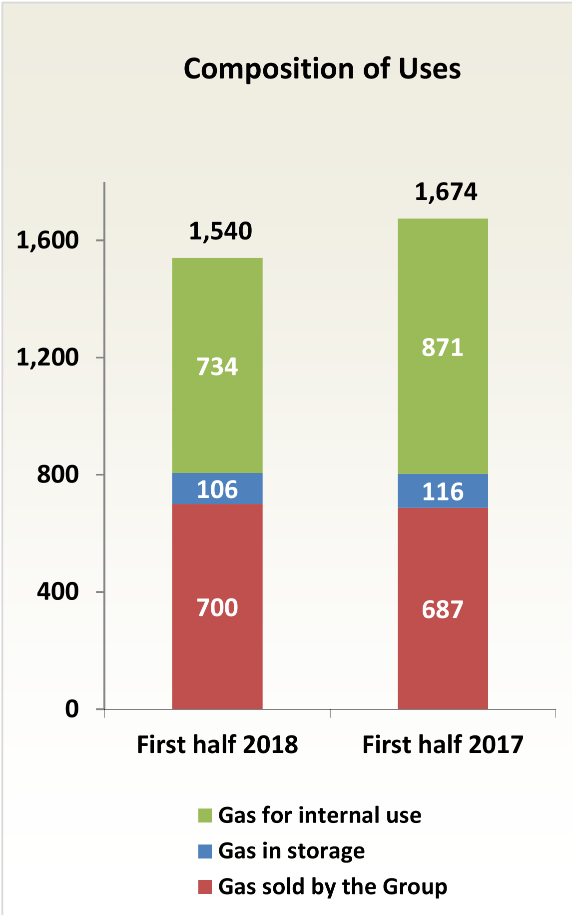



**Gas balance sheet**

| Millions of m³ | First half 2018 | First half 2017 | Changes % |
|---|---|---|---|
| **SOURCES** | | | |
| Long-term contracts | 202 | 253 | (20.2) |
| Short- and medium-term contracts | 1,219 | 1,284 | (5.1) |
| Withdrawals from storage | 119 | 137 | (13.1) |
| **Total Sources** | **1,540** | **1,674** | **(8.0)** |
| **USES** | | | |
| Gas sold by the Group | 700 | 687 | 1.8 |
| Gas for internal use [(1)] | 734 | 871 | (15.7) |
| Gas in storage | 106 | 116 | (8.6) |
| **Total Uses** | **1,540** | **1,674** | **(8.0)** |

(1) Internal use involves thermoelectric plants and use for heat services and internal consumption



# SIGNIFICANT SUBSEQUENT EVENTS AND BUSINESS OUTLOOK

**Agreement between the companies in the AMIAT Group, Iren Energia, Iren Mercato and the Municipality of Turin**

On 12 July 2018, Iren S.p.A., in its capacity as authorised agent, with representative powers, of its subsidiaries AMIAT, Iren Energia and Iren Mercato as one party, and the City of Turin as the other signed an Agreement aimed at governing, with a single structure, the progressive repayment of the receivables due to the aforementioned companies from the said Municipality, as well as specifically reconciling certain receivable items currently contested or viewed differently and, on the occasion, reviewing and redetermining some of the obligations established in the existing contractual relationships.

The Agreement falls within the scope of various existing relationships between the Municipality of Turin, the Group's largest customer, and the aforementioned companies; in particular: AMIAT, the contractor for integrated management services for urban waste and winter road management, as well as services and work related to the closure and post-operational management of the Basse di Stura controlled landfill plant and other services associated with and/or complementary to the aforementioned ones; Iren Energia, the contractor for public street lighting and traffic light services, as well as the management of heating and electrical systems of municipal buildings used to provide services to the community; Iren Mercato, currently the Municipality's thermal energy supplier for district heating and, previously, electricity supplier for public street lighting and traffic light systems.

The initiatives undertaken represent an evolution in the series of contractual addenda entered into between 2012 and 2015 and, more specifically, the agreement signed in 2012 by Iren (also in the name and on behalf of Iride Servizi S.p.A., now Iren Energia, and of Iren Mercato) and the Municipality of Turin for purposes similar to the current ones, and also include the launch of projects in the context of services already provided. As far as Iren is concerned, the conclusion of the Agreement provides in particular for:

- obtaining formal recognition from the Municipality of the Group's receivable position, also following the reconciliation of disputed items or items not interpreted in the same way by all parties;
- formalising at the same time the plans for repayment of past-due receivables at 30 June 2018 from the Municipality, and setting objectives of gradual reduction of the annual balances of past-due receivables that the Municipality undertakes to observe, to enable orderly collection of the receivables and an improvement in the Group's gross financial position, with the objective of reducing them to zero by the end of 2026;
- introducing offsetting mechanisms for items and a commitment to express consent, by the Municipality, for any transfer of receivables accrued in relation to it;
- introducing protective mechanisms in the case of breach by the Municipality, including the detailed application of default interest (increasing the interest applied to the Current Accounts), according to the significance of the breach, and the ability to activate an acceleration clause in relation to the Municipality, terminating the Current Accounts, as well as returning to the original fees at the end of the first three-year period;
- approving, also as a result of the redefinition or revision of some previous contractual obligations, the completion of industrial projects on the basis of the existing service contracts and implementing the ordinary three-year revision procedure provided for in the AMIAT service contract.

We can note that the process of defining the Agreement was launched with the approval, on 20 February 2018, by the Board of Directors of Iren S.p.A., after a favourable opinion of the Committee for Transactions with Related Parties (CTRP), of a proposal, to be submitted to the Municipality of Turin, for a preliminary agreement between the Company (special agent, with representative powers, of AMIAT, Iren Energia and Iren Mercato) and the said Municipality, to arrive at a subsequent (definitive) Agreement aimed at defining certain relationships between the parties.

This preliminary agreement proposal was submitted to the Municipality of Turin which, with a resolution passed by the Municipal Executive Committee on 27 March 2018, approved the substantive contents of the operation. The Mayor, authorised by the Executive Committee, and Iren consequently proceeded to sign a Preliminary Agreement on 3 April, through an exchange of correspondence, containing the essential elements, the terms and conditions to be reflected in a complete and precise manner in the subsequent Final Agreement, which the parties undertook to negotiate in good faith and define initially by 30 June 2018 and, following an extension agreed, by 15 July 2018.

After subsequent discussions, the parties resolved to proceed with the signing of the final contract with a resolution of the Board of Directors of Iren S.p.A. passed on 2 July 2018, after issuance of the favourable opinion of the CTRP, and with resolutions, dated 3 July, of the Municipal Executive Committee of Turin and of the competent administrative bodies of the other Group companies involved in the operation. The Final Agreement, as above, was consequently signed on 12 July 2018.

Iren's signing of the agreement was classified as a significant transaction pursuant to Article 4, paragraph 1, sub-paragraph a) of the Regulation Containing Provisions on Transactions with Related Parties, adopted by CONSOB with resolution no. 17221 of 12 March 2010, as subsequently amended, since the equivalent value of the transaction—an indicator of significance—exceeds the threshold of 5% of Iren S.p.A. capitalisation. As a result of the above, a disclosure document was issued, published and filed within the legal terms, to which you should refer for further information.

**Demerger of FSU S.r.l. with beneficiary FCT Holding S.p.A.**
On 27 July 2018, the asymmetric non-proportional partial demerger of Finanziaria Sviluppo Utilities S.r.l. (FSU) came into effect. Up to that date, the company had held an equity interest of 32.67% in the share capital of Iren S.p.A., and was 50% owned by the Municipality of Genoa and 50% indirectly owned by the Municipality of Turin through Finanziaria Città di Torino Holding S.p.A. (FCT, wholly controlled by the latter). As a result of the demerger:

- half of the shareholders' equity of FSU is assigned to FCT, against the cancellation of the related equity interest of the latter in FSU, and with consequent reduction of half of the share capital;
- following the reduction of capital, the Municipality of Genoa, therefore, came to hold 100% of the share capital of FSU.

After this operation, FSU (wholly controlled by the Municipality of Genoa) and FCT (wholly controlled by the Municipality of Turin) each come to hold an equity interest in Iren S.p.A. of 16.335% of the share capital.

## BUSINESS OUTLOOK

The first half of 2018 was marked by a slight slowdown in the global economy and by turbulence in international trade due to the implementation of a series of protectionist policies by the United States. Growth in the euro area also decelerated, in particular within the last months of the period. To these phenomena was added the plan by the Governing Council of the ECB to stop net purchases of securities at the end of the year. In relation to the Italian situation, the trend of energy commodities recorded a sharp rise in the price of gas at the PSV, +16.3%, which was not reflected completely in the SNP (the price of electricity on the Power Exchange), the increase of which halted at 5.2%. In this scenario, unfavourable for thermoelectric and cogeneration operators, the Group achieved good performance in all operating indicators because of the resilience and balance of its business portfolios and to the significant investments made in the district heating sector over the last few years. This made it possible to recognise energy efficiency certificates for earlier periods, with a positive impact on profits.

During the second half of 2018 Iren's efforts will be focused on implementing the strategic options outlined in the business plan, presented to the financial community in November 2017, which introduced the concept of circular vision: a strategic view at 360° which places Customer/Citizen at the centre through action supported by efficiency, development, sustainability and attention to internal resources. These elements will be further refined in the Plan update, the presentation of which is planned for the end of September, with the objective of making even clearer and more effective the strategic guidelines to be developed in the coming years.

# FINANCIAL MANAGEMENT

**General framework**
During the first half of 2018, the short-term part of the rate curve remained substantially stable, while the medium/long-term part saw a certain degree of volatility with upward pressures and subsequent stages of falling back. The last intervention by the European Central Bank was the cut in interest rates in March 2016. The current rate is 0%. Examining the trend in the six-month Euribor rate, we can note that the parameter, which has been in negative territory since November 2015, remained stable at -0.27%. The quotations of fixed rates, reflected in the figures for IRS at 5 and 10 years, after the rise seen at the end of 2017 and beginning of 2018 are realigning to the levels of October-November 2017.

**Activities performed**
During the first half of 2018, activities aimed at consolidating the financial structure of the Iren Group continued. The development of funding needs is monitored through careful financial planning, which enables requirements for new financial resources to be anticipated, taking into account the repayments of outstanding loans, the development of debt, the investments, the trend in working capital and the balance of short-term and long-term sources.
The organisational model adopted by the Iren Group, with the goal of financial optimisation of all Group companies, provides for Iren's centralisation of treasury management, medium/long-term loans management and financial risk monitoring and management. Iren has relations with the leading Italian and international banks, for the purpose of locating the types of loans best suited to its needs, and the best market conditions.

We can note that no new loans were activated during the period, and that direct loans with the European Investment Bank (EIB), with a duration of up to 15 years, remaining unused and available still total 235 million euro. Again, in order to optimise the Group's financial structure, liability management continued in respect of existing debt positions with a view to taking advantage of favourable market opportunities; in this context a loan of 39 million euro was repaid in advance.

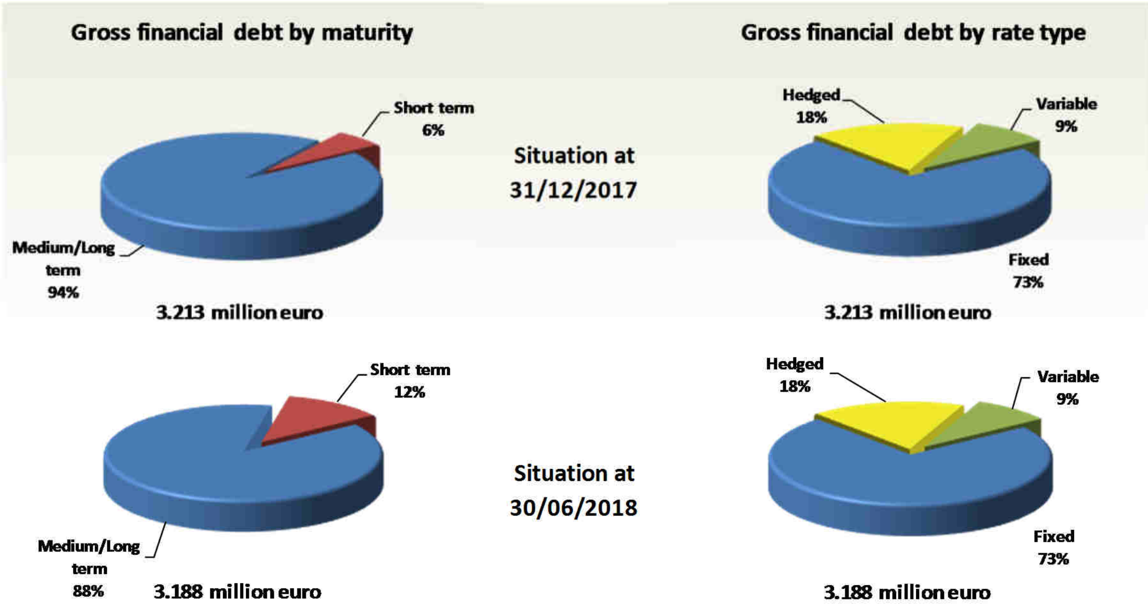
In the Group context loan positions for a total of 12 million euro of the ACAM Companies and ReCos were included in the consolidation scope, while with the aim of optimising its financial structure, positions of Iren Rinnovabili and its subsidiaries and of ASM Vercelli were settled early for a total of 30 million euro, including a derivative hedging position relating to a debt that has been repaid.

Financial debt at the end of the period is made up 44% of loans and 56% of bonds.

The Iren Group is exposed to various types of financial risks, including liquidity risk, interest rate risk, and currency risk. As part of its Risk Management activities, the Group uses non-speculative hedging contracts to limit risks of fluctuations in the interest rate. In the period, no new Interest Rate Swap contracts were entered into.
At 30 June 2018, the portion of floating rate debt not hedged by exchange rate derivatives was 9% of gross financial debt, in line with the objective of the Iren Group which is to maintain adequate protection against significant increases in interest rates.

Overall, the activity carried out is aimed at refinancing debt with a view to improving the financial structure, structurally reducing the cost of capital and extending the average duration of financial debt.

The composition of gross financial debt by maturity and rate type, compared with the situation at 31 December 2017, is shown below.




**Rating**

In December 2017 the Fitch agency increased Iren's rating by a notch, taking it to BBB with stable outlook. Fitch also confirmed the BBB rating on the senior unsecured issues. The reasons that led to the improvement of the rating, already "Investment Grade", are, among others, the structural growth of the Group's profitability, the achievement, over the last few years, of significant synergies with better results than the market expectations, the full integration of a number of medium-sized companies, the reduction of the cost of the debt together with early achievement of the financial flexibility target.

In support of the liquidity risk indicators, in addition to the available lines of funding with the EIB detailed above, which have still not been used and offer a total of 235 million euro, committed credit lines were formalised, amounting to 70 million euro at the end of the period.

# RISKS AND UNCERTAINTIES

The management of business risks is an essential component of the Internal Control System of corporate governance in a listed company, and the Code of Conduct set forth by Borsa Italiana assigns specific responsibilities as regards this aspect. The Enterprise Risk Management model operative within the Group includes the methodological approach to integrated identification, assessment and management of the Group risks.
For each of the following risk types:
- Financial Risks (liquidity, interest rate, exchange rate)
- Credit Risk
- Energy Risks, attributable to the procurement of gas for thermoelectric generation and to the sale of electricity, heat and gas, and to the hedging derivative markets
- Operational risks, associated with asset ownership, involvement in business activities, processes, procedures and information flows

specific "policies" have been defined with the primary goal of fulfilling strategic guidelines, organisational-managerial principles, macro processes and techniques necessary for the active management of the related risks. The Group's Enterprise Risk Management model also regulates the roles of the various parties involved in the risk management process, which is governed by the Board of Directors, and calls for specific Committees to manage the financial, credit and energy risks.
As the Iren Group pays particular attention also to maintaining trust and a positive image of the Group, the Enterprise Risk Management model also manages reputational risks, which relate to the impacts on stakeholders of any malpractices.

The "Risk Management" Department, reporting to the Deputy Chairperson, operates within the Holding. This department is formally entrusted with the following activities:
- coordinating the process for integrated management of the Group's risks, including those related to M&A operations;
- assessing the Group's insurance needs, designing programmes, signing and managing policies.

A periodic assessment process is also in place with regard to adverse events in the various sectors and across all the Group's areas in order to circumstantiate their causes and implement the most suitable methods for preventing and/or limiting the impacts of the events.

Details of the active management methods within the Group are provided below for the different types of risk.

## 1. FINANCIAL RISKS

Iren Group activity is exposed to various types of financial risks, including liquidity risk, currency risk and interest rate risk. As part of its Risk Management activities, the Group uses non-speculative hedging contracts to limit exchange rate risk and interest rate risk.

a) Liquidity risk
Liquidity risk is the risk that financial resources available to the company will be insufficient to cover financial and trade commitments in accordance with the agreed terms and deadlines.
The procurement of financial resources was centralised in order to optimise their use. In particular, centralised management of cash flows in Iren makes it possible to allocate the funds available at the Group level according to the needs that from time to time arise among the individual Companies. Cash movements are recognised in intra-group accounts along with intra-group interest income and expense.
A number of investees have an independent financial management structure in compliance with the guidelines provided by the Parent Company.

b) Exchange rate risk

Except as indicated under the section on energy risk, the Iren Group is not significantly exposed to exchange rate risk.

c) Interest rate risk

The Iren Group is exposed to interest rate fluctuations especially with regard to the measurement of financial expenses related to indebtedness. The Iren Group's strategy is to limit exposure to the risk of interest rate volatility, maintaining at the same time a low cost of funding.

Compliance with the limits imposed by the policy are verified during the Financial Risk Committee meetings with regard to the main metrics, together with analysis of the market situation, interest rate trends, the value of hedges and confirmation that the conditions established in covenants have been met.

## 2. CREDIT RISK

The Group's credit risk is mainly related to trade receivables deriving from the sale of electricity, district heating, gas and the provision of energy, water and environmental services. The receivables are spread across a large number of counterparties, belonging to non-uniform customer categories (retail and business customers and public bodies); some exposures are of a high amount and are constantly monitored and, if necessary, covered by repayment plans. The Iren Group's Credit Management units devoted to credit recovery are responsible for this activity.

In carrying on its business, the Group is exposed to the risk that the receivables may not be honoured on maturity with a consequent increase in their age and in insolvency up to an increase in receivables subject to arrangement procedures or unenforceable. This risk reflects the current economic and financial situation.

To limit exposure to credit risk, a number of tools have been activated. These include analysing the solvency of customers at the acquisition stage through careful assessment of their creditworthiness, transferring the receivables of discontinued and/or active customers to external credit recovery companies and introducing new recovery methods for managing legal disputes.

The receivable management policy and creditworthiness assessment tools, as well as monitoring and recovery activities differ in relation to the various categories of customers and types of service provided.

Credit risk is hedged, for some types of business customers, with opportune forms of first-demand bank or insurance guarantees issued by subjects of leading credit standing.

An interest-bearing guarantee deposit is paid for some types of services (water, natural gas, "protected customer" electricity sectors) in compliance with regulations governing these activities. This deposit is reimbursed if the customer uses payment by direct debit from a current account.

The payment terms generally applied to customers are related to the legislation or regulations in force or in line with the standards of the free market; in the event of non-payment, default interest is charged for the amount indicated in the contracts or by the legislation.

Provisions set aside for impairment of receivables reflect, in an accurate manner, the effective credit risks and are determined on the basis of the extraction from databases of the amounts making up the receivables and, in general, assessing any changes in the said risk compared to the initial measurement and, in particular for trade receivables, estimating the related expected losses determined on a prospective basis, taking into due consideration the historical series.

The control of credit risks is also strengthened by the monitoring and reporting procedures, in order to identify promptly possible countermeasures.

In addition, on a quarterly basis, the Risk Management Department collects and integrates the main data on trade receivables of the Group companies, in terms of type of customers, status of the contract, business chain and ageing band. Some of the above assessments are carried out at intervals of less than three months or when there is a specific need.

## 3. ENERGY RISK

The Iren Group is exposed to price risk, on the energy commodities traded, these being electricity, natural gas, environmental emission certificates, etc., as both purchases and sales are impacted by fluctuations in the price of such commodities directly or through indexing formulae. Exposure to exchange rate risk, typical of oil-based commodities, is present, but is attenuated thanks to the development of the European organised markets that trade the gas commodity in the euro currency and no longer indexed to oil products.

The Group's strategy is to minimise the need to turn to the financial markets for hedges, both by aligning the indexing of the commodities purchased and sold and by exploiting, vertically and horizontally, its various business segments.
For this purpose, the Group carries out planning of the production of its plants and purchases and energy and natural gas sales, in relation to both volumes and price formulae. The objective is to obtain a sufficient stability in the margins through:

- for the electricity supply chain, the opportune balancing of internal production and energy from the futures market with respect to the demand coming from the Group's customers, with adequate recourse to the spot market;
- for the natural gas supply chain the priority of alignment of the indexing of the commodity in purchase and sale.

For a more detailed analysis of the risks dealt with up to now, reference should be made to the paragraph "Group Financial Risk Management" in the Notes to the Financial Statements.

## 4. OPERATIONAL RISKS

This category includes all the risks which, in addition to those already noted in the previous paragraphs, may influence achievement of the targets, i.e. relating to the effectiveness and efficiency of business transactions, levels of performance, profitability and protection of the resources against losses.
The Group's Enterprise Risk Management model has as its objective the integrated and synergistic management of risks.
The process of managing the Group's risks entails that, for each business line and operating area, the activities performed are analysed and the main risk factors connected with achievement of the objectives are identified. Following the identification activity, the risks are assessed qualitatively and quantitatively (in terms of magnitude and probability of occurrence), thus making it possible to identify the most significant risks. The analysis also involves an assessment of the current and prospective level of control of the risk, monitored by means of specific key risk indicators.
The above stages make it possible to structure specific treatment plans for each risk factor.
Along all the management phases, each risk is subjected on a continuous basis to a process of control and monitoring, which checks whether the treatment activities approved and planned have been correctly and effectively implemented, and whether any new operational risks have arisen. The process of managing operational risks is associated with a comprehensive and structured reporting system for presenting the results of the risk measurement and management activity.
Each process stage is performed in accordance with standards and references defined at Group level. The Group's risk position is updated at least quarterly, indicating the extent and level of control of all risks monitored, including financial, credit and energy risks. The risk reporting is sent to the top management and to the risk owners, who are involved in the management activity. The risk analysis also supports the preparation of planning tools.

Of particular note are:

### a. Legal and regulatory risks

The legislative and regulatory framework is subject to possible future changes, and therefore is a potential risk. In this regard a Department operates, reporting directly to the Chief Executive Officer, and dedicated to continual monitoring of the relevant legislation and regulations in order to assess their implications, guaranteeing their correct application in the Group.

### b. Plant-related risks

As regards the amount of the Group's production assets, plant-related risks are managed with the approach described above in order to correctly allocate resources in terms of control and preventive measures (preventive/predictive maintenance, control and supervisory systems, emergency and continuity plans, etc.).

For the most important plants the Risk Management department periodically conducts surveys, from which it can accurately detail the events to which such plants could be exposed and consequent preventive action. The risk is also hedged by insurance policies designed considering the situation of the single plants.

c. IT Risks

IT Risks (Cyber Risks) are defined as the set of internal and external threats which can compromise business continuity or cause civil liability damage to third parties in the event of loss or divulgation of sensitive data. From an internal point of view, the operational risks regarding information technology are closely related to the business of the Iren Group, which operates network infrastructures and plants, including through remote control, accounting operational management and invoicing systems and energy commodity trading platforms. The Iren Group is, in fact, one of the leading Italian operators on the Power Exchange and any accidental unavailability of the system could have considerable economic consequences, connected with the non-submission of energy sale or purchase offers. At the same time, problems related to supervision and data acquisition on physical systems could cause plant shutdowns and collateral and even serious damage.

A breakdown of invoicing systems could also determine delays in issuing bills and the related collections, as well as damage to reputation.

To mitigate such risks, specific measures have been adopted, such as redundancies, highly-reliable systems and appropriate emergency procedures, which are periodically subject to simulations, to ensure their effectiveness.

The Iren Group is also exposed to the risk of cyber attacks aimed both at acquiring sensitive data and at stopping operations, causing damage to plants and networks and compromising service continuity. Market benchmarks also show that attacks aimed at acquiring companies' and third-party data are increasingly frequent, with consequent civil liability and sanctions, including serious ones, and at acquiring industrial secrets. Measures are being prepared to improve the cyber security management system through renewal of the perimeter security technologies, construction of a process for detecting and managing security events and incidents and preparation of a vulnerability management system, extended also to suppliers that process sensitive corporate data for various reasons.

The operational risk management process also aims at optimising the Group's insurance programmes.

5. STRATEGIC RISKS

the Iren Group has adopted a Business Plan with a time horizon at 2022 which defines its strategic orientations and the related industrial objective from which the economic and financial figures of reference derive. The said objectives refer to:

a) making the Group's organisation and processes more efficient;
b) development (investments in regulated and quasi-regulated sectors, increase of the customer base, energy efficiency);
c) consolidation of the regulated sectors (renewal of concessions: gas distribution, integrated water cycle and waste-management segment);
d) external growth;
e) energy scenario;
f) sustainability and ESG (Environment, Social, Governance) targets.

In application of the Group's policies, the said Plan was subjected to a risk assessment carried out by the Risk Management Department and to the related stress tests, which showed the substantial resistance including in the face of adverse events characterised by specific sensitivities. Besides the risk analysis associated with the Plan, the Risk Management Department contributes with risk assessments specific to merger & acquisition operations which are involving the Iren Group companies.

# TRANSACTIONS WITH RELATED PARTIES

Up to 30 June 2018, the following remained in force: (i) the *"Internal Regulation on Transactions with Related Parties"* (hereinafter also "TRP Internal Regulation"), in the version most recently updated with a resolution of the Board of Directors of Iren passed on 13 March 2015, after the favourable opinion of the Company's Committee for Transactions with Related Parties (hereinafter also "CTRP", wholly made up of Independent Directors); (ii) the Operating Procedure for the Management of Transactions with Related Parties, which supplements and details the provisions of the aforesaid TRP Internal Regulation, approved by the Board of Directors of Iren on 15 March 2016, after a favourable opinion of the CTRP.

With the aim at arriving at unifying the aforementioned documents and consequently rationalising the related provisions, on 12 April 2018, after a favourable opinion of the Committee for Transactions with Related Parties, the Board of Directors of Iren approved the Procedure for Transactions with Related Parties (hereinafter also "TRP Procedure"), with entry into force deferred until 1 July 2018, the date on which it replaced the documentation previously in force on the subject, that is the TRP Internal Regulation and the Operating Procedure for the Management of Transactions with Related Parties, becoming the only document of reference in the Group. While awaiting entry into force of the above TRP Procedure, a number of amendments of a formal nature were made to the related text; these were submitted, after a favourable opinion of the CTRP, to the Board of Directors of Iren, which on 2 July 2018 approved an updated version of the TRP Procedure.

The current TRP Procedure is published on the Iren website (www.gruppoiren.it).

The above documents were prepared implementing:
- the provisions relating to transactions with related parties pursuant to Article 2391-*bis* of the Italian Civil Code;
- the Regulation containing provisions on transactions with related parties, adopted by CONSOB with its Resolution no. 17221 of 12 March 2010 as subsequently amended (the "CONSOB Regulation");
- the provisions pursuant to Art. 114 of Italian Legislative Decree no. 58 of 24 February 1998 (the Consolidated Law on Finance or CLF) and the provisions of Regulation (EU) no. 596/2014 on market abuse.

The corporate documents adopted in accordance with the legislation on transactions with related parties, defined in coordination with the provisions of the administrative and accounting procedures pursuant to Art. 154-*bis* CLF, have as their purpose, in particular:
(i) to regulate the performance of transactions with related parties by Iren, directly or through subsidiaries, identifying internal procedures and rules capable of ensuring the substantial and procedural transparency and correctness of such transactions, and
(ii) to establish the methods of fulfilling the related disclosure obligations, including those provided for in the legal and regulatory measures in force and applicable.

These, very briefly, provide for:
a) identification of the perimeter of related parties;
b) definition of a transaction with a related party;
c) identification of cases of exclusion and of transactions for small amounts;
d) procedures applicable to transactions of minor significance;
e) procedures applicable to transactions of major significance;
f) persons responsible for enquiries on transactions with related parties;
g) transactions for which the Shareholders' Meeting is responsible;
h) forms of disclosure.

Iren and its subsidiaries carry out related-party transactions in accordance with the principles of transparency and fairness. These transactions mainly concern services provided to customers in general (gas, water, electricity, heat, etc.) or following concessions and awards of services, in particular for the waste management segment, and are governed by the contracts applied in such situations.
Where the services provided are not the above, the transactions are governed by specific agreements whose terms are established, where possible. in accordance with normal market conditions. If these references are not available or significant, the contractual conditions are defined also in consultation with independent experts and/or professionals.

Information on related-party transactions is presented in the Notes to the Condensed Consolidated Interim Financial Statements in section “V. Information on transactions with related parties”, and in paragraph “XI. Annexes to the Condensed Consolidated Interim Report”, as an integral part of the same.

# REGULATORY FRAMEWORK

The main legislative references of the first half of 2018 related to the Group Iren's sectors of competence are presented below.

***LOCAL PUBLIC SERVICES OF GENERAL ECONOMIC INTEREST AND LEGISLATION OF GENERAL INTEREST***

***Regulations relating to local public services of economic interest***

The rules on local public services resulting from the regulatory framework are contained in the Italian Law no. 221 of 17/12/2012, as amended, converting Italian Law Decree no. 179 of 18/10/2012 containing further urgent measures for growth of the country, Art. 34, as amended by Italian Law Decree no. 150 of 30/12/2013 - Extension of terms provided for by legislative measures, Art. 13 *Terms on the subject of local public services,* in force since 1 March 2014.
On the basis of the legislative framework indicated, direct assignments granted as of 1 October 2003 to partially publicly-owned companies already listed on the Stock Exchange at that date, and to those controlled by them, cease at the expiry date provided for in the service contract; assignments that do not provide for an expiry date cease, with no extension possible, on 31 December 2020.
The functions of organising local public network services of economic relevance, including those belonging to the municipal waste sector, deciding on the form of management, determining the relevant utility tariffs, assigning the management and the associated control, are performed exclusively by governing bodies within the optimal geographical territories or areas.

With Decision no. 1134 of 8 November 2017, the National Anti-Corruption Authority issued the "New guidelines for implementation of the legislation on preventing corruption and transparency by companies and private-law entities controlled and invested in by public administrations and economic public bodies", which confirm the exclusion of listed companies from the legislation, except that it applies only to activities of public interest carried out by companies belonging to a listed group but invested in directly by a Public Administration. The Guidelines motivate the exclusion in light of the need for further study by the Ministry of the Economy and Finance and the Italian National Commission for Companies and the Stock Exchange (*Commissione Nazionale per le Società e la Borsa* - CONSOB) which, as of today has not yet been completed.

While the Consolidated Law on Local Public Services of General Economic Interest, the scheme of which was approved, has lapsed following Constitutional Court judgement no. 251/2016, the Consolidated Law on Public Investee Companies was published in the Official Journal with Italian Legislative Decree no. 175 of 19 August 2016, came into force on 23 September 2016 and was most recently amended with the corrective Italian Legislative Decree no. 100 of 16 June 2017.

***Code on Public Contracts***

The Code on Public Contracts currently in force was approved with Italian Legislative Decree no. 50 of 18 April 2016 and adjusted with subsequent measures, of which the most recent is Italian Law 205/2017 of 27 December 2017, in force since 1 January 2018. This last intervention amended, among other things, Art. 177, reducing the percentage of activities to be outsourced only for motorway concessionaires, and intervening on the obligation of an annual audit by ANAC, pursuant to paragraph 3, which refers to specific Guidelines that have not yet been issued. Implementing the Code, ANAC's activity of revising and publishing Guidelines is continuing. During the period of reference the following measures were published:

- Resolution no. 4 of 10 January 2018: revision of Guidelines no. 5, containing "Criteria for choosing the tender commissioners and for registering experts in the obligatory National Register of the members of selection boards";
- Resolution no. 138 of 21 February 2018: revision of Guidelines no. 1, containing "General guidance on the award of services related to architecture and engineering";
- Resolution no. 206 of 1 March 2018: revision of Guidelines no. 4, containing "Procedures for the award of public contracts of an amount less than the community significance threshold, market surveys and formation and management of the lists of economic operators";

- Resolution no. 318 of 28 March 2018: Guidelines no. 9, containing "Monitoring of awarding administrations on the activity of the economic operator in public-private partnership contracts";
- Resolution no. 424 of 2 May 2018: revision of Guidelines no. 2, containing "Economically most advantageous offer".

With Decree no. 49 of 7 March 2018, the Ministry of Infrastructures and Transport issued a Regulation containing: "Approval of the guidelines on the methods of performing the functions of director of works and director of the execution", implementing article 111, paragraph 1 of the Code.

***Reform of the Bankruptcy Law***

As regards the subject in question, in the period of reference, no action was taken by the Government, which by 14 November 2018 must prepare a set of rules on arrangement procedures, resolving crises of over-indebtedness and the privileges and guarantees system, implementing the provisions of Italian Law no. 155 of 19 October 2017 delegating power to the Government "for the reform of the rules on companies in crisis and insolvency".

***AWARD AND PERFORMANCE OF GAS DISTRIBUTION SERVICES***

The rules on gas distribution services were profoundly modified by the provisions of the Letta Decree, approved with Italian Legislative Decree no. 164 of 2000, which introduced competition into the Italian natural gas market by deregulating gas imports, exports, transport, dispatching and sales.
In a Decree of 19 January 2011, the Ministry of Economic Development determined the geographical areas for the natural gas distribution sector, and with Ministerial Decree no. 226 of 12/11/2011, the Criteria Decree (updated most recently with Ministerial Decree no. 106 of 20/05/2015), the Regulation on public tender criteria and the assessment of bids for the assignment of gas distribution services was adopted.

The terms for calling tenders, initially set at six months from when the regulation came into force, were extended several times and the concessions are currently operating under the extended regime pending the calling and award of public tenders.
Although the dates as identified in Italian Law 21 of 25 February 2016 "Conversion into law, with amendments, of Law Decree no. 210 of 20 December 2015" passed some time ago (as per the list presented below), as of today, the tenders in the Minimum Territorial Areas (MTAs) indicated of interest for the IRETI and ASM Vercelli companies—which were awarded the service—have not yet been called.

- Reggio Emilia - tender extended for two years owing to earthquake - 11 November 2016
- Parma – 11 July 2016
- Piacenza 1 West – 11 December 2016
- Piacenza 2 East – 11 September 2017
- Genoa – 11 April 2017
- Vercelli – 11 October 2016

On the subject of performance and award of gas distribution services, it is important to mention Resolution 382/2012/R/gas, which presents the standard service contract template for natural gas distribution, MD 226/2011 for the standard tender template and MD 22 May 2014 of the Ministry of Economic Development related to the "Guidelines on criteria and application methods for assessing the reimbursement value of natural gas distribution plants".

Italian Law no. 124 of 4 August 2017 (OJ no. 189 of 14 August 2017) "Annual law for the market and competition", in Article 1, paragraph 93, instead regulates cases where, when certain aggregate area parameters are observed, the RIV/RAB differences of plants—where the RIV has been determined on the basis of the Ministry's Guidelines—need not be subject to ARERA assessment. In paragraph 94, it states that ARERA must decide on a simplified procedure for examining tenders and regulating calls when these documents have been prepared in accordance with the "standard" ones laid down by the ministerial decrees (MDs).
Lastly, paragraph 95 provides for an amendment to Art. 10 of MD 226/2011, with reference to participation as Temporary Consortia in tenders for the award of the service. On this point it states that "For the purposes

of participating in area tenders as temporary groups of companies and ordinary consortia, the technical capability requirements identified in Article 10, paragraph 6, letters a., c. and d., of the regulation pursuant to Decree no. 226 of 12 November 2011, can be possessed also by only one of the participants; the requirements identified in Article 10, paragraph 6, letter b., must be possessed cumulatively by the participants.”
Italian Legislative Decree no. 56/2017, published on 5 May 2017, contained provisions additional and corrective to the Code on Public Contracts, and in particular supplemented the rules and provided a clarification on the scope of application of Italian Legislative Decree no. 50 of 18 April 2016, on tenders for the award of the gas distribution service, to be read in continuity with the MED Departmental Circular of 23 March 2017.

IRETI appealed the M.D. of 22 May 2014 and the subsequent M.D. 106/2015, and the appeal to the Council of State against judgment no. 11242/2016 is currently pending. With this judgment, the Lazio Regional Administrative Court rejected the appeals lodged for cancellation of the above measures.
The Council of State referred the question to the Court of Justice of the European Union so that it can establish “whether these principles and rules prevent national legislation… that provides for retroactive application of the criteria for determining the amount of the reimbursements due to the former concessionaires with an effect on earlier negotiated relationships or whether this application is justified, also in light of the principle of proportionality, by the need to protect other public interests of European significance related to the need to permit greater protection of the competition structure of the relevant market together with greater protection of users of the service that could indirectly suffer the effects of any increase in the amounts due to former concessionaires”.
With Resolution 69/2018/R/Gas, the Authority expressed its observations on the RIV values of the municipalities of the Genoa 1 – City MTA and Genoa Plant with difference between RIV and RAB more than 10%, in relation to the provisions of article 15, paragraph 5 of Italian Legislative Decree 164/00, as amended most recently by article 1, comma 16, paragraph of Italian Law Decree 145/13.

***Functional unbundling***

Functional Unbundling, in groups integrated vertically translates into an obligation to manage the essential infrastructures in a neutral manner, without favouring in any way any business that performs commercial activities in the energy sector. According to the rules on Functional Unbundling, natural gas distribution is managed in a neutral manner if it is entrusted to an Independent Operator, that is to say an administrator which, although it operates within the integrated group, has ample decision-making and organisational autonomy, or if the Independent Operator adopts a series of measures capable of preventing discriminatory conduct in the field of governance, organisation, procedures, information technology, personnel, procurement and many other important aspects of business management.
Resolution 296/2015/R/com issued by ARERA approved the rules on functional unbundling obligations for companies operating in the electricity and gas sectors (TIUF, *Testo Integrato Unbundling Funzionale* - Consolidated Rules on Functional Unbundling) which establish, among other things, an obligation to unbundle the communication policy and the brand between sale and distribution companies.
IRETI is part of the Iren Group, which is a Vertically Integrated Company (VIC) in the sectors of both electricity and natural gas under the terms of Art. 1.1 of the TIUF, because the group performs both activities included in the list pursuant to Art. 4.1 of the TIUF, and deregulated activities in the energy sector. Therefore, in order to implement functional unbundling, it entrusted the administration of the natural gas and electricity distribution business to an Independent Operator, in possession of all the powers and characteristics provided for in the regulations.
With CD 307/2017, ARERA illustrated the Authority's orientations on the subject of recognition of the costs incurred by electricity and natural gas distribution companies for changing the brand and the related communication policies, following the introduction of the provisions of the TIUF (Annex A to Resolution 296/2015/R/com) on the subject.
In the context of the above consultation, the Authority began collecting data on the operating and capital costs incurred by operators to fulfil the brand unbundling obligations.

***Default service***

The default service temporarily complements and replaces the last-instance supply service destined to operate when in the management of supply contracts with final customers situations in which customers remain without their vendor occur, including for transitional periods. The service in question was introduced by the Regulatory Authority implementing Art. 7, paragraph 4 of Italian Legislative Decree no. 93 of 2011 with Resolution ARG/gas 99/11. This Resolution was initially considered unconstitutional and suspended by the Lombardy RAC with judgement no. 3296 of 29/12/2012, a judgement then overturned by the Council of State. Very briefly the Council of State, following the AEEGSI's pleadings, decided that the default service is associated with the balancing service and that the same cannot be considered sales activity but, rather, as ex post settlement activity of the objective debt relationships created following withdrawals made by customers that have remained connected to the distribution network. This was also considering the fact that the typical risk of sales activity does not exist, since the default of the final customer served is almost fully socialised and made chargeable to the community.

The matter was also the subject of AEEGSI (now ARERA) resolution no. 258/2015/R/com challenged by IRETI S.p.A. with the fourth appeal for additional reasons. As of today the judgement on the merit of the appeal is pending and a public hearing to deal with the same has not yet been set.

With Resolution 513/2017/R/gas of 6 July 2017, the Authority defined the detailed rules for assessing claims aimed at partial payment or exoneration from payment of the amount provided for, in exchange for gas withdrawn, in cases of failure to physically cut off redelivery points provided in the distribution default service, then further supplemented with the subsequent Resolution 190/2018/R/gas of 29 March 2018. These measures are the result of complex discussions with the operators which led to the identification of a taxonomy of typical cases based on events that have really happened and presented to the Authority by the operators themselves.

### *AWARD AND PERFORMANCE OF ELECTRICITY DISTRIBUTION SERVICES*

Italian Legislative Decree no. 79 of 16 March 1999 (the Bersani Decree) established a general regulatory framework for the Italian electricity market which gradually introduced competition in the production of electricity and sale to eligible customers, although it maintained a regulated monopoly arrangement for transmission and distribution. The distribution activity is entrusted to IRETI (formerly AEM Torino Distribuzione S.p.A. and before that AMPS S.p.A.) by the Ministry of Productive Activities in a concession up to 2030 in the respective territories of the Municipalities of Turin and Parma and, through ASM Vercelli, in the Municipality of Vercelli.
Measures were adopted in 2007 to guarantee functional unbundling. As already specified in the Gas distribution section, with Resolution 296/2015/R/COM functional unbundling obligations were introduced also for electricity distribution operators.

#### *Network Code (CADE) and general system expenses*

ARERA Resolution 481/17/R/eel defined the new structure of general system expenses.
The rules on general system expenses (ESOs) are laid down primarily in Art. 3, paragraph 11, of Italian Legislative Decree no. 79/99, in Art. 39, paragraph 3, of Italian Law Decree no. 83 of 22 June 2012, and for the methods of exacting them Arts 40 and following of the Consolidated Rules on providing electricity transmission and distribution services.
The Lombardy RAC, accepting appeals presented by a number of vendors, declared illegitimate Resolution 268/2015/R/eel (CADE - Standard Network Code for transport of electricity) in the part in which it states that the guarantees that vendors are obliged to provide to the distributor must cover the ESOs as well as the fees for the transport. This ruling clarified that final customers are the subjects of the electricity supply chain obliged, from the legal and economic points of view, to pay the ESOs, highlighting the absence of laws that provide for translation to vendors of the obligation on final customers and not recognising in this context that the Authority has a power to supplement itself contracts between distributors and vendors.
The Authority has appealed the judgement and acted transitionally with Resolution 109/2017/R/eel, reducing the quantification of the guarantees and launching a proceeding for the purpose of identifying mechanisms aimed at recognising adequate compensation to vendors and distributors for any non-collection of the tariff components covering ESOs.
Council of State Judgment no. 5620/2017 of 30 November 2017 rejected the Authorities appeal confirming the cancellation of Resolution 268/2015/R/eel and implicitly "confirming" that Resolution 109/2017/R/eel is fully in force.

ARERA, with a press release published on 29 December 2017, after the decision of the Administrative Court mentioned above, affirmed that resolution 109/2017 contains transitional and provisional rules which are fully applied in all their parts in relation to all parties involved (distribution companies and transport users), with particular reference to the obligations to pay the general system expenses already laid down in the regulations in compliance with the current legislation covering such parties.

However, with the subsequent Resolution 50/2018, ARERA, in confirming the current management of ESOs, introduced the recovery of the ESOs paid but not collected and not recoverable by the distributor, which may present a request for access to the recovery if it is compliant with the payments of the ESOs from 1 January 2016 and with reference to vendors with a transport contract terminated at least 6 months before. The recovery is covered by a specific account opened at the Cassa per i Servizi Energetici e Ambientali (the Energy and Environmental Services Fund), used also for recovery of the ESO receivables of vendors, as outlined in CD 52/2018/R/eel.
The 2018 session involves the recovery of receivables that are otherwise non-recoverable accrued between 1 January 2016 and 30 June 2017.

***AWARD AND PERFORMANCE OF INTEGRATED WATER SERVICES***

The Integrated Water Service (IWS) reform process, which began with Italian Law no. 36/94 (the Galli Law), was revised with the approval of Italian Legislative Decree no. 152 of 3 April 2006, (Consolidated Law on the Environment, this too the subject of periodic important amendments) and with the issue of Art. 23-*bis* of Italian Law Decree no. 112 of 25 June 2008, converted with amendments into Italian Law no. 133 of 6 August 2008, related to “public services of economic significance”.
Following the Referendum held on 12 and 13 June 2011 with the abrogation of Art. 23 bis, the community legislation on the minimum competition rules on the subject of public tenders for the award of management of public services of economic significance came into immediate force.
As regards existing operations, as laid down in Art. 34 of Italian Law Decree no. 179/12 converted into Italian Law no. 221/12 and supplemented by Italian Law no. 115 of 29 July 2015, Art. 8, paragraph 1, the awards of services carried out by listed companies and companies controlled by the former will remain active until the natural expiry envisaged for each of them on the basis of the measures governing the relationship with the individual Municipalities.

The integrated water service is also governed by Regional Laws 25/1999 and 10/2008 for the Emilia Romagna region. As regards rules on the subject of OTAs (Optimal Territorial Areas), the Emilia Romagna Region with Regional Law no. 23 of 23 December 2011 set forth the “Rules for the territorial organisation of the functions related to local public environmental services”, which lays down the rules relating to regulation of public environmental services and in particular to the territorial organisation of the integrated water service and the integrated urban waste management service in Emilia Romagna, and states that on the basis of the principles of subsidiarity, differentiation and adequacy, the entire regional territory constitutes the optimal territorial area in accordance with Articles 147 and 200 of Italian Legislative Decree no. 152 of 2006. ATERSIR is the Regulatory Agency for environmental local public services of the Emilia-Romagna Region.

The Liguria Region, with Law no. 1 of 24 February 2014, attributed the functions on the subject of organisation and management of the Integrated Water Service and Integrated Waste Management.
As regards the IWS, the Law identified 5 OTAs:
- OTA West – Province of Imperia;
- OTA Centre/West 1 (Coastal OTA) - Province of Savona;
- OTA Centre/West 2 (Po Valley OTA) - Province of Savona;
- OTA Centre/East – Province of Genoa;
- OTA East – Province of La Spezia.

It should be noted that article 10 paragraph 1 of the aforementioned law was declared unconstitutional by the Constitutional Court with judgement no. 31 of 10 February 2015.
On 30 September 2015 the Province of Savona approved Resolution no. 70/2015, with which it approved the Plans of the 3 sub-areas and defined the subjects to which they were to be assigned through an in-house procedure (and therefore excluding Acquedotto di Savona, the Savona water company, merged into

IRETI with effect from 1 January 2016). The resolution was appealed by the Group and as of today the proceeding is still pending.
Regional Law no. 1 of 24 February 2014, as amended, had delimited optimal territorial areas identifying two Centre-West OTAs (1 and 2, respectively Coastal and Po Valley OTA).
With Regional Law no. 17 of 23 September 2015 the coastal OTA Centre-West 1 was divided into two optimal territorial sub-areas (Centre-West 1 and 3, this latter known as “western”).
Constitutional Court judgment no. 173, filed on 17 July 2017, entailed the abrogation of Regional Law 17/2015 in relation to the definition of the third OTA, reinstating the initial situation provided for in Regional Law 1/2014, with a single coastal area (OTA Centre-West 1) and a Po Valley area (OTA Centre-West 2).
There were two fundamental criticisms: one of a procedural nature, that the Liguria Region joined the case late, the second, of a substantial nature, that the Liguria Region had issued a law which, in reality, should have been the responsibility of the state. It is written in fact: “The Regions are given the power to modify the dimensions of the OTAs, which however must not normally be smaller than at least the provincial territory’. Exceptions to the dimensions defined by the state legislation are possible, but must observe the criteria established by the same, consisting of the unity of the hydrographic basin, uniqueness and adequacy of management. Exceptions, in addition, are permitted provided that the Region gives reasons for the decision on the basis of territorial and socio-economic differentiation criteria and on the basis of principles of proportionality, adequacy and efficiency with respect to the characteristics of the service, also as proposed by the municipalities”.
As of today, following Constitutional Court judgment no. 173/2017 the Province is engaged, as the Governing Body of the Centre-West 1 Area, in preparing and approving a new single area plan, and a new award of the integrated water service.

**AWARD AND PERFORMANCE OF INTEGRATED DISTRICT HEATING SERVICES**

As the legislation currently stands, and according to the most recent case law (Lombardy RAC sect. I judgment no. 1217 of 9 May 2014), the district heating service does not in and of itself constitute a local public service.
The classification of district heating is, therefore, not unequivocal and depends on assessing the single cases, on the basis of the specific conditions of the relevant market and the existence or otherwise of limitations on competition that can represent a barrier to universal and non-discriminatory offers.
Besides, some time ago ARERA began regulatory activity in the sector. In the period of reference, Resolution 24/2018/R/tlr of 18 January 2018 was published, approving the “Consolidated Regulations on the criteria for determining connection fees and methods of exercise by the user of the right of withdrawal for the regulatory period 2018-2020 (TUAR)”, subsequently amended by Resolution 277/2018/R/tlr of 3 May 2018.

**AWARD AND PERFORMANCE OF WASTE MANAGEMENT SERVICES**

Integrated Waste Management is understood as all the activities of transportation, treatment and disposal of waste, including street sweeping and the management of these operations.
The general legislation applicable to the Integrated Waste Management Services sector is contained at the national level in the Environmental Code (Italian Legislative Decree 152/2006, amended most recently by the Ministerial Decree of 15 January 2014), Italian Law no. 68 of 22 May 2015 “Rules on the subject of crimes against the environment”, in Italian Legislative Decree 36/2003 (landfills), Italian Legislative Decree 133/2005 (incineration and co-incineration), Presidential Decree no. 59 of 13 March 2013 (Single Environmental Authorisation), and at the regional level by Emilia Romagna Regional Laws no. 31/96, no. 25/99, no. 10/2008, no. 23/2011, and no. 13/2015 (reform of the system of regional and local government and rules on the metropolitan City of Bologna, Provinces, Municipalities and their unions) and no. 16/2015 (on the circular economy amending Regional Law no. 31/96).

***Regional legislation***

Given that Territorial Area Authorities ceased to exist on 31 December 2012, the Emilia Romagna Region set up the Territorial Agency of Emilia Romagna (ATERSIR) for water and waste services in which all the municipalities and provinces take part and which is responsible for the regulation functions for the entire regional territory, and determination of the urban waste disposal tariffs on the basis of the regional criteria, of the private and public plants. This agency became operational in 2012.

The Piedmont Region instead adopted the Regional Waste Management Plan on 30 September 2009, completing a process launched in 2007. The Plan had a 2009 – 2015 time horizon.
At the same time as adopting the Plan, the establishment of 3 Optimal Territorial Areas, combining the 8 previous areas divided by Province, was provided for.
Piedmont Regional Law 7/2012 further modified the structure of the Areas by dividing them into four. The four current Areas are made up as follows:
a) area 1: Novarese, Vercellese, Biellese and Verbano, Cusio, Ossola;
b) area 2: Astigiano and Alessandrino;
c) area 3: Cuneese;
d) area 4: Turinese.

The OTAs have a role of planning the activities and applying the provisions of the Regional Waste Management Plan, and planning the flows and disposal tariffs.
In turn the OTAs are divided into Catchment Area Consortia which have a significant role at the management level.

The Emilia Romagna Region recently approved the following measures:
- Regional Law no. 4 of 20 April 2018, Annex A.2 - Rules on assessment of the environmental impact of projects;
- Regional Executive Resolution no. 34 of 15 January 2018, “Provisions on waste flows pursuant to the Regional Waste Plan approved with Legislative Assembly Resolution no. 67 of 3 May 2016;
- Regional Executive Resolution no. 2192 of 28 December 2017, - Implementation of Art. 205 of Italian Legislative Decree no. 152/2006 concerning "Measures to increase separate collection";
- Regional Executive Resolution no. 2197 of 28 December 2017 - Provisions for emergency and temporary management of municipal waste produced in the Lazio Region, in the territory of the Capital, Rome, in plants located in the Emilia-Romagna Region;
- Regional Law no. 24 of 21 December 2017, containing “regional rules on the protection and use of the territory”.

The Piedmont Region recently issued the following measures:
- Regional Council Resolution no. 253-2215 of 16 January 2018 - Regional Special Waste Management Plan (RSWP);
- Regional Law no. 1 of 10 January 2018 - Rules on the subject of waste management and integrated municipal waste management service and amendments to regional laws no. 44 of 26 April 2000 and no. 7 of 24 May 2012;
- Legislative Assembly Resolution no. 1 of 6 March 2018 epigraph - Supplement to the Regional Waste and Reclamation Plan approved with Legislative Assembly Resolution no. 14 of 25 March 2015, (Regional Waste and Reclamation Plan including monitoring plan and summary declaration). Adoption of the criteria for assessing the risk of defining action priorities.

The Liguria Region, with Regional Law no. 1 of 24 February 2014 (subsequently amended with Law no. 12/15), laid down rules for identifying optimal territorial areas for exercising the functions concerning integrated waste management.
A single regional area was established and divided into four areas coinciding with the territories of the Metropolitan City of Genoa and the Provinces of Imperia, Savona and La Spezia.
The Liguria Region is responsible for governing the waste cycle in the regional OTA, which exercises these functions through an Area Committee made up of: President of the Regional Council or their delegate, the competent regional executive members, the mayor of the Metropolitan City of Genoa or his/her delegate, the presidents of the Provinces or their delegates.
The functions connected with the organisation and award of the services, to be performed with reference to the respective territorial area, are the responsibility of the Metropolitan City of Genoa and the Provinces of Imperia, La Spezia and Savona.
These entities can delimit in their respective territories uniform zones under the terms of Italian Law no. 56/14 (Delrio Law) which represent management areas, designating a leading Municipality and delegating the functions related to awarding the services to the Municipalities located in each area.
The aforementioned Law no. 1/14 also states that the Provinces and the Metropolitan City must approve the Area Plan and the Metropolitan Plan, containing the structuring and organisation of the services related

to waste collection and transport, separate collection and use of the infrastructures serving the separate collection, the definition of the award areas and the management of residual non-separate waste and its disposal, within a year from approval of the Regional Plan, with RCR no. 14 of 25 March 2015.

The Liguria Region recently issued the following measures:

- Regional Council Resolution no. 1 of 6 March 2018 - Supplement to the Regional Waste and Reclamation Plan approved with Liguria Legislative Assembly Resolution no. 14 of 25 March 2015, (Regional Waste and Reclamation Plan including Monitoring Plan and summary declaration). Adoption of the criteria for assessing the risk of defining action priorities;
- Regional Executive Resolution no. 1090 of 15 December 2017 - Approval of the planning of new resources destined for the financing of programmes defined by Municipalities for the development of separate waste collection;
- Regional Executive Resolution no. 574 of 14 July 2017 - Determination of the amount of the contribution for the area management system, with which the contribution due to the Region for the area waste management system is determined on the basis of the recycling results achieved in 2016 by the Municipalities, ascertained with Regional Executive Resolution no. 448 of 7 June 2017.

***National legislation***

The following measures recently came into force:

- the Prime Minister's Decree of 28 December 2017, published in O.S. no. 64 to Official Journal no. 303 of 30 December 2017, approved the Environmental Declaration Form for the year 2018;
- the new Regulation on excavated earth and rocks, approved by the Cabinet on 19 May 2017. Following this Regulation, since 22 August, Italian Presidential Decree no. 120 of 13 June 2017 has been in force. This reforms the rules on excavated earth and rocks, abrogating Ministerial Decree 161/2012, Art. 41 *bis* of Italian Law Decree 69/201 and paragraph two *bis* of Art 184 *bis* of the Consolidated Law on the Environment;
- the Circular of the Ministry for the Environment and Protection of the Territory and the Sea of 10 November 2017, on rules for deposited materials;
- lastly, Art. 194-*bis* of Italian Legislative Decree 152/06 has been in force since 1 January. This was introduced by Italian Law 205/17 and states that "the formalities related to methods of compiling and keeping the waste loading and unloading register and transport forms pursuant to Articles 190 and 193 of the present decree may be performed in digital format". Transmission of the fourth copy of the waste transport form provided for in paragraph 2 of article 193 is permitted also via certified e-mail.

The regulation on cessation of the classification of milled asphalt as waste was published in the Official Journal of 18 June 2018; this is the Decree of the Ministry for the Environment no. 69 of 28 March 2018, in force since 3 July 2018.
The Ministerial Decree of 1 February 2018, in force since 23 February 2018, regards operators that perform activities of collection and transport of non-hazardous waste of ferrous and non-ferrous metals and are registered in the National Register of Environmental Operators both according to the ordinary procedure, as described in Art. 212 of Italian Legislative Decree 152/2006, and according to the simplified registration methods.
Italian Legislative Decree no. 28 of 10 February 2017 introduced sanctions for breaching the rules contained in Reg. (EU) no. 649/2012 on the export and import of hazardous chemical substances (OJ no. 65 of 18 March 2017).
In Official Journal no.119 of 24 May 2018, the Ministerial Decree of 28 March 2018 was published. This contains the division of the contribution due for 2016 under the terms of Art. 206-*bis* para. 6 of Italian Legislative Decree 152/06, that is the amount of the said expense (regarding the contribution due to the Ministerial Decree for supervision and control for correct implementation of the rules on correct waste management) payable by the entities involved (the national Consortia that manage the various recoverable waste chains). Payment must be made by 22 August 2018. Lastly, we can note that this new decree abrogates the previous Ministerial Decree of 12 December 2017. Finally, with Resolution no. 108 of 22 December 2017, published in the Official Journal of 15 May 2018, the Inter-ministerial Committee for Economic Planning (ICEP) updated the National Strategy for Sustainable Development , the national document of reference for implementation of the 17 Sustainable Development Goals (SDGs) defined by the 2030 Agenda for Sustainable Development, adopted in 2015 by the United Nations.

**SISTRI**
Italian Law 205/2017 extended the *SIStema di controllo della Tracciabilità dei Rifiuti* [Waste Traceability Control System] (SISTRI) to 31 December 2018.

**Landfills**
With the Circular of 14 December 2017, the Ministry of the Environment provided a number of indications useful for interpreting the criteria for admissibility of waste to landfill sites, as defined by the Ministerial Decree of 27 September 2010 (OJ no. 281 of 1 December 2010).

**Eco-crimes**
Ministerial Decree no. 228 of 17 October 2016 (in OJ no. 292 of 15 December 2016) approved the "Regulation containing the definition of the minimum contents and the formats of ascertainment, charging and notification reports related to the proceedings pursuant to Article 29-*quattuordecies* of Italian Legislative Decree no. 152 of 3 April 2006".

**General provisions**
Italian Law 167 of 20 November 2017 (the so-called European Law) in force since 12 December 2017, containing rules for fulfilling the obligations deriving from Italy's membership of the European Union, amends Italian Legislative Decree 152/2006 (the Environmental Code).

With Italian Legislative Decree no. 183 of 15 November 2017, in force since 19 December 2017, the Italian Parliament implemented the community legislation (EU directive 2015/2193) on limiting emissions into the atmosphere of certain pollutants originating from medium-sized combustion plants.

Italian Law 205/17 (2018 Budget Law), finally, established a tax credit for 3 years for businesses that purchase goods with recycled plastic materials.

**Environmental Impact Assessments - authorisations**
Italian Legislative Decree 104/2017 implemented Directive 2014/52/EU, which amended the previous Directive 2011/92/EU, concerning the assessment of the environmental impact of certain public and private projects.
On the Ministry of the Environment website the Guidelines for preparing the Non-Technical Summaries of the Environmental Impact Study (EIA) and the Guidelines for preparing the Non-Technical Summaries of the Environmental Report (SEA) have been published. These are aimed at providing uniform methodological indications and preparation criteria in terms of both structure and content for these documents destined to inform the public.
Since 2017 the following have also been in force:

- Italian Presidential Decree no. 31 of 13 February 2017 "Regulation containing identification of the work excluded from the landscape authorisation or subject to simplified authorisation procedure";
- from 26 May, Ministerial Decree no. 58 of 6 March 2017, which lays down the methods (including accounting) and the tariffs to be applied in relation to the enquiries and controls provided for in Title III-bis of Part II, Italian Legislative Decree no. 152/2006 (related to the IEA), and the fees payable to members of the Enquiry Commission pursuant to Article 8-*bis*.
- The Ministry of the Environment has published the document containing the "*Guidelines for preparing the Non-Technical Summaries of the Environmental Impact Study (Art. 22, paragraph 4 and Annex VII to the Second Part of Italian Legislative Decree 152/2006)*", drawn up in March 2017 by the Department for Environmental Assessments and Authorisations, as revised on 30 January 2018.

**WEEE – Waste Electrical and Electronic Equipment**
On 11 June 2017 Decree no. 68 of 9 March 2017 of the Ministry for the Environment and Protection of the Territory and the Sea came into force. This is entitled "Regulation concerning the methods of providing financial guarantees on the part of producers of electrical and electronic equipment under the terms of article 25, paragraph 1, of Italian Legislative Decree no. 49 of 14 March 2014".

**Facilities**
We can note the Ministerial Decree of 14 April 2017 "Rules on the conditions for access to the increase in the incentives provided for in the decree of 6 July 2012 for electricity production from plants powered by biomasses and biogas".

**Register of Environmental Operators**
A communication containing clarifications related to the requirement of registration in the Register has been published on the ANAC website. The communication follows up, repeating its content, on the judgement of Section V of the Council of State no. 1825 of 19 April 2017, which in turn confirmed what had been stated by the Abruzzo RAC, Pescara section: the RAC, called upon to resolve a question related to a call for tenders for environmental reclamation work, affirmed that entry in the register of environmental operators must be imposed as a requirement for participation.
With Resolution no. 2 of 24 April 2018, in force since 15 June 2018, the National Register of Environmental Operators identified sub-category 4-bis, related to firms that perform activities of collection and transport of non-hazardous waste consisting of ferrous and non-ferrous metals, defining the related criteria and requirements for registration (see "*Collection and transport of metal waste: sub-category 4-bis established by the Register*").

***European legislation***

The EU amended Decision 2014/955/EU, of 18 December 2014, which had in turn replaced the list of waste established by Decision 2000/532/EC under the terms of Directive 2008/98/EC.
On 4 July 2018 the four "Circular Economy" directives (all dated 30 May 2018) also come into force in Europe; these were published in EU OJ L. 150 of 14 June 2018.
Directive 849 amends the previous ones in relation to end-of life vehicles, batteries, accumulators and WEEE, no. 850 amends Directive 1999/31/EC on landfills, 852 the rules on packaging and, finally, 851 which amends amply and substantially the same Waste Framework Directive, that is Directive 98/2008/EC. These directives must be transposed by the Member States by 5 July 2020.
EU Commission Notice no. 124 published in EU OJ C 124 of 9 April ("technical guidance on the classification of waste") clarifies the classification of mirror entries.

***Tariff system for waste management services***

The 2014 Stability Law established from 1 January 2014 the IUC tax (Imposta Unica Comunale - single municipal tax) comprising: a municipal property tax (IMU), a component referring to "indivisible" services (TASI) and the waste tax (TARI) destined to finance the cost of the urban waste collection and disposal service.
The prerequisite for the TARI tax is the ownership or possession of properties susceptible to producing waste and commensurate with the floor surface area of the property. The rates can be reviewed by the municipalities on the basis of service quality standards.
The possibility is reconfirmed for Municipalities to assign the ascertainment and collection, as an exception to Article 52 of Italian Legislative Decree no. 446 of 15 December 1997, to entities that at the date of 30 December 2013 "performed the service of waste management or TARES ascertainment and collection".
Italian Law 205/2017 extended to 2018 for Municipalities the method of making the TARI commensurate on the basis of the ordinary average criterion.

## CONCESSIONS AND ASSIGNMENTS

***MAJOR HYDROELECTRIC SHUNT CONCESSIONS***

In the period of reference there were no further developments at the legislative level, therefore as of today the concessions expiring on 31 December 2010 are still subject to continued management by the operator until takeover by the new operator, which must be chosen through a public tender, following Constitutional Court judgement no. 205 of 4 July 2011 which declared unconstitutional the provisions of Italian Law Decree no. 78 of 31 May 2010, converted into Italian Law no. 122 of 30 July 2010, which extended major water shunting concessions for electricity production by a further five years.
In particular, the Ministerial Decree that will fix the criteria for the new calls for tenders has still not been issued. These tenders must be called, for concessions already expired, within two years from the date on which the above decree came into force. Ownership of the business unit relating to the exercise of the concession is transferred from the outgoing to the incoming concession holder, including all pertinent legal relationships.
Discussions are still in progress between the Italian Government and the European Commission consequent to the fact-finding inquiry launched by the Commission in September 2013 on the conditions for assigning, extending or renewing water concessions for hydroelectric use in the various member states and to the transmission to the Italian Government of a letter of formal notice which stated that certain provisions introduced by the Italian parliament (with Italian Law 134/2012, converting the Italian Development Law Decree 83/2012), as well as certain parts of the legislation of the Autonomous Provinces of Trento and Bolzano are contrary to principles and rules of community law (freedom of establishment; Art. 12 of the Bolkestein Directive 2006/123/EC).
Discussions were launched with market operators (including Iren) and with the industrial associations, in order to promote actions to protect the interests of the concessionaire Companies in relation to the Ministry, the Authority and the European Commission. In particular, the subject of the asset assessment method was discussed in depth and a position paper was prepared in order to highlight the full conformity of the Italian legislation with the European legislation.

**NATURAL GAS DISTRIBUTION**

*Genoa area*
As regards the natural gas distribution service in the area of the Municipality of Genoa and Municipalities nearby, the same is provided by IRETI (a company deriving, among other things, from the merger by incorporation of Genova Reti Gas, the previous Operator and of the parent company of the latter Iren Acqua Gas into Iren Emilia). We can note that the concessions are currently operating under the extended regime pending the launch of public invitations to tender, the deadline for launching which is specified in the paragraph above "Gas distribution".

*Emilia Romagna area*
The natural gas distribution service in the Emilia provinces is managed by IRETI (formerly Iren Emilia S.p.A.). These assignments are currently operating under the extended regime pending the launch of public invitations to tender.

*Other geographical areas*
The Iren Group also operates in numerous other entities throughout Italy through assignments or concessions given to mixed capital companies in which Iren Group companies have a direct or indirect investment.
These concessions are currently operating under the extended regime pending the launch of public invitations to tender.
The main assignments and concessions are:

- Province of Ancona / Macerata - ASTEA S.p.A. (in which a 21.32% stake is held by the G.P.O. Consortium, which IRETI controls in turn with 62.35%): Municipalities of Osimo (AN), Recanati (MC), Loreto (AN) and Montecassiano (MC) assignment expired on 31 December 2010 and in *prorogatio*;

- Municipality of Vercelli – ASM Vercelli S.p.A. (formerly ATENA S.p.A., which IRETI controls with 60%): award of 1999 expired on 31 December 2010 and in *prorogatio*;
- Province of Livorno - ASA S.p.A. (40% owned by IRETI); Municipalities of Livorno, Castagneto Carducci, Collesalvetti, Rosignano Marittimo and San Vincenzo – award expired on 31 December 2010 and in *prorogatio*.

*Natural gas sales*
In accordance with the provisions of the Letta Decree on the subject of unbundling, the Iren Group carries on the business of selling natural gas mainly through Iren Mercato - which also sells electricity.
This activity is also carried out through direct or indirect investment in vendor companies including:
- Salerno Energia Vendite S.p.A. for the Grosseto area and for Central-Southern Italy;
- Atena Trading S.r.l. for the Vercelli area.

**ELECTRICITY**

IRETI manages the public service of electricity distribution in the City of Turin on the basis of a ministerial concession. This concession expires on 31 December 2030. IRETI also distributes electricity in the Municipality of Parma, with the same expiry date.
Through local mixed companies, the Iren Group also distributes Electricity in the following main areas:
- Vercelli area, with the subsidiary ASM Vercelli S.p.A.
- Marche area, with ASTEA S.p.A.

**DISTRICT HEATING**

Iren Energia manages the district heating distribution service through concession, award or authorisation to lay networks in the following areas:
- Municipalities of Turin and Moncalieri (TO);
- Municipality of Nichelino (TO);
- Beinasco (TO);
- Reggio Emilia;
- Parma;
- Piacenza;
- Genoa.

In addition, Iren Energia holds an equity investment in the company Asti Energia Calore, established on 18 May 2015, which was awarded the sub-concession for the district heating service in the city of Asti.

**INTEGRATED WATER SERVICE**

*Genoa area*
IRETI S.p.A. holds the management assignment for the integrated water service in the 67 municipalities of the Province of Genoa, serving a total of 880,000 residents. The assignment was granted by Decision no. 8 of the Genoa OTA Authority on 13 June 2003 and will expire in 2032.
The integrated water service in the territory of the Municipalities of the Province of Genoa is managed by IRETI through the safeguarded operators. The authorised and/or safeguarded companies of the Iren Group that perform the function of operator are Iren Acqua S.p.A. (formerly Mediterranea delle Acque, 60% controlled by IRETI), Iren Acqua Tigullio S.p.A. (formerly IdroTigullio, 66.55% controlled by Iren Acqua) and AMTER S.p.A. (in which Iren Acqua, again, has a 49% stake).
IRETI also provides the drinking water distribution service in the Municipalities of Camogli, Rapallo, Coreglia and Zoagli in the Genoese OTA and the integrated water service in the Municipality of Bolano in the Province of La Spezia.

At the same time, with a deed dated 19 June 2015 effective from 1 July 2015 the company Acque Potabili S.p.A. sold to Iren Acqua Gas S.p.A. (today IRETI S.p.A.) the equity interest held in the company Acquedotto di Savona S.p.A. representing 100% of the share capital of the same. The company was merged by incorporation into IRETI with effect from 1 January 2016.

*Emilia Romagna area*
The Iren Group provides the Integrated Water Service on the basis of specific assignments granted by the respective Local Authorities, governed by agreements signed with the competent OTAs.
Based on the laws of the Emilia Romagna Region, water service Agreements provide for 10-year assignments, in a safeguarding arrangement, except for the agreement relating to the Parma OTA, which sets the expiry of the assignment at 30 June 2025, by virtue of the disposal to private entities of 35% of the AMPS capital by the Municipality of Parma in 2000 through a public offering.
The Integrated Water Service in the Parma, Piacenza and Reggio Emilia OTAs is managed by the companies of the IRETI Group. Ownership of the assets and networks of the water segment was transferred to companies wholly owned by public entities. These companies made their networks and assets available to the Iren Group on the basis of a rental contract and against the payment of a fee.

The table below contains details of existing agreements in the Group's main areas of operation:

| OTA | REGIME | SIGNING DATE | EXPIRY DATE |
|---|---|---|---|
| *Genoa area* | OTA/operator agreement | 16 April 2004/ 5 October 2009 | 31 December 2032 |
| *Reggio Emilia* | OTA/operator agreement | 30 June 2003 | 31 December 2011 (*) |
| *Parma* | OTA/operator agreement | 27 December 2004 | 30 June 2025 |
| *Piacenza* | OTA/operator agreement | 20 December 2004 | 31 December 2011 (*) |
| *Vercelli* | OTA/operator agreement | 13 March 2006 | 31 December 2023 |
| *La Spezia* | OTA/operator agreement | 20 October 2006 | 31 December 2033 |

(*) Service extended until new agreements are defined

On 19 April 2016, ATERSIR Emilia Romagna published the tender based on a restricted procedure in the EU Official Journal for the assignment in concession of the IWS for the Province of Piacenza, including the instrumental works. IRETI submitted its bid on 10 June 2016.
As a consequence of the dispute that arose in the Rimini area and the negative results, the ATERSIR Area Board, on 31 January 2018, resolved to revoke, in self-protection, the measures related to the restricted procedure opened for Piacenza and to give a mandate to the technical structure of the Agency to carry out the procedure of updating the list of assets destined for performance of the Integrated Water Service and the related residual value to be paid to the outgoing operator for the purposes of the new award, and to give a mandate to the technical offices for the preparation of the documents of the Procedure opened for the award in concession of the IWS. We are awaiting publication of the call for tenders.

In the Province of Reggio Emilia, ATERSIR, with Resolution CLRE/2015/7 of 17 December 2015, approved the "Proposed assignment to publicly- and privately-owned companies, with an operating private industrial partner chosen through a competitive public tender procedure". We are awaiting publication of the documents.

On 11 April 2018, the operation was finalised for the acquisition by Iren of the ACAM Group, which operates in La Spezia and its Province, managing (through ACAM Acque) the water service with a concession valid until 31 December 2033.

*Other geographical areas*

The Iren Group also operates in the Integrated Water Service sector in other parts of Italy through assignments or concessions given to mixed-capital companies in which it has a direct or indirect investment. The main assignments and concessions are:

- Tuscany Coast OTA – ASA S.p.A. (in which IRETI has a 40% stake) Integrated water service in the Municipality of Livorno and other municipalities in the Province;
- Central Marche Territorial Area, Macerata (OTA3) - ASTEA S.p.A. (21.32% owned by Consorzio GPO, which is in turn 62.35% controlled by IRETI) only for the municipalities of Recanati, Loreto, Montecassiano, Osimo, Potenza Picena and Porto Recanati;
- Municipality of Ventimiglia: AIGA S.p.A. (in which IRETI has a 49% stake);
- Municipality of Imperia: AMAT S.p.A. (in which IRETI has a 48% stake);
- Alessandria OTA: ACOS S.p.A. (in which IRETI has a 25% stake) for the Municipality of Novi Ligure;
- Cuneo OTA: Mondo Acqua S.p.A. (in which IRETI has a 38.5% stake)–manages the Municipality of Mondovì and 7 other municipalities in the Cuneo area

**ENVIRONMENTAL SERVICE MANAGEMENT**

The Iren Group provides waste management services on the basis of specific service assignments from the Local Authorities, governed by agreements signed with the provincial OTAs.
The table below contains details of existing agreements in the Group's main areas of operation:

| OTA | REGIME | SIGNING DATE | EXPIRY DATE |
|---|---|---|---|
| *Reggio Emilia* | OTA/operator agreement | 10 June 2004 | 31 December 2011 (*) |
| *Parma* | OTA/operator agreement | 27 December 2004 | 31 December 2014 (*) |
| *Piacenza* | OTA/operator agreement | 18 May 2004 | 31 December 2011 (*) |
| *Turin* | OTA/operator agreement | 21 December 2012 | 30 April 2033 (*) |
| *Vercelli (Municipality)* | Municipality/operator agreement | 22 January 2003 | 31 December 2028 |
| *Other Municipalities in the Vercelli area (except Borgosesia)* | Work contract with C.O.Ve.Va.R. | 1 February 2011 | 31 January 2019 |
| *La Spezia (Municipality)* | Municipality/operator agreement | 10 June 2005 | 31 December 2028 (collection and road sweeping)<br>30 January 2043 (waste disposal) |

(*) Service extended until new agreements are defined
(**) the term is 20 years running from the end of provisional operation of the Waste-to-energy plant of TRM S.p.A.

We can note that Iren Ambiente presented a tender for the award in concession of the public service of integrated municipal and similar waste management in the territorial catchment area of Parma (44 Municipalities) and, by 12 July 2018, will present a tender for the analogous award in Piacenza.
The ACAM Group, controlled by Iren and operating in La Spezia and its Province, manages (through ACAM Ambiente) the service of the integral waste cycle, with in-house award, in 20 Municipalities of the Province

(including the Municipality of La Spezia). In addition, it performs only the activity of waste disposal, with award in a contract/on a time-and-materials basis/in-house, in 12 other Municipalities of the said Province.

**Services provided to the Municipality of Turin**

On 31 October 2006, Iren Servizi e Innovazione took over the following from AEM Torino S.p.A.:

- the agreement signed with the Municipality of Turin for the assignment of street lighting and traffic light services in the Municipality of Turin, expiring on 31 December 2036;
- the management services assignment for the municipal heating plants, expiring on 31 December 2014;
- the management services assignment for the electrical and special systems in municipal buildings, expiring on 31 December 2014.

By a resolution of 3 November 2010, the Turin City Council decided to assign service agreements to Iren Servizi e Innovazione for the thermal plants and electrical and special systems for municipal buildings until 31 December 2017. The assignments were extended up to 31 December 2020 with a resolution of the Turin Municipal Executive Committee of 27 November 2012. Following the merger by incorporation of Iren Servizi e Innovazione into Iren Energia, with a deed of 27 December 2016, starting from 1 January 2017, Iren Energia took over the above Agreement and the above service contracts.

## FIRST HALF 2018 ENERGY AND GAS REGULATORY FRAMEWORK

The main regulatory measures of the first half 2018 with the greatest impact for the energy businesses of the Iren Group are presented below.

### GAS

***Gas Energy Management***

**Res 670/2017 - Provisions on the subject of performance of the adjustment sessions with reference to the years starting from 2013 and up to entry into force of the new rules on gas settlement and Res 782/2017**

The resolution establishes that the economic adjustment items will be determined with a procedure divided into two processes: the first functional to the calculation of the adjustment of the economic items attributed to the balancing user (BU) at the moment of the definitive balancing, applying again the algorithm already used in the balancing session and redetermining the unbalancing of each BU; the second aimed at assessing the quantity attributable to each BU, involved in the compensation, of the difference between input and withdrawal at the redelivery point of the transport network (ReMi), dividing the recognised annual quota of this difference in proportion to the withdrawals allocated in the year to the BU at the same ReMi.

On this subject, with resolution 782/2017 the Authority approved operating provisions for determining the physical and economic adjustment items for the years 2013-2016. At the end of June 2018, SNAM published the results of the multi-annual adjustment session 2013-2016; the checks by the BUs are still in progress because some critical operating issues occurred when the figures were made available.

**Res 72/2018 - Reform of the rules on gas settlement**

ARERA approved the definitive rules on gas settlement and published the new TISG (Consolidated Text of rules for settlement of physical and economic items of the natural gas balancing service). The new rules introduce the climate correction factor $W_{kr}$ in order to improve the profiling of gas withdrawals on the distribution network measured with a frequency of less than a month; this approach should contribute to reducing the value of differences on city gates. In addition, it is stated that the procurement of the difference between what is measured at the ReMis and what is attributed to the BUs be done by the Balancing Manager (BM) in the context of the balancing activity at a national level; for coverage purposes the fund to cover expenses connected with gas settlement is used. The withdrawals attributed (P) to each BU will be measured taking into account the factor $W_{kr}$ of the day k; the imbalance of each BU will be calculated on the basis of the withdrawals attributed. The difference penalties will be calculated on the capacity used (C) calculated at the end of the balancing session, measured with the definitive $W_{kr}$ published by SNAM. The difference $\Delta_{IO,}$, equal to the difference between P and C for each BU, is measured at the marginal spot market price. The consultation is in progress on incorporating the new rules into the SNAM Network Code. The new TISG will come into force on 1 January 2020. The definition of a system of bonuses/penalties aimed at giving incentives to distributors to reduce differences between figures measured at the Re-Delivery Points (RDPs) and the measurements at the ReMis has been postponed to subsequent measures.

**CD 114/2018- Revision of the processes of defining commercial relationships between balancing users and distribution users. Revision of the processes of conferring capacity at redelivery points on the transport network**

ARERA proposes to make use of the Integrated Information System (IIS) in order to reconstruct the gas supply chains (relations between BUs and Distribution Users - DUs). As regards the conferment processes at city gates, ARERA proposes a simplification consisting of attributing an official capacity based on the type of withdrawal and the consequent abrogation of the difference penalties.

**CD 182/2018 - Reference price method and criteria for allocating costs related to the natural gas transport service for the fifth regulatory period; CD 347/2018 - Criteria for determining the revenue recognised in relation to the natural gas transport service for the fifth regulatory period**

For the fifth regulatory period, ARERA proposes four alternative solutions: an 40/60 entry/exit division of revenue (as in the transitional arrangement) or 50/50 as provided for in the European TAR code; the application, for the purpose of determining the reference prices, of the matrix method or the method based on the weighted distance for the capacity provided for in the TAR code; the inclusion of the regional networks in the entry/exit perimeter with attribution of the revenue from the regional network totally to the exit (in this case the entry/exit ratio would be 28/72). ARERA's proposals are aimed at safeguarding the competitiveness of the Italian system in relation to the costs of importing and exporting natural gas.
As regards determining the revenue recognised, ARERA intends to begin to introduce a number of incentivising elements (output-based regulation elements in preparation for gradual transition to TOTal EXpense - TOTEX regulation). No update of the WACC has yet been proposed.

*Gas networks*

**Res 69/2018 - Observations regarding the reimbursement value to be paid to holders of assignments and concessions for the natural gas distribution service, for the Municipalities of the Genoa 1 – City ATEM and Genoa Plant**

With this resolution, the Authority declared suitable the RIVs of the Genoa ATEM that show a difference with respect to the RAB more than 10%, for the purpose of recognising tariffs.

**Res 149/2018 – Determination of the definitive reference tariffs for the gas distribution and metering services, for the year 2017**

This resolution approved the definitive reference tariffs for the gas distribution and metering services for the year 2017, on the basis of the Gas Distribution and Metering services Tariff Regulation, of the requests for adjustment of the figures presented by the middle of February 2018 and of the applications for tariff re-determination presented by a number of distribution companies.
For IRETI (i) the applications related to a number of Municipalities of Genoa for exit from the official tariff were accepted; (ii) for the tariff re-determination more information was requested for some Municipalities (iii); the continuation of analyses for the application related to the city of Reggio Emilia was confirmed.

**Ministerial Decree of 2 March 2018 (Ministry of Economic Development) - Promotion of the use of biogas in the transport sector**

With this decree, Italy sets the goal of reaching by 2020 the threshold of 10% of renewable energy consumption in the transport sector, within which a national sub-target was set for advanced biogas and the other advanced biofuels, of 0.9% at 2020 and 1.5% in 2021. The mechanism provided for in the decree does not affect gas or electricity bills: in fact it is financed exclusively by the "obligated subjects" (economic operators that sell petrol and diesel, ~~and~~ which have for some time had the obligation to input a part of fuels in the form of biofuels, the cost of which is today already included in the final price at the pump). It is also envisaged that biofuels, mostly imported (biodiesel), must be replaced with biogas produced in the country, promoting the national supply chain, helping the waste cycle (OFMSW - Organic Fraction of Municipal Solid Waste) and Italy's farmers. The decree identifies and establishes the methods for disbursing the incentives (CICs – Certificates of Input into Consumption) for the production and distribution of advanced biofuels and in particular advanced biogas obtained from waste, providing for a duration of the incentive for a maximum period of 10 years. The non-cumulability with other public incentives is also established, with certain exceptions: in particular for biogas production plants starting from OFMSW collected in a separate manner from the origin, only for the purposes of cumulability of incentives, the sections of reception and storage, pre-processing and any processing are not considered parts of the biogas production plant, because they are in any case functional to waste cycle management in accordance with the community hierarchy of the related processing.

**CD 216/2018 - Implementation of the rules of article 14 of Italian Legislative Decree 257/16 on isolated LNG networks, with reference to the tariff profiles related to coverage of the network infrastructure costs**
The ARERA proposes, for isolated Liquid Natural Gas (LNG) networks, regulation analogous to that on gases other than natural gas. For Sardinia a specific area is defined after creation of the related distribution backbone. A subsequent consultation will be launched on the remuneration of the sales service to issue the final resolution by the end of 2018.
ARERA states that the distribution and metering fees must cover, besides the network infrastructure, operating and maintenance costs of channelled networks, also those connected with storage depots and directly connected local regasifiers. The recognition will be made on a parametric basis through definition of a standard cost dimensioned for unit of volume of regasified LNG input into the network. In relation to the fees to cover operating costs, the Authority intends to assess the possibility of providing for the application of a specific component to cover operating costs related to the management of distribution networks in places with full introduction, to be set in keeping with the component envisaged for gases other than natural gas. The costs of marketing the distribution service will instead not be covered by the tariff.

**CD 361/2018 - Update of the directives for connections of biogas production plants to natural gas networks and implementation of the rules of the decree of 2 March**
The Authority issued for consultation guidance on the subject of connecting biogas plants to gas networks. The regulator defines the measures for implementing the MED decree of 2 March 2018 for “Promotion of the use of biogas and other advanced biofuels in the transport sector" as above. The Authority believes that it is opportune to establish that the network operators, in defining the quality specifications for input into the network make reference to the national standards of the decree of 18 May 2018 and for those not provided for in this to the European standards. From the point of view of security, a Risk Assessment Plan is proposed; this is to be agreed by producers, network operators and the competent authorities. On this subject, ARERA should entrust to the Italian Gas Committee (IGC) the preparation of guidelines on the methods of controlling the qualitative parameters of biogas. On road transport uses, the regulator confirms the obligation to install purification equipment at service stations downstream of the redelivery points. The CD finally lists the measures related to determining the quantity of biogas admitted to incentives and to rules on the subject of measurement for the purpose of determining this quantity, and attributes the certification activity to the Energy Services Operator (ESO).

**ELECTRICITY**

***Energy management***

**TERNA CD - Capacity Market (CM) - Rules on the system for remunerating the available electricity capacity - Stages of First and Full Implementation**
Following the approval in February 2018, by the European Commission, of six capacity mechanisms including the Italian one, in March 2018 Terna issued for consultation two documents related to capacity market rules in the stages of first and full implementation.
Compared to the previous consultation (November 2016), and after interacting with the European Commission, with the documents of March 2018 Terna supplemented the rules with the following elements:
- participation extended to all resources, but with specific rules for remunerating demand (which in any case can take part in the auctions directly);
- incentivised Renewable Energy Sources are also admitted, provided that they renounce (limited to the delivery period) the incentives disbursed by the ESO (this category includes on-site exchange and dedicated withdrawal, which therefore preclude participation in capacity remuneration, while White Certificates and the Thermal Account are excluded);
- opening to participation including direct participation of foreign generation capacity, so Terna will take into account also the import capacity not offered by operators, simulating its indirect participation (with bonus set at 0 €/MW/year);
- exemption from obligations for capacity under maintenance;
- transition from ex ante nomination to ex post nomination by operators of the units with which the obligation is fulfilled;

- value of the Emission Index used to create a priority of selection of offers for sale in auctions;
- in discussion the possibility, in the full implementation stage, of trading an annual capacity product, in line with the European provisions, instead of a three-year one, so as to simplify the structure of the mechanism and comply with the European guidelines.

While awaiting full implementation of the rules (with an implementing Ministerial Decree), Terna must also prepare a study on the adequacy of the system and estimate the demand curve for the next ten years.

**Res 261/2018 - Amendments and additions to the criteria and conditions for the rules of the remuneration system for the availability of electricity production capacity introduced by the Authority with Res ARG/elt 98/11**

This resolution changes the criteria and conditions for the rules of the electric capacity market and establishes, among other things, which will be indicated below, with resolutions for each auction, the economic parameters namely the maximum bonuses, the values of the ordinates of the significant points of the demand curves, the values of the parameters for calculating the exercise price and the amount of the minimum threshold.

The changes made with respect to the original Res 98/11 regard substantially:

- the definition of the method for the exercise price, which is set directly by the Authority, which may update it over time;
- the change in the offer obligations and the criteria for defining the reference prices, to take into account the quantities accepted on the Intra-day Market (IM) and to avoid opportunistic conduct;
- the differentiation between maximum bonus for the existing and new capacity, and the introduction of the concept of maximum bonus offerable (bid cap);
- transitional criteria for defining demand curves based on capacity costs;
- existing capacity subject to significant renewal, and so-called capacity “to be made compliant”, i.e. that for which the competent authorities have imposed compliance with pre-set standards, are made equal to new capacity, to which higher remuneration is granted;
- implicit participation, made equal to offers with zero bonus, of units in an arrangement of essentiality;
- the priority, for the same bonus offered, of flexible capacity and capacity with lower $CO_2$ emissions.

While awaiting full implementation of the rules (with an implementing Ministerial Decree), the Authority must give an opinion on the rules put out for consultation by Terna (described in the previous paragraph), approve the regulation for participation of consumption units and define the final economic parameters of the mechanism.

**ELECTRICITY NETWORKS**

***2G Smart Metering Systems***

**Res 88/2018**

The resolution in question approves the functional provisions for configuring/viewing the 2G display, and states that the contractual information for the use of vendors must be configured through the IIS from October 2018.

**Res 307/2018**

This measure postponed the conclusion of the procedure for defining version 2.1 to 31 March 2019 and the monitoring of performance of communication on “Chain 2” in the 2G e-distribution system to 31 December 2018 to extend it to further subjects and check the current monitoring. Parallel with this resolution, CD 245/2018 continues the process of defining the functional specifications of 2G version "2.1".

***Electricity distribution and metering tariffs***

**Res. 150/2018 and res. 174/2018**
These resolutions establish for 2017 the definitive reference tariffs, respectively for electricity distribution and for metering, for distributors with more than 100,000 withdrawal points.

**Res. 175/2018 and res. 176/2018**
With these measures, analogous to those above, the ARERA established also for 2018 the provisional reference tariffs for distributors with more than 100,000 withdrawal points in the contexts of distribution and metering.

**Res. 237/2018**
Following a consultation process the tariff regime of electricity of distribution and metering from 2018 was defined for distributors (DSOs) up to 100,000 withdrawal points, specifically:

- Parametric for DSOs < 25,000 withdrawal points;
- Individual of reference for DSOs between 25,000 and 100,000 withdrawal points.

For 2016 and 2017 the tariff regime of the previous regulatory period is confirmed for all DSOs.

***Quality of the electricity service: resilience of the system***

**Res. 31/2018 – directives for the integration of sections related to resilience of the electricity system into the development plans of distribution companies**
The resolution states that:

- from 2018 DSOs with more than 300,000 customers, from 2020 DSOs directly connected to the National Transmission Grid must prepare and publish by 30 June (from 2018) a Resilience Plan containing the actions chosen by the DSO for greater effectiveness of resistance/recovery and must list details on costs/benefits/times of each action/group of actions;
- DSOs with more than 100,000 final customers must send to ARERA the expected benefits of the single actions and the progress;
- ARERA must examine the special recovery action proposals presented by a specific ARERA operators Workgroup (Resilience Workgroup);
- Heat waves are included among the critical factors.

**CD 331/2018 – reclamation of old vertical columns of the electricity distribution network in apartment buildings**
The document illustrates the mechanisms that can facilitate the removal of obstacles to the acquisition of the necessary authorisations by distribution companies to intervene in private properties, in order to guarantee efficient provision of the distribution service in safe conditions.

**Res. 50/2018 – rules on recognising expenses otherwise not recoverable for non-collection of general system expenses**
Confirming the current management of payments of general system expenses (ESOs), the resolution introduces the possibility for DSOs to request the reinstatement of the same, not collected and non-recoverable (for invoices past-due for at least 12 months and for receivables not collected frozen in bankruptcies/compulsory liquidation/prior arrangement), by DSOs compliant with payments of ESOs from 1 January 2016, referred to Users of the transport with contract terminated at least 6 months before.

**FINAL CUSTOMERS**

***Superseding Protection***

**Res 51/2018 – Offer comparison portal**
The Resolution defines the rules for creation and management by the Single Buyer of the "Offer Comparison Portal" provided for in Art. 1.61 of the Competition Law and aimed at domestic final customers and small/medium enterprises. In particular it:

a) approves the regulation for operation of the Offer Portal;
b) establishes the timing for its implementation in successive steps;
c) postpones to subsequent measures the definition of some details for the future development of the said Portal.

The Offer Portal will be developed in the following progressive stages:

- within 5 months after the measure comes into force (that is by 1 July 2018): loading and publication in the Offer Portal of all the offers at Free Price At Equivalent Protection Conditions (Prezzo Libero A Condizioni Equiparate di Tutela – PLACET) of electricity and natural gas;
- within the subsequent 2 months: loading and publication of the offers (including dual fuel) available to domestic customers and formulated by vendors present in the Offer Finder;
- within the subsequent 3 months: loading and publication of all the other offers available to all final customers of small size, published and distributed on the vendors' websites and/or at their physical sales points, on other websites and in the main information media with territorial coverage at least equal to the region;
- with timing to be defined with a subsequent measure: loading and publication of all the other offers.

**Res 89/2018 – Approval of forms for general terms and conditions of supply of PLACET offers**
Following res. 555/2017 ARERA approved and made available four separate forms (on the basis of the type of customer and the subject of the supply), noting that the contractual clauses contained therein reproduce provisions of the current regulations and legislation and therefore can be taken as a reference both by customers who intend to check their contract and for vendors that decide to draw up autonomously the General Terms and Conditions of Supply of PLACET offers. The Authority therefore prohibited vendors that adopt these forms to make amendments and/or additions including through supplementary and additional clauses in the contract.

**Res 762/2017 - proposal to the Ministry of Economic Development on the List of parties authorised to sell electricity to final customers**
The resolution approves the proposal to the Ministry of Economic Development on the criteria, requisites and methods for admission of parties carrying on the business of selling electricity in the Electricity Vendors List (EVL) provided for in the competition law, 124/2017. This is for the purpose of preparing the related ministerial decree.
The proposal identifies three kinds of requisites for access to the list: of honourability, of a financial nature and technical**,** distinguishing them into essential, for registering and remaining in the List, and "alerts", for the sole purpose of remaining. On 7 June 2018 the proposal received a substantially favourable opinion from the Council of State. We are awaiting the definitive decision of the MED.

**Res 366/2018 - Simplification of offer comparison schedules**
ARERA approves changes in force since 1 October 2018 for the harmonisation of criteria for calculating annual expense of the offer comparison schedules of the Code of Commercial Conduct with those of the Offer Portal, and changes to simplify the structure of the said schedules. ARERA decided to:

- exclude taxes and duties from the estimate of annual expense;
- include in the estimated annual expense of the comparison schedules any discounts applied automatically in virtue of acceptance of the offer, highlighting separately any other conditional discounts in the box "Description of the discount and/or bonus";
- use in the schedules the same criterion provided for in the Regulation for the estimate of the annual expense of variable-price offers;

- harmonise the structure of the electricity and gas schedules;

ARERA also revised the text of the current Code of Commercial Conduct, making the new text available together with a document that indicates the amendments and additions adopted with the resolution in question.

***Tariffs***

**Res 359/2018 - 364/2018 - 365/2018– Tariff updates 3rd quarter 2018**
These resolutions lay down increases in the gas (+8.2%) and Electricity (+6.5%) tariffs as a result of the increase in oil prices. For gas the impact is modest owing to the low consumption of the 3rd quarter, while for Electricity ARERA limited the effect of the increase in the raw material with a modulation of the system expenses making use of the momentary balance available in the related accounts.

***Invoicing***

**Res 97/2018 - Urgent implementation of the rules of Italian Law 205/2017 on invoicing and metering in the retail electricity market and launch of proceeding for complete implementation of the above rules in the electricity and natural gas sectors**
ARERA defines the measures for first implementation of the 2018 Budget Law on the subject of invoicing and metering in the electricity sector (so as to guarantee the effective operation of the measures from 1 March 2018) and launches a proceeding for complete implementation of the provisions of the said law in the energy sectors.

- The two-year limitation provided for in the Budget Law (related to all commercial relationships of the supply chain, thus also between distributors and vendors) runs from the deadline within which the service provider is obliged to issue the invoicing document. The vendor must issue the invoice related to supplements made on the basis of adjustments of the metering figure within 45 days from the moment in which such adjustment is made available in the context of the IIS;
- For the electricity sector:
  - on first application, the provisions of the law will regard domestic and non-domestic final customers connected in LV;
  - the vendor must inform the above categories of users (at the same time as issuing the invoice and in any case at least 10 days before expiry of the payment deadline) of the possibility of claiming:
    - limitation of the receivable related to amounts that the vendor should have invoiced more than 2 years before, in cases of significant delays;
    - the right not to pay the amounts invoiced, in cases of adjustments of metering data related to periods of more than 2 years.

Documents are awaited to define cases of liability of the final customer and, consequently, the limits of liability of the distributor in taking readings.

**Res 264/2018 – urgent action on invoicing**
ARERA clarifies that in the case in which the vendor can claim against the distribution company the limitation of the receivable in the cases provided for in the 2018 budget law and in resolution 97/2018/R/COM, it must not invoice to final customers the corresponding amounts.

**CD 52/2018 – Mechanism of recognising ESOs not collected and otherwise non-recoverable, applicable to users of the electricity transport service**
The consultation proposes recovery of the ESOs paid to DSOs by free market vendors and safeguard providers (the latter from 2019) but not collected from final customers.
The application is optional, annual, with 2 liquidation sessions; the first will take place in 2019. An extraordinary advance session is provided for with simplified calculations already in 2018 for any users of the transport with serious exposure on ESOs. The necessary conditions for participation are:

- that the transport contract with the DSO has not been terminated;
- compliance with payment of the transport invoices;
- performance of all the actions for efficient management of the receivable.

The ESOs admitted to the mechanism are related to invoices with payment deadlines past due for at least 12 months at the date of presentation of the application for participation, accruing starting from 1 January 2016 and verifiable by the CSEA.

**Out-of-court resolution of disputes between final customers or users and operators or managers in the sectors regulated by the ARERA**

The Consolidated Text on Conciliation (*Testo Integrato Conciliazione* - TICO), adopted with Resolution 209/2016/E/com and operational from 1 January 2017 only for the energy sectors, governs the performance of the obligatory conciliation attempt at the Conciliation Service and other bodies, as a condition to be able to proceed with legal action in disputes between final customers or users and operators or managers in the sector of electricity and gas supply.

In the period of reference, we can note Resolution 355/2018/R/com**,** which made a series of procedural changes that will come into force on 1 January 2019.

With reference to the other regulated sectors, the Authority provided for gradual application, also in order to take into account the specific features of each of them. In particular:

- As regards the water sector, in the context of the proceeding - launched in 2017 - for extension to the sector of the said rules, with Resolution 55/2018/E/idr the Authority stated that the conciliation attempt can be made at the Conciliation Service on a voluntary basis, for a transitional period (from 1 July 2018 to 30 June 2019), and approved “Transitional rules for the water sector in relation to voluntary procedures of out-of-court resolution of disputes between users and operators of the Integrated Water Service” (Annex A), effective until full application of the TICO;
- as regards the waste sector, with Resolution 82/2018/R/rif the Authority launched a proceeding to define a protection system for dealing with claims and disputes, in keeping with what is already regulated for the other sectors.

## DISTRICT HEATING

**Res 23/2018 - Rules for exclusion from the register of district heating and district cooling networks subject to regulation**

The resolution presents the rules for exclusion of energy transport infrastructures, that do not comply with the general requirements provided for in Italian Legislative Decree 102/2014, from the scope of application of the regulation of the district heating and district cooling service defined by the Authority under the terms of the same decree. With res. 369/2018 ARERA rejected some of the applications for exclusion received from operators.

**Res 24/2018 (as amended by 277/2018) - Rules on connection contributions and methods for exercising the right of withdrawal**

The resolution defines the regulation on the criteria for determining connection contributions and methods for users to exercise the right to deactivate the supply and disconnect from the district heating network for the period 1 October 2018 - December 2020.

## REGASIFICATION

***Capacity assignment auctions***

**Res 110/2018 - Approval of the regasification code prepared by the company OLT Offshore Lng Toscana S.p.A.**

With this resolution ARERA positively examined, and consequently approved, the draft regasification code presented by OLT under the terms of article 24, paragraph 5, of Italian Legislative Decree No. 164 of 23 May 2000. The draft code implements, in addition, the provisions of the Consolidated Text for Access to Regasification Services (*Testo Integrato per l'accesso ai servizi di Rigassificazione* - TIRG) which introduces market mechanisms based on auction procedures for conferment on users of the regasification capacity.

**Res 186/2018 - Definition of the criteria for calculating the reserve prices for conferment of the regasification capacity and Res 308/2018 - Rules on procedures for conferment of the regasification capacity**

The first measure defined the criteria for calculating the reserve price in procedures for conferment of regasification capacities. As in the auctions held in April and May for conferment of the regasification capacity of the LNG terminals of OLT Offshore (Livorno) and GNL Italia (Panigaglia, SP) only one discharge slot was assigned even though there were several offers, because all except one were formulated at a price that was too low with respect to that of reference set by the Authority, ARERA, with the second resolution updated the criteria for defining the reserve price. The “calibration” of the reserve price criteria became necessary in order to align the offer conditions to those expressed by the market, with the aim of minimising the system expenses incurred in application of the revenue coverage factor and increasing the liquidity of the gas market.

Argus will provide to the Authority the LNG prices for the new formula for calculating the reserve price for conferment of the regasification capacity: the formula will use the “Argus Italy” delivery prices and the “Argus US Gulf Coast” LNG export prices published in the daily report Argus LNG Daily. The ARERA chose Argus’s assessments to ensure that the regasification costs are connected directly to the prices of importing into the country, and to the wider trends of the LNG market of the Atlantic basin. The formula will apply initially to the OLT terminal and later will be extended to the GNL Italia terminal in Panigaglia.

## OTHER GENERAL MATTERS

***Functional unbundling***

**Notice 15/2/2018 - Presentation of applications for recognition of costs incurred for change of brand and related communication policies (debranding)**

The Authority launched the collection related to the presentation of applications for recognition of the costs incurred by electricity and natural gas distribution companies for change of the brand and redefinition of the Communication Policies.

***Incentives***

*Post-Green Certificates Incentive*

Starting from 2016 the incentive mechanism using Green Certificates has been replaced by a new form of incentive. The subjects that have already earned the right to Green Certificates conserve the benefit until the end of the subsidy period.

Following a specific consultation, on 3 August 2017 the Energy Services Operator (ESO) communicated new and more rapid timing for paying the former GC incentive, so as to reduce the time between production and incentive, for the moment reserved for biomass and bioliquid plants; together with the MED, and having already obtained the favourable opinion of the ARERA, the ESO is assessing the adoption of new timing also for the other types of plant.

With the Operating Procedures related to management in operation of electricity production plants using renewable sources other than photovoltaic admitted to the incentives (December 2017), the ESO provided for the creation of actions for changes and significant modernisation of the projects originally admitted to benefit from the incentives, without this implying necessarily expiry of the said incentive, with a view to enabling the creation of initiatives increasingly sustainable over time, maximising renewable electricity production towards the 2030 targets.

# PERSONNEL AND TRAINING

### Personnel

At 30 June 2018, the employees working for the Iren Group totalled 7,098, up compared to the 6,285 employees at 31 December 2017. The table below provides a breakdown of personnel at 30 June 2018, divided into Holding and first-level companies and related subsidiaries, compared with the figure at 31 December 2017.

| Company | Workforce at 30.06.2018 | Workforce at 31.12.2017 |
|---|---|---|
| Iren S.p.A. | 952 | 945 |
| IRETI and subsidiaries | 1,945 | 1,952 |
| Iren Ambiente and subsidiaries | 2,382 | 2,266 |
| Iren Energia | 657 | 653 |
| Iren Mercato and subsidiaries | 464 | 469 |
| ACAM and subsidiaries | 698 | - |
| **Total** | **7,098** | **6,285** |

The main changes in the workforce compared to 31 December 2017 were due to:

- the entry among the subsidiaries of Iren Ambiente of the Companies Iren Rinnovabili, Studio Alfa and Coin Consultech for a total of 135 resources at 1 January 2018. The number of employees at 31 December 2017 did not include the personnel belonging to these companies, although they were included in the scope, because they were acquired at the end of the year and therefore did not contribute to determining the Group's personnel expenses in 2017;
- the entry into the Group of ACAM, of its subsidiaries (ACAM Acque, ACAM Ambiente, In.Te.Gra., Centrogas Energia) and of Re.Cos for a total of 699 resources;
- the sale of a unit/contract by IRETI to the company Gestione Acqua (7 resources);
- the launch of the new generational turnover plan.

### Training

Also in 2018 training was confirmed in its role of supporting and accelerating the processes of change and transformation in progress within the Iren Group.
The result of organic planning that aims to organise and strengthen skills and abilities linked to roles and duties, through careful analysis of the training needs supplied by the results deriving from recognising skills, from projects and reorganisations that involve the Group, the training tends increasingly to a prospect of constant continuity along the entire professional life of the personnel, accompanying them in the aspects associated:

- with entry into the company;
- with the introduction of new ways of working;
- with the updating of specific technical knowledge;
- with safety;
- with enhancing relational and behavioural skills.

This makes it an important support not only for the enhancement of the role acquired but also for the requalification of the professionalism included in internal mobility and requalification paths, through targeted and dedicated actions.

In the first six months of 2018 the Iren Group's employees were provided with a total of approximately 56,200 hours of training (+6% compared to the first half of the previous year) with 5,020 employees – 78.5% of the workforce - who took part in at least one training initiative, with an average of 8.8 hours per capita (+3.5%).
The proportion of specialist training out of the total number of training hours recorded significant growth, coming out at 60.4% (42.5% in the first half of the previous year), while managerial training rose to 13.8% (3% in the comparative period), thanks to the creation of transversal initiatives (such as those for communication of the Business Plan, on Performance Management) or dedicated to single professional roles.
The proportion of training on the subject of safety came down instead to 23.4% (compared to 38.9% in the first half of 2017), owing also to the training deadlines that mainly involve the second half of the year.
Finally, internal planning and management of initiatives increased further, making use of both internal trainers and external consultants (so-called internal training), which for the first half of 2018 represented 92% of the total hours (+2.2%), with a reduction to below 8% of that purchased from a catalogue and carried out at external bodies (external training).

# ORGANISATION AND IT SYSTEMS

**Organisation**

During the first half of 2018 numerous actions continued on reorganising the Group; these were launched in previous years and are aimed mainly at strengthening the unitary nature of governance, achieving the objectives of operational effectiveness and efficiency and focusing on the business in keeping with the provisions of the Strategic Guidelines of the Business Plan approved by the Board of Directors of Iren S.p.A..
In addition, the corporate rationalisation and integration operations continued, with the aim of completing, also with operations to transfer businesses and/or units internal to the corporate perimeter, the Group Organisational Model, and strengthening it with the entry of new businesses acquired following Merger & Acquisition operations (ACAM Group and Iren Rinnovabili Group), also through forms of functional coordination, where other forms of corporate integration were not possible.

As the Group is very oriented to "efficiency" and to "innovation/digital transformation", where "efficiency*"*, for Iren, is the continual and profitable implementation of the business model, while "innovation" is the implementation of a culture and of opportunities for increasing every day the Group's value for its own advantage and for that of all stakeholders (shareholders, citizens, customers, local communities, suppliers, employees, etc.), during the first half of 2018 important projects in this sense continued, together with a profound process of "organisational/cultural" change management with at the centre essentially three main directions: customer relations, improving the service and performance, and human resources.
As examples we can note the main projects on the subjects of:

- *customer relations*: among others, a complex programme continued with the aim of redesigning the entire customer management and relation process, from the first contact to invoicing, with the introduction of an innovative Customer Relationship Management (CRM) system;
- *improving the service and performance:* among the various subjects dealt with, in the context of the Networks Business Unit the project for a new Asset Management model was launched and is nearing completion. This leads, as its main results, to greater focus on efficiency, synergies, quality, continuity and security of the services, to strengthening the uniformity of relations with territorial customers, to the diffusion of best practices and to innovation, optimisation and development of skills. In addition, within the same project, the development of a Work Force Management (WFM) system was launched; this will involve gradual automatic scheduling of the final accounting, maintenance and estimation activities. In the same way, in the context of the Waste Management Business Unit, there is the "Just Iren Project", which provides for the synergistic application of a new management, operational and IT model capable of improving the management of the waste collection, sweeping and conferment process.
  The management of information and data in digital format will also make it possible to facilitate interaction with Customers/Citizens, simplifying the business processes and enabling immediate responses and solutions;
- *human resources*: among others, a project to develop a Performance Management System was completed. Its aim was to spread a uniform "Performance Culture" throughout the Group, creating an "open" and continuous environment for personal development and for managing resources in a meritocratic framework, mapping and updating the corporate "human assets", identifying strong points and areas for improvement, using integrated HR Systems in order to connect performance to promotion opportunities, career paths, development and training routes, assessment of technical and managerial skills, and so on, taking as a reference the Group's job system;
- subjects of *transversal interest* for the Group: the Robotic Process Automation pilot project was launched in the area of attendance control management, with the objective of making the existing process more efficient; after the effectiveness of the pilot has been assessed, this project may be extended to processes of other work areas. In addition, other Business Process Re-engineering projects were launched in various corporate areas. These are aimed at measuring and improving corporate performance.

**Information Technology**

The first half of 2018 saw the beginning and continuation of important strategic projects for the Group, associated with the business transformation of Iren Mercato, the Work Force Management system for IRETI on the gas and water commodities, to the project for revision of the operating and management processes of Iren Ambiente and the consolidation of the Payments Cycle system.
In addition the project for the revision of the systems in IRETI's Distribution context (Iren Way), the Smartphone for All project, the expansion of Group Reporting and an Analytics project for the district heating sector were launched.
A wider overview of the main projects is provided below. These are divided by Business Unit or relate to multiple aspects of the Group's business.

In the CORPORATE area the Robotic Process Automation project for the management and reconciliation of attendance was launched. Again in the HR field the "Personnel Budget" project is instead continuing; this proposes to define and implement a budgeting, planning, forecasting and final data import model, which will cover completely the activities of planning, reporting and analysis.
At the same time, the new Performance Management tool was consolidated and its extension launched with the Recruiting, Succession and Career Development modules.
On the side of the Payments Cycle processes project, development activities are continuing, in particular on the components of withdrawal in Fast mode from storage and on integration with the Bravo Solution platform for managing contracts.
For the "Receivables DWH" project stage 1 has been completed; this involved consolidating Iren-Mercato's systems for managing invoices and collections from GEC on the new group DataWareHouse system; activities are continuing, instead, for areas outside of Iren Mercato, and these are expected to be completed by the end of 2018.
During the period the Smartphone for All project was launched. The objective of this is to give a smartphone in use to the entire corporate population so that they can make more effective use of the services made available to Iren employees.
Finally, projects were launched on electronic invoicing, GDPR compliance and Digital Payments, with the aim of making the corporate information technology systems compliant with the latest legislative indications in the fields of privacy, invoicing and payments.
The launch of the incorporation of the Corporate systems (salary management and attendance management) of ACAM completes the picture of what is being done at the moment in the corporate field.

As regards the ENERGY BU, in the first half of 2018 the most important project that went live was the district heating reporting based on Qlik Sense, a newly-introduced application that made it possible to conduct smart analyses aimed also at improving the commercial proposition. The first wave of the project regarded the analysis of heat production, distribution and sales data with the objectives of increasing saturation, reviewing tariffs, cross selling, industrial savings and better planning.
Activities are also in progress for porting the functions and workflow of the previous custom TLR reporting application onto MOBI TLR and Gestione Lavori TLR (TLR Work Management) for extension of the network and the substations.
Among the main activities, finally, an experiment is in progress, within the "Business Plan 4.0", related to the creation of a digital check list for inspecting plants. This experiment will go on for about 5 months and will involve the operator's check list in relation to the 3GT production unit of the Moncalieri thermoelectric plant.
In the Remote Control area, the District Heating Remote Management system in the Emilia area is being extended.

For the Waste Management BU the JustIren programme was launched. In a couple of years this will radically transform the operating methods and ICT systems used today in the context of the Waste Management Business Unit. At the moment the stage of preparing technical specifications for the tender for implementing the core system (SAP Waste) is in progress together with integrations with the other platforms of the application map. The implementation stages will begin from the last quarter of 2018.
For the Turin area, specifically, the activities related to the launch of the Junker App for managing separate waste collection were completed. In addition, the ECOS Commerciale and ECOS web systems for managing Large Customers were released and the project to integrate the ECOS Contact Centre into ACAM was launched. Finally, the adoption of ECO Iren also in the Vercelli area is nearing completion.

As regards the MARKET BU, the "Market Transformation" initiative is continuing with the implementation stages of migrating the invoicing platforms and revising the Web channel. In addition streams were launched aimed at:

- managing Analytics;
- revising the Document Composition;
- improving the use of Social channels;
- integrating with the field of the New DownStream (extra commodity) offers;
- introducing SAP BW for reporting.

In the first half of 2018 the new CRM was made available, but only for the commodities gas and electricity. The second half of the year will see a consolidation of activities associated with the field of invoicing on the new systems with SAP4HANA technology and a controlled roll-out for the definitive switch to the same. As well as the completion of the activities associated with Gas&Power invoicing, in 2019 will see the extension of the CRM to the water service and to district heating for all territories covered by Iren, and convergence with the waste management business with the objective of arriving at centralised management of Iren customers/users, of whom the personnel will have a unified and complete view.
In relation to the new Call Centre management platform the second part of the project is in progress. This involves the release of the advanced functions and integration with the new CRM.

In relation to the NETWORKS BU, the new Work Force Management system has come into operation, in particular for the gas commodity. The Work Force Automation, Scheduler and Emergency Response components have been launched. Analysis and development activities have also begun for the water component and these are planned to be completed between the end of 2018 and the beginning of 2019.
Again in the Networks BU context, numerous software developments associated with regulatory changes provided for by the ARERA on the current distribution systems are also ongoing.
The strategic project Iren WAY (formerly USTECO) has also been launched. This is aimed at revising and standardising the processes and IT systems supporting the commercial activities of the Networks.
Following the identification of the partner that will support Iren in the Project Office activities the stage of drafting the related specifications was launched, with the aim of identifying the system integrator that will take charge of the technical activities. The award of the contract is planned for the end of September, with subsequent launch of the activities starting from October 2018.
Finally, the systems related to the context of gas tenders were consolidated and the processes and systems on Authority.Net, for data transmission and interfacing with the Authority, were optimised.
Last but certainly not least, in the field of Territorial Information Systems, the GEOIren project is continuing. This saw the release of the Web component in the Gas segment. In the first quarter, the GEOWeb for IRETI system was released and the activities for convergence with a single management platform for Iren addresses are being performed. Completion of the activity is planned for the first half of 2019.

In the context of Remote Reading/Remote Management of gas meters, at the end of December, the first stage of the radio frequency network was implemented in the Emilia area and in the Municipality of Genoa. In June, there was a second release of the system and extension of network coverage has continued.
In May, feasibility studies began for migration of the free phone numbers of the BU to the new technological platform.

At the level of initiatives, also transversal, consolidation and rationalisation continue on the Infrastructure front, in particular:

- consolidation of the back-up systems on a single platform is in progress, with the second copy of the same in the Cloud;
- in the Security context, the instrument for assessing vulnerability was implemented and the verification process on "critical" infrastructures was launched;
- the "End To End" monitoring tool was released. This makes it possible to measure the performance of the IT systems; over the next few months it will be extended to all the application platforms;
- in the Distributed field the new MDM (Mobile Device Management) system for employees' smartphones was implemented.

**Digital Transformation**

Among the various projects that Iren has planned in the context of the Digital Transformation strategy particular attention is paid to Big Data and Analytics solutions.

With the objective of adopting a Big Data and Analytics solution at the Group level, in May and June the ICT Department held a series of workshops which involved the main vendors and some consultancy firms, so as to study in depth the solutions and experiences currently present on the market and hear their point of view. In particular some specific use cases were studied:

- smart metering;
- monitoring of plants and networks;
- customer intelligence (solutions and experiences in support of Customer Profiling and Offer Management, Campaign Management, etc.);
- HR analytics.

# QUALITY, ENVIRONMENT AND SAFETY

As expressed in its corporate mission, the Iren Group provides integrated services that target safeguarding the environment and personnel safety. As customer needs and expectations are evolving constantly, strongly backed by market competitiveness, calling for flexible organisational models and streamlined management systems and requiring monitoring of efficiency in terms of expected results, the Group has developed an Integrated System (Quality, Environment and Safety) as a means to achieve the predefined objectives. The Integrated System is structured in such a way as to envisage adequate control of all operating processes affecting service quality, adopting an approach based increasingly on customers, workers' safety and environmental protection.
The core principles of the Integrated System policy are:

- customer satisfaction;
- attention to the social and environmental aspects;
- safety for personnel;
- efficiency in performing the service;
- supply and contract quality;
- constant improvement;
- compliance with the Code of Ethics;
- respect for and enhancement of people;
- attention to and governance of risks, with continual analysis of the context of the organisation and the needs and expectations of the parties involved;
- innovation and change;
- sustainable development;
- responsibility and cooperation with the community of stakeholders.

The Integrated System policy is adopted by all Group personnel and has created strong synergies between the operating structures.

Iren, Iren Ambiente, Iren Energia, IRETI, AMIAT, Iren Laboratori, Iren Acqua and Iren Acqua Tigullio have systems certified according to the international standards ISO 9001 (Quality), ISO 14001 (Environment) and OHSAS 18001 (Safety). In addition, Iren Mercato is certified with reference to the international standards ISO 9001 (Quality) and OHSAS 18001 (Safety) and to the Certiquality 66 Technical Document related to Green Energy Sales.
We can note that in the first half of 2018 Iren Ambiente and Iren Energia, as regards ISO 9001 and ISO 14001, also made the transition to the 2015 revision of the above standards, updating their management systems on the basis of the new requirements, completing the updating process of all the Iren Group's Certified Systems.

In particular, the Management System was redefined on the basis of a single structure (High Level Structure) that ISO has defined for all the reference standards for certification (Quality, Environment, Safety, Energy Efficiency, Business Continuity, Security of Information, etc.).
This structure provides for Analysis of the Risks associated with operations and with the products/services offered on the basis of an analysis of the company's internal and external context. A method was therefore developed for identifying and assessing these risks, and this was then applied to each process involved, for Iren and for each Group company. Starting from the risks identified the documentation was also re-examined and the applicability and adequacy of the same was assessed in relation to the various factors such as the complexity of the processes and the skills of the personnel, again in relation to the risks identified.
The Certification Bodies recognised the validity of the approach and of the results obtained renewing the Certifications of the Holding and all the Group companies, with transition to the new standards.

# RESEARCH AND DEVELOPMENT

In the Iren Group technological innovation is central in strategic decisions and in defining the products and services offered by the Group.
The Business Plan to 2022, approved by the Board of Directors of Iren S.p.A. on 13 November 2017, confirms the centrality of innovation in the Iren Group's Vision which will be expressed over the period of the plan in the development of all the sectors in which it operates with the objective of making Iren an example of excellence and innovation and the multi-utility sector.

The main research, development and innovation lines on which the Iren Group is investing regard:
- energy efficiency divided into several levels and assets (customer, building, urban agglomerate, energy assets of the Group);
- study of new systems for the recovery of energy losses and an increase in the efficiency of the plants;
- advanced remote management and remote reading, smart metering and multi-metering systems;
- thermal and electrical storage systems;
- systems for energy recovery and organic waste material deriving from separate waste collection or purification sludge;
- processes and technologies for maximising the recovery of material from unseparated waste or other particular fractions, such as WEEE;
- Internet of Things (IoT) and home automation;
- data intelligence ICT tools;
- optimised management of the integrated water cycle (districtualisation, identification and reduction of network losses) and instruments in support of sensors in the field;
- electrical mobility;
- solutions in the Industry 4.0 segment in support of the personnel involved in plant operation and maintenance activities, for predictive maintenance and monitoring of assets in the field.

Iren manages the innovation processes through an open innovation model and in, keeping with this model it has in progress fruitful collaborations with Universities, Research Centres, Innovation Hubs and innovative Startups. In addition it takes an active part in working groups and associations on specific research and development and promotes events such as conferences, workshops and hackathons.

The first half of 2018 was characterised both by the continuation of technical activities related to the Group's various co-financed projects and by the development, also in partnership with innovative companies and startups, of internal technological projects on the basis of planning which, starting from an analysis of the long-term scenario, is aimed at giving the Group the tools needed to seize the opportunities and mitigate the risks deriving from evolution of the markets in which it operates.

During the period activity also continued in the search for startups that have developed innovative solutions capable of bringing benefits to the Group's business lines, also through participation in events devoted to putting into contact the demand and the supply of technology.
In addition, on this subject, a process was launched which will lead Iren to equip itself with a complete and structured Corporate Venture Capital model for direct investment in startups.

The Iren Group, also in 2018, was a finalist in the *"Technology, Research & Innovation"* category in the award assigned by Top Utility, after winning first place in the 2017 edition.

The main projects underway are presented below. The total investment for the Iren Group is 7.5 million euro, of which 3.5 million being financed. In relation to these amounts, the expense incurred during the first half of 2018 was 340,000 euro of which approximately 230,000 euro covered by loans.

**FINANCED RESEARCH PROJECTS IN PROGRESS**

**Water Services**

***SmartWaterTech (MEUR - Ministry of Education, Universities and Research – "Ministero per l'Istruzione, l'Università e la Ricerca")***

The project arises from the merger of two project ideas WATERTECH and SMART WATER presented under the MEUR Smart Cities tender with a view to offering a more robust analysis of the integrated water service, aiming both to manage problems related to water distribution networks, and to apply innovative models and technologies for treating waste water.

Partners: IRETI, Iren Acqua, ABC, Acquedotto Pugliese, ASTER, CAE, Digimat, Fast, Foxbit, Icampus, International University College, University of Bologna, University of Naples Federico II, University of Palermo, University of Trento, Irea-CNR.

Status: The project proposal passed the stage of assessment by the MEUR (Ministry of Education, Universities and Research), which this past May sent the notice on registration of the Subsidy Concession Decree by the *Corte dei Conti* [Court of Audit]; then, at the beginning of June, a technical-organisational meeting was organised in Rome after which the partners must sign the contract with the MEUR and if necessary formalise the changes in the technical specifications already sent to the Ministry.

***WATERSPY – High performance, compact, portable photonic device for pervasive water quality analysis (H2020)***

The WATERSPY project intends to develop and define a method for detecting the presence of heterotrophic bacteria in aqueous matrices such as eColi, pseudomonas aeruginosa and salmonella. The instrument, to be developed at the prototype level for use in the field at water service supply sources (artificial lakes) and in the distribution network, provides for a stage of pre-concentration which enables the bio-sensor to bind the bacteria onto a surface which will then be analysed with laser technology. The development of an instrument which works in the range indicated could open up many possibilities in pervasive monitoring of water quality.

Partners: Iren (with IRETI and Iren Laboratori), CyRIC Ltd, Consiglio Nazionale delle Ricerche (National Research Council), Alpes Lasers SA, National Technical University of Athens, ID Quantique SA, AUG Signals Hellas, Cyprus/Italy end-users.

Status: During 2017, Iren took part in defining the instrumental specifications and coordinated the activities connected with the standardisation of the product and/or of the procedures for validating the analyses performed. In the first half of 2018, Iren was involved in the activities to monitor the standards issued by the standardisation bodies. The metering chain included in the instrument includes a chain devoted to the concentration of bacteria which will be developed by the University of Monaco; the chain is being debugged and will subsequently be installed at the sections of a water pipe system managed by IRETI in Prato (Genoa).

**Waste Management**

***Biometh-ER (Life+)***

The aim of this project is to create the first plants for the production and distribution of biomethane to end users in Italy. The plants will be designed, managed and maintained around innovative, state-of-the-art technologies; the entire system will be monitored for the duration of the project and the operating results of the pilot plants will then be examined and disclosed to the project partners involved. These plants represent a departure point for assessment of the expansion capacity of this experiment to all of the Emilia Romagna Region and for the creation of the regional biomethane distribution network.

Partners: IRETI, Iren S.p.A., Iren Rinnovabili, Centro Ricerche Produzioni Animali - C.R.P.A., Hera Ambiente, SOL.

Status: During 2018, the documents were sent to the competent bodies for continuing with stage 2 of the project that involves for Iren the installation of a compression, storage and distribution system for biogas for motor vehicles. Activities continued on analysing the biogas produced by the upgrading plant to check conformity according to the legislation. Contact was also made with the technological suppliers of the compression, storage and distribution station, and the documents that govern the laboratory activities to test the effects of biogas used in vehicles were prepared.

**Energy**

***CHESTER (Horizon 2020)***

The project has the objective of developing and integrating an innovative solution of the Power-to-Heat-to-Power type that will enable maximisation of the exploitation of non-programmable electricity RESs and thermal RESs already combined with TLR (district heating) systems. The system involved in the study, named CHEST, making use of heat pumps, latent heat storages and Organic Rankine Cycles (ORCs), will make it possible to transform electricity into heat, store it and subsequently produce new electricity.

Partners: Iren S.p.A., Iren Energia, TECNALIA, DLR, University of Stuttgart, PLANENERGI FOND, AIGUASOL, Encontech B.V., University of Ghent, University of Ulster, Universitat Politecnica De Valencia, PNO Innovation, GOIENER.

Status: In November 2017 the proposal passed the stage of assessment by the European authorities. The project began at the end of April 2018, and the first project deliverables, which regard the mathematical model of the technological solution and sending of the data collected from the plants that constitute the project use cases, are currently being finalised.

***ESACOM (Piedmont Region - innovation hubs tender)***

The ESACOM (acronym of Energy SAving and COMfort optimisation) project is intended to develop a platform of sensors, algorithms, databases and Apps capable of providing an instrument, scalable to different levels, of data management and implementation; this is a support for energy optimisation decisions, in order to implement energy management that takes into account the effective condition of well-being of the users of a building.
The project provides for testing the platform on two civil buildings in the city of Turin.

Partners: Iren S.p.A. (coordinator), Iren Energia, Pro Logic Informatica, Modelway, Screen 99, Eurix.

Status: The project began officially in September 2017. In the following months Iren, with the project partners, was involved in defining the general system architecture, the communication protocols and the specifications of the web portal for implementing and displaying the results of the energy regulation. In March, the definition of the system specifications was completed, and then installations began at the pilot sites. At the same time, development of the single elements of the platform was begun.

***EVERYWH2ERE (Horizon 2020)***

The objective of the project is to develop a power generator with "plug and play" fuel cells, easy to transport around the city for temporary electrical power in various sectors (building sites, music festivals, temporary events, exhibition centres).
The Iren Group, as a third party, will test a hydrogen skid for electricity production during events/trade fairs (uninterruptible power supply/mobile generator mode).

Partners: D'Appolonia, VTT, Powercell Sweden AB, Genport, Swiss Hydrogen, Mahytec, FHA, Delta1 gUg, Environment Park, Acciona Construccion, ICLEI, Linde Gas Italia

Status: In August 2017 the proposal passed the stage of assessment by the competent European authorities. The project began in February. Up to now, Iren has taken part in the project as Environment Park support on the technical/legislative indications regarding the technology to be developed.

***Evolution2G (EMEurope Call 2016)***

The "eVolution2G" project is intended to study in depth and test directly in the field the Vehicle to Grid (V2G) concept, that is a system in which electric vehicles have a balancing role on electricity grids.
The main innovations of the project are based on:

- Development of two light quadricycles with an innovative battery management system and a bidirectional recharge system, capable of interfacing with the electricity grid both to recharge and to "give back" its charge;
- Development of an EMCS (Energy Management and Control System) prototype, for data management according to the various subjects involved, with a view to improving the balance of the electricity network;
- Tests on prototypes of V2G recharging solutions, at both the domestic level and the public/urban level.

Partners: Iren S.p.A. (coordinator), Mecaprom, CTC Cartech Company, Aalborg University.

Status: In the middle of June 2018, the project kick-off meeting was held, and the first activities are being launched.

***FABRIC - FeAsiBility analysis and development of on-Road charging solutions for future electric vehicles (FP7)***

The project relates to the development of a charging system for on-road electric vehicles by means of induction coils sunk into the concrete road surface. The project provides for 3 demonstrator sites, of which one in the Province of Turin in the SITAF area of the Turin-Bardonecchia motorway.

Partners: Iren S.p.A., IRETI, Turin Polytechnic, FIAT Research Centre, Pininfarina, Energrid and Scania Nissan, other international industrial partners, Italian and European SMEs.

Status: In June, the final project meeting was held in Turin. During this meeting, there was a demonstration of the pilot system of dynamic inductive discharge at the Susa customs terminal. During the latest activities, Iren supported the project partners in validating the results of the project activities.

***NEMO- Hyper-Network for electroMobility (Horizon 2020)***

The NeMo project aims to develop an e-roaming platform applied to different electricity mobility systems (recharging infrastructure and motor vehicles). The main objective is to create a "Hyper network", namely an upper ICT infrastructure that can standardise data originating from various stakeholders and generate innovative services and applications on different verticals.
Iren's role will consist of defining the use-cases, with special reference to the distributors' and electricity vendors' requirements, providing technical and regulatory expertise to identify their requirements/constraints and assessing the results and developments of the project.

Partners: Iren S.p.A., IRETI, Fiat Research Centre, TecnoSitaf, ICOOR, Renault, Verbund, TomTom, other foreign industrial partners, Italian and European SMEs.

Status: During 2018, various services of the NeMo platform were developed. Iren is involved in defining the specifications of the services associated with the electricity market operators. In the rest of the year, work will continue with the development of the interfaces and applications of the e-roaming platform.

***OTTEMPO (Piedmont Region tender - innovation hubs)***

The project aims to study and test methods for distributing, through a fibre-optic or wireless telecommunication network, the time sample, that is the exact time, with a precision in the order of microseconds for the sector of multiutility companies. In particular, the operating applications will be designed for real-time systems for the monitoring and analysis of the electricity distribution networks and the water service.

Partners: Iren S.p.A, TOP-IX Consortium, Hal Service.

Status: The project was launched in the early months of 2018; the first activities for Iren will involve defining the specifications and setting up pilots in the electricity and water segments.

***PLANET – (Horizon 2020)***

The project aims at developing technologies and analysing the regulatory constraints for taking synergistic advantage of the distribution networks (electricity, gas and heat). During the project storage and conversion technologies will be modelled; multigrid intelligent automated management systems will be simulated; new business models will be created; energy conversion systems will be tested, in a physical pilot.

Partners: Iren S.p.A., Iren Energia, IRETI, Iren Mercato, Turin Polytechnic, ISMB, Teknologian tutkimuskeskus VTT Oy, HYPERTECH, CERTH, Grindrop, ITM Power (trading), VAASAETT, FGH, Sorea, Merit Consulting House.

Status: At the end of November 2017, the project kick-off meeting was held. The first project activities regarded the identification of the use cases; those considered most interesting by the end users are being processed with more detail for implementation of the IT data processing platform. The search for the site (residential building) for the experimental pilot is in progress.

***Pump-Heat – (Horizon 2020)***

The project has the objective of increasing the flexibility of conventional fossil source plants, in particular combined cycles, in order to satisfy the ever-increasing needs of the network to offset the demand fluctuations deriving from renewable sources. The project will study the combination of heat pumps with cogeneration combined cycle and conventional combined cycle plants; the combination with systems for heat and cold storage will also be analysed.

In particular, at the Iren facility of Moncalieri (TO) a pilot plant will be built, in which the technologies studied and developed during the project will be tested as regards cogeneration combined-cycle applications.

Partners: Iren S.p.A. and Iren Energia, University of Genoa, D'Appolonia, Ansaldo Energia, KTH, Aristotele University, Mitsubishi Hitachi Power Systems Europe, Mayekawa, Siemens, Alfalaval, CLA Energy, Limmat Scientific, Novener, Orlen.

Status: The project officially began in October 2017. In the first half of 2018, the best configuration of the pilot plant for the cogeneration units was defined, and the preliminary planning stage was launched involving the work to be done on the 3GT combined cycle plant of the Moncalieri Thermoelectric Power Station. In particular, Iren in responsible for designing the Balance of Plant to connect with the existing plant of the heat pump and heat storage prototypes with phase changing materials.

***Store&Go – (Horizon 2020)***

The STORE&GO project will demonstrate 3 innovative Power to Gas (P2G) systems located in Germany, Switzerland and Italy, in order to identify and overcome the technical, economic, social and legal barriers. The project has the ambition of assessing the possibility of integrating the P2G storage system into leading-edge energy production and distribution systems. Iren's role will involve the study of the technical/economic possibilities of integrating P2G technology into thermoelectric production systems.

Partners: Iren S.p.A. and Iren Energia, Turin Polytechnic, HST, Atmostat, Climeworks; Studio BFP, DWGV, HSR, other university and industrial partners.

Status: The technical-economic analysis was completed, in collaboration with the Polytechnic of Turin on the combination of P2G in combined cycles in order to increase its flexibility and the recovery of the energy lost in the balancing, and of the combination of P2G to offset the fluctuation of non-programmable renewable sources. In May, the first demonstrator provided for in the project was inaugurated in the German town of Falkenhagen. Currently, Iren is collaborating on the development of the Italian pilot, which will be created in the Municipality of Troia (Puglia), and the inauguration of which is planned for this coming September.

**OTHER INNOVATION ACTIVITIES**

**Water Services**

During 2018 Iren continued to take part in the initiatives organised by WssTP (Water Supply and Sanitation Technology Platform), set up by the European Commission in order to oversee research in the water sector, also participating in the TICASS (*Tecnologie Innovative per il Controllo Ambientale e lo Sviluppo Sostenibile* - Innovative Technologies for Environmental Control and Sustainable Development) Consortium, a technological innovation hub in the Liguria region. In this regard, Iren is part of the WssTP working groups on the issues of Emerging Compounds, Water&ICT and Urban Water Pollution, which involve the preparation of road maps and planning and consultation documents that will be submitted to the European Commission.

More specifically, the research projects launched and completed in the first half of the year concerned:

***Acoustic data transmission***
During 2017, a prototype system was designed and installed on the Liteggia-Serra pipeline (managed by Iren Acqua Tigullio). This has demonstrated the feasibility of the acoustic telemetry technique on metal pipes, applied to the management of filling a mountain tank.
The apparatus makes it possible to send signals and data through water pipes in conditions of unavailability of data transmissions with conventional vectors (GPRS, radio link, Wi-Fi, satellite).
In the early months of 2018, an additional research project was launched, with the objective of finalising and engineering the prototype system developed and testing the acoustic data transmission on plastic pipes to extend its application also to other sites.
In the first half of 2018, the hardware and software devoted to receiving and transmitting data were revised, adding a more precise clock and an automatic gain control. A digital data protocol, usable in acoustic transmission mode, was also developed. In the period, a microturbine was designed, and four versions of it were made with yields still not adequate; another version is being developed and includes a magnetic joint made at the prototype level and tested successfully.

***Management of Water Treatment Sludge***
During 2018, activities continued on analysing and assessing sludge treatment systems aimed at reducing its quantity and making the process more efficient, improving the production of by-products (biogas or biomethane) and reducing the total management costs. The assessment includes the definition of mass balance sheets and the analysis of the costs, benefits and technical/economic implications.
In particular, activities continued in the context of the research contract activated with TICASS, for the purpose of assessing the benefits, in terms of reducing the quantities of sludge to be disposed of, deriving from the introduction of hydrolysis treatments in purification plants managed by the Group.
At the same time, collaboration activity began with the startup HBI, with the objective of assessing yields and applicability of an innovative hydrothermal conversion process capable of transforming sludge and other organic waste with high humidity content (including digestate) into a biocarbon with chemical and physical characteristics comparable to those of peat or fossil lignite.
Benchmarking activity will also be carried out in collaboration with universities and innovation centres in the context of existing partnerships with the universities in the territories where Iren operates.

***Projects included in the AMGA Foundation's research programme***
During the first half of 2018, Iren collaborated on a number of projects included in the AMGA Foundation's programme; these projects refer to economic regulatory issues and technical-scientific questions associated with the quality of water resources. Among these, it is worth mentioning the research on:

(i) determining the standard cost of capital in the regulation of public utilities with particular reference to the context of waste;
(ii) the scenario analysis for assessing the input of biogas in the natural gas distribution and transport networks;
(iii) analysis of the state of the art and application of a simplified model of operation of the natural gas network to study cases of practical-operational interest, aimed at assessing the possible effects generated by inputting biogas;
(iv) applications of cost-benefit analysis to the energy sector;
(v) cost characteristics and economies of scale in the waste management sector;
(vi) application of the Water Safety Plans to the water service: methodological and informative aspects for the stakeholders involved.

**Waste Management**

***Research activity on wood waste***
During the first half of 2018, in collaboration with TICASS, a European study was launched of the main processes and technological solutions for processing wood waste managed by Iren, with particular reference to large pieces, for the purpose of analysing their applicability and consequent technical and economic impacts on the Group's plant layouts.
The study, launched in March, began with a first benchmark analysis of the main processes present at the European level and of the (national/EU) legislative context. Over the next few months, the activity will continue with an in-depth study on the processes/technologies of interest, and in particular the most innovative ones, aimed at extracting (chemically or biologically) elements with high added value from the wood waste.

**Energy**

***Industry 4.0 Programme***
During 2017, Iren continued activity on seeking innovative solutions falling under the definition of "Industry 4.0" applicable to the Energy Business Unit, with particular reference to the maintenance sector. The analysis focused on specific verticals, that is operator safety, infrastructure monitoring and big data, concentrating on the thermoelectric, hydroelectric and district heating sectors.
At the end of the analysis activity, more than twenty projects were identified; around half of them were already launched, for the testing part, in the first half of 2018.
The activities in question involved the study and adoption of remote-controlled solutions to supplement the current corporate practices adopted during inspections. During the first half of the year, survey activities on reservoirs continued with the use of drones in order to quantify the volumes of residues.
The testing activity was also extended to the inspection of rocky slopes overlooking the reservoirs. The solutions involved in the collaboration made it possible to reduce considerably the time take by activities performed with conventional techniques and increased the safety of the workers involved. A rover for inspecting shunting tunnels is also being developed. The robot will be capable of travelling along tunnels, acquiring images and 3D maps, communicating with the outside world via a wireless network which it will lay out during the inspection.
Again, in the hydroelectric sector, and in particular at the Venaus and Telessio plants, tests are continuing on the use, in an operating context, of smart glasses systems in order to enable interaction between the operating field and the control room and real-time data communication.
Training days were organised for maintenance staff. The monitoring activity was extended also to district heating networks and, thanks to the use of a high-resolution thermographic camera, mounted on an aircraft, it was possible to fly, in a winter night, over the city of Turin and identify using thermal image processing software the water and heat leaks of the network.
In the field of predictive maintenance, a model is being tested at the combined cycle unit in the New Energy Hub of Reggio Emilia, which starting from the operating data of the plant, is capable of predicting its operation, thus optimising the maintenance activities and preventing any malfunctioning and breakdowns.

Again, in the district heating field, an activity was also launched for the remote monitoring of the environmental parameters of the network valve chambers, considered confined spaces, making use of a connectivity technology capable of sending the data to a centralised database and analysing this information. The project's goal is to increase operator safety and provide additional information useful for planning maintenance activities in such spaces.

***Installation of storage systems on the district heating network***
In the City of Turin, Iren is engaged in the work to create a new heat storage system serving the district heating network at the Mirafiori North site which, added to the currently existing 15,000 $m^3$ in the city, will increase the current total capacity by a further 2,500 $m^3$. Currently, the demolition of the cogeneration plant has been completed. At the same time, the authorisation procedure is in progress and the tender documentation is being prepared for the planning and construction of the San Salvario storage system. This is aimed at optimising network management, and expanding the user volumes served by the district heating.

***Flexibilisation of combined cycle plants***
Iren is proceeding with work on making its combined cycle plants more flexible, to respond better to the ever-increasing needs of the electrical system and to become increasingly competitive in offering services on the auxiliary services market. These activities involve improvements on gas turbines, steam turbines, steam generators with recovery and control systems, with the purpose of keeping the plant hot, reducing the start-up and shut-down times and increasing the intake/load reduction ramps. The installation of an auxiliary steam generator is currently in progress at the Moncalieri thermoelectric plant.

***Monitoring of the Ciardoney glacier***
In the early months of 2018 research activities continued on the behaviour of the Valle Orco glaciers, through monitoring of the Ciardoney glacier in the Gran Paradiso National Park. The initiative, launched in the 1990s, is carried out in the context of an agreement with the Italian Meteorological Society, renewed on 28 June during the 7th National “Energy and Territory” Conference held in Locana (TO), Italy. The research is oriented to monitoring the reduction of glaciers in the Alps supporting the planning of the production of hydroelectric plants in Valle Orco. The campaign of June 2018 recorded snow cover varying between 460 cm at the top (at an altitude of 3,100 metres) and 250 cm on the frontal slope, while at the front, the thicknesses increase locally up to more than 300 cm the accumulation of snow blown by the wind and transported by avalanches. The average water equivalent on the entire glacier (winter balance) was 1,995 mm, almost twice the 1992-2017 average (1,170 mm) and in fourth place among the most abundant in 27 years, after what was recorded in the 1992-93, 2016-17 and 2000-01 winters.

***Collaboration agreement with RSE***
During 2018, Iren S.p.A. and RSE S.p.A. continued the research activities provided for in the collaboration agreement they signed with the objective of studying, analysing and testing efficient processes and technologies in the field of energy systems. Some of the main themes tackled were:
- Electricity distribution: benchmarks in the smart grid field, testing of innovative solutions, analysing systems for protecting distribution networks;
- making water networks more efficient: analysing best practices, identifying methods for reducing energy consumption, defining application guidelines for energy optimisation in managing networks. This activity continued in the first half of 2018 in the context of analysing the data provided by IRETI in relation to energy consumption for drinking and waste water. The data were analysed by OTA, assessing the specific consumption on the basis of the characteristics of the zones served. RSE worked on other reports, which will be made available to Iren as soon as they have passed the Ministerial audit planned for July 2018;
- district heating: studying innovative heat storage systems;
- biogas: analyses of technologies for refining biogas obtained from by-products and waste, for producing biomethane, and support for the regulatory analysis of inputting into the network and dispatching of the same.

In addition, scouting of third-party financing tenders will be launched together, to fund development, research and innovation projects.

# IREN AND SUSTAINABILITY

Ever since its foundation the Iren Group has paid great attention to environmental, social and financial sustainability. Sustainability is in fact at the centre of the agenda of the Iren Group which, as well as taking it on as a pillar of strategic development, reports policies and performance on it with particular regard to environmental and social issues, to those relating to the personnel, to human rights, and to combating active and passive corruption.

The 2017 Sustainability Report, approved by the Board of Directors on 7 March 2018 (at the same time as approval of the Separate and Consolidated Financial Statements at 31 December 2017), is also valid as the Consolidated Non-Financial Declaration (NFD), under the terms of Italian Legislative Decree no. 254/2016. This is a substantial function that underlines how the strategic approach to corporate social responsibility assumes ever-increasing importance in the long term for the competitiveness of companies, a function which strengthens the Group’s orientation both in terms of disclosure transparency and in considering sustainability a strategic growth lever.

The 2017 Sustainability Report, the summary data of which were presented to the Shareholders' Meeting of 19 April 2018, was prepared, under the coordination of the Corporate Social Responsibility and Local Committees Department, in compliance with the GRI (Global Reporting Initiative) Standard: comprehensive option and the Utility supplement of the electricity sector – G4 Sector Disclosure.

The data were collected through the “Sustainability Report - NFD” application which enables tracing, checking and approval of all the data required. The contents of the document were instead defined on the basis of the materiality analysis carried out involving the corporate management and the stakeholders through the Local Committees.

In order to make subjects related to sustainability more usable by stakeholders, on the website devoted to the Sustainability Report (irensostenibilita.it), the main data included in the document were published. They are divided into points and translated also into English. In addition, the document was published on the corporate website in Italian and English, and specific informative brochures were created and printed in the two languages.

**Iren S.p.A.**
Via Nubi di Magellano, 30 - 42123 Reggio Emilia - Italy
Capitale Sociale i.v. Euro 1.276.225.677,00
Registro Imprese di Reggio Emilia n. 07129470014
Codice Fiscale e Partita IVA n. 07129470014

# **Condensed** Consolidated Interim Report and Notes

at 30 june **2018**

# STATEMENT OF FINANCIAL POSITION

thousands of euro

| | Notes | 30.06.2018 | of which related parties | 31.12.2017 | of which related parties |
|---|---|---|---|---|---|
| **ASSETS** | | | | | |
| Property, plant and equipment | (1) | 3,450,175 | | 3,449,344 | |
| Investment property | (2) | 12,964 | | 13,137 | |
| Intangible assets with a finite useful life | (3) | 1,881,368 | | 1,653,977 | |
| Goodwill | (4) | 158,958 | | 127,320 | |
| Investments accounted for using the equity method | (5) | 158,778 | | 161,255 | |
| Other equity investments | (6) | 7,123 | | 7,126 | |
| Non-current trade receivables | (7) | 63,332 | 5,645 | 69,801 | 3,436 |
| Non-current financial assets | (8) | 171,269 | 154,260 | 165,767 | 148,247 |
| Other non-current assets | (9) | 45,717 | 7,896 | 44,614 | 7,896 |
| Deferred tax assets | (10) | 333,689 | | 277,771 | |
| **Total non-current assets** | | **6,283,373** | **167,801** | **5,970,112** | **159,579** |
| Inventories | (11) | 68,605 | | 61,984 | |
| Trade receivables | (12) | 805,068 | 130,522 | 895,788 | 144,376 |
| Current tax assets | (13) | 13,116 | | 7,365 | |
| Other receivables and other current assets | (14) | 286,223 | 6,049 | 276,347 | 177 |
| Current financial assets | (15) | 477,831 | 428,438 | 506,382 | 461,592 |
| Cash and cash equivalents | (16) | 111,438 | | 169,086 | |
| **Total current assets** | | **1,762,281** | **565,009** | **1,916,952** | **606,145** |
| Assets held for sale | (17) | 524 | | 8,724 | |
| **TOTAL ASSETS** | | **8,046,178** | **732,810** | **7,895,788** | **765,724** |

thousands of euro

| | Notes | 30.06.2018 | of which related parties | 31.12.2017 | of which related parties |
|---|---|---|---|---|---|
| **EQUITY** | | | | | |
| **Equity attributable to shareholders** | | | | | |
| Share capital | | 1,300,931 | | 1,276,226 | |
| Reserves and retained earnings (losses) | | 647,496 | | 608,184 | |
| Net profit (loss) for the period | | 187,152 | | 237,720 | |
| **Total equity attributable to shareholders** | | **2,135,579** | | **2,122,130** | |
| Equity attributable to minorities | | 363,116 | | 376,673 | |
| **TOTAL EQUITY** | **(18)** | **2,498,695** | | **2,498,803** | |
| **LIABILITIES** | | | | | |
| Non-current financial liabilities | (19) | 2,794,200 | | 3,023,888 | |
| Employee benefits | (20) | 121,626 | | 116,483 | |
| Provisions for risks and charges | (21) | 448,400 | | 430,133 | |
| Deferred tax liabilities | (22) | 208,053 | | 213,760 | |
| Other payables and other non-current liabilities | (23) | 458,745 | 178 | 222,595 | 583 |
| **Total non-current liabilities** | | **4,031,024** | **178** | **4,006,859** | **583** |
| Current financial liabilities | (24) | 394,126 | 8,389 | 189,132 | 5,166 |
| Trade payables | (25) | 661,443 | 25,922 | 827,477 | 32,790 |
| Other payables and other current liabilities | (26) | 287,027 | 3 | 269,720 | 5 |
| Current tax liabilities | (27) | 105,478 | | 15,295 | |
| Provisions for risks and charges - current portion | (28) | 68,385 | | 88,502 | |
| **Total current liabilities** | | **1,516,459** | **34,314** | **1,390,126** | **37,961** |
| Liabilities related to assets held for sale | (29) | - | | - | |
| **TOTAL LIABILITIES** | | **5,547,483** | **34,492** | **5,396,985** | **38,544** |
| **TOTAL EQUITY AND LIABILITIES** | | **8,046,178** | **34,492** | **7,895,788** | **38,544** |

# INCOME STATEMENT

thousands of euro

| | Notes | First half 2018 | of which related parties | First half 2017 Restated (*) | of which related parties |
|---|---|---|---|---|---|
| **Revenue** | | | | | |
| Revenue from goods and services | (30) | 1,771,999 | 163,155 | 1,701,170 | 168,728 |
| Change in work in progress | (31) | 27 | | (4,707) | |
| Other income | (32) | 164,930 | 1,901 | 117,069 | 1,711 |
| **Total revenue** | | **1,936,956** | **165,056** | **1,813,532** | **170,439** |
| **Operating expenses** | | | | | |
| Raw materials, consumables, supplies and goods | (33) | (625,735) | (32,360) | (606,837) | (30,382) |
| Services and use of third-party assets | (34) | (598,190) | (15,082) | (549,204) | (13,097) |
| Other operating expenses | (35) | (25,344) | (3,852) | (40,961) | (3,641) |
| Capitalised expenses for internal work | (36) | 13,804 | | 11,637 | |
| Personnel expense | (37) | (195,644) | | (185,900) | |
| **Total operating expenses** | | **(1,431,109)** | **(51,294)** | **(1,371,265)** | **(47,120)** |
| **GROSS OPERATING PROFIT (EBITDA)** | | **505,847** | **113,762** | **442,267** | **123,319** |
| **Depreciation, amortisation, provisions and impairment losses** | | | | | |
| Depreciation and amortisation | (38) | (168,972) | | (155,448) | |
| Provisions for impairment of receivables | (39) | (16,436) | | (22,501) | |
| Other provisions and impairment losses | (39) | (5,154) | | (7,400) | |
| **Total depreciation, amortisation, provisions and impairment losses** | | **(190,562)** | | **(185,349)** | |
| **OPERATING PROFIT (EBIT)** | | **315,285** | **113,762** | **256,918** | **123,319** |
| **Financial income and expense** | **(40)** | | | | |
| Financial income | | 19,305 | 9,563 | 16,472 | 10,884 |
| Financial expense | | (49,952) | (223) | (56,428) | (17) |
| **Total financial income and expense** | | **(30,647)** | **9,340** | **(39,956)** | **10,867** |
| Share of profit (loss) of associates accounted for using the equity method | (41) | 825 | | 4,541 | |
| Value adjustments on equity investments | (42) | 2,061 | | 8,579 | |
| **Profit (loss) before tax** | | **287,524** | **123,102** | **230,082** | **134,186** |
| Income tax expense | (43) | (88,314) | | (72,529) | |
| **Net profit (loss) from continuing operations** | | **199,210** | | **157,553** | |
| Net profit (loss) from discontinued operations | (44) | - | | - | |
| **Net profit (loss) for the period** | | **199,210** | | **157,553** | |
| attributable to: | | | | | |
| - Profit (loss) for the period attributable to shareholders | | 187,152 | | 144,808 | |
| - Profit (loss) for the period attributable to minorities | (45) | 12,058 | | 12,745 | |
| **Earnings per ordinary and savings share** | **(46)** | | | | |
| - basic (euro) | | 0.15 | | 0.11 | |
| - diluted (euro) | | 0.15 | | 0.11 | |

(*) As provided for in IFRS 3, with completion of the Purchase Price Allocation, the economic balances of the first half of 2017 were restated to take into account, at the date of acquisition, the definitive fair value of the acquired assets and liabilities of REI - Ricupero Ecologici Industriali and Salerno Energia Vendite. For more details please see the paragraph “Content and structure of the condensed consolidated interim report” in the Notes to the Financial Statements.

# STATEMENT OF OTHER COMPREHENSIVE INCOME

thousands of euro

| | | First half 2018 | First half 2017 Restated (*) |
|---|---|---|---|
| **Profit/(loss) for the period - Shareholders and minorities (A)** | | **199,210** | **157,553** |
| **Other comprehensive income that will subsequently be reclassified to the Income Statement** | | | |
| - effective portion of changes in fair value of cash flow hedges | | 46 | 3,502 |
| - changes in fair value of financial assets | | - | - |
| - share of other profits/(losses) of companies accounted for using the equity method | | 222 | 725 |
| Tax effect of other comprehensive income | | (53) | (230) |
| **Total other comprehensive income that will subsequently be reclassified to the Income Statement, net of tax effect (B1)** | **(47)** | **215** | **3,997** |
| **Other comprehensive income that will not be subsequently reclassified to the Income Statement** | | | |
| - actuarial gains/(losses) on employee defined benefit plans (IAS 19) | | - | - |
| - portion of other profits/(losses) of companies accounted for using the equity method related to employee defined benefit plans (IAS 19) | | - | - |
| Tax effect of other comprehensive income | | - | - |
| **Total other comprehensive income that will not be subsequently reclassified to the Income Statement, net of tax effect (B2)** | **(47)** | **-** | **-** |
| **Total comprehensive income/(expense) (A)+(B1)+(B2)** | | **199,425** | **161,550** |
| attributable to: | | | |
| - Profit (loss) for the period attributable to shareholders | | 187,465 | 147,260 |
| - Profit (loss) for the period attributable to minorities | | 11,960 | 14,290 |

(*) As provided for in IFRS 3, with completion of the Purchase Price Allocation, the economic balances of the first half of 2017 were restated to take into account, at the date of acquisition, the definitive fair value of the acquired assets and liabilities of REI - Ricupero Ecologici Industriali and Salerno Energia Vendite. For more details please see the paragraph “Content and structure of the condensed consolidated interim report” in the Notes to the Financial Statements.

# STATEMENT OF CHANGES IN EQUITY

| | Share capital | Share premium reserve | Legal reserve |
|---|---|---|---|
| **31/12/2016 Restated (*)** | **1,276,226** | **105,102** | **45,585** |
| Legal reserve | | | 4,413 |
| Dividends to shareholders | | | |
| Retained earnings | | | |
| Changes in consolidation scope | | | |
| Change in equity interests | | | |
| Other changes | | | |
| Comprehensive income for the period | | | |
| of which: | | | |
| - Net profit for the period | | | |
| - Other comprehensive income | | | |
| **30/06/2017 Restated (*)** | **1,276,226** | **105,102** | **49,998** |
| **31/12/2017** | **1,276,226** | **105,102** | **49,998** |
| First application of IFRS 9 and IFRS 15 | | | |
| Retained earnings | | | |
| **01/01/2018** | **1,276,226** | **105,102** | **49,998** |
| Capital increase | 24,705 | 27,917 | |
| Legal reserve | | | 8,348 |
| Dividends to shareholders | | | |
| Changes in consolidation scope | | | |
| Change in equity interests | | | |
| Other changes | | | |
| Comprehensive income for the period | | | |
| of which: | | | |
| - Net profit for the period | | | |
| - Other comprehensive income | | | |
| **30/06/2018** | **1,300,931** | **133,019** | **58,346** |

(*) As provided for in IFRS 3, with completion of the Purchase Price Allocation, the financial balances at 31 December 2016 were restated to take into account, at the date of acquisition, the definitive fair value of the acquired assets and liabilities of Atena S.p.A. (now ASM Vercelli), Atena Trading and Ricupero Ecologici Industriali.
(*) As provided for in IFRS 3, with completion of the Purchase Price Allocation, the financial balances at 30 June 2017 were restated to take into account, at the date of acquisition, the definitive fair value of the acquired assets and liabilities of REI - Ricupero Ecologici Industriali and Salerno Energia Vendite.

thousands of euro

| Cash flow hedging reserve | Other reserves and retained earnings (losses) | Total reserves and retained earnings (losses) | Profit (loss) for the period | Total equity attributable to shareholders | Equity attributable to minorities | Total equity |
|---|---|---|---|---|---|---|
| **(8,421)** | **365,048** | **507,314** | **179,844** | **1,963,384** | **333,892** | **2,297,276** |
| | | 4,413 | (4,413) | - | | - |
| | | - | (79,764) | (79,764) | (9,100) | (88,864) |
| | 95,667 | 95,667 | (95,667) | - | | - |
| | 4,669 | 4,669 | | 4,669 | 16,288 | 20,957 |
| | (261) | (261) | | (261) | | (261) |
| | (9,196) | (9,196) | | (9,196) | 8,045 | (1,151) |
| 2,452 | | 2,452 | 144,808 | 147,260 | 14,290 | 161,550 |
| | | | 144,808 | 144,808 | 12,745 | 157,553 |
| 2,452 | - | 2,452 | | 2,452 | 1,545 | 3,997 |
| **(5,969)** | **455,927** | **605,058** | **144,808** | **2,026,092** | **363,415** | **2,389,507** |
| **(1,729)** | **454,813** | **608,184** | **237,720** | **2,122,130** | **376,673** | **2,498,803** |
| | (133,719) | (133,719) | | (133,719) | (4,273) | (137,992) |
| | 237,720 | 237,720 | (237,720) | - | | - |
| **(1,729)** | **558,814** | **712,185** | **-** | **1,988,411** | **372,400** | **2,360,811** |
| | | 27,917 | | 52,622 | | 52,622 |
| | (8,348) | - | | - | | - |
| | (91,065) | (91,065) | | (91,065) | (21,908) | (112,973) |
| | - | - | | - | 59 | 59 |
| | (445) | (445) | | (445) | 415 | (30) |
| | (1,409) | (1,409) | | (1,409) | 190 | (1,219) |
| 313 | | 313 | 187,152 | 187,465 | 11,960 | 199,425 |
| | | | 187,152 | 187,152 | 12,058 | 199,210 |
| 313 | - | 313 | | 313 | (98) | 215 |
| **(1,416)** | **457,547** | **647,496** | **187,152** | **2,135,579** | **363,116** | **2,498,695** |

# STATEMENT OF CASH FLOWS

thousands of euro

| | First half 2018 | First half 2017 Restated (*) |
|---|---|---|
| **A. Opening cash and cash equivalents** | **169,086** | **253,684** |
| **Cash flows from operating activities** | | |
| Profit (loss) for the period | 199,210 | 157,553 |
| Adjustments: | | |
| Income tax expense for the period | 88,314 | 72,529 |
| Share of profit (loss) of associates and joint ventures | (825) | (4,541) |
| Net financial expense (income) | 30,647 | 39,956 |
| Amortisation of intangible assets and depreciation of property, plant and equipment | 168,972 | 155,448 |
| Net impairment losses (reversals of impairment losses) on assets | (651) | (8,439) |
| Net provisions for risks and other charges | 39,284 | 46,487 |
| Capital (gains) losses | 345 | 199 |
| Utilisations of employee benefits | (4,666) | (3,484) |
| Utilisations of provisions for risks and other charges | (11,784) | (15,369) |
| Change in other non-current assets and liabilities | (2,248) | 8,674 |
| Other financial changes | (19,106) | (5,255) |
| Taxes paid | - | (57,471) |
| **B. Cash flows from operating activities before changes in NWC** | **487,492** | **386,287** |
| Change in inventories | (5,668) | (4,945) |
| Change in trade receivables | 191,060 | 160,931 |
| Change in tax assets and other current assets | 16,802 | (74,553) |
| Change in trade payables | (266,215) | (195,093) |
| Change in tax liabilities and other current liabilities | (21,089) | 31,351 |
| **C. Cash flows from changes in NWC** | **(85,110)** | **(82,309)** |
| **D. Cash flows from/(used in) operating activities (B+C)** | **402,382** | **303,978** |
| **Cash flows from /(used in) investing activities** | | |
| Investments in property, plant and equipment and intangible assets | (164,179) | (103,207) |
| Investments in financial assets | - | (15,175) |
| Proceeds from the sale of investments and changes in assets held for sale | 13,930 | 2,794 |
| Changes in consolidation scope | (220,960) | (10,127) |
| Dividends received | 1,224 | 1,665 |
| **E. Total cash flows from /(used in) investing activities** | **(369,985)** | **(124,050)** |
| **F. Free cash flow (D+E)** | **32,397** | **179,928** |
| **Cash flows from /(used in) financing activities** | | |
| Capital increase | 52,622 | |
| Dividends paid | (112,973) | (88,864) |
| New non-current loans | - | - |
| Repayment of non-current loans | (120,115) | (136,223) |
| Change in financial liabilities | 75,016 | 2,317 |
| Change in financial assets | 36,146 | (38,857) |
| Interest paid | (28,066) | (38,935) |
| Interest received | 7,325 | 7,707 |
| **G. Total cash flows from /(used in) financing activities** | **(90,045)** | **(292,855)** |
| **H. Cash flows for the period (F+G)** | **(57,648)** | **(112,927)** |
| **I. Closing cash and cash equivalents (A+H)** | **111,438** | **140,757** |

(*) As provided for in IFRS 3, with completion of the Purchase Price Allocation, the presentation of the cash flows of the first half of 2017 was restated to take into account, at the date of acquisition, the definitive fair value of the acquired assets and liabilities of REI - Ricupero Ecologici Industriali and Salerno Energia Vendite. For more details please see the paragraph “Content and structure of the condensed consolidated interim report” in the Notes to the Financial Statements.

# NOTES TO THE FINANCIAL STATEMENTS

**INTRODUCTION**

Iren S.p.A. is an Italian multi-utility company, listed on the Italian Stock Exchange (Borsa Italiana), created on 1 July 2010 through the merger of IRIDE and ENÌA.

The Group is structured according to a model which provides for an industrial holding company, with registered office in Reggio Emilia, and four companies responsible for the single business lines operating in the main operating bases in Genoa, Parma, Piacenza, Reggio Emilia, Turin, Vercelli and since this past April also La Spezia.

The business segments in which the Group operates are:
- Energy (Hydroelectric production and production from other renewable sources, Combined Heat and Power, District Heating Networks, Thermoelectric Production)
- Market (Sale of electricity, gas, heat)
- Networks (Electricity Distribution Networks, Gas Distribution Networks, Integrated Water Service)
- Waste Management (Waste collection and disposal)
- Other services (Public Lighting, Global Services, energy efficiency services and other minor services).

Paragraph X, Business segment reporting, includes the information required by IFRS 8.

The company’s condensed consolidated interim financial statements at 30 June 2018 include those of the Company and its subsidiaries (collectively referred to as the “Group” and individually as “Group entities”) and the Group’s equity interest in jointly-controlled companies and in associates measured using the equity method.

# I. CONTENT AND STRUCTURE OF THE CONDENSED CONSOLIDATED INTERIM REPORT

The interim financial statements of the Iren Group at 30 June 2018 were prepared under the terms of Art. 154-*ter*, Section 2 of Italian Legislative Decree no. 58 of 24 February 1998 as amended by Italian Legislative Decree no. 195 of 6 November 2007.

The condensed consolidated interim financial statements at 30 June 2018 have been prepared in accordance with the International Financial Reporting Standards (IFRSs), issued by the International Accounting Standards Board (IASB) and endorsed by the European Union, as well as with the provisions set forth in implementation of Art. 9 of Italian Legislative Decree No. 38/2005. "IFRS" also includes the International Accounting Standards ("IAS") and all interpretations issued by the International Financial Reporting Interpretations Committee ("IFRC"), previously known as the Standing Interpretations Committee ("SIC").
In particular these condensed interim financial statements, as they have been prepared in accordance with IAS 34 - Interim Financial Statements, do not include all the information required in the annual financial statements and must be read together with the annual financial statements prepared for the financial year ended 31 December 2017 and available at the company's registered office, at Borsa Italiana S.p.A., and on the website www.gruppoiren.it.
The financial statements have been drawn up on the basis of the historical cost principle, except for certain financial instruments measured at fair value. The accounting standards applied in drawing up these consolidated financial statements, were the same as those adopted for the previous year's statements, to which you are referred for a more ample discussion, with the exception of the following standards and interpretations adopted for the first time starting from 1 January 2018 and illustrated in detail in the paragraph "Accounting standards, amendments and interpretations applied from 1 January 2018" below.

The financial statement formats adopted by the Iren Group in preparing these financial statements are the same as those applied in preparing the financial statements at 31 December 2017, with the exception of the income statement to which has been added the item "Provisions for impairment of receivables".
In line with what was previously published, in the statement of financial position, assets and liabilities are classified as "current/non-current". Assets and liabilities classified as discontinued or held for sale are shown separately. Current assets, which include cash and cash equivalents, are those that will be realised, transferred or consumed during the Group's ordinary operating cycle or during the twelve months following the end of the period. Current liabilities are those for which settlement is envisaged during the Group's ordinary operating cycle or during the twelve months following the end of the period.
The Income Statement is classified on the basis of the nature of the costs. In addition to the Operating Profit (EBIT), the Income Statement also shows the Gross Operating Profit (EBITDA) obtained by deducting total operating expense from total revenue.
The indirect method is used in the cash flow statement. The cash configuration analysed in the cash flow statement includes cash on hand and cash in bank current accounts.
In the present dossier a number of alternative performance indicators (APIs) have been used; these are different from the financial indicators explicitly required by the IAS/IFRS international accounting standards adopted by the Group. For details of these indicators please see the specific paragraph "Alternative Performance Indicators".

These condensed consolidated interim financial statements are stated in euro, the company's functional currency. All amounts expressed in euro are rounded to the nearest thousand.
The financial statements of consolidated entities are drawn up at the reporting date of the half-year period of reference.

**ALTERNATIVE PERFORMANCE INDICATORS**
The Iren Group uses alternative performance indicators (APIs) in order to convey more effectively the information on the profitability performance of the businesses in which it operates, and on its financial and capital situation. These indicators are different from the financial indicators explicitly required by the IAS/IFRA international accounting standards adopted by the Group.

On the subject of these measures, CONSOB issued Communication no. 92543/15 which makes applicable the Guidelines issued by the European Securities and Markets Authority (ESMA) on their presentation in the regulated information distributed or in prospectuses published. These Guidelines are aimed at promoting the usefulness and transparency of the alternative performance indicators included in regulated information or prospectuses that fall within the scope of application of Directive 2003/71/EC, in order to improve their comparability, reliability and comprehensibility.

In line with the aforementioned communications, the criteria used to construct these indicators presented in the present financial report are provided below.

**Net invested capital:** determined by the algebraic sum of Non-current assets, Other non-current assets (liabilities), Net working capital, Deferred tax assets (liabilities), Provisions for risks and employee benefits and Assets (Liabilities) held for sale. For further details on the construction of the single items that make up the indicator please see the statement of reconciliation of the reclassified balance sheet with the accounting statement presented in the annexes to the consolidated financial statements.
This API is used by the Group in the context of documents both internal to the Group and external and is a useful measure for the purpose of measuring total net assets, both current and non-current, also through comparison between the period with which the report is concerned and previous periods or financial years. This indicator also makes it possible to carry out analyses on operating performance and to measure performance in terms of operating efficiency over time.

**Net financial debt:** determined by the sum of Non-current financial liabilities net of Non-current financial assets and Current financial liabilities net of Current financial assets and of Cash and cash equivalents.
This API is used by the Group in the context of documents both internal to the Group and external and is a useful measure of the Group's financial structure, also through comparison between the period with which the report is concerned and previous periods or financial years.

**Gross operating profit (EBITDA):** determined subtracting total operating expenses from total revenue.
This API is used by the Group in the context of documents both internal to the Group and external and is a useful instrument for assessing the Group's operating performance (both as a whole and at the level of single Business Units), also through comparison between the operating results of the period with which the report is concerned and those of previous periods or financial years. This indicator also makes it possible to carry out analyses on operating performance and to measure performance in terms of operating efficiency over time.

**Operating profit (EBIT):** determined subtracting from Gross Operating Profit (EBITDA) depreciation, amortisation, provisions and operating impairment losses.

**Operating cash flow:** determined starting from net profit /(loss) for the period, adjusted for financial income and expenses and for non-monetary items (depreciation and amortisation, provisions, impairment losses…), to which are added the changes of Net working capital, utilisations of provisions and employee benefits and other operating changes.
This API is used by the Group in the context of documents both internal to the Group and external and measures the cash generation capacity of the group's operating activities and therefore its self-financing capacity.

**Free cash flow:** determined adding to the operating cash flow the financial resources used or provided by investing activities represented by investments in property, plant and equipment, intangible and financial assets, disposals, changes in the consolidation scope and dividends received.

**Investments:** determined by the sum of investments in property, plant and equipment, intangible assets and financial assets (equity investments) and presented gross of capital grants.
This API is used by the Group in the context of documents both internal to the Group and external and is a measure of the financial resources absorbed in purchases of durable goods in the period.

**Gross operating profit on revenue** determined making a proportion, in percentage terms, between gross operating profit and value of revenue.

This API is used by the Group in the context of documents both internal to the Group and external and is a useful instrument for assessing the Group's operating performance (both as a whole and at the level of single Business Units), also through comparison with previous periods or financial years.

**Net financial debt on equity:** determined as the ratio between net financial debt and equity including minority interests.
This API is used by the Group in the context of documents both internal to the Group and external and is a useful instrument for assessing the financial structure in terms of relative proportion of financing sources between third-party funds and own funds.

**ACCOUNTING STANDARDS, AMENDMENTS AND INTERPRETATIONS APPLIED FROM 1 JANUARY 2018**
As of 1 January 2018, the following accounting standards and amendments to accounting standards, issued by the IASB and endorsed, when provided for, by the European Union, are obligatorily applicable:

*IFRS 15 – Revenue from Contracts with Customers*. This standard, adopted by the European Union on 22 September 2016 and subsequently amended with EU Regulation 1987/2017 of 31 October 2017, applies to all contracts with customers, with the exception of leasing contracts, insurance contracts and financial instruments.
IFRS 15 defines a model for recognising revenue based on 5 steps:

i. identify the contract with the customer. By contract is meant a commercial agreement approved by two or more parties that creates enforceable rights and obligations. The standard contains specific rules for assessing whether two or more contracts must be combined together and for identifying the accounting implications of a contractual amendment;
ii. identify the "Performance Obligations" contained in the contract;
iii. determine the "Transaction Price". In order to determine the transaction price it is necessary to consider, among other things, the following elements: a) any amounts collected on behalf of third parties, which must be excluded from the price; b) variable components of the price (such as performance bonuses, penalties, discounts, refunds, incentives, etc.); c) financial component, if the payment terms grant the customer a significant extension;
iv. allocate the price to the Performance Obligations on the basis of the "Relative Stand Alone Selling Price";
v. recognise revenue when the Performance Obligation is satisfied. The asset or service is transferred when the customer obtains control over the asset or service and that is when it has the ability to decide and/or direct its use and obtain substantially all its benefits. The principle expressed by IAS 18, for which the revenue must be recognised looking at the benefits obtainable from the asset and assessing the probability of collecting the related receivable, is replaced. Control may be transferred at a certain moment (*point in time*) or in a period of time (*over time*).

The standard obligatorily requires retroactive application, but the transition can take place using two different methods: retroactively at each previous financial year presented according to IAS 8 (full retrospective approach) or retroactively by recognising the cumulative effect from the date of initial application (modified retrospective approach) in the opening Shareholders' Equity at 1 January 2018 (IFRS 15, para. C3 b). If the second approach is chosen, IFRS 15 is only applied retrospectively to contracts that have not been concluded at the initial application date (1 January 2018). The Iren group has chosen to apply IFRS 15 using the second approach.

In application of the aforementioned principle, it has emerged that there is a need to implement a different accounting treatment for connection contributions invoiced by companies performing the distribution service, by way of reimbursement of the costs incurred for the connection/installation of the meter. The relative revenue cannot be considered part of the fee for the distribution service, since control of the asset is not transferred, pursuant to IFRS 15, and so they must be deferred and released along the life of the relevant asset in line with what is envisaged for tariff purposes.
The cumulative effect as at 1 January 2018 represented an increase in the Other payables and other non-current/current liabilities item for 186,571 thousand euro related to Deferrals for connection contributions which, net of the corresponding deferred tax Assets equal to 52,613 thousand euro, brought about a reduction of the opening balance of Retained earnings for 133,958 thousand euro.

The new accounting treatment brought about a reduction in the Other income item, at the economic level, for 573 thousand euro which, net of the related tax effect, generated lower Profit for the period, equal to 411 thousand euro.
As regards the application of the standard to other types of contract/contractual circumstances in place with customers, the checks carried out have not shown impacts; in relation to relationships with customers, specific procedures have been implemented in order to correctly report revenue from contracts starting from 1 January 2018 and identify any critical aspects in future commercial bids in good time.

*IFRS 9 – Financial Instruments*. The new standard was approved on 22 November 2016 with EU Regulation no. 2067/2016. In brief the rules of IFRS 9 regard:

I. the criteria for classification and measurement of financial assets and liabilities. As regards financial assets, the new standard uses a single approach based on management models of financial instruments and characteristics of contractual cash flows of financial assets, with the aim of determining the measurement criteria, replacing the various rules set forth in IAS 39. In particular, the standard provides for the following three categories for the classification of financial assets: a) financial assets carried at amortised cost; b) financial assets carried at fair value through other comprehensive income (FVOCI); c) financial assets carried at fair value through profit or loss (FVTPL). Therefore, the categories of "loans and receivables", financial assets held for sale and financial assets "held to maturity" disappear. Classification within the aforementioned categories takes place on the basis of the company's business model and in relation to the characteristics of the cash flows generated by the same assets: a) a financial asset is valued at amortised cost if the company's business model provides for the financial asset being held to collect the relative cash flows (and therefore not to make a profit from the sale of the instrument too) and the characteristics of the cash flows from the asset only correspond to the payment of capital and interest; b) a financial asset is measured at Fair Value through Other Comprehensive Income if it is held in order to both collect the contractual cash flows and be sold (Hold to Collect and Sell model); c) finally, if it is a financial asset held to be traded and therefore does not fall within the cases outlined in the previous points a) and b), it must be recognised at fair value through profit or loss. The rules on accounting for embedded derivatives have been simplified: it is no longer required to recognise the embedded derivative and the financial asset that "hosts" it separately.
   All instruments representing equity that fall within the scope of application of the standard - both listed and non-listed - must be valued at the fair value reported in the income statement (FVTPL – fair value through profit or loss). In fact, IAS 39 established that, if the fair value cannot be determined reliably, non-listed financial instruments representing equity are measured at cost. The company has the option of presenting changes to the fair value of instruments representing shareholders' equity that are not held for trading, for which that option is prohibited, in Equity (FVOCI – fair value through other comprehensive income). This designation is admitted at the time of the initial recognition, it can be adopted per individual security, and is irrevocable. If this option is used, the variations in the fair value of such instruments should never be reserved in the Income Statement. Dividends, however, continue to be reported in the Income Statement.
   IFRS 9 does not permit reclassification between categories of financial assets except in the rare cases in which the company's business model changes. In this case, the effects of the reclassification are applied on a prospective basis.
   As regards financial liabilities, the main amendment relates to accounting for fair value changes of a financial liability designated as carried at fair value through profit or loss, if these are due to a change in the creditworthiness of the liability itself. According to the new standard, these changes must be recognised under other comprehensive income;
II. impairment of financial assets. The standard replaces the current "incurred loss" model introducing a new impairment model based on *expected losses*, where "loss" means the present value of all future lost revenue, opportunely integrated to take into account future expectations ("forward-looking information"). In accordance with the general approach applicable to all financial assets , the expected loss is a function of the probability of default (**PD**), of the loss given default (**LGD**) and of the exposure at default (**EAD**): the PD represents the probability that an asset will not be repaid and will go into default; the LGD represents the amount expected to be non-recoverable if the default event occurs; the EAD represents the receivable exposure claimed against the counterparty, including any guarantees, collateral, etc.. The estimate must be made initially on the expected losses in the next 12 months; in consideration of any gradual deterioration of the receivable the estimate must be adequate

to cover the expected losses along the whole life of the receivable. As regards trade receivables IFRS 9 makes it obligatory for provisions for impairment of receivables to be determined applying the simplified method and, more specifically, the provision matrix model, which is based on identifying default rates for past-due bands observed on a historical basis, applied for the entire expected life of the receivable and updated on the basis of significant future scenario elements;

III. hedging operations (hedge accounting). IFRS 9 introduces a number of significant changes that mainly regard the effectiveness test, as the 80-125% threshold is abolished and replaced by an objective test that verifies the economic relationship between the hedged instrument and the hedging instrument, accounting only for the cost of the hedge, and extending the hedged elements and the disclosure required.

With reference to point I), there are no significant impacts on the balance deriving from the application of the requirements for the classification and valuation of financial assets provided for by IFRS 9. The Group has analysed the characteristics of the contractual cash flows from loans and receivables, considering them to meet the requirements for valuation at amortised cost. As regards Other equity investments, these are minority shareholdings in unlisted companies, hitherto classified as Available for sale and valued at fair value with a counter-entry in Other comprehensive income pursuant to IAS 39, which the group intends to keep in the portfolio for the near future: as of 1 January 2018, in accordance with IFRS 9, those shareholdings will be valued at fair value in the income statement (FVTPL).
As regards point II), provisions for impairment of receivables in relation to trade receivables have been recalculated by applying the simplified method provided for in IFRS 9. The application of the new standard is retroactive, so the Group has restated provisions for impairment of receivables at 31 December 2017 using the new methodology. Due to the new estimation, the Trade Receivables item decreased by 5,308 thousand euro which, net of the corresponding Deferred tax assets equal to 1,274 thousand euro, brought about a reduction of the opening balance of Retained earnings for 4,034 thousand euro at 1 January 2018.

In addition financial receivables from associates, joint ventures and others were analysed in order to identify any impairment problems. The studies carried out, with particular reference to creditworthiness and to the probability of default, did not show the need to recognise any further impairment.

Finally, in relation to point III) the Group chose to apply IFRS 9 starting from 1 January 2018 although the standard allows for the possibility of continuing to apply the Hedge Accounting rules provided for in IAS 39 until the standard IFRS 9 is updated with the rules on Macro Hedging. Existing hedging relationships that meet the definition of effective hedges in accordance with IAS 39 are not impacted by the new hedge accounting criteria of IFRS 9.

*Amendment to IAS 40 - Investment Property*. The amendment, endorsed with Regulation (EU) 400/2018, entails a clarification on the application of paragraph 57 of IAS 40 providing guidelines on changes that can lead to classifying an asset which was not an investment property as such or vice versa. The amendment clarifies that a change in the management's intentions for the use of a property by itself does not constitute evidence of a change in use.

Finally we can note that on 29 March 2018 the IASB published the revised version of *Conceptual Framework for Financial Reporting*. The main changes with respect to the 2010 version regard:
- better definitions and guidance, in particular with reference to the definition of assets and liabilities;
- revision of the criteria for recognising assets and liabilities, and the related costs and revenues, that is the significance of the information and the faithful representation in the financial statements of the underlying transaction. The concepts of "probability" and "reliability in measurement" are eliminated;
- the reintroduction of important concepts, such as stewardship, that is to say the management's ability to manage the company's resources effectively and efficiently, prevalence of substance over form and prudence, above all when there is uncertainty in measurements. The new Framework states that estimates are part of financial statements and that high uncertainty in measurements does not imply that estimates cannot provide significant information;

- a new chapter on the subject of measurement which describes the possible measurement criteria, that is historical cost or present value: the present value can be determined as fair value, value in use or replacement cost. For each asset and liability the company must choose the measurement criterion that makes it possible to provide significant information capable of representing faithfully the substance of the operation. In addition the information provided must be comparable, verifiable, precise and understandable.

Since it is a conceptual framework of reference, but not a directly applicable document, the Framework is not subject to the process of endorsement by the European Union and is effective starting from the date of issue.

**ACCOUNTING STANDARDS, AMENDMENTS AND INTERPRETATIONS ENDORSED BUT NOT YET APPLICABLE AND NOT ADOPTED IN ADVANCE BY THE GROUP**

As of 1 January 2019, the following accounting standards and amendments to account standards will be applicable, as they have completed the EU endorsement process:

*IFRS 16 – Leases.* Standard published by the IASB on 13 January 2016, intended to replace IAS 17 - Leases, as well as the interpretations IFRIC 4 “Determining whether an Arrangement contains a Lease”, SIC 15 “Operating Leases - Incentives” and SIC 27 “Evaluating the Substance of Transactions Involving the Legal Form of a Lease”. The new standard provides a new definition of lease, irrespective of the contractual form adopted (leasing, rental or hire) and in practice marks the end of the distinction between operating leasing and financial leasing.

IFRS 16 introduces a criterion based on the right of use for an asset to distinguish leasing contracts from services contracts, identifying as discriminating factors: identification of the asset, the right to replace the same, the right to obtain substantially all economic benefits deriving from use of the asset and the right to control use of the asset underlying the contract. On the lessee’s part, the new standard provides for recognition in the balance sheet of the assets and related financial liabilities for all leasing contracts with a duration of more than 12 months, unless the underlying asset is of little value; in the income statement depreciation and interest expense must be recognised separately. On the lessor’s part the impact on the financial statements consists only of greater disclosure.

Its application in the Iren Group is planned starting from 1 January 2019 although early adoption is permitted for entities that adopt IFRS 15. Detailed analyses are therefore being carried out to assess the effects the introduction it will have on the Group.

*Amendment to IFRS9 - Prepayment Features with Negative Compensation*. The amendments, endorsed with Reg. (EU) 2018/498 of 22 March 2018, introduces an exception for particular financial assets that would feature contractual cash flows that are solely payments of principal and interest (IFRS 9, para. 4.1.2), but do not fulfil this condition owing only to the presence of a contractual clause providing for prepayment. In particular, the amendments state that financial assets with a contractual clause that allows (or imposes on) the issuer to repay a debt instrument or permits (or imposes on) the holder to repay a debt instrument to the issuer before maturity can be measured at amortised cost or at fair value through other comprehensive income, subordinately to assessment of the business model in which they are held, if the following conditions are met:

- the company acquires or issues the financial asset with a premium or a discount with respect to the nominal amount of the contract;
- the prepayment amount is substantially the nominal contractual amount and the contractual interest accrued (but not paid), which can include reasonable additional compensation for early termination of the contract; and
- when the entity initially recognises the financial asset, the fair value of the prepayment feature is insignificant.

The amendments are applicable starting from 1 January 2019.

**ACCOUNTING STANDARDS, AMENDMENTS AND INTERPRETATIONS NOT YET ENDORSED BY THE EUROPEAN UNION**

Endorsement by the relevant bodies of the European Union is currently in progress for the following updates and amendments to the IFRSs (already approved by the IASB):

*Amendments to IAS 28 – Long-term interests in associates and joint ventures.* The amendment, issued in October 2017 and applicable, after endorsement, starting from 1 January 2019, clarifies that an entity must apply the provisions of IFRS9 – Financial Instruments to any other long-term interest that substantially represent a further component of the equity investment in the associate or joint venture, to which the equity method is not applied (e.g. privileged shares, loans and non-trade receivables). Any losses recognised on the basis of the equity method, in excess with respect to the equity investment of the entity in ordinary shares of the associate or joint venture, are attributed to the other components of the equity investment in inverse order with respect to their degree of subordination (that is, liquidation priority) after applying IFRS 9.

*IFRIC 23 – Uncertainty over Income Tax Treatment*. The interpretation, issued in June 2017, clarifies how to apply the recognition and measurement requirements of IAS 12 in the case of uncertainty on tax treatments related to income taxes. If there are uncertainties ion the application of the tax laws to a specific transaction or group of transactions, IFRIC 23 requires the company to assess whether it is probable that the tax authority will accept the choice made by the company on the tax treatment of the transaction: on the basis of this probability, the company must recognise in its financial statements an amount of taxes that it may pay or defer with respect to what is included in its income tax filings. The interpretation is applicable for annual reporting periods beginning on or after 1 January 2019.

*Annual improvements to IFRSs 2015-2017 cycle*. Issued in December 2017, the document contains formal amendments and clarifications to already existing standards. Each of the amendments will be applicable, after endorsement, for annual reporting periods beginning on or after 1 January 2019. We can note in particular the following amendments:

- *IFRS 3 - Business Combinations*. The amendment specifies that a joint operator, which acquires control over a jointly-controlled activity that represents a business, must remeasure previously held interests in the jointly-controlled business at fair value at the acquisition date.
- *IFRS 11 – Joint Arrangements*. The amendment clarifies that when an entity that has an interest in a jointly-controlled activity that represents a business (under the terms of IFRS 3) without exercising joint control, acquires joint control, the entity does not have to remeasure previously held interests in that business.
- *IAS 23 – Borrowing Costs*. The amendment establishes that the capitalisation rate applied in order to determine the amount of borrowing costs capitalised must correspond to the weighted average of borrowing costs related to *all* loans outstanding during the period, other than those obtained specifically for the purpose of acquiring an asset. Therefore the part of specific borrowing remains outstanding, after the related "qualifying asset" is ready for its intended use or sale, must be included in the amount of funds that an entity borrows generally.

As regards the new standards applicable starting from financial year 2019 or subsequent years, assessments for their correct application and analyses of the presumable impacts on future financial statements are in progress.

**USE OF ESTIMATES**

In order to prepare the condensed interim report in compliance with the IFRSs, estimates and related assumptions are based on previous experience and other factors, which are deemed reasonable and were adopted to define the carrying amount of assets and liabilities to which they refer. The later results that derive from occurrence of the events could differ from these estimates. Estimates have been used to recognise the accrual of some sales revenue, provisions for credit risks, risks for inventory obsolescence, depreciation, amortisation and impairment losses on assets, employee benefits, to determine the fair value of derivatives and financial assets available for sale, current and deferred taxes and other provisions for risks. These estimates and assumptions are regularly revised. Any changes deriving from the revision of accounting estimates are recognised in the period in which they are revised, if the revision refers only to the period under evaluation. Should the revision involve both current and future periods, the variation is recognised in both the year in which the revision occurs and in the related future periods.

It should also be noted that certain complex valuation processes, such as the determination of any impairment losses on non-current assets, are generally carried out in full only on preparing the annual financial statements, when all the information that may be needed is available, except in cases when there is evidence of impairment that requires an immediate measurement of any losses.

In accordance with IAS 36, during the first half of 2018 the Group checked the non-existence of specific impairment triggers with particular reference to goodwill; in addition no impairment indicators emerged in relation to equity investments and assets.

In the same way, the actuarial valuations necessary to determine employee benefit funds are normally carried out on the occasion of preparing the annual financial statements.

**SEASONALITY**

We can also note that the Iren Group's results for the period reflect the seasonality characteristic of the sectors in which it operates. These are influenced above all by the weather trends, and consequently cannot be extrapolated for the entire year.

**RESTATEMENT OF AMOUNTS AT 30 JUNE 2017**

In December 2016 the Group acquired control over Ricupero Ecologici Industriali (REI), while in May 2017 it acquired control over Salerno Energia Vendite.

For these acquisitions the definitive fair value of the identifiable assets acquired, and the identifiable liabilities assumed, was determined at the end of financial year 2017. Therefore, in the condensed consolidated interim financial statements at 30 June 2017 they were recognised provisionally, as permitted by IFRS 3.

With completion of all the measurements at fair value required by IFRS 3, the value of certain identifiable assets acquired and of certain identifiable liabilities assumed recognised in the condensed consolidated interim financial statements at 30 June 2017 was updated to reflect the better knowledge gained in the meantime.

On the basis of the provisions of IFRS 3, the amounts of fair value were updated with effect from the acquisition date and, therefore, all the changes were made on the statement of financial position of the Companies acquired at that date. The resulting balances in the condensed consolidated interim financial statements at 30 June 2017 were restated to take the new values into account.

In detail, the changes that occurred in the fair values of the identifiable assets acquired and the identifiable liabilities assumed previously recognised determined on the Income Statement for the first half of 2017 the following adjustments:

thousands of euro

| | **First half 2017 Published** | **Effect of IFRS3 accounting** | **First half 2017 Restated** |
|---|---|---|---|
| Depreciation and amortisation | (154,621) | (827) | (155,448) |
| **OPERATING PROFIT (EBIT)** | **257,745** | **(827)** | **256,918** |
| Financial income | 16,154 | 318 | 16,472 |
| Value adjustments on equity investments | 8,572 | 7 | 8,579 |
| **Profit (loss) before tax** | **230,584** | **(502)** | **230,082** |
| Income tax expense | (72,673) | 144 | (72,529) |
| **Net profit (loss) for the period** | **157,911** | **(358)** | **157,553** |
| attributable to: | | | |
| - Profit (loss) for the period attributable to shareholders | 145,123 | (315) | 144,808 |
| - Profit (loss) for the period attributable to minorities | 12,788 | (43) | 12,745 |

In detail, the changes that occurred in the fair values of the identifiable assets acquired and the identifiable liabilities assumed previously recognised determined on the presentation of cash flows for the first half of 2017 the following adjustments:

thousands of euro

| | First half 2017 Published | Effect of IFRS3 accounting | First half 2017 Restated |
|---|---|---|---|
| Profit (loss) for the period | 157,911 | (358) | 157,553 |
| Adjustments: | | | |
| Income tax expense for the period | 72,673 | (144) | 72,529 |
| Net financial expense (income) | 40,274 | (318) | 39,956 |
| Amortisation of intangible assets and depreciation of property, plant and equipment | 154,621 | 827 | 155,448 |
| Net impairment losses (reversals of impairment losses) on assets | (8,432) | (7) | (8,439) |
| **Operating cash flow** | **303,978** | **-** | **303,978** |
| **Cash flows for the period** | **(112,927)** | **-** | **(112,927)** |

## II. CONSOLIDATION POLICIES

The consolidation scope includes subsidiaries, joint ventures and associates.

*Subsidiaries*
Entities controlled by the Group are considered subsidiaries, as defined by IFRS 10 - *Consolidated Financial Statements.* Control exists when the Parent Company has at the same time:

- decision-making power over the investee, that is the power to direct the relevant activities of the investee, that is activities that have a significant influence on the results of the said investee;
- the right to variable (positive or negative) returns from its involvement with the entity;
- the ability to use its decision-making power to determine the amount of the returns coming from its involvement with the entity.

The financial statements of the subsidiaries are included in the consolidated financial statements from the date that control commences until the date that control ceases.
Equity and portion of profit/loss attributable to minorities are identified separately in the consolidated statement of financial position and income statement.
Subsidiaries are consolidated on a line-by-line basis intra-group balances, transactions, unrealised income and expenses are eliminated in full.
We can note also that: a) all changes in the equity interest that do not constitute a loss of control are treated as *equity transactions* and therefore have a contra entry in equity; b) when a parent company transfers control to one of its investees, but continues all the same to hold an interest in the company, it measures the equity investment retained in the financial statements at *fair value* and recognises any gains or losses deriving from loss of control in the income statement.

*Joint ventures*
These are companies over whose activity the Group has joint control, in virtue of contractual agreements. Joint control, as defined by IFRS 11 – *Joint Arrangements, is the "contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require the unanimous consent of the parties sharing control".*
With reference to entities jointly owned by mixed public and private ventures, given the objective possibility for the public shareholder to influence the company not only by means of *governance* agreements, but also because of its nature of public entity, the existence of joint control is judged on the basis of contractual agreements, assessing the actual possibility for the private partner to jointly control strategic decisions regarding the joint venture.
Joint arrangements are divided into 2 types:

- a Joint Venture (JV) is an arrangement whereby the parties have rights to the net assets of the arrangement. Joint ventures are measured using the equity method;
- a Joint Operation (JO) is an arrangement whereby the parties are not limited exclusively to participating in the company's net profit or loss, but have rights to its assets and obligations for its liabilities. In this case the assets/revenues on which the joint operator exercises such rights and the liabilities/costs of which the joint operator assumes the obligations are fully consolidated.

*Associates (accounted for using the equity method)*
An associate is a company over which the Group has significant influence, but not control or joint control over its financial and operating policies. The consolidated financial statements include the Group's share of the associates' profit or loss recognised using the equity method from the date that significant influence commences until the date that significant influence ceases. If the Group's share of losses of an associate equals or exceeds the carrying amount of its interest in the associate, the carrying amount is reduced to nil and recognition of further losses is not detected, except to the extent that the Group is obliged to respond.

*Transactions eliminated on consolidation process*
Intra-group balances and significant transactions and any unrealised gains and losses arising from intra-group transactions are all eliminated in preparing the consolidated financial statements. Unrealised gains and losses arising from transactions with jointly controlled entities are eliminated to the extent of the Group's interest in the entity. The related tax effect is calculated for all consolidation adjustments.

# III. CONSOLIDATION SCOPE

The consolidation scope includes the companies directly or indirectly controlled by the Parent Company, plus joint ventures and associates.

During the first quarter of 2018, a merger took place which saw the subsidiaries TRM V. S.p.A. and TRM Holding S.p.A. incorporated into Iren Ambiente S.p.A. Although it had an effect on the structure of the Group, these operations did not entail a change in consolidation scope.
The operations occurred as part of the Group's "overall" Corporate Rationalisation and Organisational Project, aimed at simplifying the equity investment structure and reducing the number of business Companies wholly held, directly or indirectly, by the Parent Company and at integrating/optimising the business processes/activities with uniform operating characteristics.

*Parent Company:*
Iren S.p.A.

*Companies consolidated on a line-by-line basis*
The four companies responsible for the single business lines and their direct and indirect subsidiaries, and the company ACAM S.p.A. and its direct subsidiaries, are consolidated on a line-by-line basis

1) Iren Ambiente and its subsidiaries:
   - Amiat V and the subsidiary:
     - AMIAT
   - Bonifica Autocisterne
   - Iren Rinnovabili and the subsidiaries:
     - Greensource and the subsidiaries:
       - Enia Solaris
       - Varsi Fotovoltaico
     - Studio Alfa and the subsidiary
       - Coin Consultech
   - Montequerce
   - Ricupero Ecologici Industriali
   - TRM

2) Iren Energia

3) Iren Mercato and its subsidiary:
   - Salerno Energia Vendite

4) IRETI and its subsidiaries:
   - ASM Vercelli and the subsidiary:
     - ATENA Trading
   - Consorzio GPO
   - Iren Laboratori
   - Iren Acqua and the subsidiaries:
     - Iren Acqua Tigullio

- Immobiliare delle Fabbriche

5) ACAM and its subsidiaries:
   - ACAM Acque
   - ACAM Ambiente
   - Centrogas Energia
   - Integra
   - ReCos(*)

(*) Company controlled by the Group through ACAM S.p.A. (49%) and Iren Ambiente S.p.A. (46%)

For details of the subsidiaries, joint ventures and associates please see the lists included in the Annexes.

**CHANGES IN FULL CONSOLIDATION SCOPE**

The full consolidation scope changed during the first half of 2018 following the acquisition of control over the ACAM Group and over ReCos S.p.A., which both occurred in April.
Control over ACAM S.p.A. and its 100% subsidiaries ACAM Acque, ACAM Ambiente, Centrogas Energia and Integra was acquired by purchasing all the company's shares for a price of 59,000 thousand euro.
Instead acquisition of control over the company ReCos S.p.A., in virtue of existing shareholders' agreements, occurred through acquisition of 20.5% of the share capital from the other shareholder Ladurner s.r.l. for a price of 1,000 thousand euro. Following the operation described above, together with the equity interest held previously (25.5% by Iren Ambiente and 49% obtained by acquisition of the ACAM Group), the Iren Group holds 95% of the company's capital.
Recos S.p.A. measured at equity up to 31 March 2018, consequently came into the full consolidation scope starting from April. In line with the provisions of IFRS 3, the acquisition of control over ReCos S.p.A. entailed the remeasurement of the previous interest held (74.5% for a total value of 2,950 thousand euro), with the consequent recognition of income of 684 thousand euro booked to the item "Value adjustments on equity investments" (Note 42).
While awaiting the assessment to be carried out under the terms of IFRS 3 - Business Combinations, the positive difference calculated on a provisional basis between the purchase price of the ACAM Group and of ReCos S.p.A. and the provisional fair value, at the acquisition date, of the identifiable assets acquired and the identifiable liabilities assumed, was allocated to goodwill respectively for 22,755 thousand euro and 8,883 thousand euro.

# IV. GROUP FINANCIAL RISK MANAGEMENT

The management of business risks is an essential component of the Internal Control System of corporate governance in a listed company, and the Code of Conduct set forth by Borsa Italiana assigns specific responsibilities as regards this aspect.
A summary of the risk management and control methods is shown below with respect to financial instruments (liquidity risk, exchange rate risk, interest rate risk, credit risk) and commodity price risk related to fluctuations in the prices of energy commodities.

1. FINANCIAL RISKS
Iren Group activity is exposed to various types of financial risks, including liquidity risk, currency risk and interest rate risk. As part of its Risk Management activities, the Group uses non-speculative hedging contracts to limit exchange rate risk and interest rate risk.

*a) Liquidity risk*
Liquidity risk is the risk that financial resources available to the company will be insufficient to cover financial and trade commitments in accordance with the agreed terms and deadlines. The procurement of financial resources was centralised in order to optimise their use. In particular, centralised management of cash flows in Iren makes it possible to allocate the funds available at the Group level according to the needs that from time to time arise among the individual Companies. Cash movements are recognised in intra-group accounts along with intra-group interest income and expense. A number of investees have an independent financial management structure in compliance with the guidelines provided by the Parent Company.
The financial position, both current and forecast, and the availability of adequate credit facilities are constantly monitored, and no critical points have emerged regarding the coverage of short-term financial commitments. At the end of the period short-term bank credit facilities used by the Parent Company totalled 91 million euro.
The nominal cash flows required to settle financial liabilities and the contractual conditions of the existing loans were substantially unchanged with respect to what was presented in the Notes to the Consolidated Financial Statements at 31 December 2017 in the paragraph "a) Liquidity risk" in Section "V. Group financial risk management".
Iren has relations with the leading Italian and international banks, for the purpose of searching for the types of loans most suited to its needs, and the best market conditions.
Details of the activities performed in this area and of the individual transactions are shown in the chapter Financial Income and Expenses of the Directors' Report.

Financial debt at the end of the period is made up 44% of loans and 56% of bonds.
At 30 June 2018, 79% of the residual amount payable for loans was contractualised at a fixed interest rate and 21% at a floating rate.
With regard to the liquidity risk potentially deriving from contractual clauses allowing counterparties to withdraw financing should certain events occur (default and covenant risk), we can note that the clauses in Iren's loan agreements are being observed. In particular, for certain medium/long-term loan agreements Iren is committed to observing financial covenants (such as Debt/EBITDA, EBITDA/Financial expense ratios) with annual verification. Moreover, other covenants have been provided for. One is the Change of Control clause, which states that the Iren Group should be kept under direct and indirect control by Local Authorities. In addition, there are Negative Pledge clauses, under which the company undertakes not to give collateral beyond a specific limit, and the *Pari Passu* clause, which reserves an equal treatment to lending banks with respect to the treatment for other unsecured creditors. The medium/long-term loan agreements of certain companies which contribute to the Group's Net Financial Position, in particular the Project Finance contract with TRM, also envisage the observance of financial indices which have been satisfied.

*b) Exchange rate risk*
Except as indicated under the section on energy risk, the Iren Group is not significantly exposed to exchange rate risk.

*c) Interest rate risk*
The Iren Group is exposed to interest rate fluctuations especially with regard to the measurement of financial expenses related to indebtedness. The Iren Group's strategy is to limit exposure to the risk of interest rate volatility, maintaining at the same time a low cost of funding.
In a non-speculative view, the risks associated with the increase in interest rates are monitored and, if necessary, reduced or eliminated by swap and collar contracts with financial counterparties of high credit standing, for the sole purpose of hedging. At the end of the period, all the contracts entered into meet the requisite of limiting the exposure to the risk of oscillation of interest rates and, except for a few positions with insignificant impacts, they also meet the formal requirements for the application of hedge accounting.
The total fair value of the aforementioned interest rate hedges was a negative 78,266 thousand euro at 30 June 2018.
The hedging contracts entered into, together with fixed-rate loans, hedge approximately 91% of gross financial debt against interest rate risk, in line with the Iren Group's target of maintaining adequate protection against significant increases in the interest rate.
For a more complete understanding of the interest rate risks to which the Group is subject, stress testing is performed, annually, at 31 December, on the sensitivity of net financial expenses and evaluation components in derivatives contracts to changes in interest rates.

2. CREDIT RISK

The Group's credit risk is mainly related to trade receivables deriving from the sale of electricity, district heating, gas and the provision of energy, water and environmental services. The receivables are spread across a large number of counterparties, belonging to non-uniform customer categories (retail and business customers and public bodies); some exposures are of a high amount and are constantly monitored and, if necessary, covered by repayment plans. The Iren Group's Credit Management units devoted to credit recovery are responsible for this activity.
In carrying on its business, the Group is exposed to the risk that the receivables may not be honoured on maturity with a consequent increase in their age and in insolvency up to an increase in receivables subject to arrangement procedures or unenforceable. This risk reflects the current economic and financial situation.
To limit exposure to credit risk, a number of tools have been activated. These include analysing the solvency of customers at the acquisition stage through careful assessment of their creditworthiness, transferring the receivables of discontinued and/or active customers to external credit recovery companies and introducing new recovery methods for managing legal disputes.
The receivable management policy and creditworthiness assessment tools, as well as monitoring and recovery activities differ in relation to the various categories of customers and types of service provided.
Credit risk is hedged, for some types of business customers, with opportune forms of first-demand bank or insurance guarantees issued by subjects of leading credit standing.
An interest-bearing guarantee deposit is paid for some types of services (water, natural gas, "protected customer" electricity sectors) in compliance with regulations governing these activities. This deposit is reimbursed if the customer uses payment by direct debit from a current account.
The payment terms generally applied to customers are related to the legislation or regulations in force or in line with the standards of the free market; in the event of non-payment, default interest is charged for the amount indicated in the contracts or by the legislation.
Provisions set aside for impairment of receivables reflect, in an accurate manner, the effective credit risks and are determined on the basis of the extraction from databases of the amounts making up the receivables and, in general, assessing any changes in the said risk compared to the initial measurement and, in particular for trade receivables, estimating the related expected losses determined on a prospective basis, taking into due consideration the historical series.

The procedures for monitoring and reporting credit risks are also strengthened, in order to identify promptly possible countermeasures.
In addition, on a quarterly basis, the Risk Management Department collects and integrates the main data on trade receivables of the Group companies, in terms of type of customers, status of the contract, business chain and ageing band. Some of the above assessments are carried out at intervals of less than three months or when there is a specific need.

With reference to credit concentration we can note the relations between the subsidiaries Iren Energia and AMIAT and the Municipality of Turin. For further details, see in particular Note 8 “Non-current financial assets” of the Notes to the statement of financial position.

3. ENERGY RISK

The Iren Group is exposed to price risk, on the energy commodities traded, these being electricity, natural gas, environmental emission certificates, etc., as both purchases and sales are impacted by fluctuation in the price of the said energy commodities directly or through indexing formulae. Exposure to exchange rate risk, typical of oil-based commodities, is present, but is attenuated thanks to the development of the European organised markets that trade the gas commodity in the euro currency and no longer indexed to oil products.
The Group’s strategy is to minimise the need to turn to the financial markets for hedges, both by aligning the indexing of the commodities purchased and sold and by exploiting, vertically and horizontally, its various business segments.
For this purpose, the Group carries out planning of the production of its plants and purchases and energy and natural gas sales, in relation to both volumes and price formulae.
The objective is to obtain a sufficient stability in the margins through:

- for the electricity supply chain, the opportune balancing of internal production and energy from the futures market with respect to the demand coming from the Group’s customers, with adequate recourse to the spot market;
- for the natural gas supply chain the priority of alignment of the indexing of the commodity in purchase and sale.

In 2017, commodity derivative contracts (Commodity swaps on TTF and PSV indices) were entered into as an energy portfolio hedge for 2018, for a total notional amount of 1.3 TWh. In 2018, additional commodity derivative contracts (Commodity swaps on TTF and PSV indices) were entered into for 1 TWh, again to hedge the 2018 energy portfolio.
The fair value of agreements still in force on 30 June 2018 was a positive total of 3,254 thousand euro.

The Group’s trading operations involve negotiating physical and financial contracts on the electricity and gas market and financial contracts directly on the underlying commodities. These contracts may refer to various indexes (SNP, ITEC, gas indexes, etc.) and to trading on Platforms. The financial contracts besides were for marginal amounts at 30 June 2018.

**RECOGNITION OF DERIVATIVES**
Derivatives are measured at fair value, determined on the basis of market values or, if unavailable, according to an internal measurement technique.
The Group deals with derivatives with the purpose of hedging specific interest rate or price risks.
In order to recognise derivatives, it is necessary to distinguish between transactions that meet all of the IFRS 9 requirements in order to account for them in compliance with the hedge accounting rules and transactions that do not fulfil all of the aforesaid requirements.

*Transactions recognised in compliance with hedge accounting rules*
These transactions may include:

- fair value hedging transactions: the derivative and the hedged item are recognised at fair value in the statement of financial position and the change in their fair values is recognised directly in the income statement;
- cash flow hedging transactions: the derivative is recognised at fair value with a contra entry in a specific equity reserve for the effective component of the hedge and in the income statement for the ineffective component; when the hedged item arises, the amount suspended in equity is reversed to the income statement.

Classification in the income statement of the ineffective component and the deferred amount transferred from equity is based on the nature of the underlying instrument; in the case of commodity derivatives, this amount is accounted for in the gross operating profit (EBITDA), while in the case of interest rate risk hedges in financial income and expenses.

*Transactions not recognised in compliance with hedge accounting rules*
The derivative is recognised at fair value in the statement of financial position.
The change in the fair value of the derivative is recognised in the income statement and is classified based on the type of underlying instrument:

- in the case of commodity derivatives, in the gross operating profit (EBITDA); specifically, the realised component is recognised to adjust the income or expense to which it refers, while the portion determined from measuring the derivative at the end of the period is classified under other expense or other income;
- in the case of interest rate risk hedges, in financial income or expenses.

As regards the measurement of the derivative in the statement of financial position items, the fair value of the derivative is recognised in long term financial assets and liabilities if the related underlying item is a medium/long term item. Conversely, the derivative is recognised in current financial assets and liabilities if the underlying item is settled within the reference period.

**FAIR VALUE**
In addition to the carrying amount, the fair value, along with the methods and major assumptions used to determine it, must be disclosed for every asset and liability class shown in the financial statements.
Fair value is determined as the sum of estimated future cash flows in relation to assets or liabilities, including the related financial income or expense discounted at year end. The present value of future flows is determined by applying the curve of forward interest rates at the reporting date.
In order to provide a disclosure as complete as possible, the corresponding figure from the previous year is also indicated.

thousands of euro

| | 30.06.2018 | | 31.12.2017 | |
|---|---|---|---|---|
| | Carrying amount | Fair Value | Carrying amount | Fair Value |
| Assets for hedging derivatives | 1,001 | 1,001 | 1,812 | 1,812 |
| Bonds due at more than 12 months | (1,690,418) | (1,754,643) | (1,777,885) | (1,879,082) |
| Bonds due within 12 months | (88,935) | (91,691) | - | - |
| Loans - non-current portion | (1,009,973) | (1,079,337) | (1,148,105) | (1,232,820) |
| Loans - current portion | (168,257) | (192,826) | (137,480) | (164,114) |
| Liabilities for hedging derivatives | (79,267) | (79,267) | (84,349) | (84,349) |
| **Total** | **(3,035,849)** | **(3,196,763)** | **(3,146,007)** | **(3,358,553)** |

The amounts related to assets and liabilities for hedging derivatives in the table refer exclusively to derivatives hedging interest rate risk.

As regards financial asset and liability classes which are not included in the table above, the carrying amount is equal to fair value.

**FAIR VALUE HIERARCHY**
The following table shows financial instruments recognised at fair value, based on the measurement technique used. The various levels were defined as shown below:

- Level 1: Prices listed (not adjusted) on active markets for identical assets or liabilities;
- Level 2: Input data other than Level 1 listed prices which are observable for assets or liabilities, either directly (as in the case of prices), or indirectly (i.e. derived from prices);
- Level 3: Input data related to assets or liabilities which are not based on observable market data (unobservable data).

thousands of euro

| 30.06.2018 | Level 1 | Level 2 | Level 3 | Total |
|---|---|---|---|---|
| Financial assets measured at fair value through other comprehensive income | | | | |
| Financial assets measured at fair value through profit or loss | | | 7,123 | 7,123 |
| Derivative financial assets | | 4,384 | | 4,384 |
| **Total assets** | | **4,384** | **7,123** | **11,507** |
| Derivative financial liabilities | | (79,396) | - | (79,396) |
| **Grand total** | | **(75,012)** | **7,123** | **(67,889)** |

thousands of euro

| 31.12.2017 | Level 1 | Level 2 | Level 3 | Total |
|---|---|---|---|---|
| Financial assets measured at fair value through other comprehensive income | | | | |
| Financial assets measured at fair value through profit or loss | | | | |
| Derivative financial assets | | 4,117 | | 4,117 |
| **Total assets** | | **4,117** | | **4,117** |
| Derivative financial liabilities | | (84,370) | | (84,370) |
| **Grand total** | | **(80,253)** | | **(80,253)** |

The comparative data at 31 December 2017 are presented according to the old classification provided for in IAS 39 since the application of the new IFRS 9 provides for the possibility of not restating the comparative data.

All the Group's hedging instruments have a fair value which can be classified at level 2. This level is measured through valuation techniques, that take, as a reference, parameters that can be observed on the market (e.g. interest rates, commodity prices) and are different from the price of the financial instrument, or in any case that do not require a significant adjustment based on data which cannot be observed on the market.
We can also note that no transfers occurred amongst the various Levels of the fair value hierarchy.

**CAPITAL MANAGEMENT**

The capital management policies of the Board of Directors involves maintaining a high level of capital to uphold relations of trust with investors, creditors and the market, and also allowing future business development.

The Board of Directors monitors the return on capital and the level of dividends for distribution to shareholders, and aims to maintain a balance between achieving extra yield by recourse to indebtedness and the benefits and security offered by a solid equity position.

# V. INFORMATION ON TRANSACTIONS WITH RELATED PARTIES

As indicated in the Directors' Report the information on financial and economic transactions with related parties is provided below.

### Transactions with related-party shareholder Municipalities

Iren S.p.A. provides Finanziaria Sviluppo Utilities S.r.l., a special purpose company through which the Municipalities of Genoa and Turin hold their equity investment in Iren S.p.A., with a series of corporate services, in accordance with a specific agreement that provides for consideration for these services.

We can note, for the Group's subsidiaries, the main transactions carried out directly with related-party shareholder Municipalities in the territories of which Iren operates through the said Companies.

The Group, through Iren Energia S.p.A., manages services awarded by the Municipality of Turin, namely public street lighting and traffic light services, management of heating and electrical systems of buildings used as administrative offices or to provide services to the community. The services rendered by Iren Energia are governed by specific long-term agreements.
In this regard we can note that an onerous current account contract is in place between the City of Turin and Iren Energia for management of the past-due receivables related to the above activities.
Over the last three years some important work on plant regeneration and energy efficiency has been carried out. This has involved municipal street lighting systems and heating plants in numerous publicly-owned buildings.

The Iren Group, through Iren Mercato S.p.A. supplies the Municipalities of Genoa, Reggio Emilia, Parma and Piacenza with electricity and the Municipality of Turin with heat, at the conditions normally applied to all other customers.

Iren Acqua S.p.A. and IRETI S.p.A. provide water services respectively to the Municipality of Genoa and to the Municipalities of Reggio Emilia, Parma and Piacenza, based on supply contracts similar to those signed with all other customers.

Through AMIAT S.p.A. the Group provides the Municipality of Turin with environmental hygiene and snow clearing services, and performs post-operative management of the "Basse di Stura" landfill site in accordance with the Service Contract in being since 1 January 2013, awarded through a public tender procedure. In this regard we can note that, with effect from 1 January 2015, an onerous current account contract is in place between the City of Turin and AMIAT S.p.A. for management of the past-due receivables related to the above activities.

Iren Ambiente S.p.A. provides the Municipalities of Reggio Emilia, Parma and Piacenza with urban waste collection and disposal services on the basis of the conditions provided for in the existing agreements.

It is worth recalling, finally, that a settlement agreement between the Iren Group and the Municipality of Parma is in force to settle the credit/debit position with a number of Group companies.

Please see in addition the "*Disclosure pursuant to Art. 5.8 lett. a) and 5.9 CONSOB Regulation - Transactions of major significance*", below, as regards transactions between certain Group Companies and the Municipality of Turin.

### Transactions with joint ventures and associates

Among the main transactions carried out by the Iren Group with joint ventures and associates, we can note:
- the supply to Asti Energia e Calore of goods and services for work on regenerating and increasing the energy efficiency of public lighting plants in the City of Asti;

- the loan granted to OLT Offshore LNG Toscana in relation to the Livorno regasification plant;
- the commercial supplies of electricity, natural gas and district heating to the company Global Service Parma;
- the sales of water and the work related to the integrated water service provided to AMTER;
- the procurement of natural gas from Sinergie Italiane;
- the services, including back office, call centre, reading, printing, postal and shipment services, provided by So.Sel to the Group.

**Transactions with other related parties**

On the basis of the Internal Regulations on Transactions with Related Parties, the companies controlled, directly or indirectly, by one of the following Municipalities have been identified as related parties: Parma, Piacenza and Reggio Emilia, as signatory Municipalities of the current Voting and Block Shareholders' Agreement between FSU (in which the Municipality of Turin and the Municipality of Genoa have equal stakes) and the so-called "Emilian Parties", and the Municipalities of Turin and Genoa.
In particular we can note that in order to supply the integrated water service in the provinces of Parma, Piacenza and Reggio Emilia, the company IRETI, with the payment of an annual lease, uses the assets of the companies Parma Infrastrutture, Piacenza Infrastrutture and AGAC Infrastrutture, controlled by the Municipalities involved.
In addition, we can note that, following a specific enquiry, in January 2018, the CTRP expressed a favourable opinion on the transaction, classified as of "minor significance" owing to the relevant significance indicator, related to formalisation of a payment schedule for the receivable held by IREN Acqua S.p.A. in relation to AMIU Genova S.p.A.

The remaining relations with the companies controlled by the above Municipalities are mainly of a commercial nature and regard services provided to all other customers.

Quantitative information on financial and economic transactions with related parties is provided in paragraph "XI. Annexes to the Condensed Consolidated Interim Financial Statements", considered an integral part of these notes.

Lastly, with regard to IREN's directors and statutory auditors, we can note that other than regarding their offices held within the Group companies there have been no transactions with them.
If the related conditions are fulfilled, transactions that consist of assigning remunerations and economic benefits, in any form, to members of the administration and control bodies and to key management personnel are also subject to the provisions of the Internal Regulation on transactions with related parties.

***Disclosure pursuant to Art. 5.8 lett. a) and 5.9 CONSOB Regulation - Transactions of major significance***

At the meeting of 19 February 2018 (with work continued on 20 February 2018) the CTRP, under the terms of article 9, paragraph 1, lett. (c), of the TRP Internal Regulation current at the time, expressed, unanimously, its favourable opinion with reference to the transaction, classified as "of major significance", involving the signing of a Preliminary Agreement between the City of Turin, as one party, and IREN, as the agent for its subsidiaries AMIAT, Iren Energia and Iren Mercato, as the other party.
The proposed Preliminary Agreement was approved by the competent administrative bodies of Iren, AMIAT, Iren Energia and Iren Mercato and submitted to the Municipality which, with a resolution of the Municipal Executive Committee on 27 March 2018, approved its contents, with minimum specifications and amendments, and authorised the Mayor to sign the related contract.
In relation to the above, the Committee updated its analyses and assessments and, on 28 March 2018, confirmed, unanimously, its favourable opinion on signing the Preliminary Agreement with the text approved by the Municipal Executive Committee.
The above transaction was communicated to the market on 29 March 2018, with publication of the disclosure document prepared under the terms of article 5 of the CONSOB Regulation.

The Preliminary Agreement was concluded with an exchange of correspondence on 3 April 2018, providing for the commitment of the parties to sign the final contract by 30 June 2018.

The methods of approving the Final Agreement and the checks that became necessary in the enquiry stage, led the parties to agree an extension of the deadline for signing the final agreement to 15 July 2018, with related communication to the market made on 29 June 2018.

Following the conclusion of the Preliminary Agreement, the parties began discussions to arrive at the signing of the Final Agreement and, to this end, set up a joint workgroup for preparation of the text of the agreement which would define in a complete and definitive manner the terms and conditions of the Transaction, according to the contents and structure already defined in the Preliminary Agreement, together with the related annexes.

Under the terms of article 9, paragraph 1, lett. (c), of the TRP Internal Regulation current at the time, the CTRP was again tasked with the enquiry related to the signing of the Final Agreement, a transaction classified as “of major significance”.
On 29 June 2018, after an in-depth examination, carried out also with the support of a legal consultant, the CTRP confirmed the assessment already expressed with its opinion of 19-20 February 2018 and with the related update of 28 March 2018, formulating the its opinion favourable to the signing of the Final Agreement and the related annexes, after verifying their substantial conformity with the principles laid down in the Preliminary Agreement and, consequently, reconfirming the existence of the interest in the transaction as well as the requisites of convenience and substantial correctness prescribed by the legislation on the subject of transactions with related parties.
The signing of the Final Agreement was approved, after the issuing of the favourable opinion of the Committee, by the Board of Directors of IREN on 2 July 2018 and subsequently, on the basis of the resolutions passed by the parent company, by the respective administrative bodies of AMIAT, Iren Energia and Iren Mercato, each of which granted a specific mandate to IREN to sign the contract. The Municipality also approved the signing of the Final Agreement with a resolution of the Municipal Executive Committee on 3 July 2018. These approvals were communicated to the market in a notice issued on 3 July 2018.
In addition, under the terms of the current disclosure, on 9 July 2018 the additional disclosure document prepared under the terms of article 5 of the CONSOB Regulation was made available to the public.
The Final Agreement was signed on 12 July 2018.

Under the terms of art. 5, paragraphs 8 and 9, of the CONSOB Regulation, you are referred to the information contained in the Disclosure Documents prepared and made available to the public on 29 March 2018 and on 9 July 2018 under the terms and for the purposes of the said Regulation (available on the website www.gruppoiren.it, in the section “Corporate Governance - Transactions with Related Parties”).

During the first half of 2018 an update was also provided to the CTRP, by the management of the companies involved each time, on the execution of some of the transactions examined during the previous year, after a copy of the relevant documentation had been received.

# VI. OTHER INFORMATION

## CONSOB COMMUNICATION NO. DEM/6064293 of 28 July 2006

**Significant non-recurring events and transactions**

In the first half of 2018 the Group did not carry out significant non-recurrent events and/or transactions, as defined in the Communication, that is to say events or transactions the occurrence of which is non-recurring or transactions or events which are not repeated frequently in the normal performance of the business.

**Positions or transactions deriving from atypical and/or unusual operations**

We can specify that during the first half of 2018 the Group did not engage in any atypical and/or unusual operations, as defined in the Communication. Atypical and/or unusual operations are operations which owing to their significance/relevance, nature of the counterparties, subject of the transaction, the method by which the sales price is calculated and the timescale of the event (nearness to reporting date) may give rise to doubts with regard to the correctness/completeness of the information given in the financial statements, conflict of interest and safeguarding of the company's equity or protection of minority shareholders.

**Publication of the Financial Statements**

The Interim Report was approved for publication by Iren S.p.A.'s Board of Directors at its meeting of 1 August 2018.

# VII. NOTES TO THE STATEMENT OF FINANCIAL POSITION

Unless otherwise stated, the following tables are in thousands of euro.

## ASSETS

### NON-CURRENT ASSETS

### NOTE 1_PROPERTY, PLANT AND EQUIPMENT

The breakdown of property, plant and equipment, divided between historical cost, accumulated depreciation and carrying amount, is shown in the following table:

thousands of euro

| | Cost at 30/06/2018 | Accumulated depreciation at 30/06/2018 | Carrying amount at 30/06/2018 | Cost at 31/12/2017 | Accumulated depreciation at 31/12/2017 | Carrying amount at 31/12/2017 |
|---|---|---|---|---|---|---|
| Land | 108,316 | (2,202) | 106,114 | 104,498 | (1,817) | 102,681 |
| Buildings | 569,327 | (199,214) | 370,113 | 551,039 | (184,900) | 366,139 |
| Plant and machinery | 5,084,916 | (2,272,082) | 2,812,834 | 5,007,061 | (2,165,936) | 2,841,125 |
| Industrial and commercial equipment | 120,942 | (94,797) | 26,145 | 115,126 | (89,035) | 26,091 |
| Other assets | 185,862 | (138,290) | 47,572 | 166,274 | (125,138) | 41,136 |
| Assets under construction and payments on account | 87,397 | - | 87,397 | 72,172 | - | 72,172 |
| **Total** | **6,156,760** | **(2,706,585)** | **3,450,175** | **6,016,170** | **(2,566,826)** | **3,449,344** |

The variation in the historical cost of property, plant and equipment is shown in the following table:

thousands of euro

| | Opening balance | Increases | Decreases | Changes in consolidation scope | Reclassifica-tions | Closing balance |
|---|---|---|---|---|---|---|
| Land | 104,498 | 5 | - | 3,813 | - | 108,316 |
| Buildings | 551,039 | 786 | (15) | 17,370 | 147 | 569,327 |
| Plant and machinery | 5,007,061 | 34,776 | (355) | 34,579 | 8,855 | 5,084,916 |
| Industrial and commercial equipment | 115,126 | 1,643 | (818) | 4,737 | 254 | 120,942 |
| Other assets | 166,274 | 6,035 | (1,260) | 12,241 | 2,572 | 185,862 |
| Assets under construction and payments on account | 72,172 | 21,260 | (535) | 6,328 | (11,828) | 87,397 |
| **Total** | **6,016,170** | **64,505** | **(2,983)** | **79,068** | **-** | **6,156,760** |

The variation in accumulated depreciation is shown in the following table:

thousands of euro

| | Opening balance | Depreciation for the period | Decreases | Changes in consolidation scope | Reclassifica -tions | Closing balance |
|---|---|---|---|---|---|---|
| Accumulated depreciation, land | (1,817) | (385) | - | - | - | (2,202) |
| Accumulated depreciation, buildings | (184,900) | (10,029) | 1 | (4,286) | - | (199,214) |
| Accumulated depreciation, plant and machinery | (2,165,936) | (93,919) | 7 | (12,287) | 53 | (2,272,082) |
| Accumulated depreciation, ind. and comm. equipment | (89,035) | (3,336) | 802 | (3,154) | (74) | (94,797) |
| Accumulated depreciation of other assets | (125,138) | (5,543) | 1,227 | (8,857) | 21 | (138,290) |
| **Total** | **(2,566,826)** | **(113,212)** | **2,037** | **(28,584)** | **-** | **(2,706,585)** |

The column "Changes in consolidation scope" refers to the balances acquired during the period relating to the ACAM Group companies and to the company ReCos S.p.A..

Land and buildings
This item primarily includes industrial buildings connected with Group plants and related land.

Plant and machinery
This item refers to costs for electricity production plants, heat production plants, electricity distribution networks, gas distribution networks, heat distribution networks and plants related to waste disposal services not operated under concessions as per IFRIC 12. Freely transferable assets are included in the assets of electricity production plants.

Industrial and commercial equipment
This item includes costs related to the purchase of supplementary or auxiliary assets for plants and machinery, such as rubbish bins, laboratory and other equipment.

Other assets
This item refers to costs for the purchase of office furniture and machines and vehicles.

Assets under construction and payments on account
The item assets under construction includes all expenses incurred for investments in progress and not yet in operation.

Increases
The increases in the period, of 64,505 thousand euro, mainly refer to:
- development of the district-heating network and new connections to the network, including heat exchange substations, meters and remote reading appliances, for 7,660 thousand euro;
- investments in the electricity distribution grids of 14,130 thousand euro;
- investments in the gas networks not in a concession arrangement in accordance with the provisions of IFRIC 12 of 10,530 thousand euro;
- investments in thermoelectric and hydroelectric plants of 16,403 thousand euro;
- investments for collection and disposal in the waste management segment of 7,281 thousand euro;

Depreciation and amortisation
Ordinary depreciation for the first half of 2018, totalling 113,212 thousand euro, was calculated on the basis of the rates indicated in the 2017 annual financial statements and considered representative of the residual useful life of the assets.

It is worth noting that in accordance with current regulations regarding the large shunt concessions for hydroelectric purposes (“hydroelectric concessions”), the outgoing operator is paid an amount, calculated as follows:

- as regards “wet assets” (collection, regulation works, penstocks, drain pipes included in the business branch of the outgoing operator, the “transferable assets”), based on the revalued historical cost, net of public capital grants, revalued, received by the operator for the construction of these assets, less normal wear;
- as regards “dry assets” (property, plant and equipment included in the business unit of the outgoing operator and not included in the “wet assets” category, the so-called non-transferable assets), based on the reconstruction value, less normal wear.

As a result of this legislation, starting from 2012, for transferable assets related to expired hydroelectric concessions with a residual carrying amount lower than the estimated amount payable to the outgoing operator (calculated based on the above provisions), the related depreciation has been suspended.

Lastly, no assets are pledged against liabilities.

## NOTE 2_INVESTMENT PROPERTY

The following table highlights the breakdown of the item:

thousands of euro

| | Cost at 30/06/2018 | Accumulated depreciation at 30/06/2018 | Carrying amount at 30/06/2018 | Cost at 31/12/2017 | Accumulated depreciation at 31/12/2017 | Carrying amount at 31/12/2017 |
|---|---|---|---|---|---|---|
| Land | 2,859 | - | 2,859 | 2,859 | - | 2,859 |
| Buildings | 13,103 | (2,998) | 10,105 | 13,103 | (2,825) | 10,278 |
| **Total** | **15,962** | **(2,998)** | **12,964** | **15,962** | **(2,825)** | **13,137** |

The item consists mainly of properties acquired from the company Sportingenova against the settlement of part of the receivable due from that company.
The fair value of investment property is not lower than the carrying amount.

## NOTE 3_ INTANGIBLE ASSETS WITH A FINITE USEFUL LIFE

Intangible assets, broken down between historical cost and accumulated depreciation, are shown in the following table:

thousands of euro

| | Cost at 30/06/2018 | Accumulated depreciation at 30/06/2018 | Carrying amount at 30/06/2018 | Cost at 31/12/2017 | Accumulated depreciation at 31/12/2017 | Carrying amount at 31/12/2017 |
|---|---|---|---|---|---|---|
| Development costs | 2,112 | (962) | 1,150 | 1,433 | (562) | 871 |
| Industrial patents and intellectual property use rights | 95,008 | (50,649) | 44,359 | 86,991 | (38,808) | 48,183 |
| Concessions, licences, trademarks and similar rights | 2,550,334 | (1,031,131) | 1,519,203 | 2,242,143 | (911,529) | 1,330,614 |
| Other intangible assets | 220,917 | (101,351) | 119,566 | 196,972 | (83,418) | 113,554 |
| Investments in progress and payments on account | 197,090 | - | 197,090 | 160,755 | - | 160,755 |
| **Total** | **3,065,461** | **(1,184,093)** | **1,881,368** | **2,688,294** | **(1,034,317)** | **1,653,977** |

The variation in the historical cost of intangible assets is shown in the following table:

thousands of euro

| | Opening balance | Increases | Decreases | Changes in consolidation scope | Reclassifica-tions | Impairment losses for the period | Closing balance |
|---|---|---|---|---|---|---|---|
| Development costs | 1,433 | 413 | - | 266 | - | - | 2,112 |
| Industrial patents and intellectual property use rights | 86,991 | 2,220 | (80) | 5,330 | 547 | - | 95,008 |
| Concessions, licences, trademarks and similar rights | 2,242,143 | 28,881 | (11,508) | 267,312 | 23,506 | - | 2,550,334 |
| Other intangible assets | 196,972 | 30,017 | (15,250) | 10,598 | (10) | (1,410) | 220,917 |
| Investments in progress and payments on account | 160,755 | 56,122 | (184) | 4,440 | (24,043) | - | 197,090 |
| **Total** | **2,688,294** | **117,653** | **(27,022)** | **287,946** | **-** | **(1,410)** | **3,065,461** |

Changes in accumulated amortisation of intangible assets are shown in the following table:

thousands of euro

| | Opening balance | Amortisation for the period | Decreases | Changes in consolidation scope | Reclassifica-tions | Closing balance |
|---|---|---|---|---|---|---|
| Accumulated amortisation of development costs | (562) | (134) | - | (266) | - | (962) |
| Accumulated amortisation of ind. patents and intellectual property use rights | (38,808) | (6,591) | 75 | (5,322) | (3) | (50,649) |
| Accumulated amortisation of licences, trademarks and similar rights | (911,529) | (39,358) | 6,295 | (86,521) | (18) | (1,031,131) |
| Accumulated amortisation of other intangible assets | (83,418) | (9,504) | 3 | (8,453) | 21 | (101,351) |
| **Total** | **(1,034,317)** | **(55,587)** | **6,373** | **(100,562)** | **-** | **(1,184,093)** |

The column "Changes in consolidation scope" refers to the balances acquired during the period relating to the ACAM Group companies and to the company ReCos S.p.A..

Industrial patents and intellectual property use rights

This item mainly relates to the total costs borne for the purchase and internal production of corporate software and the acquisition of rights for the exclusive use of technical studies on the statistical trend of network losses, amortised over between three and five years.

Concessions, licences, trademarks and similar rights

This item is primarily composed of:

- assets recognised in application of IFRIC 12, related to the operating business segments of natural gas distribution, the Integrated Water Service and, marginally, district heating;
- the right of use of pipeline networks by virtue of the concessions granted by the Municipality of Genoa and other neighbouring municipalities;
- concessions for the use of the IT network of third party operators;

Other intangible assets

This item is primarily composed of:

- rights to use telecommunication infrastructure owned by third parties;

- emission trading quotas held for internal needs;
- costs for the commercial development of customers;
- measurement of the customer list made on allocation of the price for acquiring control over Atena Trading, Salerno Energia Vendite and Studio Alfa.

Investments in progress and payments on account

This item mainly consists of investments for concession services governed by IFRIC 12, in addition to software licences and related implementation costs.

## NOTE 4_GOODWILL

Goodwill, of 158,958 thousand euro (127,320 thousand euro at 31 December 2017), during the first half of 2018 showed an increase of 31,638 thousand euro following acquisition of control over the ACAM Group and ReCos S.p.A. in which while awaiting the assessment to be carried out under the terms of IFRS 3 - Business Combinations, the positive difference calculated on a provisional basis between the purchase price and the provisional fair value, at the acquisition date, of the identifiable assets acquired and the identifiable liabilities assumed, was allocated to goodwill.

Goodwill is considered an intangible asset with an indefinite useful life. Therefore, it is not amortised, but annually tested for impairment to check whether the carrying amount is still recoverable. Since goodwill does not generate independent cash flows and cannot be sold on its own, the impairment test on the goodwill recognised in the financial statements is carried out making reference to the Cash Generating Unit to which the same can be allocated. The Cash Generating Units are identified with the single Business Units and correspond to the business segments presented in the foreword to these notes. They are based on the Group's management structure and internal reporting system.

This method allows for a more effective disclosure of goodwill and future investment plans and supplies a homogeneous analysis of information communicated to the market.

The table below shows the allocation of the item goodwill to the Cash Generating Units.

thousands of euro

| | **30/06/2018** |
|---|---:|
| Waste Management | 6 |
| Energy | 4,492 |
| Market | 29,765 |
| Networks | 93,057 |
| **Total** | **127,320** |
| Provisional allocation of the ACAM Group acquisition price | 22,755 |
| Provisional allocation of the ReCos S.p.A. acquisition price. | 8,883 |
| **Total** | **158,958** |

*Energy Cash Generating Unit*

The value of goodwill, of 4,492 thousand euro, refers:

- to acquisition of control over Iren Rinnovabili at the end of December 2017 following the expiry of the governance agreements entered into with the other shareholder CCPL S.p.A. which made Iren Rinnovabili a jointly-controlled company. The goodwill of 3,544 thousand euro was provisionally recognised as the surplus between the fair value of the price paid for acquisition of control and the fair value of the identifiable assets acquired and the identifiable liabilities assumed at the acquisition date.
- to the Heat Service Management business unit transferred from the Market Cash Generating Unit to the Energy Cash Generating Unit.

*Market Cash Generating Unit*

The value of goodwill, 29,765 thousand euro, derives mainly from:

- the equity interest in Enìa Energia (now merged into Iren Mercato), acquired from Sat Finanziaria S.p.A. and Edison, for an amount of 16,761 thousand euro;
- the business unit purchased from ENEL and referred to electricity users of the city of Parma, for an amount of 7,421 thousand euro;
- acquisition of the business unit from ERG Power & Gas related to the marketing and sale of electricity for an amount of 3,401 thousand euro.

*Networks Cash Generating Unit*

The value of goodwill, 93,057 thousand euro, derives mainly from:

- acquisition from ENEL of the business unit related to the distribution and sale of electrical energy to non-eligible customers in the Municipality of Turin, in which the positive difference between the purchase cost and the fair value of acquired and identifiable assets and liabilities was recognised as goodwill for 64,608 thousand euro;
- acquisition of control over Acqua Italia S.p.A. (now Mediterranea delle Acque S.p.A.), where the positive difference between the purchase cost and the fair value of acquired and identifiable assets and liabilities was recognised as goodwill of 23,202 thousand euro;
- the business unit purchased from ENEL and referred to electricity users of the city of Parma, for an amount of 3,023 thousand euro;

As stated above in paragraph I “Content and structure of the condensed consolidated interim report” of the present document, in the first half of 2018, in accordance with IAS 36, the Group checked the non-existence of specific impairment triggers with particular reference to goodwill.

## NOTE 5_INVESTMENTS ACCOUNTED FOR USING THE EQUITY METHOD

Investments accounted for using the equity method are equity investments in companies in which the Group has joint control or exercises a significant influence. We must specify that measurement at net equity is carried out on the basis of the consolidated financial statements, if prepared, of the investees.
The Group companies measured using the equity method at 30 June 2018 are shown in an annex.
Changes in the six-month period are shown in the tables below.

**Equity investments in joint ventures**

thousands of euro

| | 31/12/2017 | Write-downs for equity | Other changes | 30/06/2018 |
|---|---|---|---|---|
| Acque Potabili | 17,474 | (1,762) | 2 | 15,714 |
| OLT Offshore LNG | 29,078 | (1,094) | - | 27,984 |
| **TOTAL** | **46,552** | **(2,856)** | **2** | **43,698** |

## Equity investments in associates

thousands of euro

| | 31/12/2017 | Changes in consolidation scope | Write-ups (write-downs) for equity | Dividend distribution | Write-backs | Other changes | 30/06/2018 |
|---|---|---|---|---|---|---|---|
| A2A Alfa | - | - | - | - | - | - | - |
| Acos | 10,014 | - | 1,079 | - | - | (1) | 11,092 |
| Acos Energia | 1,314 | - | 368 | (375) | - | - | 1,307 |
| Acquaenna | - | - | 1,839 | - | 1,380 | - | 3,219 |
| Aguas de San Pedro | 9,595 | - | 1,323 | (275) | - | (137) | 10,506 |
| Aiga | - | - | - | - | - | - | - |
| Amat | 2,409 | - | (263) | - | - | (35) | 2,111 |
| Amter | 1,014 | - | 19 | (120) | - | - | 913 |
| Asa | 33,904 | - | 36 | - | - | 250 | 34,190 |
| Astea | 22,964 | - | 762 | (319) | - | 17 | 23,424 |
| Asti Energia Calore | 39 | - | 88 | - | - | - | 127 |
| BI Energia | 1,045 | - | (36) | - | - | - | 1,009 |
| CSP Innovazione nelle ICT | 149 | - | (40) | - | - | - | 109 |
| Domus Acqua | 55 | - | - | - | - | - | 55 |
| Fingas | - | - | - | - | - | - | - |
| G.A.I.A. | 15,144 | - | 142 | (581) | - | - | 14,705 |
| Global Service Parma | 6 | - | - | - | - | - | 6 |
| Iniziative Ambientali | 457 | - | 2 | - | - | - | 459 |
| Mondo Acqua | 649 | - | - | - | - | - | 649 |
| Nord Ovest Servizi | 4,375 | - | - | - | - | - | 4,375 |
| ReCos S.p.A. | 3,545 | (3,634) | (595) | - | 684 | - | - |
| Rio Riazzone | 146 | - | - | - | - | - | 146 |
| Sinergie Italiane | - | - | - | - | - | - | - |
| Sosel | 1,101 | - | - | (45) | - | - | 1,056 |
| STU Reggiane | 5,500 | - | (1,610) | - | - | - | 3,890 |
| Tirana Acque | - | - | - | - | - | - | - |
| Valle Dora Energia Srl | 1,278 | - | 567 | (113) | - | - | 1,732 |
| **TOTAL** | **114,703** | **(3,634)** | **3,681** | **(1,828)** | **2,064** | **94** | **115,080** |

The change in the consolidation scope refers to the acquisition of control over and consequent full consolidation of the company ReCos. The write-back of the equity investment refers to the restatement at fair value, at the date the controlling stake was acquired, of the non-controlling interest held at 31 March 2018.

The writeback of the investee Acquaenna (1,380 thousand euro) refers to the cessation of the conditions which had led to a write-down of the same in previous years.

As regards the equity investment in Sinergie Italiane, the carrying amount of which is zero, the provisions for risks against the risk of future losses of this investee amounted to 10,000 thousand euro.

The other changes were due mainly to the exchange-rate difference (Aguas de San Pedro) and to changes in the cash flow hedging reserves and in those related to actuarial gains/(losses) for employee benefits.

## NOTE 6_OTHER EQUITY INVESTMENTS

This item relates to equity investments in companies over which the Group has neither control, nor joint control, nor significant influence. These equity investments were carried at cost because this represents their fair value.
The list of other Group investments at 30 June 2018 is shown in an annex.
Changes in the six-month period are shown in the tables below:

thousands of euro

| | 31/12/2017 | Write-back (write-down) for the period | 30/06/2018 |
|---|---|---|---|
| A2A Scarl | 7 | - | 7 |
| Acque Potabili Siciliane | - | - | - |
| Aeroporto di Reggio Emilia | 2 | - | 2 |
| ASQ Network | 6 | - | 6 |
| Aurora srl | 3 | - | 3 |
| Autostrade Centro Padane | 1,248 | - | 1,248 |
| BT Enia | 2,110 | - | 2,110 |
| C.R.P.A. | 52 | - | 52 |
| CIDIU | 2,294 | 11 | 2,305 |
| Consorzio Italiano Compostatori | 3 | (3) | - |
| Consorzio Leap | 10 | - | 10 |
| Consorzio Topix | 5 | - | 5 |
| Credito cooperativo reggiano | 5 | - | 5 |
| Emilbanca BCC | 1 | - | 1 |
| Environment Park | 1,243 | - | 1,243 |
| Fondo Core MultiUtilities | 100 | - | 100 |
| Italeko AD. | 11 | (11) | - |
| RE Innovazione | 12 | - | 12 |
| SDB Società di biotecnologie | 10 | - | 10 |
| Stadio di Albaro | - | - | - |
| T.I.C.A.S.S. | 4 | - | 4 |
| **TOTAL** | **7,126** | **(3)** | **7,123** |

## NOTE 7_NON-CURRENT TRADE RECEIVABLES

The item amounted to 63,332 thousand euro (69,801 thousand euro at 31 December 2017) and refers mainly to:

- the receivables of the integrated water service for tariff adjustments and for lower volumes supplied with respect to the constraint of revenue due to the operator; the current tariff method provides generally (unless the fee growth limit is reached) for their recovery through fees after two years (40,652 thousand euro at 30 June 2018, 52,242 thousand euro at 31 December 2017);
- the receivables of the electricity transmission, distribution, and metering services deriving from the rules issued in AEEGSI Resolution no. 654/2015 on the subject of tariff regulation for the period 2016-2023 which entailed the recognition of revenue from electricity transport and of the related receivables (13,964 thousand euro at 30 June 2018, 12,958 thousand euro at 31 December 2017);
- the receivables for invoices to be issued to the Municipality of Turin for technological renewal and increased efficiency of heating systems in a number of municipal buildings (5,645 thousand euro at 30 June 2018, 3,436 thousand euro 31 December 2017). For more information on the overall receivable

position of the Iren Group in relation to the Municipality of Turin please see Note 8 “Non- current financial assets”.

**NOTE 8_NON-CURRENT FINANCIAL ASSETS**

The item of 171,269 thousand euro (165,767 thousand euro at 31 December 2017) is made up of financial receivables, the measurement of derivatives with positive fair value and securities other than equity investments. These are detailed in the following table:

thousands of euro

| | 30/06/2018 | 31/12/2017 |
|---|---|---|
| Non-current financial receivables from associates | 9,822 | 3,239 |
| Non-current financial receivables from related-party shareholders | 144,437 | 145,008 |
| Non-current financial receivables from others | 15,973 | 15,672 |
| Fair value of derivatives – non-current share | 1,001 | 1,812 |
| Securities other than equity investments | 36 | 36 |
| **Total** | **171,269** | **165,767** |

**Non-current financial receivables from associates**

These refer to receivables from the companies Acos (5,166 thousand euro), Acquaenna (3,776 thousand euro) and Asti Energia Calore (880 thousand euro). Also present is a receivable of 487 thousand euro from the associate AIGA which was completely written off. We can note that at 31 December 2017 there was a financial receivable from the company Re.Cos (2,083 thousand euro) which starting from 1 April 2018 is in the full consolidation scope.

**Non-current financial receivables from related-party shareholders**

Receivables from related-party shareholders, of 144,437 thousand euro (145,088 thousand euro at 31 December 2017), regard receivables from the Municipality of Turin and relate to:

- the medium/long-term portion of receivables related to the current account which governs transactions between the subsidiaries Iren Energia S.p.A. and AMIAT S.p.A. and the Municipality of Turin (127,175 thousand euro);
- application of the financial asset model provided for in IFRIC 12 to the efficiency project (“Turin LED”) associated with the Public Lighting service performed under concession by Iren Energia S.p.A. in the city of Turin, for the long-term portion (17,262 thousand euro). Recognition of the financial asset is a result of maturation of the current unconditional right to receive the cash flows contractually recognised, which occurred with completion of the installation of the related LED devices.

The accounting treatment of the aforementioned current account agreement determines a reduction of trade receivables represented as a generation of operating cash flows, and a corresponding increase in financial receivables, represented as a cash absorption in cash flows from financing activities.

These receivables form part of an overall position, totalling 227,924 thousand euro, and are divided among various accounting items according to their classification by type and maturity: Non-current trade receivables (Note 7), Non-current financial assets (Note 8), Trade receivables (Note 12) and Current financial assets (Note 15) as shown in the table presented below.
Receivables were divided by the directors between current portion and non-current portion on the basis of a forecast of their collection times determined following the results of the agreement signed by the Municipality of Turin and the Iren Group. For further details, see the disclosures in “Significant subsequent events” in the Director's Report.

thousands of euro

| | 30/06/2018 | 31/12/2017 |
|---|---|---|
| **Non-current trade receivables** | **5,645** | **3,436** |
| Trade receivables for services on invoices issued | 39,232 | 72,637 |
| Trade receivables for services on invoices to be issued | 24,360 | 6,411 |
| Trade receivables for electricity and other supplies | 3,492 | 8,093 |
| Provisions for impairment of trade receivables | (765) | (2,622) |
| **Total current trade receivables** | **66,319** | **84,519** |
| Non-current portion of financial receivables in current account | 125,952 | 132,925 |
| Non-current portion of financial receivables for interest | 1,223 | 1,223 |
| Non-current portion of financial receivables for services in concession | 17,262 | 13,807 |
| Provisions for impairment of financial receivables | - | (2,947) |
| **Total non-current financial receivables** | **144,437** | **145,008** |
| Current portion of financial receivables in current account | - | 1,889 |
| Current portion of financial receivables for interest | 11,523 | 10,988 |
| Current portion of financial receivables for services in concession | - | 3,191 |
| **Total current financial receivables** | **11,523** | **16,068** |
| **Total** | **227,924** | **249,031** |

**Non-current financial receivables from others**
These refer mainly to the long-term portion of the receivable deriving from the sale of the business unit comprising the telecommunications network (TLC) in Emilia-Romagna which took place during 2016.

**Fair value of derivatives – non-current share**
The fair value of derivatives refers to instruments in the portfolio for hedging the risk of changes in interest rates.

**Securities other than equity investments**
These amounted to 36 thousand euro (unchanged compared to 31 December 2017) and refer to securities given as collateral which are measured at amortised cost because the business model provides for the financial asset being held to collect the related cash flows which correspond to solely payment of principal and interest.

## NOTE 9_OTHER NON-CURRENT ASSETS

These are detailed in the following table:

thousands of euro

| | 30/06/2018 | 31/12/2017 |
|---|---|---|
| Guarantee deposits | 9,524 | 9,456 |
| Tax assets after 12 months | 26,629 | 25,366 |
| Other non-current assets | 3,055 | 3,281 |
| Non-current accrued income and prepaid expenses | 6,509 | 6,511 |
| **Total** | **45,717** | **44,614** |

Receivables for guarantee deposits refer mainly to amounts paid by Iren Mercato to the investee Sinergie Italiane in relation to the natural gas supply contract signed by the parties.

Tax assets after 12 months comprise mainly:
- credits related to payment of the demands served following entry in the list concerning 2/3 of the tax ascertained relating to the dispute over the contribution of two business units, made at the end of 1999 in favour of the company Genova Acque S.p.A. (today incorporated into Iren Acqua S.p.A.), by the then parent company AMGA S.p.A.. The payments made were accounted for among other non-current assets, on the basis of considerations of recoverability of the same in the event of possible outcomes favourable to the company in the dispute in progress.
- credits accrued following the application to deduct IRAP from the IRES taxable base, Art. 2 paragraph 1 *quater* Italian Law Decree no. 201 of 6 December 2011;

Prepayments mainly include the long-term prepaid portion, relating to energy service contracts signed by the subsidiary Iren Energia S.p.A..

**NOTE 10_DEFERRED TAX ASSETS**

These amounted to 333,689 thousand euro (277,771 thousand euro at 31 December 2017) and refer to deferred tax assets deriving from earnings deductible in future years. They also include the tax effect on adjustments made on IFRS first-time adoption.
The increase compared with 31 December 2017 is mainly due to the recognition of the tax effect related to the allocation of deferred income for the cumulative effect at 1 January 2018 of the change in the accounting treatment of connection contributions, adopted as of that date following the entry into force of IFRS 15 - *Revenue from Contracts with Customers*.

**CURRENT ASSETS**

**NOTE 11_INVENTORIES**

Inventories, measured at weighted average cost, primarily comprise natural gas and consumables intended for maintenance and construction of the Group plants.
Construction Contracts refers mainly to activities performed for the Municipality of Turin.
The summary of changes occurring over the period is as follows:

thousands of euro

| | 30/06/2018 | 31/12/2017 |
|---|---|---|
| Raw materials | 76,868 | 70,267 |
| Inventory write-down provision | (9,166) | (8,978) |
| **Net value** | **67,702** | **61,289** |
| Construction Contracts | 903 | 695 |
| **Total** | **68,605** | **61,984** |

The inventory write-down provision was set aside and is used to take into consideration inventories that are technically obsolete and slow-moving.

At 30 June 2018 no inventories were pledged against liabilities.

**NOTE 12_TRADE RECEIVABLES**

These are detailed in the following table:

thousands of euro

| | 30/06/2018 | 31/12/2017 |
|---|---|---|
| Receivables from customers | 867,474 | 917,956 |
| Provisions for impairment of receivables | (192,929) | (166,545) |
| **Net receivables from customers** | **674,545** | **751,411** |
| Trade receivables from joint ventures | 338 | 783 |
| Trade receivables from associates | 13,296 | 23,641 |
| Trade receivables from related-party shareholders | 112,575 | 113,705 |
| Trade receivables from other related parties | 8,608 | 12,399 |
| Provisions for impairment of receivables from related-party shareholders | (4,294) | (6,151) |
| **Total** | **805,068** | **895,788** |

We can note that at 30 June 2018 no factoring transactions were completed with derecognition of receivables (44,313 thousand euro at 31 December 2017).

Trade receivables, gross of provisions for impairment of receivables, are broken down by maturity as follows:

thousands of euro

| | 30/06/2018 | 31/12/2017 |
|---|---|---|
| Not past due | 636,244 | 755,179 |
| Past due from 0 to 3 months | 138,350 | 74,845 |
| Past due from 3 to 12 months | 74,026 | 75,972 |
| Past due for more than one year | 153,671 | 162,488 |
| **Total** | **1,002,291** | **1,068,484** |

Receivables not past due include receivables for invoices to be issued of 379,913 thousand euro (445,878 thousand euro at 31 December 2017) which include the estimate of revenue earned for services supplied between the date of the last reading of effective consumption and the reporting date.

**Receivables from customers**

These mainly relate to receivables due for electricity, gas, water and heat supplies, environmental services and sundry services. The net balance takes into account provisions for impairment of receivables, illustrated below, of 192,929 thousand euro (166,545 thousand euro at 31 December 2017).

**Receivables from joint ventures**

This item includes receivables from the Group joint ventures, consolidated with the equity method. These relate to normal trade transactions performed at arm's length. For further details, please see the table of related-party transactions shown in the annex.

**Receivables from associates**

These relate to normal trade transactions performed at arm's length. For further details, please see the table of related-party transactions shown in the annex.

**Receivables from related-party shareholders**

Receivables from related-party shareholders refer to trading transactions performed at arm's length with territorial authority owners classified as related parties (Municipalities of Genoa, Parma, Piacenza, Reggio Emilia and Turin). The balance takes into account provisions for impairment of receivables of 4,294 thousand euro (6,151 thousand euro at 31 December 2017). For further details, please see the table of related-party transactions shown in the annex.

**Receivables from other related parties**

These regard receivables from the companies controlled by the territorial body owners (Municipalities of Genoa, Parma, Piacenza, Reggio Emilia and Turin) and refer to normal commercial transactions carried out at arm's length.

**Provisions for impairment of receivables**

The provisions for impairment feature the movements shown in the following table:

thousands of euro

| | 31/12/2017 | Changes in consolidation scope | Provisions in the period | Decreases | Other changes | 30/06/2018 |
|---|---|---|---|---|---|---|
| Provisions for impairment of receivables | 166,545 | 16,875 | 16,062 | (11,398) | 4,845 | 192,929 |
| Provisions for impairment of receivables from related-party shareholders | 6,151 | - | 77 | (1,795) | (139) | 4,294 |
| **Total** | **172,696** | **16,875** | **16,139** | **(13,193)** | **4,706** | **197,223** |

The column "Changes in consolidation scope" refers to the balances acquired during the period relating to the ACAM Group companies and to the company ReCos S.p.A..

The provisions in the period were set aside to adjust the amount of provisions for impairment of receivables to the amount of expected losses on the basis of the simplified model provided for in the new standard IFRS 9, where "loss" means the present value of all future lost revenue, opportunely integrated to take into account future expectations ("forward looking information").

The item "decreases" refers to utilisations for losses on receivables of 11,890 thousand euro and to releases of 1,303 thousand euro.

The other changes column refers for 5,307 thousand euro to the restatement, lower, of provisions for impairment of receivables at 1 January 2018 due the application of the aforesaid simplified method provided for on first adoption of IFRS 9 and for 601 thousand, lower of long-term reclassifications of amounts related to receivables previously stated as short-term.

**NOTE 13_CURRENT TAX ASSETS**

These amounted to 13,116 thousand euro (7,365 thousand euro at 31 December 2017) and include receivables from the tax authority for IRES and IRAP.

**NOTE 14_OTHER RECEIVABLES AND OTHER CURRENT ASSETS**

These are detailed in the following table:

thousands of euro

| | 30/06/2018 | 31/12/2017 |
|---|---|---|
| Receivables for revenue tax/UTIF | - | 4,624 |
| VAT credit | 35,690 | 56,440 |
| Other tax assets | 12,682 | 12,023 |
| **Tax assets due within one year** | **48,372** | **73,087** |
| Receivables from Cassa Servizi Energetici e Ambientali (CSEA) | 102,787 | 119,961 |
| Green certificate receivables | 73,706 | 45,660 |
| Advances to suppliers | 13,696 | 10,056 |
| Other current assets | 22,450 | 21,275 |
| **Other current assets** | **212,639** | **196,952** |
| Accruals and deferrals | 25,212 | 6,308 |
| **Total** | **286,223** | **276,347** |

We can note that at 30 June 2018 factoring transactions were completed with derecognition of receivables for Emission Trading for a total of 1,015 thousand euro (1,958 thousand euro at 31 December 2017).
In terms of procedures, for 2018, the payment of Group VAT involved the transfer to the parent Iren S.p.A. of all obligations regarding settlements and VAT periodic payments. The companies that take part in the Group settlement procedure, besides the Parent Company Iren S.p.A., are the following: Iren Energia, IRETI, Iren Mercato, Iren Ambiente, AMIAT, Iren Rinnovabili, Enìa Solaris, Iren Acqua Tigullio, Iren Acqua, Greensource, Varsi Fotovoltaico, Immobiliare delle Fabbriche, Iren Laboratori, Bonifica Autocisterne, REI, ASM Vercelli and Atena Trading.
In relation to receivables from the Cassa Servizi Energetici e Ambientali (CSEA) a portion of the amounts shown may not be collectable within the next 12 months.

**NOTE 15_CURRENT FINANCIAL ASSETS**

These are detailed in the following table:

thousands of euro

| | 30/06/2018 | 31/12/2017 |
|---|---|---|
| Financial receivables from joint ventures | 411,500 | 439,000 |
| Financial receivables from associates | 5,416 | 6,488 |
| Financial receivables from related-party shareholder Municipalities | 11,523 | 16,068 |
| Other financial receivables | 46,009 | 42,521 |
| Derivative receivables - current | 3,383 | 2,305 |
| **Total** | **477,831** | **506,382** |

All financial receivables recognised in this item are due within 12 months. The carrying amount of these receivables approximates their fair value as the impact of discounting is negligible.

**Financial receivables from joint ventures**
These regard receivables from the joint venture OLT Offshore LNG Toscana, down by 27,500 thousand euro compared to 31 December 2017, and are related to renewal of the loan granted by the Group.

**Financial receivables from associates**
The item refers mainly to loans to Acquaenna (1,414 thousand euro), BI Energia (746 thousand euro) and STU Reggiane (474 thousand euro). The remainder regards essentially receivables for dividends to be received. We can note that at 31 December 2017 there was a financial receivable from the company Re.Cos (2,316 thousand euro) which starting from 1 April 2018 is in the full consolidation scope.
For further details please see the schedule of related-party transactions shown in the annex.

**Financial receivables from related-party shareholders**
These regard receivables from the Municipality of Turin on which interest accrues for the Group and they amounted to 11,523 thousand euro (16,068 thousand at 31 December 2017) and refer to the short-term balance of the current account, which governs transactions between the subsidiaries Iren Energia S.p.A. and AMIAT S.p.A. and the Municipality of Turin..
For details of the overall receivable position of the Iren Group in relation to the Municipality of Turin please see Note 8 "Non-current financial assets".

**Other financial receivables**
These refer for 40,846 thousand euro to tied bank deposits of the subsidiary TRM S.p.A. deriving from the loan contract which specifies that amounts serving the instalment due, the costs regarding environmental offsets and extraordinary maintenance of the waste-to-energy plant are tied. The remainder refers to receivables for dividends to be collected, accrued income and prepaid expenses of a financial nature and sundry financial receivables.

**Derivative receivables - current**
These relate to the positive fair value of derivative contracts on commodities entered into by Iren Mercato.

## NOTE 16_CASH AND CASH EQUIVALENTS

The item "Cash and cash equivalents" is made up as follows:

thousands of euro

| | 30/06/2018 | 31/12/2017 |
|---|---|---|
| Bank and postal deposits | 111,217 | 168,872 |
| Cash and valuables in hand | 221 | 214 |
| **Total** | **111,438** | **169,086** |

Cash and cash equivalents are represented by existing liquidity on bank and postal deposits. The Group does not hold cash equivalents, intended as short-term and highly liquid investments that are readily convertible into known amounts of cash and subject to an insignificant risk of changes in value.

## NOTE 17_ASSETS HELD FOR SALE

Assets held for sale are measured at the lower of their carrying amount and fair value less costs to sell. They amount to 524 thousand euro (8,724 thousand euro at 31 December 2017). This item relates to:
- for 226 thousand euro (unchanged compared to 31 December 2017) to the net assets related to the concession, which expired on 31 March 2017, of the integrated water service of the Municipality of Saint Vincent (AO) for which the takeover by the new operator is being defined;
- for 140 thousand euro (unchanged compared to 31 December 2016), to the equity investment in Plurigas in liquidation. The equity investment was classified among assets held for sale because during 2014 the company ceased to operate;
- for 158 thousand euro (unchanged from 31 December 2016) to the associate Piana Ambiente.

In addition, assets held for sale include the equity investment in Fata Morgana, already completely written down in previous periods.
We can remind you that at 31 December 2017 this item included the equity investment in Mestni Plinovodi, sold during the first half of 2018.

# LIABILITIES

## NOTE 18_EQUITY

Equity may be analysed as follows:

thousands of euro

| | 30/06/2018 | 31/12/2017 |
|---|---|---|
| Share capital | 1,300,931 | 1,276,226 |
| Reserves and retained earnings (losses) | 647,496 | 608,184 |
| Net profit (loss) for the period | 187,152 | 237,720 |
| **Total equity attributable to shareholders** | **2,135,579** | **2,122,130** |
| Capital and reserves attributable to minorities | 351,058 | 349,633 |
| Profit/(loss) attributable to minorities | 12,058 | 27,040 |
| **Total consolidated equity** | **2,498,695** | **2,498,803** |

### Share capital

Share capital amounts to 1,300,931,377 euro, which is fully paid-up and comprises 1,300,931,377 ordinary shares with a face value of 1 euro each. At 31 December 2017 it amounted to 1,276,225,677 euro, fully paid-up, and comprised 1,213,920,212 ordinary shares and 62,305,465 savings shares without voting rights. In January 2018 Finanziaria Città di Torino sold the 62,305,465 Iren savings shares that it held and therefore, as provided for in the Articles of Association, these shares were converted automatically, at par, into ordinary shares.
In April 2018, as part of the merger operation involving the Iren Group and the ACAM Group, 27 ACAM shareholders subscribed a total of 24,705,700 new ordinary shares of Iren S.p.A.. The subscription price of each newly-issued ordinary share is 2.13 euro, of which 1.00 euro allocated to share capital and 1.13 euro as a premium.

### Reserves

The breakdown of this item is provided in the following table:

thousands of euro

| | 30/06/2018 | 31/12/2017 |
|---|---|---|
| Share premium reserve | 133,019 | 105,102 |
| Legal reserve | 58,346 | 49,998 |
| Cash flow hedging reserve | (1,416) | (1,729) |
| Other reserves and retained earnings (losses) | 457,547 | 454,813 |
| **Total reserves** | **647,496** | **608,184** |

Hedging reserve

Changes in the fair value of effective hedging derivatives are recognised with a contra-entry directly in equity under the cash-flow hedging reserve. These contracts were entered in to hedge exposure to the risk of interest rate fluctuations on floating rate loans and to the risk of price changes in electricity and gas purchase contracts.

Other reserves and retained earnings (losses)

These mainly comprise the surplus generated from the merger of AMGA into AEM Torino and the later merger of Enìa into Iride, retained earnings and losses and the reserve including actuarial gains and losses resulting from the measurement of post-employment benefits to employees.

During the first half of 2018 they changed owing mainly to the cumulative effect at 1 January 2018 deriving from the application of IFRS 9 and 15 (-137,992 thousand euro) and to the undistributed profits of financial year 2017 carried forward (+138,307 thousand euro).

For further details, reference should be made to the statement of changes in equity.

## NON-CURRENT LIABILITIES

### NOTE 19_NON-CURRENT FINANCIAL LIABILITIES

These amounted to a total of 2,794,200 thousand euro (3,023,888 thousand euro at 31 December 2017):

**Bonds**

These amounted to 1,690,418 thousand euro (1,777,885 thousand euro at 31 December 2017). The item consisted entirely of positions of the Parent Company referred to Private Placement and Public Bond issues, accounted, for at amortised cost, against a total nominal amount currently in issue, for the part of bonds with maturity at more than 12 months, of 1,709,340 thousand euro (1,798,440 thousand euro at 31 December 2017).

Private Placement: Notes maturity 2020, coupon 4.37%, issue amount 260 million euro, currently in issue for 167.87 million euro following repurchases (Tender Offers) carried out in 2015, 2016 and 2017.

Public Bonds: a) Notes maturity 2021, coupon 3%, issue amount 300 million euro, currently in issue for 181,836 thousand euro following the repurchase operations described above; b) Notes maturity 2022, coupon 2.75%, issue amount 500 million euro, currently in issue for 359,634 thousand euro following the tender offers of 2016 and 2017; c) Notes maturity 2024, coupon 0.875%, amount 500 million, in issue for the same amount; d) Green Bonds maturity 2027, coupon 1.5%, amount 500 million euro, in issue for the same amount.

The bond loans were subscribed by Italian and foreign institutional investors and are listed on the Irish Stock Exchange; the Public Bonds were given a Fitch rating.

The change in the total carrying amount compared to 31 December 2017 was due to reclassification to within 12 months of the Private Placement with maturity 2019, as well as the update in the period of the amortised cost according to the IAS/IFRS standards.

**Non-current bank loans**

Medium/long term loans relate exclusively to the non-current portion of loans/credit lines due at more than 12 months, granted by banks and amounted to 1,009,973 thousand euro (1,148,105 thousand euro at 31 December 2017).

Medium/long term loans can be analysed by interest rate type (with respective indications of minimum and maximum rates applied) and maturity date, as shown in the following table:

thousands of euro

| | fixed rate | floating rate | TOTAL |
|---|---|---|---|
| min/max interest rate | 2.79% - 5.122% | 0.00% - 0.570% | |
| maturity | 2019-2027 | 2019-2032 | |
| 01.07.2019 – 30.06.2020 | 61,098 | 75,954 | 137,053 |
| 01.07.2020 – 30.06.2021 | 63,442 | 44,177 | 107,619 |
| 01.07.2021 – 30.06.2022 | 65,843 | 52,175 | 118,018 |
| 01.07.2022 – 30.06.2023 | 65,511 | 74,165 | 139,675 |
| subsequent | 215,124 | 292,485 | 507,609 |
| **Total payables at 30/06/2018** | **471,017** | **538,956** | **1,009,973** |
| **Total payables at 31/12/2017** | **489,474** | **658,630** | **1,148,105** |

All loans are denominated in euro.

The changes in medium/long term loans during the year are summarised below:

thousands of euro

| | 31/12/2017 Total payables | Increases | Changes in consolidation scope | Repayments | Change to amortised cost | 30/06/2018 Total payables |
|---|---|---|---|---|---|---|
| - fixed rate | **489,474** | - | 12,117 | (30,617) | 44 | **471,017** |
| - floating-rate | **658,630** | - | - | (120,274) | 599 | **538,956** |
| **TOTAL** | **1,148,105** | - | 12,117 | **(150,891)** | **643** | **1,009,973** |

Total medium/long term loans at 30 June 2018 decreased overall compared to 31 December 2017 due to the following variations:

- inclusion in the consolidation scope of the Companies Acam S.p.A. and ReCos S.p.A., holders of a medium/long term loan, respectively, with Cassa Depositi e Prestiti (748 thousand euro, remaining debt at the consolidation date) and with Dexia-Crediop (11,369 thousand euro);
- reduction for a total of 150,891 thousand, both in relation to early repayment of loans (of the Parent Company for 38.9 million euro to Cassa Depositi e Prestiti, of the Companies Iren Rinnovabili, Varsi and Greensource for a total of 25.4 million euro to Cassa Centrale Banca and Cariparma, of the Company ASM Vercelli for 1.6 million to BNL), and in relation to the classification as short term of the portions of loans due within the next 12 months;
- a total increase of 643 thousand euro due to recognition of the loans at amortised cost.

**Other financial liabilities**

These amounted to 93,809 thousand euro (31 December 2017: 97,898 thousand euro), and refer:

- for 79,314 thousand euro (84,319 thousand euro at 31 December 2017) to the fair value of derivative contracts entered into as hedges against the interest rate risk on floating rate loans (reference should be made to the paragraph “Group Financial Risk Management” for comments);
- for 10,952 thousand euro (unchanged compared to 31 December 2017) to the long-term portion of the debt resulting from the operation to acquire the right to use 25% of the total capacity of the TLC network sold to BT Enia;
- for 2,421 thousand euro (not present at 31 December 2017) to payables for leasing contracts;
- for 1,122 thousand euro (31 December 2017: 2,627 thousand euro) to sundry financial payables.

## NOTE 20_EMPLOYEE BENEFITS

In the first half of 2018 post-employment benefits underwent the following changes:

thousands of euro

| | |
|---|---|
| **Amount at 31/12/2017** | **116,483** |
| Current service cost | 747 |
| Financial expense | 833 |
| Disbursements of the period | (4,666) |
| Changes in consolidation scope | 8,396 |
| Other changes | (167) |
| **Amount at 30/06/2018** | **121,626** |

The line “Changes in consolidation scope” refers to the balances acquired during the period relating to the ACAM Group companies.

Liabilities for employee benefits consist of:

**Post-employment benefits**
In the first half of 2018 post-employment benefits underwent the following changes:

| | thousands of euro |
|---|---:|
| **Amount at 31/12/2017** | **93,961** |
| Current service cost | 576 |
| Financial expense | 745 |
| Disbursements of the period | (4,108) |
| Changes in consolidation scope | 8,396 |
| Other changes | (167) |
| **Amount at 30/06/2018** | **99,403** |

**Other benefits**
The composition and changes over the period of defined benefit plans, other than the post-employment benefits described above, are presented below.

Additional months' salaries (long-service bonus)

| | thousands of euro |
|---|---:|
| **Amount at 31/12/2017** | **2,670** |
| Current service cost | 90 |
| Financial expense | 11 |
| **Amount at 30/06/2018** | **2,771** |

Loyalty bonus

| | thousands of euro |
|---|---:|
| **Amount at 31/12/2017** | **3,882** |
| Current service cost | 81 |
| Financial expense | 19 |
| Disbursements of the period | (144) |
| **Amount at 30/06/2018** | **3,838** |

Tariff discounts

| | thousands of euro |
|---|---:|
| **Amount at 31/12/2017** | **5,415** |
| Financial expense | 37 |
| Disbursements of the period | (148) |
| **Amount at 30/06/2018** | **5,304** |

The tariff discounts include benefits related to the supply of natural gas for domestic use. Following the signing of specific agreements with the trade unions, the "Energy discount" awarded up to 30 September 2017 to employees in service was converted into other forms of employee benefits. The "Energy discount" awarded up to 30 September 2017 to retired employees was revoked unilaterally and replaced with lump sums included in provisions for former employee benefits.

Premungas Provisions

| | thousands of euro |
|---|---|
| **Amount at 31/12/2017** | **3,220** |
| Financial expense | 21 |
| Disbursements of the period | (266) |
| **Amount at 30/06/2018** | **2,975** |

Provisions for ex-employee benefits
The provisions amounted to 7,335 thousand euro (unchanged compared to 31 December 2017) and contain the lump-sum amounts that will be paid to retired employees to replace the energy discount no longer paid starting from 1 October 2017.

**Actuarial assumptions**
The assessment of the liabilities presented above was made by independent actuaries on the occasion of preparing the 2017 year-end consolidated financial statements.
The liability relating to the defined benefit plans is calculated in accordance with actuarial assumptions and is recognised on an accrual basis in line with the service necessary to obtain benefits.
For the purpose of defining the present value of the obligations, the future service is estimated based on assumptions related to changes in both the total number of employees and employee remuneration. Future service represents the amount that would be liquidated to each employee in the event of continuing working activity with another company, retirement, death, resignation or a request for an advance.

The following factors were considered in deciding which discount rate to adopt in the measurement approach provided by IAS 19:
- stock market of reference;
- the date the measurement is made;
- expected average term of the liabilities.

The average residual term of liabilities was obtained as the weighted average residual term of liabilities related to all benefits and all Group companies.
The other financial assumptions adopted in the calculations are the following:

| | |
|---|---|
| Annual discount rate | 1.00% - 1.50% |
| Annual inflation rate | 1.50% |
| Annual increase rate of post-employment benefits | 2.50% |

**NOTE 21_PROVISIONS FOR RISKS AND CHARGES**

These are detailed in the following table, and refer both to the current and non-current portions:

thousands of euro

| | Opening balance | Increases | Decreases | (Income) expense from discounting | Changes in consolidation scope | Closing balance | Current portion |
|---|---|---|---|---|---|---|---|
| Provisions for restoration of third-party assets | 156,126 | 5,929 | (952) | 557 | - | 161,660 | 1,064 |
| “Post mortem” provisions | 33,017 | 171 | (1,275) | 212 | 4,915 | 37,040 | 3,271 |
| Provisions for dismantling and reclaiming sites | 31,084 | - | (299) | 245 | - | 31,030 | 733 |
| Provisions for early retirement expenses | 53,705 | - | (4,035) | - | - | 49,670 | 2,939 |
| Provisions for risks on equity investments | 10,065 | - | - | - | - | 10,065 | 10,065 |
| Other provisions for risks and charges | 234,638 | 19,744 | (33,252) | - | 6,190 | 227,320 | 50,313 |
| **Total** | **518,635** | **25,844** | **(39,813)** | **1,014** | **11,105** | **516,785** | **68,385** |

If the effect of discounting the value of money is significant, the provisions are discounted using a pre-tax discount rate which, on the basis of the time period envisaged for the future cash flows, does not exceed 3.39%.
The column “Changes in consolidation scope” refers to the balances acquired during the period relating to the ACAM Group companies.

**Provisions for restoration of third-party assets**
These provisions refer to liabilities which, if the water service concessions for the Parma, Piacenza and Reggio Emilia ATOs are reassigned to third parties, will be deducted from the fee to be paid to the Group by the incoming operator. These liabilities are estimated according to the depreciation of the pool of assets and equipment relating to the aforementioned integrated water cycle which, as a result of the spin-offs completed in 2005 by the three companies AGAC, Tesa and AMPS (later merged into Enìa), were transferred to the financial statements of three full publicly-held companies as envisaged in Art. 113, paragraph 13 of the Consolidated Law on Local Entities. This pool of assets is used to perform the water service against the payment of a rental fee and with a contractual commitment to set aside the aforementioned provisions.
The provisions for the restoration of transferable works represent an estimate of the expense necessary to return assets in concession in the hydroelectric sector in perfect working order.

**“Post mortem” provisions**
These are mainly provisions for future expense for environmental recovery of controlled landfill plants which also include costs for post-operating management until the sites involved have been completely converted to green areas. These provisions are supported by specific appraisals periodically updated in order to adjust the existing provisions to the estimate of the future costs to be incurred. The decreases refer in particular to the utilisation of the provision to cover costs incurred in the post-operating phase until the mineralisation of waste and the conversion of landfills into green areas are completed.

**Provisions for dismantling and reclaiming sites**
The “Provision for dismantling and reclaiming sites” represents the estimate of expense associated with the future dismantling of the Group’s waste-to-energy plants and the estimate of charges to be incurred in relation to the future reclamation of former AMNU land on which an incinerator was located.

**Provisions for early retirement expenses**
The provisions refer to expenses associated with early retirement of some employees and arises from the results of agreements between the Iren Group and the Trade Unions that provide for retirement incentives for some employees, on a voluntary basis among the Group’s personnel who are potentially involved. The operation must be seen in the wider context of professional and demographic rebalancing of the Iren Group’s personnel, in view of a plan to recruit young people.

The incentive, completely chargeable to the Iren Group (in application of Art. 4 of Italian Law 92/2012), will enable the personnel in possession of the legal requisites to retire in advance with respect to the date of eligibility, making up in part for the delay in terminating the employment determined after the reform of the pensions system.
The provisions represent the estimated payment to the employees involved in the Plan, through the Pensions Agency, of a benefit of an amount equal to the pension that would be payable on the basis of the current rules (isopension) with payment to the Pensions Agency of the contribution until the minimum requirements for retirement are reached (in accordance with the aforementioned Law 92/2012), and a sum, for each of the employees involved, as a one-off payment as an incentive.

**Provisions for risks on equity investments**

This item mainly refers to risks relating of future charges deriving from management of the investee Sinergie Italiane.

**Other provisions for risks and charges**

The provision mainly refers to the probable risk of greater charges for the construction of plants which are completed or yet to be finished, the provisions for estimated IMU/ICI tax to be paid based on the value of plant systems as envisaged in Art. 1-*quinquies* of Decree Law no. 44 of 31 March 2005, the estimate on charges related to the return of emissions quotas, charges for environmental offsets, liabilities for tax disputes, including that of the subsidiary Iren Acqua (formerly Mediterranea delle Acque), and probable charges for various disputes.

The current portion referring to the provisions described above was presented under "provisions, current portion" (Note 28).

## NOTE 22_DEFERRED TAX LIABILITIES

Deferred tax liabilities of 208,053 thousand euro (213,760 thousand euro at 31 December 2017) are due to the temporary difference between the carrying amount and tax value of assets and liabilities recognised in the financial statements.
Deferred taxation is calculated with reference to the expected tax rates applicable at the time the differences will reverse.

## NOTE 23_OTHER PAYABLES AND OTHER NON-CURRENT LIABILITIES

This item can be broken down as follows:

thousands of euro

| | **30/06/2018** | **31/12/2017** |
|---|---|---|
| Payables after one year | 39,779 | 36,567 |
| Deferred income for grants related to plants – non current | 414,380 | 182,075 |
| Non-current accrued expenses and deferred income | 4,586 | 3,953 |
| **Total** | **458,745** | **222,595** |

The item "Payables after 12 months" refers to advances paid by users to guarantee water supply, to amounts related to previous years to be paid for the redundancy fund (CIG), for the extraordinary redundancy fund (CIGS) and for mobility and to tax payables for substitutive taxes to be paid at more than 12 months from the reporting date.
The increase in deferred income for grants for plant facilities was due for 178,233 thousand euro to recognition of new deferred income for connection contributions following retrospective application of the accounting standard IFRS 15, having made use of the simplification, provided for in the said standard, recognising cumulative application impacts on the opening of 1 January 2018. Deferred income for grants for plant facilities also increased by 50,647 thousand euro following the consolidation of the ACAM Group companies and of ReCos S.p.A..

The deferred income for grants for plant facilities includes the amounts related to the Fo.N.I. ("Fondo Nuovi Investimenti" - New Investments Fund) component provided for in the tariff method of the Integrated Water Service which will be booked to the income statement beyond 12 months from the reporting date. The portion that will be booked to the income statement in the 12 months following the reporting date is included in the item Other payables and other current liabilities among deferred income for grants related to plants.

## CURRENT LIABILITIES

### NOTE 24_CURRENT FINANCIAL LIABILITIES

All financial liabilities recognised in this item are due within 12 months. The carrying amount of these payables approximates their fair value as the impact of discounting is negligible.
Short-term financial liabilities can be analysed as follows:

thousands of euro

| | 30/06/2018 | 31/12/2017 |
|---|---|---|
| Bonds | 88,935 | - |
| Bank loans | 288,111 | 150,573 |
| Financial payables to associates | 2,605 | 2,023 |
| Financial payables to related-party shareholders | 3,308 | 148 |
| Financial payables to other related parties | 2,476 | 2,995 |
| Financial payables to others | 8,609 | 33,341 |
| Current liabilities for derivatives | 82 | 52 |
| **Total** | **394,126** | **189,132** |

**Bonds**
These relate to a Private Placement with maturity 2019, coupon 3%, issue amount 100 million euro, currently in issue for 89.1 million euro following repurchases (Tender Offers) carried out in 2015 and 2016. The amount is accounted for at amortised cost, in accordance with the IASs/IFRSs.

**Bank loans**
Short-term bank loans may be broken down as follows:

thousands of euro

| | 30/06/2018 | 31/12/2017 |
|---|---|---|
| Loans - current portion | 168,257 | 137,480 |
| Other current payables to banks | 91,195 | 142 |
| Accrued financial expenses and deferred financial income | 28,659 | 12,951 |
| **Total** | **288,111** | **150,573** |

**Financial payables to associates**
This item relates to amounts due to the company Valle Dora Energia for the centralised treasury relationship with Iren S.p.A.

**Financial payables to related-party shareholders**
This item relates to dividends of the company TRM still to be paid to the shareholder Municipality of Turin.

**Financial payables to other related parties**
This item relates to dividends of the company AMIAT still to be paid to the shareholder FCT Holding, controlled by the Municipality of Turin.

**Financial payables to others**
These regard payables to factoring companies for the portions collected from customers and to be paid to the factor (3,657 thousand euro), payables for dividends to shareholders (2,398 thousand euro) and amounts that are individually less significant.

**Current liabilities for derivatives**
These relate to the negative fair value of derivative contracts entered into by Iren Mercato.

## NOTE 25_TRADE PAYABLES

All trade payables are due within 12 months. The carrying amount of these payables approximates their fair value as the impact of discounting is negligible.

thousands of euro

| | 30/06/2018 | 31/12/2017 |
|---|---|---|
| Trade payables | 606,191 | 767,645 |
| Trade payables to joint ventures | 106 | 247 |
| Trade payables to associates | 4,036 | 10,227 |
| Trade payables to related-party shareholders | 18,888 | 19,635 |
| Trade payables to other related parties | 2,892 | 2,624 |
| Advances due within one year | 6,602 | 5,158 |
| Guarantee deposits due within one year | 22,718 | 21,931 |
| Charges to be reimbursed within one year | 10 | 10 |
| **Total** | **661,443** | **827,477** |

The significant decrease in trade payables compared to 31 December 2017 was due to the decrease in payables to suppliers resulting from the trend in thermal seasonality.

**NOTE 26_OTHER PAYABLES AND OTHER CURRENT LIABILITIES**

All payables recognised in this item are due within one year. The carrying amount of these payables approximates their fair value as the impact of discounting is negligible.

thousands of euro

| | 30/06/2018 | 31/12/2017 |
|---|---|---|
| VAT payable | 5,107 | 4,189 |
| Revenue tax/UTIF payable | 28,855 | 21,085 |
| IRPEF payable | 1,154 | 399 |
| Other tax liabilities | 24,963 | 19,228 |
| **Tax liabilities due within one year** | **60,079** | **44,901** |
| Payables to employees | 43,573 | 41,762 |
| Payables to Cassa Servizi Energetici e Ambientali (CSEA) | 79,601 | 38,544 |
| Accounts payable to social security institutions within one year | 18,112 | 22,343 |
| Other current liabilities | 64,361 | 110,955 |
| **Other payables due within one year** | **205,647** | **213,604** |
| Accrued expenses and deferred income | 21,301 | 11,215 |
| **Total** | **287,027** | **269,720** |

The increase in payables for income taxes is due to pre-payments and settlement payments which are influenced by invoicing volumes for the current year and the previous year.
The increase in payables to Cassa per i Servizi Energetici e Ambientali (the Energy and Environmental Services Fund) of the period is related to the estimates of negative equalisation of electricity and gas.
Other current liabilities refer mainly to cost estimates for the obligations related to energy efficiency certificates, to payables for purification fees and to payables for the TV licence fee collected in bills.

**NOTE 27_CURRENT TAX LIABILITIES**

Current tax liabilities amounting to 105,478 thousand euro (15,295 thousand euro at 31 December 2017) consist of IRES and IRAP payables which include the estimate of taxes for the current period.

**NOTE 28_PROVISIONS FOR RISKS AND CHARGES - CURRENT PORTION**

This item amounted to 68,385 thousand euro (88,502 thousand euro at 31 December 2017) and refers to the short-term portion of the provisions, divided as follows:

- provisions for risks of 17,815 thousand euro;
- provisions for environmental offset charges of 16,368 thousand euro;
- provisions for charges related to the obligation to return emission quotas of 16,130 thousand euro;
- provisions for equity investment risks of 10,065 thousand euro, related to the associate Sinergie Italiane;
- provisions for charges related to voluntary retirement of personnel of 2,939 thousand euro;
- provisions for restoration of transferable works of 1,064 thousand euro;
- provisions for dismantling and reclaiming sites and post-closure provisions of 4,004 thousand euro, which are expected to be used within the next 12 months.

For further details on the breakdown of and changes in provisions for risks and charges see Note 21.

## NOTE 29_LIABILITIES RELATED TO ASSETS HELD FOR SALE

There are no liabilities related to assets held for sale at 30 June 2018.

## FINANCIAL POSITION

The net financial debt, calculated as the difference between short/medium/long-term financial liabilities and short/medium/long-term financial assets, can be broken down as indicated in the following table:

thousands of euro

| | 30/06/2018 | 31/12/2017 |
|---|---|---|
| Non-current financial assets | (171,269) | (165,767) |
| Non-current financial debt | 2,794,200 | 3,023,888 |
| **Non-current net financial debt** | **2,622,931** | **2,858,121** |
| Current financial assets | (589,269) | (675,468) |
| Current financial debt | 394,126 | 189,132 |
| **Current net financial debt** | **(195,143)** | **(486,336)** |
| **Net financial debt** | **2,427,788** | **2,371,785** |

**Detail of Net Financial Position regarding related parties**

Non-current financial assets relate for 144,438 thousand euro to receivables from the Municipality of Turin and for 9,822 thousand euro to receivables from associates.

Current financial assets relate for 11,523 thousand euro to receivables from the Municipality of Turin, for 411,500 thousand euro to receivables from the joint venture OLT Offshore and for 5,403 thousand euro to receivables from associates.

Current financial liabilities relate for 3,308 thousand euro to payables to the Municipality of Turin, for 2,476 thousand euro to payables to FCT Holding and for 2,605 thousand euro to payables to the associate Valle Dora Energia.

Below is the net financial position in the format proposed by the ESMA recommendation of 10 February 2005 transposed with CONSOB Communication of 28 July 2006, which does not include non-current financial assets.

thousands of euro

| | 30/06/2018 | 31/12/2017 |
|---|---|---|
| A. Cash in hand | (111,438) | (169,086) |
| B. Other cash and cash equivalents (details) | - | - |
| C. Securities held for trading | - | - |
| **D. Cash and cash equivalents (A) + (B) + (C)** | **(111,438)** | **(169,086)** |
| **E. Current financial receivables** | **(477,831)** | **(506,382)** |
| F. Current bank debt | 119,854 | 13,093 |
| G. Current portion of non-current debt | 257,192 | 137,480 |
| H. Other current financial debt | 17,080 | 38,559 |
| **I. Current financial debt (F)+(G)+(H)** | **394,126** | **189,132** |
| **J. Net current financial debt (I) – (E) – (D)** | **(195,143)** | **(486,336)** |
| K. Non-current bank debt | 1,009,973 | 1,148,105 |
| L. Bonds issued | 1,690,418 | 1,777,885 |
| M. Other non-current debt | 93,809 | 97,898 |
| **N. Non-current financial debt (K) + (L) + (M)** | **2,794,200** | **3,023,888** |
| **O. Net financial debt (J) + (N)** | **2,599,057** | **2,537,552** |

The table below shows the changes in the period in current and non-current financial liabilities.

thousands of euro

| | |
|---|---|
| **Current and non-current financial liabilities 31.12.2017** | **3,213,020** |
| Opening of short-term loans | 91,000 |
| Repayment of medium/long-term loans | (120,115) |
| Liabilities assumed following change in consolidation scope | 12,117 |
| Liabilities for finance lease contracts | 2,421 |
| Fair value changes on derivatives | (4,974) |
| Other changes | (5,143) |
| **Current and non-current financial liabilities 30.06.2018** | **3,188,326** |

# VIII. NOTES TO THE INCOME STATEMENT

Unless otherwise stated, the following tables are in thousands of euro.

Starting from 1 January 2018 the Group's consolidated income statement contains the economic figures of the Iren Rinnovabili Group companies and, starting from 1 April 2018, those of the ACAM Group companies and of ReCos S.p.A.; the economic results of the first half of 2018 are therefore affected by the inclusion of these figures in the consolidation scope.
We can also note that the income statement items include, along the entire time period in question, the results of the subsidiary Salerno Energia Vendite, while in the first half of 2017 they were included starting from 1 May.

**REVENUE**

**NOTE 30_REVENUE FROM GOODS AND SERVICES**

This item amounts to 1,771,999 thousand euro (1,701,170 thousand euro in the first half of 2017). For further details on the trend in revenues by business segments see the tables in paragraph XI "Business segment Reporting".

**NOTE 31_CHANGE IN WORK IN PROGRESS**

This item amounted to a positive 27 thousand euro (-4,707 thousand euro in the first half of 2017) and refers mainly to the accounting for the progress of work done for the Municipality of Turin. In the first half of 2017 it referred to the accounting for the completion of work on the project to make the municipal heating plants more energy efficient in the City of Turin and the progress of work on the Turin LED Project.

**NOTE 32_OTHER INCOME**

Other income totalled 164,930 thousand euro (117,069 thousand euro in the first half of 2017) and refers to contributions, revenue for energy certificates and sundry income. The tables below show the details of the single items.

**Contributions**

thousands of euro

| | First half 2018 | First half 2017 |
|---|---|---|
| Grants related to plant | 4,917 | 4,220 |
| Connection contributions | 3,417 | 4,211 |
| Other grants | 354 | 414 |
| **Total** | **8,688** | **8,845** |

The grants for plant facilities and connection contributions represent the pertaining portion of grants calculated in proportion to the depreciation rates of the plants to which they refer.
The connection contributions include amounts received for connection to the Group's electricity, water, gas and heat distribution networks. Starting from 1 January 2018, with the introduction of IFRS 15 - *Revenue from Contracts with Customers,* these contributions can no longer be considered part of the fee for the distribution service, since control of the asset is not transferred and so they must be deferred and released along the life of the relevant asset in line with what is envisaged for tariff purposes. Having made use of the simplification, provided for in the said standard, recognising cumulative application impacts on the opening of 1 January 2018, the comparative data of the first half of 2017 were not restated.

In the first half of 2018 the new accounting treatment brought about a reduction in the item Connection contributions of 573 thousand euro due to:

- lower revenue for contributions collected in the first half of 2018 and deferred, of 3,990 thousand euro;
- higher revenue for reversal to the income statement of deferrals of contributions of previous years of 3,417 thousand euro.

**Revenue from energy certificates**

thousands of euro

| | First half 2018 | First half 2017 |
|---|---|---|
| Revenue from Emission Trading | 1,276 | 653 |
| Revenue from ex-Green Certificates incentive | 46,580 | 45,916 |
| Revenue from White Certificates | 96,452 | 29,721 |
| **Total** | **144,308** | **76,290** |

The significant increase in the revenue from White Certificates derived mainly from the recognition of energy efficiency certificates for earlier periods and from sale on the exchange of certificates in portfolio in surplus with respect to the quantities necessary to fulfil the cancellation obligations set by the Authority.

**Other income**

thousands of euro

| | First half 2018 | First half 2017 |
|---|---|---|
| Revenue from service contracts | 2,828 | 1,476 |
| Revenue from rental income and leases | 635 | 1,338 |
| Capital gains on goods disposal | 814 | - |
| Insurance reimbursement | 156 | 1,976 |
| Sundry repayments | 2,944 | 2,466 |
| Income from fair value of commodity derivatives | - | 201 |
| Other revenue and income | 4,557 | 24,477 |
| **Total** | **11,934** | **31,934** |

The significant change in the item “other revenue and income” was due mainly to the cessation of revenue for energy certificates related to previous years recognised in the first half of 2017.

## COSTS

### NOTE 33_RAW MATERIALS, CONSUMABLES, SUPPLIES AND GOODS

This item is broken down as follows:

thousands of euro

| | First half 2018 | First half 2017 |
|---|---|---|
| Purchase of electricity | 164,390 | 173,826 |
| Purchase of gas | 391,625 | 374,730 |
| Purchase of heat | 105 | 147 |
| Purchase of other fuels | 41 | 42 |
| Purchase of water | 1,508 | 1,417 |
| Other raw materials and inventory materials | 35,449 | 26,487 |
| Emission Trading | 15,404 | 8,423 |
| White certificates | 22,525 | 24,966 |
| Change in inventories | (5,312) | (3,201) |
| **Total** | **625,735** | **606,837** |

### NOTE 34_SERVICES AND USE OF THIRD-PARTY ASSETS

Costs for services amounted to 576,619 thousand euro (529,453 thousand euro in the first half of 2017) and are detailed in the table below.

thousands of euro

| | First half 2018 | First half 2017 |
|---|---|---|
| Electricity transport and electricity system expenses | 286,158 | 292,781 |
| Gas carriage | 41,482 | 25,815 |
| Third-party works, maintenance and industrial services | 91,906 | 66,407 |
| Collection and disposal, snow clearing, public parks | 82,976 | 73,580 |
| Expenses related to personnel (canteen, training, travel) | 4,978 | 4,188 |
| Technical, administrative and commercial consulting and advertising expenses | 18,472 | 18,214 |
| Legal and notary fees | 1,388 | 2,091 |
| Insurance | 7,186 | 7,978 |
| Banking costs | 3,784 | 3,545 |
| Telephone costs | 3,084 | 2,901 |
| IT expenses | 14,989 | 9,992 |
| Reading and invoicing services | 5,640 | 6,155 |
| Fees of the Board of Statutory Auditors | 387 | 383 |
| Other costs for services | 14,189 | 15,423 |
| **Total costs for services** | **576,619** | **529,453** |

Costs for third-party works mainly relate to operating and maintenance costs of plants and networks.
“Other costs for services” consist of the remaining costs for internal consumption, back office, transport and other services.

Costs for the use of third-party assets amounted to 21,571 thousand euro (19,751 thousand euro in the first half of 2017). These include instalments paid to the market operator of the Genoa district, instalments paid to the companies which own the assets of the integrated water service in the municipalities of Parma, Piacenza and Reggio Emilia, cross easements, operating lease rentals (including rents paid for the buildings in the Core Multiutilities fund), hiring, IT fees and sundry rentals.

**NOTE 35_OTHER OPERATING EXPENSES**

Other operating expenses amounted to 25,344 thousand euro (40,961 thousand euro in the first half of 2017) and are detailed in the table below:

thousands of euro

| | First half 2018 | First half 2017 |
|---|---|---|
| General expenses | 7,360 | 4,791 |
| Instalments and higher instalments for water shunting | 8,024 | 7,756 |
| Taxes and duties | 9,867 | 9,301 |
| Capital losses on goods disposal | 20 | 49 |
| Expense from fair value of commodity derivatives | - | 34 |
| Other sundry operating expenses | 73 | 19,030 |
| **Total** | **25,344** | **40,961** |

General expenses include among other things contributions to the running costs of various entities and penalties from service providers. The item “taxes and duties” relates mainly to expenses for IMU (Council Tax) on the Group’s plants and buildings and expenses for occupying and reclaiming public land.
The significant change in the item other sundry operating expenses derived mainly from the cessation of costs for energy certificates related to previous years recognised in the first half of 2017.

**NOTE 36_CAPITALISED EXPENSES FOR INTERNAL WORK**

“Capitalised expenses for internal work” amounted to 13,804 thousand euro (11,637 thousand euro in the first half of 2017), and regard an increase in capital assets created with internal resources and production factors.

thousands of euro

| | First half 2018 | First half 2017 |
|---|---|---|
| Capitalised labour costs | (10,999) | (9,862) |
| Capitalised inventory materials | (2,805) | (1,775) |
| **Total** | **(13,804)** | **(11,637)** |

## NOTE 37_PERSONNEL EXPENSE

Personnel costs amounted to 195,644 thousand euro (185,900 thousand euro in the first half of 2017) and are detailed in the table below:

thousands of euro

| | First half 2018 | First half 2017 |
|---|---|---|
| Gross remuneration | 137,715 | 126,683 |
| Social security contributions | 44,934 | 41,727 |
| Post-employment benefits | 576 | 520 |
| Other long-term employee benefits | 171 | 313 |
| Other personnel expense | 11,551 | 16,059 |
| Directors' fees | 697 | 598 |
| **Total** | **195,644** | **185,900** |

As described in Note 36, 10,999 thousand euro of costs related to personnel were capitalised.

Other personnel expenses also include the social security and recreational contributions, the contribution paid to the supplementary health care fund, insurance for accidents occurring outside working hours, the portion of post-employment benefits and contributions to be paid by the employer to supplementary pension funds.

The personnel composition is shown in the following table.

| | 30/06/2018 | 31/12/2017 | Average for the period |
|---|---|---|---|
| Senior managers | 93 | 89 | 89 |
| Junior managers | 301 | 265 | 286 |
| White collar | 3,327 | 2,918 | 3,196 |
| Blue collar | 3,377 | 3,013 | 3,196 |
| **Total** | **7,098** | **6,285** | **6,767** |

The increase in the number of employees was mainly due to the consolidation of the ACAM Group companies and to the fact that at 31 December 2017 it did not include employees of the Iren Rinnovabili Group companies because they were acquired at the end of the financial year and therefore did not contribute to determining the Group's personnel expenses in 2017.

## NOTE 38_DEPRECIATION AND AMORTISATION

Depreciation and amortisation for the period amounted to 168,972 thousand euro (155,448 thousand euro in the first half of 2017).

thousands of euro

| | First half 2018 | First half 2017 |
|---|---|---|
| Property, plant and equipment and investment property | 113,385 | 109,023 |
| Intangible assets | 55,587 | 46,425 |
| **Total** | **168,972** | **155,448** |

For further details on depreciation and amortisation, reference should be made to the tables of changes in property, plant and equipment and intangible assets.

**NOTE 39_PROVISIONS AND IMPAIRMENT LOSSES**

This item amounted to a total of 21,590 thousand euro (29,901 thousand euro in the first half of 2017) and is detailed in the table below:

thousands of euro

| | First half 2018 | First half 2017 |
|---|---|---|
| **Provisions for impairment of receivables** | **16,436** | **22,501** |
| Provisions for risks and restoration of third-party assets | 7,756 | 16,792 |
| Provision releases | (4,012) | (9,532) |
| Write-downs | 1,410 | 140 |
| **Total other provisions and impairment losses** | **5,154** | **7,400** |

As illustrated in the paragraph Accounting standards, amendments and interpretations applied from 1 January 2018 and as indicated in Note 12_Trade receivables, the provisions set aside for impairment of receivables of the period reflect the new method provided for in the accounting standard IFRS 9 which entailed a restatement upwards of the said provisions at 1 January 2018 of 5,307 thousand euro.

The trend of provisions set aside for risks and restoration of third-party assets is referable to the assessment of risks of liabilities mainly in the water sector, while releases of provisions in the period refer to the revision of estimates of expenses set aside in previous years.
Impairment losses for the period originate from the downward adjustment in the market price for part of the stock of emission rights held in the portfolio.
The analysis of the provisions and related variations are given in the comment to the statement of financial position item “Provisions for risks and charges”.

**NOTE 40_FINANCIAL INCOME AND EXPENSE**

**Financial income**
Financial income for the period amounted to 19,305 thousand euro (16,472 thousand euro in the first half of 2017). The details are shown in the following table:

thousands of euro

| | First half 2018 | First half 2017 |
|---|---|---|
| Dividends | 604 | 635 |
| Bank interest income | 174 | 217 |
| Interest income from receivables/loans | 10,097 | 10,425 |
| Interest income from customers | 1,487 | 1,221 |
| Fair value gains on derivatives | 5,522 | 2,551 |
| Gains made on derivatives | 862 | - |
| Exchange rate gains | 10 | - |
| Other financial income | 549 | 1,423 |
| **Total** | **19,305** | **16,472** |

Interest income from receivables/loans refers mainly to interest receivable from the joint venture OLT Offshore (7,135 thousand euro) and interest accrued on current accounts between the Group and the Municipality of Turin (2,298 thousand euro).

Income from fair value on derivative contracts refers to the non-effective portion of hedging instruments and to the fair value changes of hedging instruments that do not meet the formal requirements for the application of hedge accounting.
Other financial income mainly includes financial income for the discounting of provisions.

**Financial expense**

This item amounted to 49,952 thousand euro (56,428 thousand euro in the first half of 2017). The breakdown of financial expenses is provided in the following table:

thousands of euro

| | First half 2018 | First half 2017 |
|---|---|---|
| Interest expense on loans | 16,657 | 18,094 |
| Interest expense on bonds | 19,930 | 21,955 |
| Interest expense on bank current accounts | 14 | 3 |
| Other interest expense | 459 | 539 |
| Derivative fair value charges | 357 | 1,728 |
| Expenses paid on derivatives | 9,840 | 12,786 |
| Capital loss on disposal of financial assets | 219 | - |
| Interest cost – Employee benefits | 833 | 614 |
| Other financial expenses | 1,643 | 709 |
| **Total** | **49,952** | **56,428** |

Interest on loans and bonds includes the expenses relating to the measurement at amortised cost.
Derivative fair value expenses consist of the reversal of a portion of the cash flow hedging reserve to the income statement, relating to certain hedging positions that do not meet the formal requirements for the application of hedge accounting.
Reference should be made to the note to the statement of financial position on the item "Employee benefits" for details of financial expenses on employee benefits.
Other financial expenses mainly includes financial expenses for the discounting of provisions.

**NOTE 41_SHARE OF PROFIT (LOSS) OF ASSOCIATES ACCOUNTED FOR USING THE EQUITY METHOD**

The profit of associates accounted for using the equity method amounted to 825 thousand euro (a profit of 4,541 thousand euro in the first half of 2017). For more details please see Note 5 "Investments accounted for using the equity method".

**NOTE 42_VALUE ADJUSTMENTS ON EQUITY INVESTMENTS**

This item amounted to a positive 2,061 thousand euro (8,579 thousand euro in the first half of 2017) and refers:

- to the write-back of Acquaenna in the light of cessation of the conditions for a write-down made in previous years (+1,380 thousand euro);
- to the restatement at fair value, at the date the controlling stake was acquired, of the minority interest held at 31 March 2018, in ReCos. (+684 thousand euro);
- to the write-down of the equity investment in Consorzio Italiano Compostatori (-3 thousand euro).

In the first half of 2017 it referred for 8,635 thousand euro to the restatement at fair value, at the date the controlling stake was acquired, of the non-controlling interest held at 30 April 2017, in Salerno Energia Vendite. The remainder, a negative 56 thousand euro, referred to value adjustments on the equity investments in Stadio Albaro and CSP Innovazione nelle ICT.

**NOTE 43_INCOME TAX EXPENSE**

Income taxes for the first half of 2018 are estimated at 88,314 thousand euro (72,529 thousand euro in the first half of 2017) and are the result of the best estimate of the average tax rate expected for the entire year.

We can note that, starting from 2010, Iren S.p.A. adopted the domestic tax consolidation scheme pursuant to Arts 117 et seq. of the new Consolidated Income Tax Act (TUIR). Under this approach, IRES is calculated on the taxable income of the Group, calculated as the total taxable profits and losses recognised by the individual consolidated companies, properly adjusted for the consolidation changes.
The tax consolidation scope for 2018 includes the following companies, in addition to the consolidating company Iren S.p.A.: IRETI, Iren Mercato, Iren Acqua, Immobiliare delle Fabbriche, Iren Ambiente, Iren Rinnovabili, Greensource, Enìa Solaris, Varsi Fotovoltaico, AMIAT, AMIAT V., TRM Holding (incorporated into Iren Ambiente) TRM V (incorporated into Iren Ambiente).
All financial and legal transactions between the parties are governed by the specific intra-group agreement between the companies involved and the parent, Iren S.p.A.

**NOTE 44_NET PROFIT/(LOSS) FROM DISCONTINUED OPERATIONS**

This is not present in either the first half of 2018 or in the comparative period.

**NOTE 45_ PROFIT/(LOSS) FOR THE PERIOD ATTRIBUTABLE TO MINORITIES**

Profit of non-controlling interests, of 12,058 thousand euro (12,745 thousand euro in the first half of 2017), refers to the portion attributable to non-controlling interests in companies fully consolidated but not wholly owned by the Group.

**NOTE 46_EARNINGS PER SHARE**

In order to calculate the basic and diluted earnings per share, the number of shares of the first half of 2018 is the weighted average of shares outstanding over the reference period based on the provisions of paragraph 20, IAS 33. The company has not issued financial instruments that have the potential to dilute ordinary and savings shares, therefore diluted earnings per share is equal to basic earnings per share.

| | **First half 2018** | **First half 2017** |
|---|---|---|
| Net profit (loss) for the period (thousands of euro) | 187,152 | 144,808 |
| Weighted average number of shares outstanding over the year (thousand) | 1,283,187 | 1,276,226 |
| **Basic earnings/(loss) per share (euro)** | **0.15** | **0.11** |

**NOTE 47_OTHER COMPREHENSIVE INCOME**

Other comprehensive income amounted to 215 thousand euro (+3,997 thousand euro in the first half of 2017) and refers to the other comprehensive income that will subsequently be reclassified to the Income Statement. In particular it includes the following elements:

- the effective portion of changes in the fair value of cash flow hedging instruments, a positive 46 thousand euro, which refers to derivatives hedging changes in interest rates and derivatives hedging changes in commodity prices (for the Group this is gas).
- the share of other profits/(losses) of companies accounted for using the equity method, a positive 222 thousand euro, which refers to changes in the fair value of cash flow hedging instruments of associates.
- the tax effect of other comprehensive income for -53 thousand euro.

# IX. GUARANTEES AND CONTINGENT LIABILITIES

Guarantees relate to:

a) Sureties for own commitments of 403,580 thousand euro (369,791 thousand euro at 31 December 2017); the most significant items refer to sureties issued in favour of:
   - ARPAE for 75,004 thousand euro for waste conferment and operating and post-closure management of plants subject to Integrated Environmental Authorisation (hereinafter I.E.A.);
   - the Turin Provincial/Metropolitan City Governments, for 60,971 thousand euro for waste conferment and post-closure management of plants subject to I.E.A.;
   - ATO-R, for 41,000 thousand euro, as definitive guarantees in the Amiat/TRM tender procedure;
   - the City of Turin for 27,478 thousand euro as definitive guarantees in the AMIAT/TRM tender procedure;
   - the italian Electricity Market Operator ("GME" – Gestore dei Mercati Energetici) for 27,400 thousand euro to guarantee the market participation contract;
   - CONSIP for 26,757 thousand euro for electricity supply contracts;
   - the Customs Authority, for 19,712 thousand euro to guarantee the regular payment of revenue tax and additional local and provincial duties on electricity consumption and gas excise;
   - SNAM Rete Gas for 18,243 thousand euro, of which 942 thousand euro in the interest of OLT Offshore LNG Toscana in relation to the construction of a delivery point;
   - INPS for 18,150 thousand euro for the planned redundancy procedure for group employees;
   - ATERSIR for 14,306 thousand euro for S.I.I. and S.G.R.U. agreements and tenders in progress;
   - the Ministry of the Environment, for 12,702 thousand euro;
   - Terna, for 5,088 thousand euro to guarantee injection and withdrawal dispatching contracts and to guarantee the electricity transport service contract;
   - the Municipality of Parma for 2,501 thousand euro to guarantee the Cornocchio plant and for maintenance contracts;
   - FCT Holding, for 2,000 thousand euro, as definitive guarantee in the AMIAT/TRM tender procedure;
   - REAM Sgr SpA, for 1,931 thousand euro, to guarantee lease payments of properties transferred to the real estate fund called Fondo Core MultiUtilities;

b) Guarantees provided on behalf of subsidiaries and associates for 344,035 thousand euro, primarily to guarantee credit facilities and sales/Parent Company Guarantee contracts on behalf of Iren Mercato SpA;

The most significant amounts, regarding the guarantees given on behalf of associates, refer to the associate Sinergie Italiane in liquidation and in particular guarantees for credit facilities and letters of patronage for 25,332 thousand euro (26,666 thousand at 31 December 2017). The liquidators concluded the main procurement contracts and since 1 October 2012 the Company's operating activity therefore includes only the purchase of gas from the Russian Gazprom supplier and the sale of gas to shareholders or their subsidiaries, including Iren Mercato.

**COMMITMENTS**

In relation to the subsidiary Iren Acqua (formerly Mediterranea delle Acque), we can note the existence of a commitment within the framework Agreement with the Shareholder F2i rete idrica S.p.A.. Article 15 of this agreement envisages that Ireti is bound to pay damages in the event of liabilities, losses or damage suffered by F2i or Iren Acqua or its investees, resulting from incorrect or unfair statements included in the agreement.

# X. SEGMENT REPORTING

Segment reporting, based on the Group's management and internal reporting structure, is given below in accordance with IFRS 8.
Given the nature of the activity performed by Group companies, a geographical segment analysis is not relevant.

### OPERATING BUSINESS SEGMENTS

The Iren Group operates in the following business segments:

- Energy (Hydroelectric production and production from other renewable sources, Combined Heat and Power, District Heating Networks, Thermoelectric Production)
- Market (Sale of electricity, gas, heat)
- Networks (Electricity Distribution Networks, Gas Distribution Networks, Integrated Water Service)
- Waste Management (Waste collection and disposal)
- Other services (Public Lighting, Global Services Energy Efficiency Services and other minor services).

These operating segments are disclosed pursuant to IFRS 8. Under this standard, the disclosure about operating segments should be based on the elements which management uses in making operational and strategic decisions.

For a proper interpretation of the economic results relating to individual businesses, revenue and expense referring to joint activities were fully allocated to the businesses based on actual usage of the services provided or according to technical and economic drivers.

Given the fact that the Group mainly operates in one area, the following segment information does not include a breakdown by geographical area.

Net invested capital by business segment compared to the figures at 31 December 2017 and income statements (up to the operating profit) by business segment are presented below, and include a comparison with the figures for the first half of 2017. We must specify that the comparative data of the first half of 2017 were restated, as provided for in IFRS 3, with completion of the Purchase Price Allocation, to take into account, at the acquisition date, the definitive fair value of the acquired assets and liabilities of REI - Ricupero Ecologici Industriali and Salerno Energia Vendite. For more details please see the paragraph "Content and structure of the condensed consolidated interim financial statements" in the Notes to the Financial Statements.

**Statement of financial position by business segment at 30 June 2018**

millions of euro

| | Energy | Market | Networks | Waste Management | Other services | Non-allocable | Total |
|---|---|---|---|---|---|---|---|
| Non-current assets | 1,850 | 136 | 2,494 | 962 | 61 | 166 | 5,669 |
| Net Working Capital | 9 | (31) | 87 | 98 | 3 | - | 166 |
| Other non-current assets and liabilities | (118) | (23) | (607) | (167) | 6 | - | (909) |
| **Net invested capital (NIC)** | **1,741** | **82** | **1,974** | **894** | **69** | **166** | **4,926** |
| **Equity** | | | | | | | 2,499 |
| **Net financial debt** | | | | | | | 2,428 |
| **Own funds and net financial debt** | | | | | | | **4,926** |

### Statement of financial position by business segment at 31 December 2017

millions of euro

| | Energy | Market | Networks | Waste Management | Other services | Non-allocable | Total |
|---|---|---|---|---|---|---|---|
| Non-current assets | 1,876 | 131 | 2,272 | 933 | 32 | 168 | **5,412** |
| Net Working Capital | 50 | 10 | 59 | 50 | 13 | - | **182** |
| Other non-current assets and liabilities | (101) | (25) | (435) | (166) | 4 | - | **(723)** |
| **Net invested capital (NIC)** | **1,825** | **116** | **1,896** | **817** | **49** | **168** | **4,871** |
| **Equity** | | | | | | | **2,499** |
| **Net financial debt** | | | | | | | **2,372** |
| **Own funds and net financial debt** | | | | | | | **4,871** |

### Income Statement by business segment for the first half of 2018

millions of euro

| | Energy | Market | Networks | Waste Management | Other services | Netting and adjustments | Total |
|---|---|---|---|---|---|---|---|
| Total revenue and income | 620 | 1,241 | 443 | 294 | 42 | (703) | 1,937 |
| Total operating expenses | (413) | (1,178) | (282) | (221) | (40) | 703 | (1,431) |
| **Gross Operating Profit (EBITDA)** | **207** | **63** | **161** | **73** | **2** | **-** | **506** |
| Am./depr., net provisions and impairment losses | (61) | (20) | (72) | (38) | 1 | - | (191) |
| **Operating profit (EBIT)** | **145** | **43** | **88** | **36** | **3** | **-** | **315** |

### Restated Income Statement by business segment for the first half of 2017

millions of euro

| | Energy | Market | Networks | Waste Management | Other services | Netting and adjustments | Total |
|---|---|---|---|---|---|---|---|
| Total revenue and income | 555 | 1,248 | 421 | 270 | 50 | (731) | 1,814 |
| Total operating expenses | (408) | (1,178) | (268) | (199) | (49) | 731 | (1,371) |
| **Gross Operating Profit (EBITDA)** | **147** | **70** | **153** | **71** | **1** | **-** | **442** |
| Am./depr., net provisions and impairment losses | (63) | (21) | (67) | (34) | (0) | - | (185) |
| **Operating profit (EBIT)** | **84** | **49** | **86** | **37** | **1** | **-** | **257** |

# XI. ANNEXES TO THE CONDENSED CONSOLIDATED INTERIM REPORT

FULLY CONSOLIDATED COMPANIES

COMPANIES ACCOUNTED FOR USING THE EQUITY METHOD

EQUITY INVESTMENTS IN OTHER COMPANIES

RECONCILIATION OF IAS/IFRS FINANCIAL STATEMENTS WITH RECLASSIFIED FINANCIAL STATEMENTS (CONSOB Communication no. 6064293 dated 28 July 2006)

TRANSACTIONS WITH RELATED PARTIES

## FULLY CONSOLIDATED COMPANIES

| Company | Registered office | Currency | Share capital | % interest | Shareholder company |
|---|---|---|---|---|---|
| Iren Ambiente S.p.A. | Piacenza | Euro | 63,622,002 | 100.00 | Iren |
| Iren Energia S.p.A. | Turin | Euro | 918,767,148 | 100.00 | Iren |
| Iren Mercato S.p.A. | Genoa | Euro | 61,356,220 | 100.00 | Iren |
| Ireti S.p.A. | Tortona (Alessandria) | Euro | 196,832,103 | 100.00 | Iren |
| Acam S.p.A. | La Spezia | Euro | 27,819,860 | 100.00 | Iren |
| Acam Acque S.p.A. | La Spezia | Euro | 24,260,050 | 100.00 | Acam S.p.A. |
| Acam Ambiente S.p.A. | La Spezia | Euro | 6,313,620 | 100.00 | Acam S.p.A. |
| AMIAT S.p.A. | Turin | Euro | 46,326,462 | 80.00 | AMIAT V |
| AMIAT V. S.p.A. | Turin | Euro | 1,000,000 | 93.06 | Iren Ambiente |
| ASM Vercelli S.p.A. | Vercelli | Euro | 120,812,720 | 59.97 | IRETI |
| Atena Trading s.r.l | Vercelli | Euro | 556,000 | 100.00 | ASM Vercelli |
| Bonifica Autocisterne S.r.l. | Piacenza | Euro | 595,000 | 51.00 | Iren Ambiente |
| Centrogas Energia S.p.A. | La Spezia | Euro | 5,100,000 | 100.00 | Acam S.p.A. |
| Coin Consultech S.r.l. | Reggio Emilia | Euro | 10,000 | 72.87 | Studio Alfa |
| Consorzio GPO | Reggio Emilia | Euro | 20,197,260 | 62.35 | IRETI |
| Enia Solaris S.r.l. | Reggio Emilia | Euro | 100,000 | 100.00 | Greensource |
| Greensource S.p.A. | Reggio Emilia | Euro | 1,000,000 | 100.00 | Iren Rinnovabili |
| Immobiliare delle Fabbriche S.r.l. | Genoa | Euro | 90,000 | 100.00 | Iren Acqua |
| Integra s.r.l. | La Spezia | Euro | 1,500,000 | 100.00 | Acam S.p.A. |
| Iren Acqua S.p.A. | Genoa | Euro | 19,203,420 | 60.00 | IRETI |
| Iren Acqua Tigullio S.p.A. | Chiavari (Genoa) | Euro | 979,000 | 66.55 | Iren Acqua |
| Iren Laboratori S.p.A. | Genoa | Euro | 2,000,000 | 90.89 | IRETI |
| Iren Rinnovabili | Reggio Emilia | Euro | 2,596,721 | 100.00 | Iren Ambiente |
| Monte Querce S.c.a.r.l. | Reggio Emilia | Euro | 100,000 | 60.00 | Iren Ambiente |
| ReCos S.p.A. | La Spezia | Euro | 3,516,000 | 49.00 | Acam S.p.A. |
| | | | | 46.00 | Iren Ambiente |
| R.E.I. S.r.l. | Pianezza (Turin) | Euro | 50,000 | 100.00 | Iren Ambiente |
| Salerno Energia Vendite | Salerno | Euro | 3,312,060 | 50.00 | Iren Mercato |
| Studio Alfa S.p.A. | Reggio Emilia | Euro | 100,000 | 86.00 | Iren Rinnovabili |
| TRM S.p.A. | Turin | Euro | 86,794,220 | 80.00 | Iren Ambiente |
| Varsi Fotovoltaico S.r.l. | Reggio Emilia | Euro | 100,000 | 100.00 | Greensource |

## COMPANIES ACCOUNTED FOR USING THE EQUITY METHOD

### Joint ventures

| Company | Registered office | Currency | Share capital | % interest | Shareholder company |
|---|---|---|---|---|---|
| Acque Potabili S.p.A. | Turin | Euro | 7,633,096 | 44.92 | IRETI |
| Olt Offshore Toscana LNG S.p.A. | Milan | Euro | 40,489,544 | 46.79 | Iren Mercato |

### Associates

| Company | Registered office | Currency | Share capital | % interest | Shareholder company |
|---|---|---|---|---|---|
| A2A Alfa S.r.l. | Milan | Euro | 100,000 | 30.00 | Iren Mercato |
| Acos Energia S.p.A. | Novi Ligure | Euro | 150,000 | 25.00 | Iren Mercato |
| Acos S.p.A. | Novi Ligure | Euro | 17,075,864 | 25.00 | IRETI |
| Acquaenna S.c.p.a. | Enna | Euro | 3,000,000 | 46.00 | IRETI |
| Aguas de San Pedro | S.Pedro Sula (Honduras) | Lempiras | 159,900 | 39.34 | IRETI |
| Aiga S.p.A. | Ventimiglia | Euro | 104,000 | 49.00 | IRETI |
| Amat S.p.A. | Imperia | Euro | 5,435,372 | 48.00 | IRETI |
| Amter S.p.A. | Cogoleto (Genoa) | Euro | 404,263 | 49.00 | Iren Acqua |
| ASA S.p.A. | Livorno | Euro | 28,613,406 | 40.00 | IRETI |
| ASTEA S.p.A. | Recanati | Euro | 76,115,676 | 21.32 | Consorzio GPO |
| Asti Energia e Calore S.p.A. | Asti | Euro | 120,000 | 34.00 | Iren Energia |
| BI Energia S.r.l. | Reggio Emilia | Euro | 100,000 | 47.50 | Iren Rinnovabili |
| CSP Innovazione nelle ICT S.c.r.l. | Turin | Euro | 600,000 | 25.00 | Iren Energia |
| Domus Acqua S.r.l. | Domusnovas | Euro | 96,000 | 29.00 | IRETI |
| Fata Morgana S.p.A. (2) | Reggio Calabria | Euro | 2,225,694 | 25.00 | IRETI |
| Fin Gas srl | Milan | Euro | 10,000 | 50.00 | Iren Mercato |
| G.A.I.A. S.p.A. | Asti | Euro | 5,539,700 | 45.00 | Iren Ambiente |
| Global Service Parma | Parma | Euro | 20,000 | 30.00 | IRETI |
| Iniziative Ambientali S.r.l. | Novellara (Reggio Emilia) | Euro | 100,000 | 40.00 | Iren Ambiente |
| Mondo Acqua | Mondovì (Cuneo) | Euro | 1,100,000 | 38.50 | IRETI |
| Nord Ovest Servizi | Turin | Euro | 7,800,000 | 10.00 | IRETI |
| | | | | 15.00 | AMIAT |
| Piana Ambiente S.p.A. (2) | Gioia Tauro | Euro | 1,719,322 | 25.00 | IRETI |
| Plurigas S.p.A. (2) | Milan | Euro | 800,000 | 30.00 | Iren |
| Rio Riazzone S.p.A. (1) | Castellarano (Reggio Emilia) | Euro | 103,292 | 44.00 | Iren Ambiente |
| Sinergie Italiane S.r.l. (1) | Milan | Euro | 1,000,000 | 30.94 | Iren Mercato |
| So. Sel. S.p.A. | Modena | Euro | 240,240 | 24.00 | IRETI |
| STU Reggiane S.p.A. | Reggio Emilia | Euro | 13,148,879 | 30.00 | Iren Rinnovabili |
| Tirana Acque (1) | Genoa | Euro | 95,000 | 50.00 | IRETI |
| Valle Dora Energia S.r.l. | Turin | Euro | 537,582 | 49.00 | Iren Energia |

(1) Company in liquidation

(2) Company in liquidation classified among discontinuing operations

## EQUITY INVESTMENTS IN OTHER COMPANIES

| Company | Registered office | Currency | Share capital | % interest | Shareholder company |
|---|---|---|---|---|---|
| Acque Potabili Siciliane in bankruptcy (1) | Palermo | Euro | 5,000,000 | 9.83 | Iren Acqua |
| Aeroporto di Reggio Emilia | Reggio Emilia | Euro | 2,177,871 | 0.11 | Studio Alfa |
| ASQ Network | Rome | Euro | 75,000 | 6.00 | Studio Alfa |
| ATO2ACQUE S.c.a.r.l. | Biella | Euro | 48,000 | 16.67 | ASM Vercelli |
| Aurora S.r.l. | S. Martino in Rio (RE) | Euro | 514,176 | 0.10 | Studio Alfa |
| Autostrade Centro Padane | Cremona | Euro | 30,000,000 | 1.46 | IRETI |
| BT ENIA Telecomunicazioni | Parma | Euro | 4,226,000 | 12.01 | IRETI |
| C.R.P.A. | Reggio Emilia | Euro | 2,201,350 | 2.27 | IRETI |
| CIDIU SPA | Collegno (TO) | Euro | 4,335,314 | 4.82 | AMIAT |
| CNA Servizi Scrl | Reggio Emilia | Euro | - | - | Studio Alfa |
| Consorzio L.E.A.P. | Piacenza | Euro | 150,000 | 8.57 | Iren Ambiente |
| Consorzio Topix | Turin | Euro | 1,600,000 | 0.30 | Iren Energia |
| Credito Cooperativo Reggiano | S.Giovanni di Querciola (RE) | Euro | - | - | Studio Alfa |
| Emilbanca BCC | Bologna | Euro | - | - | Studio Alfa |
| Environment Park S.p.A. | Turin | Euro | 11,406,780 | 3.39 | Iren Energia |
| | | | | 7.41 | AMIAT |
| Reggio Emilia Innovazione (2) | Reggio Emilia | Euro | 871,956 | 0.99 | Iren Ambiente |
| Società di Biotecnologie S.p.A. | Turin | Euro | 536,000 | 1.00 | Iren Energia |
| Stadio Albaro (2) | Genoa | Euro | 1,230,000 | 2.00 | Iren Mercato |
| T.I.C.A.S.S. | Genoa | Euro | 176,000 | 3.45 | IRETI |

(1) in bankruptcy from 29/10/2013
(2) Company in liquidation

## RECONCILIATION OF IAS/IFRS FINANCIAL STATEMENTS WITH RECLASSIFIED FINANCIAL STATEMENTS (CONSOB Communication no. 6064293 dated 28 July 2006)

thousands of euro

| IAS/IFRS STATEMENT OF FINANCIAL POSITION | | RECLASSIFIED STATEMENT OF FINANCIAL POSITION | |
|---|---|---|---|
| Property, plant and equipment | 3,450,175 | Property, plant and equipment | 3,450,175 |
| Investment property | 12,964 | Investment property | 12,964 |
| Intangible assets | 1,881,368 | Intangible assets | 1,881,368 |
| Goodwill | 158,958 | Goodwill | 158,958 |
| Investments accounted for using the equity method | 158,778 | Investments accounted for using the equity method | 158,778 |
| Other equity investments | 7,123 | Other equity investments | 7,123 |
| **Total (A)** | **5,669,366** | **Non-Current Assets (A)** | **5,669,366** |
| Other non-current assets | 45,717 | Other non-current assets | 45,717 |
| Other payables and other non-current liabilities | (458,745) | Other payables and other non-current liabilities | (458,745) |
| **Total (B)** | **(413,028)** | **Other non-current assets (liabilities) (B)** | **(413,028)** |
| Inventories | 68,605 | Inventories | 68,605 |
| Non-current trade receivables | 63,332 | Non-current trade receivables | 63,332 |
| Trade receivables | 805,068 | Trade receivables | 805,068 |
| Current tax assets | 13,116 | Current tax assets | 13,116 |
| Other receivables and other current assets | 286,223 | Other receivables and other current assets | 286,223 |
| Trade payables | (661,443) | Trade payables | (661,443) |
| Other payables and other current liabilities | (287,027) | Other payables and other current liabilities | (303,395) |
| Current tax liabilities | (105,478) | Current tax liabilities | (105,478) |
| **Total (C)** | **182,396** | **Net working capital (C)** | **166,028** |
| Deferred tax assets | 333,689 | Deferred tax assets | 333,689 |
| Deferred tax liabilities | (208,053) | Deferred tax liabilities | (208,053) |
| **Total (D)** | **125,636** | **Deferred tax assets (liabilities) (D)** | **125,636** |
| Employee benefits | (121,626) | Employee benefits | (121,626) |
| Provisions for risks and charges | (448,400) | Provisions for risks and charges | (448,400) |
| Provisions for risks and charges - current portion | (68,385) | Provisions for risks and charges - current portion | (52,017) |
| **Total (E)** | **(638,411)** | **Provisions and employee benefits (E)** | **(622,043)** |
| Assets held for sale | 524 | Assets held for sale | 524 |
| Liabilities related to assets held for sale | - | Liabilities related to assets held for sale | - |
| **Total (F)** | **524** | **Assets (Liabilities) held for sale (F)** | **524** |
| | | **Net invested capital (G=A+B+C+D+E+F)** | **4,926,483** |
| **Equity (H)** | **2,498,695** | **Equity (H)** | **2,498,695** |
| Non-current financial assets | (171,269) | Non-current financial assets | (171,269) |
| Non-current financial liabilities | 2,794,200 | Non-current financial liabilities | 2,794,200 |
| **Total (I)** | **2,622,931** | **Medium/long term net financial debt (I)** | **2,622,931** |
| Current financial assets | (477,831) | Current financial assets | (477,831) |
| Cash and cash equivalents | (111,438) | Cash and cash equivalents | (111,438) |
| Current financial liabilities | 394,126 | Current financial liabilities | 394,126 |
| **Total (L)** | **(195,143)** | **Short-term net financial debt (L)** | **(195,143)** |
| | | **Net financial debt (M=I+L)** | **2,427,788** |
| | | **Own funds and net financial debt (H+M)** | **4,926,483** |

## TRANSACTIONS WITH RELATED PARTIES

thousands of euro

| | Trade Receivables | Financial Receivables | Other receivables | Trade Payables | Financial payables |
|---|---|---|---|---|---|
| **RELATED-PARTY SHAREHOLDERS** | | | | | |
| Municipality of Genoa | 6,931 | - | 2,070 | 10,941 | - |
| Municipality of Parma | 17,925 | - | 412 | 698 | - |
| Municipality of Piacenza | 5,177 | - | 3 | 1,975 | - |
| Municipality of Reggio Emilia | 11,928 | - | 578 | 1,160 | - |
| Municipality of Turin | 71,964 | 155,960 | 393 | 4,112 | 3,308 |
| Finanziaria Sviluppo Utilities | - | - | 41 | - | - |
| **JOINT VENTURES** | | | | | |
| OLT Offshore LNG | 137 | 411,500 | - | - | - |
| Acque Potabili | 201 | - | - | 106 | - |
| **ASSOCIATES** | | | | | |
| A2A Alfa | 1 | - | - | - | - |
| ACOS | 35 | 5,330 | - | - | - |
| ACOS Energia | 2 | - | - | (7) | - |
| Acquaenna | 467 | 5,190 | - | 384 | - |
| Aguas de San Pedro | - | 423 | - | - | - |
| AIGA | 288 | 4 | 28 | 113 | - |
| AMAT | 14 | - | - | - | - |
| AMTER | 3,380 | - | - | 60 | - |
| ASA | 2,800 | - | - | 204 | - |
| ASTEA | 8 | 1,503 | - | - | - |
| Asti Energia e Calore | 1,073 | 943 | - | - | - |
| BI Energia | 10 | 746 | - | - | - |
| CSP - Innovazione nelle ICT | - | - | - | 18 | - |
| Domus Acqua | 96 | - | - | - | - |
| GAIA | 100 | 581 | - | - | - |
| Global Service Parma | 3,702 | - | - | 897 | - |
| Iniziative Ambientali | 3 | - | - | - | - |
| Mondo Acqua | 500 | - | - | - | - |
| Nord Ovest Servizi | 11 | - | - | - | - |
| Piana Ambiente in liquidation | 70 | - | - | - | - |
| Plurigas in liquidation | 6 | - | - | (259) | - |
| Rio Riazzone | - | - | - | 2 | - |
| Sinergie Italiane in liquidation | 21 | - | 6,901 | 71 | - |
| So. Sel. | 21 | 44 | - | 1,821 | - |
| STU Reggiane | 505 | 474 | - | - | - |
| Valle Dora Energia Srl | 183 | - | - | 733 | 2,605 |
| **OTHER RELATED PARTIES** | | | | | |
| Subsidiaries of Municipality of Turin | 2,781 | - | 16 | 1,375 | 2,476 |
| Subsidiaries of Municipality of Genoa | 3,547 | - | 17 | 69 | - |
| Subsidiaries of Municipality of Parma | 2,049 | - | 278 | 218 | - |
| Subsidiaries of Municipality of Piacenza | 23 | - | - | 1,142 | - |
| Subsidiaries of Municipality of Reggio Emilia | 208 | - | 3,208 | 89 | - |
| Others | - | - | - | - | - |
| **TOTAL** | **136,167** | **582,698** | **13,945** | **25,922** | **8,389** |

thousands of euro

| | Other payables | Revenue and income | Costs and other charges | Financial income | Financial expense |
|---|---|---|---|---|---|
| **RELATED-PARTY SHAREHOLDERS** | | | | | |
| Municipality of Genoa | - | 5,054 | 3,727 | - | - |
| Municipality of Parma | - | 18,449 | 538 | - | - |
| Municipality of Piacenza | - | 9,544 | 1,008 | - | - |
| Municipality of Reggio Emilia | 1 | 18,469 | 319 | - | - |
| Municipality of Turin | - | 102,844 | 1,603 | 2,298 | - |
| Finanziaria Sviluppo Utilities | - | 16 | - | - | - |
| **JOINT VENTURES** | | | | | |
| OLT Offshore LNG | - | 3 | - | 7,135 | - |
| Acque Potabili | - | 235 | 250 | - | - |
| **ASSOCIATES** | | | | | |
| A2A Alfa | - | 1 | - | - | - |
| ACOS | - | 52 | - | - | - |
| ACOS Energia | - | - | 30 | - | - |
| Acquaenna | - | 40 | - | 24 | - |
| Aguas de San Pedro | - | - | - | - | - |
| AIGA | - | 4 | - | 8 | - |
| AMAT | - | 14 | - | - | - |
| AMTER | - | 997 | 168 | 2 | - |
| ASA | - | 86 | 38 | 15 | - |
| ASTEA | - | 8 | - | - | - |
| Asti Energia e Calore | - | 140 | - | 13 | - |
| BI Energia | - | - | - | 6 | - |
| CSP - Innovazione nelle ICT | - | - | 76 | - | - |
| Domus Acqua | - | - | - | - | - |
| GAIA | - | 485 | 19 | - | - |
| Global Service Parma | - | 1,144 | 398 | - | - |
| Iniziative Ambientali | - | 2 | - | - | - |
| Mondo Acqua | - | 148 | - | 4 | - |
| Nord Ovest Servizi | - | - | - | 52 | - |
| Piana Ambiente in liquidation | - | - | - | - | - |
| Plurigas in liquidation | - | - | - | - | - |
| Rio Riazzone | - | - | - | - | - |
| Sinergie Italiane in liquidation | - | 43 | 30,104 | - | - |
| So. Sel. | 2 | 37 | 3,441 | - | - |
| STU Reggiane | - | (9) | - | 6 | - |
| Valle Dora Energia Srl | - | 328 | 2,133 | - | - |
| **OTHER RELATED PARTIES** | | | | | |
| Subsidiaries of Municipality of Turin | 143 | 1,679 | 1,183 | - | 2 |
| Subsidiaries of Municipality of Genoa | - | 2,763 | 96 | - | - |
| Subsidiaries of Municipality of Parma | 34 | 1,510 | 1,595 | - | 221 |
| Subsidiaries of Municipality of Piacenza | 1 | 196 | 1,142 | - | - |
| Subsidiaries of Municipality of Reggio Emilia | - | 772 | 3,426 | - | - |
| Others | - | 2 | - | - | - |
| **TOTAL** | **181** | **165,056** | **51,294** | **9,563** | **223** |

## Statement regarding the condensed interim report pursuant to Art. 154-*bis* of Italian Legislative Decree 58/1998

1. The undersigned Massimiliano Bianco, Chief Executive Officer, and Massimo Levrino, Administration, Finance and Control Manager and Corporate Financial Reporting Manager of Iren S.p.A., hereby certify, also in view of the provisions of Art. 154-bis, paragraphs 3 and 4 of Italian Legislative Decree no. 58 of 24 February 1998:

    - the adequacy in respect of the company's characteristics and
    - the effective application of the administrative and accounting procedures for preparation of the condensed interim financial statements during the first half of 2018.

2. It is also certified that:

    2.1 the condensed interim financial statements:

    a) have been drawn up according to the international accounting standards applicable and recognised in the European Union pursuant to Regulation (EC) no. 1606/2002 of the European Parliament and of the Council of 19 July 2002;

    B) are in agreement with the figures in the accounting books and documents;

    c) are capable of giving a true and fair view of the financial position and results of operations of the issuer and the group companies included in the consolidation scope.

    2.2 the interim directors' report includes a reliable analysis of references to significant events that occurred in the first six months of the year and their impact on the condensed consolidated interim financial statements, together with a description of the main risks and uncertainties for the remaining six months of the year. The interim directors' report also includes a reliable analysis of information on significant transactions with related parties.

1 August 2018

The Chief Executive Officer

Massimiliano Bianco

Administration and Finance Director
and Financial Reporting Manager
appointed under Law 262/05

Massimo Levrino

# REVIEW REPORT ON CONDENSED CONSOLIDATED INTERIM FINANCIAL STATEMENTS

To the Shareholders of
Iren SpA

## Foreword

We have reviewed the accompanying condensed consolidated interim financial statements of Iren SpA and its subsidiaries (the "Iren Group") as of 30 June 2018, comprising the statement of financial position, the income statement, the statement of other comprehensive income, the statement of changes in shareholders' equity, the statement of cash flows and the related notes. The directors of Iren SpA are responsible for the preparation of the condensed consolidated interim financial statements in accordance with International Accounting Standard 34 applicable to interim financial reporting (IAS 34) as adopted by the European Union. Our responsibility is to express a conclusion on these condensed consolidated interim financial statements based on our review.

## Scope of review

We conducted our work in accordance with the criteria for a review recommended by Consob in Resolution No. 10867 of 31 July 1997. A review of condensed consolidated interim financial statements consists of making enquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than a full-scope audit conducted in accordance with International Standards on Auditing (ISA Italia) and, consequently, does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion on the condensed consolidated interim financial statements.

## Conclusion

Based on our review, nothing has come to our attention that causes us to believe that the accompanying condensed consolidated interim financial statements of the Iren Group as of 30 June 2018 are not prepared, in all material respects, in accordance with International Accounting Standard 34 applicable to interim financial reporting (IAS 34) as adopted by the European Union.

Turin, 3 August 2018

PricewaterhouseCoopers SpA

*Signed by*

Piero De Lorenzi
(Partner)

*This report has been translated into English from the Italian original solely for the convenience of international readers*

**Iren S.p.A.**
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