

# SUSTAINABILITY REPORT 2019

Consolidated Non-Financial Statement  
drawn up pursuant to Italian Leg. Decree 254/2016

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# LETTER TO STAKEHOLDERS

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Climate and environmental sustainability are now central to the economy, and energy plays a key role in this field; due to the development of generation from renewable sources, electricity, in particular, is the driving force in the decarbonisation process.

The fires that ravaged the Amazon in 2019 remind us of the urgent need to take immediate action to combat climate change. We must prevent the planet's temperature from rising to levels that would result in irreversible changes, such as the melting of the ice caps, which would continue to increase global warming even if we were to no longer emit climate-changing gases. It is the challenge of our time – the Anthropocene – in which we must all be involved. This because for the first time in history, human beings and their activities are the main causes of the geographical, structural and climatic changes that the planet is facing. Changes already under way that, in order not to prejudice future generations, require the development of a sustainable growth model capable of combining well-being, progress and fairness.

Energy and the way it is produced are at the heart of this momentous challenge, and the growth of generation from renewable sources is one of the key enablers for addressing it.

ERG is at the forefront, a committed, conscious and leading player in the energy transition. Not only in developing its core green business, but also in actively promoting a true culture of sustainability, while respecting the values of environmental protection, safety and human dignity.

Our business model has always been based on the concept of social responsibility, the relationship of trust built over time with all our stakeholders and the ability to generate shared value, while focusing on environmental, social and governance aspects. This is the root of our sustainability, an integral part of our business and financial strategies, able to create value and synergies with the outside world and contribute to the achievement of the United Nations' Sustainable Development Goals (SDGs). With our production portfolio of wind, solar, hydroelectric and high-efficiency thermoelectric cogeneration assets, an optimal generation mix in the current energy transition phase, we have been able to reduce our Carbon Index – the quantity of CO<sub>2</sub> emitted for each kWh produced – by 90% in just a few years.

And in 2019 we did not stop: in line with our business plan, and in full agreement with the 2030 National Energy and Climate Plan and the goal of carbon neutrality by 2050, which was the focus of the European Green Deal launched by the new European Commission, we continued our path of growth in renewable energy production (UN SDG 7) with 158 megawatt (MW) of new installed capacity, 107 MW of which in wind power, across France and Germany, and 51 MW in solar in Italy, in addition to around 285 MW of wind power ready for construction in the United Kingdom, France and Poland.

We launched the Anti-Corruption Policy and a new sustainable procurement procedure for selecting our suppliers, sharing our values with those who collaborate with us and focusing our attention on the environment (UN SDG 6 and 15), working conditions (UN SDG 8) and welfare (UN SDG 4).

ERG's CSR commitment was also recognised internationally in 2019: we were promoted to an AA rating by MSCI ESG Research, for the second consecutive year we are among the top 50 companies in the "Corporate Knights Global 100 Most Sustainable Corporations in the World Index", and we have maintained the B rating in the Climate Change programme promoted by the Carbon Disclosure Project (CDP), higher than both the Utilities sector average and the European average.

Our first EUR 500 million green bond received requests for more than six times the amount offered and attracted interest from the highest-standing investors in the major European countries.

ERG's significant growth in Europe has broadened its identity in terms of the cultural backgrounds of its people, nationality, age, gender, professional pathways and work culture. Diversity is an important factor and a strategic advantage for us: with this in mind, and with the aim of promoting an inclusive culture capable of developing the unique characteristics of each of our employees, in 2019 we launched The Power of Diversity project, which started with a specific survey on the theme of Diversity and Inclusion, on the basis of which the action plan for the next two years was identified.

In 2019, our desire to share and disseminate sustainability issues led us to carry out important activities to support young people, culture and innovation in the energy sector across our reference territories, involving more than 10,000 students. Through educational projects such as *Vai col vento!* (Go with the wind!) and *A tutta acqua* (Water at full speed!) we aim in particular to raise awareness among students and teachers of the active role that the younger generations can play in protecting the environment and developing a widespread culture of sustainability.

Our individual daily actions also play a role in contributing to a sustainable future, and encouraging more sustainable lifestyles is part of our Corporate Social Responsibility initiatives. The Plastic Free project, born as a result of widespread awareness among our people and launched in the last part of the year, resulted in us saving 2,500 kg of plastic in just four months and avoiding the emission of 15 t of CO<sub>2</sub>.

ERG and its people are all this today. And much more. Because, despite the many uncertainties of daily life, we continue to see our concrete actions and our optimistic will as the only means of looking forward to the future with hope. A renewable and sustainable future, of course.

Enjoy reading!

**Edoardo Garrone**

Chairman



**Luca Bettonte**

Chief Executive Officer



# OUR HISTORY: 1938-2019

Production begins at the refinery in Genoa San Quirico.



**1947**



ERG is listed on the Italian Stock Exchange.

**1997**



ERG enters the renewable energy sector by acquiring EnerTAD.

**2006**

**1938**

Edoardo Garrone establishes ERG in Genoa.



**1975**



Production begins at the ISAB refinery in Priolo.

**2000**

ERG - through ISAB Energy - begins to produce and market electricity from the gasification of heavy refinery residues.



**2008**



ERG sells 49% of the ISAB refinery to LUKOIL.

ERG Power's combined cycle power plant starts up (480 MW) fuelled by natural gas.



Launch of TotalErg, a joint venture to market petroleum products.

**2010**

ERG sells its ISAB Energy plant and its ERG Oil Sicilia fuel networks.



**2014**



ERG continues to grow in the wind sector: 48 MW in operation in Germany; 16 MW in operation in France.

Installed wind power in Europe at the end of 2017 totals 1,814 MW.

**2017**

With the acquisition of 51 MW, total photovoltaic capacity increases to 141 MW.



Installed wind power at the end of 2019 totals 1,929 MW.

Wind farms for over 180 MW are under construction in the UK.

**2019**

**2013**

ERG becomes the leading wind power operator in Italy with 1,087 MW of installed capacity, and among the top ten in Europe (overall 1,340 MW). It purchases a company for the running and maintenance activities of the wind farms.



ERG sells the ISAB refinery and completes its exit from refining.

**2015**

ERG enters the hydroelectric business with the purchase of the Terni Complex, with plants in Umbria, Marche and Lazio (527 MW).



ERG acquires 6 wind farms in France (64 MW) and builds 3 wind farms in Poland totalling 82 MW.

Installed wind power at the end of 2015 totals 1,506 MW.

**2018**

ERG enters the solar sector: 30 photovoltaic plants acquired for 89 MW in operation.



Definitive exit from the oil sector with the sale of TotalErg.

Installed wind power at the end of 2018 totals 1,822 MW.

# ERG IN 2019

## JANUARY

### 15 JANUARY

ERG opens two new wind farms in France for a total of 31 MW. Installed capacity in the country exceeds 300 MW.

## FEBRUARY

### 4 FEBRUARY

ERG ranks sixteenth in the "Corporate Knights Global 100 Most Sustainable Corporations in the World Index" published by the Canadian company Corporate Knights. It is the top Italian company and the only one to rank in the Top 50.

### 12 FEBRUARY

ERG grows in Italy with the acquisition of two photovoltaic plants (51.4 MW) in Montalto di Castro (Lazio). ERG reached 141 MW of installed capacity.

## MARCH

### 26 MARCH

ERG resolves to issue one or more bond loans for a maximum of 500 million EUR.

## APRIL

### 4 APRIL

ERG issues its first Green Bonds for 500 million EUR. Requests exceeding six times the amount offered.

### 17 APRIL

The Shareholders of ERG S.p.A. approve the Financial Statements at 31 December 2018, resolve on the payment of a dividend of EUR 0.75 per share, and appoint the new Board of Statutory Auditors.



## MAY

### 2 MAY

Growth in the UK continues with the acquisition of a project to construct a wind farm in County Londonderry, Northern Ireland (Craigmore, 25 MW).

### 6 MAY

Acquisition of six wind farms (52 MW) in France: ERG increases its installed capacity in the country to 360 MW with over 3,000 MW installed in Europe.

## JUNE

### 20 JUNE

Fitch confirms ERG's BBB- rating.

### 21 JUNE

ERG launches a 21.6 MW wind farm in Germany, bringing its installed capacity in the country to 238 MW.

### 27 JUNE

Acquisition of a 224 MW pipeline in Germany.

## SEPTEMBER

### 13 SEPTEMBER

Acquisition of three wind farms (34 MW) in Germany. Installed capacity in the country increases to 272 MW.

## OCTOBER

### 16 OCTOBER

The ratings companies Gaia Rating and Ethibel honour ERG's sustainability.

### 18 OCTOBER

ACEA Energia and ERG sign two Power Purchase Agreements (PPA) for the sale of 1.5 TWh of renewable energy over the next three years.



## AT THE FORE OF THE FIGHT AGAINST CLIMATE CHANGE

Once again, 2019 was another year of development and consolidation for ERG, confirming our position as leading operator in the field of power generation from renewable sources. This growth continues to focus on sustainability.

Today, ERG is a leading company in the field of energy transition and the fight against climate change. We have succeeded in reducing our Carbon Index (the amount of CO<sub>2</sub> emitted for each kWh produced) by 90% since our entry into the renewables sector and, thanks to our green generation technologies (wind, hydroelectric and photovoltaic) we have helped to avoid the emission of over three million tons of CO<sub>2</sub> each year, equivalent to over 800,000 return flights Rome/New York.

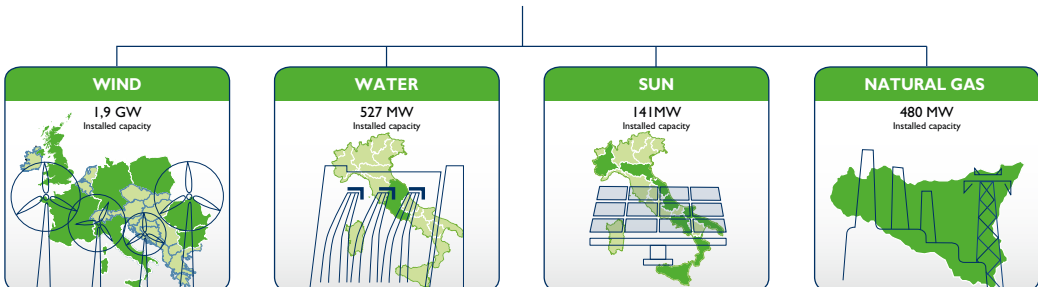
ERG's business model continues to receive prestigious recognition both in the world of finance and from leading ratings agencies that assess sustainability criteria. It is no coincidence that our first green bonds of 500 million euro, issued in April 2019, piqued the interest of the top investors from Europe's main country and received requests for over six times the

amount on offer. More recently, ERG has been promoted to AA rating by MSCI ESG Research Ltd., one of the top research companies into business performance calculated on the basis of environmental, social and governance (ESG) criteria.

Furthermore, for the second consecutive year the Corporate Knights Global 100 Most Sustainable Corporations in the World Index, published by the Canadian company Corporate Knights, named ERG in the top 50 most sustainable companies in the world while the CDP - Climate Change, an initiative promoted by the Carbon Disclosure Project, which evaluates qualitative and quantitative information and data about the strategies adopted to combat climate change, confirmed ERG's B rating.

We continued our growth plan into renewable energy in 2019 with the acquisition of a further 158 MW of installed power, 107 MW of which was wind power in France and Germany with the remaining 51 MW provided by solar generation in Italy.

Thanks to a series of major operations, our installed wind capacity in France increased to 359



MW. At the end of 2018 we started two new wind farms (31 MW) in the Loire Valley in Hauts-de-France; in March 2019 we acquired a further six plants (52 MW) in the north of France and in June we were awarded the tender for a 18 MW wind farm in the Pas-de-Calais region.

In September we opened our new office in Paris. In June, the Linda wind farm (22 MW) entered into operation in Germany and we acquired a pipeline of over 200 MW; in September we acquired 34 MW installed capacity in the north-east of the country. This brought our total installed wind capacity in Germany to 272 MW.

In the United Kingdom, with the contribution of the Craiggore, a project acquired in May for the construction of a 25 MW wind farm in County Londonderry in Northern Ireland, projects under construction had a total capacity of 188 MW.

In Italy, in February 2019 we acquired a further 51.4 MW of solar power, reaching an installed capacity of over 141 MW and positioning ourselves among the top five photovoltaic operators in Italy.

Today our total installed capacity is almost 3,000 MW, with a portfolio of four different technologies including non-programmable (1,929 MW in the wind sector and 141 MW in the solar sector) and programmable (527 MW in the hydroelectric sector and 480 MW in the high-yield thermoelectric sector) sources, which guarantee the sustainability, reliability and synergy of our generation portfolio.

Another characteristic of our operation is the geographic diversification of our assets, with wide coverage throughout Italy and with wind energy generation being widely present abroad in another five European countries.



**WIND:** We are active in the generation of electricity from wind sources, with 1,929 MW of overall installed capacity. We are the leading operator in the sector in Italy with 1,093 MW and among the top ten in Europe. We are active in France (359 MW), Germany (272 MW), Poland (82 MW), Romania (70 MW), Bulgaria (54 MW) and the United Kingdom with projects in progress. In 2019 the in-sourcing process for Operation & Maintenance continued with benefits in terms of higher plant productivity and increased cost effectiveness. At present, we directly manage over 1,300 MW, equal to over 67% of our total portfolio.

**SOLAR:** In 2018 we entered the solar market and acquired thirty photovoltaic plants throughout Italy, for a total of 89 MW and, following a further acquisition in February 2019, we reached 141 MW of installed capacity, located in 9 Italian regions.

**HYDROELECTRIC:** We produce hydroelectric power in the Terni Complex: an integrated asset portfolio, which presently includes 19 power plants, 7 dams, 3 reservoirs and a pumping station, located in the Umbria, Marche and Lazio regions, and reaching 527 MW of total capacity.

**NATURAL GAS:** We are present in Sicily, at the Priolo Gargallo (SR) industrial estate, with a natural gas-fuelled thermoelectric power plant (480 MW). This high-yield cogeneration plant is based on modern combined-cycle technology: a programmable, flexible and efficient source of energy, with low environmental impact, which just like hydroelectric power guarantees continual and flexible production.

**ENERGY MANAGEMENT:** Through Energy Management, which is a unified system for all the generation technologies we work with, we sold a total of approximately 15 TWh, 8 TWh of which are directly produced by our plants, allowing us to optimise production according to the demand of the electricity market.

# ERG LOCATIONS

## TOTAL: 3,077 MW

Wind: 1,929 MW (1,093 MW Italy and 836 MW Abroad)

Solar: 141 MW

Hydroelectric: 527 MW

Thermoelectric: 480 MW



Wind farm



Solar farm



Hydroelectric plant



Thermoelectric plant



Offices



Logistic centre

## 2018 - 2022 BUSINESS PLAN: CSR DRIVERS

### Tackling climate change

Avoided CO<sub>2</sub>: 15 m tons

Carbon Index<sup>(1)</sup>: down 14% to 2022

Continuous efforts on extracting value from our technology

Enhancing our integrated generation portfolio

### People enhancing

New leadership model

Human Capital Coverage

Skills development

### Sustainable thinking sustainable acting

Integration of HSE certifications according to ONE Company Model

Technological development

CDP reporting

Consolidating relations with communities

(1) The carbon index (gCO<sub>2</sub>/kWh) shows the quantity of CO<sub>2</sub> contained in every kWh produced.

# STATUS AS AT END 2019

**More than 6 million tons** of avoided CO<sub>2</sub> (3.086kt in 2019)

Carbon index **-7,4%** (**0,14 kgCO<sub>2</sub>/kWh** as at end 2019)

**64,04%** CCGT plant CAR performance index

**89%** of indirect consumption supplied by "green" energy

**2.597 MW** installed capacity in renewable energy plants

**91,8%** capital invested in renewable energy plants

Human Capital Coverage **+3%** compared to 2018

More than **46thousand** training hours, **7.8 days/man**, **84%** of training on technical and managerial topics, **98%** of our employees

**Power of Diversity** project supported by Valore D

**100%** ISO 14001 and/or OHSAS 18001-ISO 450001 **certified**

Italian companies consistent with their activities

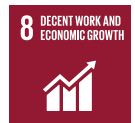
**Repowering & reblading** projects for our Italian wind farms

**CDP** Climate Change - **Rating B**

**ESG rating & indexes**

**Sustainable Procurement** and Suppliers Code of Conduct

More than **10,500** students involved in our local activities



## THE GOVERNANCE OF SUSTAINABILITY

### OUR POLICIES

Managing our business sustainably and responsibly means not only creating value and complying with laws and regulations, but also developing constructive relations with anyone who is directly or indirectly affected by our initiatives: our "stakeholders".

The Code of Ethics, first adopted in 2004 and now in its fifth edition (approved by ERG's Board of Directors) is the vehicle we use to express our principles and represent our wish to invest in transparent dialogue. This is the cornerstone of our approach to business, which guides, evolves and supports the development of our business initiatives. This important document is accompanied by the Sustainability Policy and the Human Rights Policy approved by the Sustainability Committee.

### GOVERNANCE

Our Sustainability Committee guides and monitors all of our sustainability activities and aims to:

- define the Group's sustainability orientations and promote corporate social responsibility (CSR) projects;
- approve, monitor and evaluate sustainability-related objectives and priority areas for actions related to CSR;
- approve the materiality analysis, timing and media for the Non-financial statement and for CSR initiatives.

The Sustainability Committee includes the Chairman, the CEO, the Executive Deputy Chairman and all primary reporting lines to the CEO.

In 2019 the Sustainability Committee met twice to

approve the updates to the Sustainability Policy, the materiality analysis and the sustainability strategies, as well as the associated objectives. Furthermore, the results of the ratings received during the year and the selection of certain significant stakeholder engagement initiatives in our business development countries were discussed (including the educational Kinderwind project, the ERG Plastic Free project and our commitment to the I4C Italy for Climate initiative).

Considering its duties on the subject of ESG, the Sustainability Committee has also acted as a "Green Bond Committee", choosing projects to be funded with the revenues generated through the allocation of the Green Bond, with reference to the Green Bond Framework. In addition to this activity, the Committee also provided guidelines for sustainability reporting and for the preparation of the Non-Financial Statement (NFS).

The Committee receives support from the Sustainability department, which is tasked with:

- collecting all the inputs coming from the lines, representing them in the Sustainability Report laid out according to international benchmark standards;
- supporting the Committee in carrying out its tasks, in particular in monitoring, reporting and operationally implementing the goals, via the CSR Working Groups;
- operationally implementing the CSR-related orientations identified by the Sustainability Committee within the Group.

The management and promotion of sustainability activities are supported by our CSR Working Groups. These groups involve crosswise all of the organisational units and are tasked with:

- identifying the reporting areas of the report;
- defining the Key Performance Indicators

(KPIs) to represent the Group's activities and identifying new ones, if necessary;

- identifying initiatives and collecting requests from the main stakeholders in order to give them appropriate consideration in the Sustainability Report.

The Sustainability management system is further supported by:

- the Supervisory Committee, established pursuant to the 231 Model. This Committee is set up in all of the Group's Italian companies and acts as an Ethics Committee;
- the Human Capital Committee which, as well as overseeing the growth and development of ERG's employees, verifies any reports of possible violations of the Human Rights Policy.

## SUSTAINABILITY POLICY AND HUMAN RIGHTS POLICY

Our commitment towards the ethical and sustainable management of the activities that we carry out is formalised in our Code of Ethics and Sustainability Policy, which was renewed in 2019. This policy directs the Group's activities, combining the objective of creating sustainable value over time with environmental responsibility and attention to all stakeholders.

The last update is consistent with the Group's organisation, having incorporated the standards required for the policy to form the foundation for the ISO 45001 certification (health and safety) of ERG S.p.A. Our approach to business is founded on the essential and rigorous respect of Human Rights, with no discrimination or exception. The Group's Human Rights Policy formalises our wish to respect and protect the basic human rights provided for by the laws and regulations of the countries in which we operate. This document implements the principles sanctioned for the first time in 1948 by the UN in the Universal Declaration of Human Rights and subsequently included in the Declaration on Principles and Fundamental Rights of Labour issued by the International Labour Organization (ILO). The Human Rights Policy has also become an important reference document of the Sustainable Procurement project, aimed at ensuring that our principles are reflected by all of our suppliers.

## TTOP 100 MOST SUSTAINABLE CORPORATIONS

We are one of the four Italian companies included in the Corporate Knights Global 100 Most Sustainable Corporations in the World, the index that ranks the world's most sustainable companies. The selection, based on the Thomson Reuters data stream, analysed around 7,500 companies and ERG ranked 35th place in the world, the second highest Italian company.

The companies - listed and with a turnover of at least US\$ 1 billion - are evaluated preliminarily based on four screens (sustainability reporting, financial soundness, category of products sold and financial sanctions incurred) and, subsequently, on an additional 21 indicators, specific to each industry considered: management of natural resources, employee management, clean revenue and supplier performance.



## THE GOVERNANCE OF SUSTAINABILITY



### BOARD OF DIRECTORS

Defines the Group's principles of conduct summarised in the Code of Ethics and approves the Non-financial statement.



### SUSTAINABILITY COMMITTEE

Comprised of the Chairman, Executive Deputy Chairman, the CEO and CFO of ERG S.p.A., and by all first line managers reporting to the CEO, it is tasked with the following duties:

- Defining the Group's orientations on sustainability;
- Approving, monitoring and assessing the sustainability-related objectives and the priority action areas relating to CSR;
- Approving the timing and media for the Sustainability Report and for CSR initiatives.



### SUPERVISORY BODY

It is tasked with:

- Monitoring the effectiveness of the Model and compliance with the Code of Ethics;
- Verifying the adequacy of the Model to prevent the commission of the crimes referred to in Italian Legislative Decree 231/01;
- Overseeing the updating of the Model;
- Providing training on the Code of Ethics and on 231 issues;
- Assessing the information received.



### HUMAN CAPITAL COMMITTEE

Deals with the development of personnel. Assesses and checks the reports of possible violations of the Human Rights Policy.



### SUSTAINABILITY DEPARTMENT

Its task is to implement the guidelines and periodically monitor their performance. The set of inter-functional monitoring actions leads to the annual drafting of the Non-financial statement which is initially reviewed by the Sustainability Committee and approved by the Board of Directors.



### CSR WORKING GROUP

This is a working group involving all of the organisational units and is tasked with:

- Identifying the areas to report on and collecting KPIs;
- Developing and proposing sustainability objectives and monitoring their achievement;
- Identifying CSR initiatives and collecting CSR-related concerns from key stakeholders;
- Proposing CSR-related initiatives to raise the Group staff's awareness.



### CSR INITIATIVES EVALUATION COMMITTEE

Working group composed of personnel of the operating companies, of the Communication department and of the Sustainability department. Analyses all the initiatives coming from the community and then selects them based on the values they express and the positive impact they have in that area.

# DIALOGUE WITH OUR STAKEHOLDERS

After the radical and rapid transformation of our business, we have grown over the years in pursuit of our mission as an independent power producer with a firm commitment to renewable energy, expanding our operations on a European scale. We currently operate in thirteen regions in Italy and seven countries in Europe, with a portfolio of activities ranging from the development and creation of new wind farms (so-called greenfield) to the management and optimization of existing plants, including their complete repowering and the sale to the market of the energy produced. We are an established industrial operator in Italy with over 80 years of activity, and are known and appreciated for our repositioning from the oil sector to renewable energy. In other countries, such as France, Germany and the United Kingdom, we are in a phase of growth and consolidation, a

process that requires the robust development of relations with stakeholders, especially institutional stakeholders, local communities and the media.

The methods and types of relationships vary depending on the length and strength of the relationship in the various countries and on the development goals of our Business Plan. Despite the various relational strategies, our methodological approach and our way of doing business remain firm, based on improving our profile as a serious and industrial operator firmly committed to combatting climate change and developing transparent and collaborative relations with the local areas in which we operate and with the authorities, our customers, suppliers, shareholders, employees and all our stakeholders. Our dialogue with our stakeholders



is underscored by important principles such as lawfulness, honesty, fairness, equality, integrity, transparency and responsibility. These values are represented in our Code of Ethics, which inspires and guides us throughout our relationships with our various stakeholders and during the implementation of our various corporate social responsibility initiatives.

#### ERG AND ITS INSTITUTIONAL STAKEHOLDERS

The electricity sector is a "sensitive" one: it aims to provide a public utility service (electricity) and is therefore highly regulated by a complex system of national and European regulations, with a

strong drive towards the ongoing transition to a decarbonised economy.

Dialogue with national and European institutions allow us to proactively participate and contribute to this historic process. In this dynamic context, constant dialogue with Business Associations (such as Confindustria, Elettricità Futura, ANEV, Wind Europe, foreign associations of the wind energy sector) and with the main players of the sector, allows us to plan and strengthen our position as an industrial operator of renewable energies, while supporting decarbonisation policies of key importance to the pursuit of

## ERGLAB

In 2019 the experience of ERGLab, ERG's think-tank, continued, conceived with the aim of exploring in more detail the topics linked to the environmental and energy-related challenges facing Europe and Italy, now in its sixth edition. We organised five events focusing on current issues for the energy sector, linked directly to policy guidelines shared at European level.

In February we considered the **development of energy storage systems**, a particularly relevant topic for the electricity sector in view of the increasing focus on decarbonisation and, therefore, the development of non-programmable primary sources such as wind and sun.

During the second event we focused on the importance of coordinating the NECPs (National Energy and Climate Plans for 2030) with a planning and **streamlining of authorisation processes**, which are crucial for reaching the renewable energy targets by the deadline. The third meeting considered the evolution of the energy and electricity system, which in recent years has shifted from a centralised structure dominated by large fossil fuel-based power plants towards a more granular and decentralised model, which integrates the so-called **Renewable Energy Communities**. During the second to last event of the year we adopted an approach that looks to a more distant but increasingly decarbonised future, exploring the potential of **Power to gas**. In the energy industry, this scenario offers new opportunities for synergy between systems, which until today have been effectively separate, such as the electricity and gas sectors. Coupling the electricity and gas sectors is a necessary and positive step in the continuous move towards the sustainable decarbonisation of the energy sector.

To conclude our cycle of debates we decided to explore another topic that plays a crucial role in the decarbonisation pathway ratified at European level: the relationship between **taxation and energy resources**. We focused on the analysis of various tools to align the taxation scheme applicable to the energy sector with current decarbonisation policies, giving particular attention to the termination of the tax breaks afforded to fossil fuels and the possible introduction of a carbon tax to protect our economies in this historic period of transformation.



our mission and, therefore, the sustainable development of our business.

In 2019 we shared our industrial expertise and sector knowhow through our participation in numerous workshops. The most important workshops dealt with the following issues:

- the Clean Energy Package, issued by the European Commission, including the approval of the new Directive on renewable sources and the target of 32% of gross energy consumption covered by renewables by 2030;
- the extension and consolidation of the ETS system with the aim of supporting the market value of CO<sub>2</sub> emission quotas;
- the definition of National Energy and Climate Plans (NECPs) in the countries of most interest to our business;
- the debate of solutions to promote and simplify the authorisation process for renewable plants, including the repowering of existing plants;










- the reform of the Energy Market and the implementation of the Capacity Market;
- the various ministerial provisions aimed at supporting the development of renewable energy sources.

The participation in workshops enables us to develop our reputation and improve our skills. To better manage our relations with institutional stakeholders, we adopted an internal control system based on procedures integrated into the Organisational Model (as per Italian Legislative Decree 231/01 as amended) and a specific disciplinary sanctions system (see the anti-corruption section of this document). In line with these principles, we have also adopted a special Policy, which prohibits contributions to political parties, movements, committees, political organisations or trade unions, to their representatives or candidates.

## MAIN ITALIAN ASSOCIATIONS WHICH ERG IS A MEMBER OF

Association	Purpose	ERG participation
<b>Confindustria</b>	Together with the local associations, national trade associations, regional Confindustria federations and national trade federations, it is the main association representing manufacturing and service companies in Italy.	Governance Bodies and technical Groups.
<b>Elettricità Futura</b>	It is the main Italian association of the electricity sector, comprising over 700 operators that employ over 40,000 people and holding more than 76,000 MW of installed electrical power (conventional and renewable) and around 1,150,000 km of lines. Over 70% of electricity consumed in Italy is supplied by its member companies.	Governance Bodies and technical Groups.
<b>ANEV</b>	Associazione Nazionale Energia del Vento (National Wind Energy Association) brings together about 70 companies in the wind power sector and more than 5,000 parties, including producers and traders of electricity and technologies, installers, designers, engineering and environmental offices, electricity traders and developers.	Governance Bodies and technical Groups.
<b>WEC Italia</b>	A multi-energy network of industrial, institutional and academic members in the Italian energy sector: from research to production, from transformation to distribution and marketing of all energy sources.	Governance Bodies.
<b>IEFE</b>	The Research Centre at Bocconi University, dedicated to the study of energy economics and policy, also focusing on technology issues.	Technical Groups.
<b>Assonime</b>	Association of Italian Joint Stock Companies that works towards improving industrial, commercial, administrative and tax legislation in Italy.	Governance Bodies.
<b>Sustainable Development Foundation</b>	Association chaired by Edo Ronchi (former Italian Minister of the Environment) focused on the promotion of green economy. It includes around 120 members: companies, consortia and specialists dealing with sustainable economy.	Governance Bodies.
<b>Civita Foundation</b>	An organisation established by a group of public and private companies, public research institutions and universities which, with over 160 members, is engaged in the "promotion of culture" through research, conferences, events, publications and projects.	Governance Bodies.

OUR STAKEHOLDERS: EXPECTATIONS AND METHODS OF ENGAGEMENT

	Stakeholder	Stakeholder expectations
	<p><b>Institutions</b> European Union, Governments, Ministries, Regulatory bodies, Public Administration, Business associations.</p>	<p>Collaboration, technical support and sharing of information. Participation in the territorial planning of activities. Respect for the legislation in all countries in which the Group operates.</p>
	<p><b>Shareholders</b></p>	<p>Creation of value. Corporate Governance and Risk Management. Representation of minorities. Transparent and timely disclosure of economic and financial information.</p>
	<p><b>Financial community</b></p>	<p>Creation of value. Corporate Governance and Risk Management. Transparent and timely disclosure of economic and financial information.</p>
	<p><b>People and trade union organisations</b> Workers with employee contracts, workers without employee contracts, trade unions.</p>	<p>Equal opportunities. Workplace safety. Professional development for all employee categories. Participation in company life and all related initiatives. Work/life balance. Stability.</p>
	<p><b>Local Communities</b> Cultural, religious and research associations, health service, NGOs, Committees of citizens, residents close to production plants.</p>	<p>Consideration of their views. Contribution to and support for local initiatives and local communities. Access to information. Safeguarding of heritage and environment. Health and safety.</p>
	<p><b>Future generations</b> Schools and Universities.</p>	<p>Prevention and environmental respect. Training and sharing expertise. Business strategy aimed at reducing the consumption of natural resources.</p>
	<p><b>Media</b></p>	<p>Complete, timely and transparent information.</p>
	<p><b>Suppliers</b></p>	<p>Compliance with all competition and antitrust laws in the countries where ERG operates. Accessibility to Vendor List. Safety of on-site activities.</p>
	<p><b>Partners</b></p>	<p>Creation of value. Acceptance of common values in the development of the strategy and business management.</p>
	<p><b>Customers</b></p>	<p>Maximising value for the customer. Quality and continuity in the supply of electricity and steam (site customers).</p>

Engagement methods	Engagement activities 2019
Dedicated meetings, round tables and conferences.	Active participation in: <ul style="list-style-type: none"> <li>- Wind Europe – Hamburg</li> <li>- Salon des maires – Paris</li> <li>- Colloque National Eolien – Paris</li> <li>- Forum Energie France-Italie – Paris</li> <li>- Scottish Ren. Onshore Wind Conference – London</li> <li>- Renewable UK Onshore Wind Event – Edinburgh</li> <li>- Key Wind – Rimini</li> <li>- Events and round tables on the topics of energy and environment.</li> </ul> ERGLab think-tank. Accreditation from central and local institutions in countries where we operate.
Shareholders' Meeting. Webcasts. Press releases. Roadshows. Events related to the presentation of the business plan.	Shareholders' Meeting. Roadshows in major financial markets. Webcasts to present quarterly results. Ongoing information about the Group's activities (press releases and news).
Webcasts. Press releases. Roadshows. Events related to the presentation of the business plan.	Status updates on the implementation of the 2018-2022 Business Plan Webcasts to present quarterly results. Press releases. CEO and CFO roadshows in the main European financial centres. Italian Sustainability Day – Milan. Management of relations with ESG rating companies.
Activities and tools for training, assessment and internal communication. Events during the year. Team building.	Staff training. Internal communication events for employees and their families. Company volunteering project for preserving the local area. Protocol for Industrial Relations. Advanced training for trade union representatives. Corporate welfare projects.
Meetings with local communities in line with ERG's business. CSR initiatives in the region in the fields of "environment and health", "promotion of culture", "youth and sports".	Financial and organisational support to social, cultural and health activities in the areas served. Calls for ideas at national and international level (ERG ReGeneration Challenge).
Training and information projects. CSR initiatives in the region in the fields of "promotion of culture" and "youth and sports".	Educational projects (Vai col vento, A tutta acqua, Progetto Scuola, Electricity Day, Kinderwind). Collaboration with Universities (MAGER project, classroom lessons).
Press releases to disclose our financial statements, business plan and extraordinary transactions. Press conferences.	Relations with the Press Office for the disclosure of our periodical results and extraordinary transactions, and of news about the Group's activities. Event with the financial press.
Web platform. Involvement and monitoring on "occupational safety" and sustainability issues.	Competitive tendering procurement procedures Implementation of a new supplier qualification platform. On-site HSE audits and activities for the control of suppliers' performance.
Meetings.	Infrastructure Day – Milan.
Analysis and sharing of requirements with site customers and development of ad hoc design solutions.	-

**ERG AND INTERNATIONAL RELATIONS**

In order to strengthen our presence internationally, we monitor the main European institutions in Brussels, with a specific focus on energy and the environment, thanks also to the support of sector associations (Wind Europe).

At the same time, the follow-up of political, regulatory and legislative change in the Member States where we are present (France, Germany, the United Kingdom, Poland, Romania and Bulgaria) is strictly monitored both through the participation in national business associations and through direct dialogue with national institutions. As defined in our Business Plan, the French, German and British markets represent a strategic element of our business development in the coming years.

For this reason, we have developed a targeted stakeholder engagement programme for each of these countries, in order to improve and increase our profile and our recognisability as a green operator, actively involved in ongoing energy transition. This allows us to establish partnerships and significant relationships with other operators, the media and institutional stakeholders, in support of the Group's development.

**ACTIVE PARTICIPATION IN ROUND TABLES**

We are committed to working with institutions, either directly or through business associations, and actively take part in collaborative round tables.

Over the year we have signed up to significant guideline documents, included those aimed at

**MAIN FOREIGN ASSOCIATIONS WHICH ERG IS A MEMBER OF**

Association	Purpose	ERG participation
Wind Europe	Representing the interests of the wind industry and sector in Europe, it is the European branch of WWEA, the World Wind Energy Association.	Governance Bodies and technical Groups.
SER - Syndacate des Energie Renouvelables	It brings together several thousand companies and professionals specialised in the different sectors of renewable energy. Its goal is to promote their development and respond to the growth of eco-sustainable energy demands.	Technical Groups.
FEE - France Energie Eolienne	French association of energy operators. It represents over 90% of wind turbines installed throughout France and over 85% of the country's wind energy production.	Technical Groups.
RenewableUK	Leading association in the UK renewable energy sector, specialised in on and off-shore wind energy and in tidal power. It counts on a large number of members ranging from small independent businesses to large companies and international producers.	Technical Groups.
SR - Scottish Renewables	Association for the development of the renewable energy sector in Scotland; its members work across all renewable energy technologies.	Technical Groups.
BWE - Bundesverband WindEnergie	Association of German wind energy operators. It has over 20,000 members and is one of the leading associations in the world. It is affiliated to the European Wind Energy Association (EWEA), the Global Wind Energy Council (GWEC) and the World Wind Energy Association (WWEA).	Technical Groups.
PWEA - Polish Wind Energy Association	National Polish association of wind energy operators.	Technical Groups.
RWEA - Asociatia Romana pentru Energie Eoliana	National Romanian association of wind energy operators.	Technical Groups.
CCE - Conseil de Cooperation Economique	Advisory committee under the patronage of the governments from Spain, France, Italy and Portugal, dealing with economic issues within the scope of European Councils and bilateral economic Summits.	Governance Bodies.

EU institutions to support the electrification of energy consumption, which we believe to be the most effective method of decarbonising the energy system.

We have also organised events in Italy and the UK aimed at discussing the evolution of renewable energy, involving key figures in the Italian and international institutional sphere. These include the two round tables in the UK and the "The wind

of energy transition: deep dive into European and national wind energy perspectives" event organised by the World Energy Council Italy, held in Rome.

Furthermore, in 2019 we took part - both directly and through associated debates - in all of the most important public consultations in Italy and the European countries with most relevance to our business.

## "THE WIND OF ENERGY TRANSITION: DEEP DIVE INTO EUROPEAN AND NATIONAL WIND ENERGY PERSPECTIVES"

In November 2019, in collaboration with the Italian National Committee of the World Energy Council (WEC), Elettricità Futura, ANEV and E2i, we organised a closed-door seminar on the role of the wind sector in energy transition. This major international event provided the opportunity for structured dialogue between multiple stakeholders, including national and international institutions, organisations and businesses operating in the European wind energy sector, enabling the sharing of experiences and information on policies, regulations, wind farm development programmes, best practices and innovative business models. The debate was attended by representatives of IRENA (International Renewable Energy Agency), Wind Europe, Energy Ministers from the UK, Estonia, Italy and the European Commission, as well as leading Italian associations and businesses such as Elettricità Futura, ANEV, GSE, ERG, E2i, ENEL and CESI. The seminar highlighted that according to data from the International Renewable Energy Agency - IRENA, by 2040 renewable energy will meet 40% of the global demand for electricity. This aspect, combined with increased electrification and energy efficiency measures, will help to reduce over 90% of the CO<sub>2</sub> emissions linked to the energy sector. The World Energy Council also presented the results of the Europe-wide "Report on Spatial Planning Principles and Technical Restrictions for Wind Park Developments" which explored policy, regulations and standards for the development of wind farms in 11 countries (Denmark, Estonia, Finland, Germany, Ireland, Italy, Latvia, Lithuania, Poland, Spain and Sweden) according to the updated regulatory framework relative to the regional planning of wind farms, technical requirements and restrictions for the construction of wind generators and possible compensation schemes and community engagement initiatives.

The seminar also presented the opportunity to emphasise the importance, in view of the 2030 targets outlined the National Energy and Climate Plans presented by various EU member states, of optimising a natural, renewable and available natural resource such as wind energy as part of Europe's energy transition. In this regard, it is worth noting that - as outlined in the "Charter for Sustainable Wind Power Renewal", the revised version of which was presented during the Key Wind 2019 event held in Rimini (of which ERG is a major sponsor) - the promotion of activities to renew wind farms will ensure further momentum towards the development of renewable energies while simultaneously protecting and optimising the advantages for the local communities affected.



The consultations in Italy include those held by the Italian Energy Authority, government departments, the Italian national grid operator (Terna), the Gestore dei Servizi Energetici (GSE) and the Gestore dei Mercati Energetici (GME). The internal activity aimed at developing our contribution to the National Energy and Climate Plan (NECP) in May 2019 was of particular note, representing a unique opportunity to impress upon Italian institutions the importance of the development of renewable electricity, the simplification of the authorisation process and the implementation of appropriate support mechanisms, with a particular focus on repowering existing plants.

We also had the opportunity to re-emphasise the importance of prioritising the renewal of wind farms. Business initiatives such as these focus on the windiest sites whose renewal would considerably increase renewable generation without the need to expand land use.

**ERG AND THE FINANCIAL COMMUNITY**

We have strong relationships with the Financial Community, one of our most important stakeholders, and are committed to engaging in a transparent and timely manner through the disclosure of all the information required to assess the investment opportunities represented by our stock. Indeed, the provision of constant and prompt updates on the status of our business commitments helps to maintain financial operators' trust. Furthermore, clear communication of our development strategies is essential to sustain the value of ERG, which is making important investments in renewable energy in Italy and Europe.

In this context, the Investor Relations department aims to clarify our strategy and our new financial targets through various roadshows, events, conference calls and a proactive presence on social media. In recent years, in light of our

**ELECTRIFICATION ALLIANCE DECLARATION**

Together with the main stakeholders in the European electricity sector guided by Eurelectric, the European electricity association, ERG signed an advocacy initiative to support energy electrification, a key tool in the achievement of the decarbonisation aim defined by the European Green Deal promoted by the European Commission.

This led to the creation of the **Electrification Alliance**, founded with the aim of raising awareness among European institutions and civil society of the opportunities to intensify the use of electricity produced by renewables as an alternative to fossil fuels. As shown by the twenty years of development of renewable energies, electricity has proven to be the best carrier for increasing the use of renewable energy in a simple and cost-effective way. Furthermore, using electricity offers better returns in terms of energy performance, reducing the overall demand for energy in major sectors with high electrification potential such as transport, heating and cooling.

The principles of the Alliance were formalised in the Declaration of Electrification Alliance, presented in Brussels on 6 November 2019 as part of the "Powering the European Green Deal" event, attended by the current Director General for Energy of the European Commission, Ditte Juul-Jørgensen.



business transformation and broader context of energy transition, the importance of ESG topics and interest from Socially Responsible Investors (SRI) have increased considerably, and ERG has seen a significant rise in the interest of ESG investors. The Group's commitment towards sustainability, the proactive dialogue with institutional investors and the close collaboration with the sustainability department are key factors in effectively communicating our engagement on these topics to the market.

### Financial communication tools

To consolidate our relations with the Financial Community, ERG organises meetings and roadshows both in Italy and abroad. Once again, in 2019 the Investor Relations department and Top Management pursued an extensive engagement programme aimed at presenting and explaining the Business Plan to our institutional investors. The roadshows held in 2019 took place in the

leading financial market in Europe (Milan, London, Paris and Amsterdam), the US (New York and Chicago) and - for the first time - Australia (Sydney), involving a total of 125 investors. Of these, 20 were SRIs, socially responsible investors who base their investment decisions on ESG criteria, confirming the increasing focus on sustainability.

As proof of this, on 2 July 2019 we participated in the Sustainability Day organised by Borsa Italiana: during the event, ERG's management explained in detail the Group's transformation process and the ESG commitments laid out in the 2018-2022 Business Plan. This is a key appointment for investors as it represents an opportunity to get to know the Group not only in terms of strategy and financial targets, but also with regard to CSR issues, which are becoming increasingly relevant. The market's focus on energy transition in recent years has also become clear during other industry events and conferences held in Italy and abroad. In this regard, ERG has been recognised as an exemplar of business transformation thanks to its business model centred on the development of renewable energy. Consequently, the Group features on leading Sustainability Indices that rank listed companies according to ESG criteria and which are used by investors who base their investment decisions on ESG criteria.

Furthermore, financial analysts are always in constant contact with our Investor Relations team in order to stay up to date with the transformations and results of the company with regard to their own assessment models, always considering the evolution of the reference scenario.

Moreover, in the spirit of our characteristic transparency and accessibility, our IR activities also offer continuous support to retail investors,

## CSR WORKING GROUPS

We actively take part in the leading CSR bodies and working groups, including:

- CSR Manager Network Italia, a working group covering Corporate Social Responsibility issues;
- EticLab, a working group for the promotion of the culture of Corporate Social Responsibility in Liguria;
- Sustainable Development Foundation, leading organisation in Italy in Green Economy promotion and development;
- CSR Working Group of Wind Europe, European association representing the wind sector.

who - through our website ([www.erg.eu](http://www.erg.eu)) - can access the same documentation provided to the analysts and follow the conference calls and the presentation of the financial results in real time via webcast. The Investor Relations department also uses a dedicated email address for its external communication activities, available to anyone interested in the Group and its business and who wishes to request information or clarification.

**ERG AND THE MEDIA**

The Media Relations team promotes the ERG universe, communicating the Group's position and its business strategy and providing full and timely information at national, international and local level, through both traditional and social media.

News, press releases, interviews, events, reports, photo galleries, conversations and posts on

**RATING AND SUSTAINABILITY INDICES**

Thanks to the nature of our business and our sustainable approach, we are considered a low-carbon company and, therefore, one able to generate interest among investors who base their investment decisions on ESG criteria, in which decarbonisation is a key factor. As a result, we have been included in some of the most important Sustainability indices that group together listed companies on the basis of ESG criteria: ECPI Global Clean Energy Equity Index; FTSE Environment Renewable and Alternative Energy Index; FTSE Environment Renewable and Alternative Energy 50 Index; Ethibel Excellence and Pioneer Investment Register 2019; 2019 Q1 Carbon Clean 200; Corporate Knights 2019 Global 100 Most Sustainable Corporations in the World Index.

In 2019, we were assessed by numerous ESG rating companies and received excellent results.

RATING COMPANY	RATING
	Advanced
	35 <sup>th</sup> place
	<b>B</b>
	
	<b>EE+</b>
	
	 Average Performance
	

social channels (LinkedIn, Twitter, YouTube) are just a few of the tools used to communicate with a broad and diverse audience and meet the information needs of sector experts and those who wish to discover our sustainable and ethical approach to business.

The frequency of our communications and the different media we use, strictly in compliance with existing legislation for listed companies, has enabled us to increase – gradually but constantly – the visibility of our activities, our way of doing business and our values.

News about our Group, the operating and financial results achieved, press releases, press kits, photos and institutional videos can be found in the Media area of our company website. A "social media room" connected to our social accounts (ERGNOW and ERGcareers on Twitter, ERG S.p.A. on LinkedIn, ERGNOW on YouTube) is also available to provide constant, prompt and engaging updates.

### ERG AND THE COMMUNITY

For ERG, our presence in a region goes beyond the mere installation and management of electricity generation plants: it means developing and overseeing a system of transparent relations with the local community, identifying and developing specific initiatives designed with - and for - the region in order to promote the social and economic well-being of the community.

As part of its activities in the regions in which it operates, the Group does not just provide contributions to Bodies and Associations that propose particularly interesting initiatives but also organises a series of activities in collaboration with the most representative institutions and organisations that enable us to share the value of those initiatives with the entire community.

Important initiatives carried out in 2019 include:

- the restructuring of the opening times of the Mamore waterfalls: working with local authorities, the opening hours to the waterfalls were changed to reflect tourism-related requirements while maintaining the same total number of hours during the year;
- Mulino Necchi: an important piece of local history was donated to the city of Narni: Mulino Netti. Inside the old water mill, the young Aldo Necchi began to experiment with a machine connected to the paddles of the mill and performed the "miracle" of producing electricity to power the Narni city's lights. The Municipality of Narni transformed the interior of the old building into an environmental documentation centre and educational complex as part of the project to promote the gorges and valley of the river Nera;
- participation loans: during the preliminary studies of certain French wind farms, we gave citizens in the towns close to the site the chance to actively participate in the project by investing in purpose-made mini-bonds with very advantageous returns;
- the opening of new wind farms has become an opportunity to engage with communities, students and authorities of nearby countries visiting the plants or undertaking training courses on renewable energy sources;
- we have created numerous equipped areas and cycling tourism routes around wind farm sites in order to increase quality of life in the area and provide infrastructure that can promote tourism while exploring the relationship between power plants and nature.

These actions complement the projects aimed at schools carried out each year: in 2019 we launched the sixth edition of "Vai col vento!" (Go with the Wind!), an environmental education project that involved students from the third year of middle school (stakeholders playing a double role as

"future generation" and "local communities") from the areas where our Italian wind farms are present.

This successful format led to the creation in 2017 of a similar project "A tutta acqua!" (Water at full speed!) for high school in the areas where our hydroelectric plants are located.

During the development of the wind farms in the UK a series of community benefits have been established together with the local community based on the installed capacity of the wind farm. These funds will form part of a grant that will be managed independently and used to support local initiatives and the development of local

enterprise. As well as these incentive schemes, in some cases the possibility of offering the local community the chance to own one of the turbines at the farm is also being evaluated. This approach - known as Community Ownership - makes it possible to benefit financially from the local project, making the community feel more engaged in the venture. Other additional forms of support (such as covering the electricity costs of the communities close to the farm) are identified case by case thanks to our experience in the development of wind farms and the close dialogue and management of relations with the local communities and authorities, always developed with the aim of distributing part of the value added of our plants to the local area.

## KINDERWIND

In 2019 ERG launched its first environmental education project outside Italy, organising a day dedicated to wind energy at the Tristan L'Hermite School of La Souterraine, France.

The initiative was structured around a workshop during which the students built small wind turbines able to generate electricity using recycled materials. The activity aimed to encourage the students to engage on the topic of wind energy, using a practical approach to stimulate their creativity, promote collaboration and develop critical thought.

After the workshop, students visiting a wind farm "in action", where they met with our technicians and learned about how wind farms and turbines work and explored the logics that dictate their location in the region. The students asked many questions, highlighting an interest in this "close neighbour" that had seen many times at a distance but never truly experienced.



## METHODOLOGICAL NOTE

The 2019 edition is the thirteenth Sustainability Report of the ERG Group and the third edition of the Consolidated Non-Financial Statement (hereinafter "Non-Financial Statement", "NFS" or "Sustainability Report") drawn up pursuant to art. 3 and art. 4 of Italian Legislative Decree no. 254/2016, as amended (hereinafter also "Legislative Decree 254/16" or "Decree 254").

It contains information about environmental, social and personnel-related issues, about the respect for human rights and the fight against corruption, to the extent considered useful to ensure that the activities carried out by the ERG Group, its progress, results and impact are fully understood. Furthermore, the main risks, both generated or sustained, associated with these topics and at the foundation of the Group's activities are described in the specific chapters.

In this report, we focus on aspects more strictly related to our Group's CSR (Corporate Social Responsibility). The economic and governance issues, of which we provide an overview herein, are covered in depth in other official documents, published and available on the Group's website [www.erg.eu](http://www.erg.eu) (ERG Group Consolidated Financial Statements, Report on Corporate Governance and Ownership and other public documents).

The gathering of data and information is carried out under the supervision of the Sustainability Committee through the Corporate Social Responsibility Department and involves all the Group's companies and departments.

The NFS was submitted to the Control and Risk Committee on 3 March 2020 for examination and assessment, and was then approved by ERG

S.p.A.'s Board of Directors on 10 March 2020. This document was subject to an opinion of conformity ("limited assurance engagement" in accordance with the criteria of principle ISAE 3000 Revised) by KPMG S.p.A. The audit was conducted according to the procedures indicated in the "Independent Auditors' Report", included in this document.

### MATERIALITY ANALYSIS

Non-financial reporting reflects the principle of materiality or relevance, as provided for by reference legislation and formalised by the GRI Standards: the topics considered within this Report are those that, following the materiality analysis and assessment, were considered "material", or such to reflect the social and environmental impacts of the Group's activities or influence the decisions of its stakeholders.

In 2019, in line with the GRI Sustainability Reporting Standards, the materiality matrix was updated in order to confirm or review the relevant topics following the internal analysis of requests from investors and ESG rating companies regarding the issues of greater relevance concerning the authorisation processes in progress in Italy in the context of the repowering project and the consultations with the Sustainability Committees.

The results of the analyses generally confirmed the topics identified previously, with the topics of "approach to climate change" and "protection of the environment and biodiversity" being more significant both for the business and its stakeholders.

Once again, in 2019 the materiality matrix was submitted for assessment and approval by the Sustainability Committee.

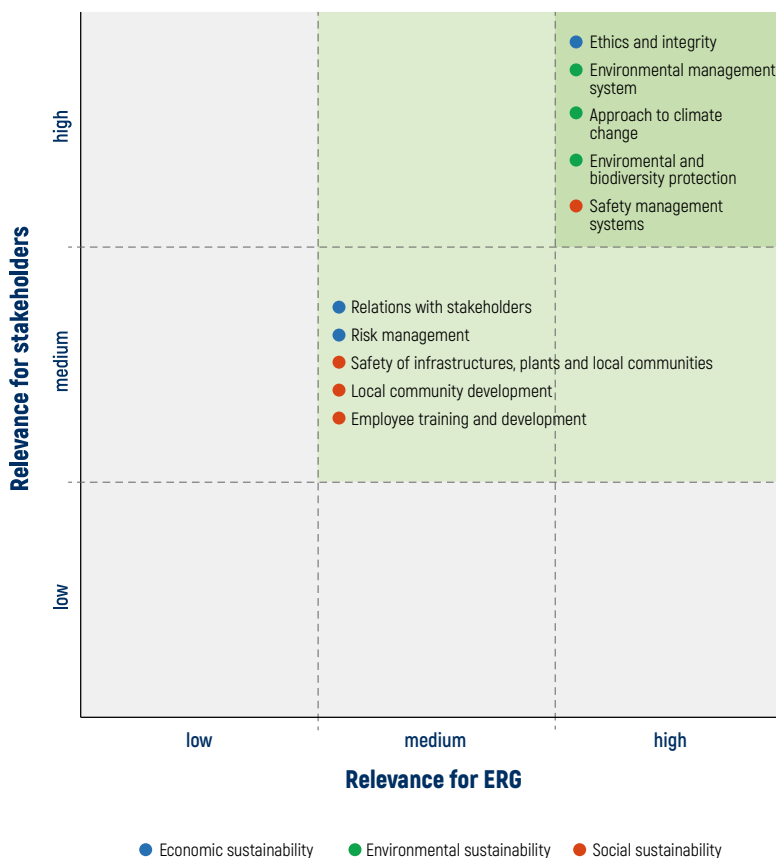
**METHODOLOGICAL PRINCIPLES**

This Consolidated Non-Financial Statement was drawn up in compliance with the "GRI Sustainability Reporting Standards" defined in 2016 by the GRI (Global Reporting Initiative) according to the "in accordance - Core" option, and includes the information required by the GRI-G4 "Electric Utilities Sector Disclosures", specifically for companies in the utilities sector. The GRI Standards are now the most widespread and recognised standards of non-financial reporting at international level and were identified by ERG as the "reference standards" for the fulfilment of the obligations pursuant to Italian Legislative Decree no. 254/2016. To enable

the reader to locate the necessary information for clear and accurate reporting, the "GRI Content Index" is included in the "Content Index" section of this document.

In drawing up the NFS, reference was also made to the European Commission's "Guidelines for the communication of non-financial information" and "Guidelines on non-financial reporting: Supplement on reporting climate-related information", which refers to the principles of the TCFD (Task Force on Climate-related Financial Disclosure).

The scope of the financial data is the same as that of the Consolidated Financial Statements of



the ERG Group comprising ERG S.p.A. and its fully consolidated subsidiaries (hereinafter also "ERG Group" or "Group"), referring to the year ended 31 December 2019 (reporting period from 1 January to 31 December 2019).

No significant changes are indicated relating to the scope and the ownership structures during the reporting period. In any case, for details regarding these two aspects reference may be made to ERG Group's Consolidated Financial Statements at 31 December 2019 and to the Report on Corporate Governance and Ownership. If quantitative data are expressed in a manner that differs from the above, this will be expressly indicated in specific notes.

Data on the personnel and work organisation refer to the workforce at 31 December 2019. Any exceptions are reported in the footnotes to the tables.

With regard to the quantitative information illustrated in this document, the following should be noted:

- the main atmospheric emissions are determined by continuous measurements at emission points and, where necessary, by spot measurements combined with estimates that take into account both the combustion systems and the types of fuel used;
- CO<sub>2</sub> emissions are certified by an independent third party, as required by law;
- "CO<sub>2</sub> avoided" - an indicator used to show the positive contribution of production from renewable sources to environmental improvement - was defined using a conversion factor aligned with common practice: the emission factor of the specific thermoelectric plants in the country of reference and

published by Terna in the "electricity/statistics/international comparisons" section of their website, with reference to 2017;

- the operating parameters of plants are taken from their management and reporting systems.

To enable the comparability of data over time and to assess the Group's performance trends, data for the last three years has been provided, where available.

Furthermore, to ensure the correct presentation of performance and to guarantee the reliability of data, any estimates are based on the best available methods and are appropriately indicated.

The Non-Financial Statement is published annually. For information regarding the Non-Financial Statement, please write to [sustainability@erg.eu](mailto:sustainability@erg.eu). This document is also available on the Group's website in the Sustainability section ([www.erg.eu](http://www.erg.eu)).

In terms of sustainability, the ERG Group has begun an ongoing improvement process and defined its Sustainability commitments for 2018-2022, which were approved by the Sustainability Committee in July 2018.

These commitments, which are reported in accordance with the SDGs established by the UN, define the Group's strategic vision with regard to sustainability and represent an operational tool guiding its actions in accordance with the new business plan presented in March 2018.

In this respect, in the "Our Sustainability Commitments" section of this document, a summary is provided of the main areas involving the Group's commitment to sustainability and their status at 31 December 2019.




# OUR SUSTAINABILITY COMMITMENTS

In July 2018, following the presentation of the 2018-2022 Business Plan, the Sustainability Committee defined and launched ERG's sustainability commitments, which are inspired by:

- the pillars of the Business Plan;
- the continuous improvement objectives defined by the certifications;











- the entry into the hydroelectric and solar sectors;
- the increasingly pertinent diversification in European countries.

The New Business Plan has been defined in line with the previous sustainability strategies to ensure continuity between the previous objectives and

UN SDGs	Areas of commitment - 2018-2022 period	Status at 31/12/2019
   	<h3>GOVERNANCE, ETHICS E SUSTAINABILITY APPROACH</h3> <p>Pursue the internal and external dissemination of the Group's principles expressed in the Code of Ethics, the Sustainability Policy and the new Leadership Model.</p> <p>Update the Enterprise Risk Management (ERM) risk catalogue with the analysis of the new 2018-2022 Business Plan.</p> <p>Implement an ERM risk dashboard with specific Key Risk Indicators (KRI) for their ongoing monitoring.</p> <p>Keep the 231 Models of Italian companies updated.</p> <p>Implement an Anti-corruption Policy within the Group, by making the control system fully operational and continuously monitoring and training employees.</p> <p>Implement the Environment - Safety certification for existing all Italian and foreign operating companies, in line with the "ONE Company" organisational structure.</p>	<p>Code of Ethics and Sustainability Policy updated. New Human Rights Policy approved.</p> <p>Training on sustainability issues continued at schools in the areas where the Group operates.</p> <p>Group Risk Catalogue updated following 2018-2022 Business Plan risk assessment, implemented the assessment of the risks and opportunities generated by Climate Change according to the TCFD approach.</p> <p>ERM risk dashboard implemented to monitor any changes in the risk profiles set out in the Risk Catalogue.</p> <p>Risk assessment on regulatory changes that occurred during the year.</p> <p>An "Integrated Anti-Corruption Model" was adopted for all Italian and foreign companies in line with best practices.</p> <p>Anti-corruption policy and "key third-party due diligence" procedure approved.</p> <p>Implementation of the project for integrating/updating existing certifications held by Italian companies.</p> <p>Health and safety certification of ERG S.p.A, in accordance with ISO 45001.</p>
 	<h3>BUSINESS STRATEGY</h3> <p>Consolidate the Group's business leadership in the production of electricity from renewable sources and increase the efficiency of all of its plants according to the development lines of the 2018-2022 Business Plan.</p> <p>Support the Group's strategies through scouting activities by identifying and assessing innovative technologies, and developing partnerships with Universities and Research Institutes.</p>	<p>The increase in installed power continues thanks to the start-up of new plants in France (52 MW), Germany (56 MW) and the acquisition of photovoltaic plants (51 MW).</p> <p>Avigliano wind farm Reblading project; the repowering project for the Italian wind farms is in progress.</p>
	<h3>SUPPLIERS</h3> <p>Consolidate a supplier qualification and assessment system, with particular attention to Health, Safety, Environment and Sustainability.</p>	<p>Approximately 46% of new suppliers qualified according to HSE parameters.</p> <p>Project for the qualification of suppliers according to sustainability parameters started.</p>

new aims, confirming the increasing consolidation of the business and sustainability strategies. The implementation status of our commitments is reported each year in line with the SDGs (Sustainable Development Goals) defined by the United Nations in 2015. Thanks to this constant

monitoring process, we are able to analyse and highlight the contribution that our activities makes towards reaching broader sustainability objectives able to generate a tangible positive impact in the world in which we live, to the benefit of future generations.

UN SDGs	Areas of commitment - 2018-2022 period	Status at 31/12/2019
   	<b>EMISSIONS AND WASTE</b> Group decarbonisation: - Avoid CO <sub>2</sub> emissions for a total of 15 Mtons during the plan period; - reduce carbon index of electricity production by 14%; - cover energy requirements with energy from renewable sources.  Implement activities to protect biodiversity in the areas where our plants are located.  Reduce the amount of waste produced by processes by maximising the percentage of waste sent to be recycled also through the use of materials and substances ensuring better environmental compatibility.	During 2019 3,086 kt of emissions were avoided (more than 6 million tonnes since 2018). Reduction in the Group's energy production carbonisation factor: -37% in the last four years, -74% since 2018.. 89% of energy requirements covered with energy produced from renewable sources.  Bird monitoring in our wind farms. Support to the activities of the WWF Oasis of Alviano and of the Marmore Falls natural park.  A recovery procedure for the waste produced by the grate cleaners and used as a resource for the timber from Lago di Corbara, was implemented in our hydroelectric plants.
	<b>SAFETY</b> Consolidate the safety culture inside and outside the company, pursuing the goal for zero accidents caused by safety deficits in plants and offices.	The Evolving Safety Project. Following the injuries in 2019, corrective actions were implemented to prevent the recurrence of similar events. A near-miss reporting system was promoted to increase prevention levels.
 	<b>PEOPLE</b> Define and implement training and development plans to increase the value of Human Capital Coverage (+3% at the end of the plan period).  Improve working environments and the employee welfare system.	Human Capital Coverage +3% compared to 2018. In 2019, around 46,000 hours of training provided at an average of approximately 8 days per employee. 98% of company staff took part in training courses. Around 84% of training concerned technical and managerial topics.  "One Health" Project. Opening of a gym for Group employees.
	<b>COMMUNICATION</b> Make contact with and inform the Group's stakeholders in a complete, transparent and timely manner.	ERG received B rating from CDP. ERG is listed on various sustainability indices.
 	<b>COMMUNITY</b> Contribute to the development of communities through training activities at schools and universities and social responsibility initiatives at local level.	Activities were developed in local communities in keeping with the principles of the Sustainability Policy. "A tutta acqua!" and "Vai col vento!" were our leading projects for students living in the communities where our plants are located.

# GOVERNANCE

1

The values and ethical principles that guide our Group and our business approach are rooted in a legacy that has been consolidated over time.

Robust corporate governance thanks to the work of the board and internal committees.

A structured system of procedures and an integrated risk management system for better business practices and the protection of the rights of non-controlling shareholders.

**49**

RESOLUTIONS ADOPTED  
ADOPTED IN 2019

**8**

INTERNAL COMMITTEES  
SUPPORTING THE CEO

**33%**

WOMEN PARTICIPATING  
IN THE BOARD OF DIRECTORS

## OUR PRINCIPLES

The presence of different expertise, values and points of view within the Board of Directors and the Board of Statutory Auditors is essential for building open dialogue and for making collective, well-thought-out, informed and well-balanced decisions.

As the governance, management and control bodies of the Company are nominated on the basis of the list of candidates selected by shareholders, the outgoing Board of Directors presents specific recommendations regarding the diversity of the management bodies before the appointment of the same, in line with the provisions of the new Corporate Governance Code updated in January 2020. These recommendations are included in the Board of Directors' report on the items on the agenda at the Meetings called to appoint the Board of Directors and the Board of Statutory Auditors.

### COMPOSITION OF BOARD OF DIRECTORS

The policy proposed by the Board of Directors provides that all Board members - as part of the self-assessment process on the operation of the Board of Directors and the Board Committees - must express, prior to the appointment of a new Board, their views regarding the diversity of managerial and professional figures, whose presence on the Board is considered appropriate, also taking into account aspects such as educational and professional background, experience (including managerial experience), gender and age.

Since the current Board of Directors, composed of twelve members, was appointed at the Shareholders' Meeting on 23 April 2018 and its mandate will expire on the date of the Shareholders' Meeting called to approve the Financial Statements as at and for the year ending 31 December 2020, this assessment process is expected to be carried out again in the first quarter of 2021, so that its outcome be included in the recommendations to the Shareholders' Meeting which will be called for the appointment of the new Board of Directors.

The results of the assessments made by the current Board of Directors and the recommendations expressed by the previous Board of Directors are indicated below.

### TRAINING AND PROFESSIONAL PROGRAMME

Regarding the expertise of the Board of Directors, the 2019 self-assessment process showed - in keeping with results of the self-assessment carried out by the previous Board of Directors - a balanced distribution of expertise, gained mainly through business and professional experience.

With regard to expertise considered appropriate for the Directors, the self-assessment process of the previous Board of Directors confirmed the expertise already represented in the Board of Directors,

possibly increasing the importance of international experience in the energy sector and developing specific skills in the field of ESG..

### **GENDER COMPOSITION**

With regard to gender balance, the previous Board of Directors had not considered it necessary to recommend more restrictive provisions than those required for by law.

### **AGE**

With reference to age, no need for specific recommendations was identified.

### **RESULTS**

The composition of the current Board of Directors is considered substantially in line with the Company Policy.

## **COMPOSITION OF THE BOARD OF STATUTORY AUDITORS**

The Policy proposed by the Board of Directors provides that the Board itself - on the basis of the information provided by the Board of Statutory Auditors regarding the self-assessment process on the operation of the Board itself - must express, prior to the appointment of a new Board of Statutory Auditors, its views regarding the diversity of the professional figures, whose presence on the Board is considered appropriate, also taking into account aspects such as educational and professional background, experience, gender and age.

Since the current Board of Statutory Auditors was appointed at the Shareholders' Meeting on 17 April 2019 and its mandate will expire on the date of the Shareholders' Meeting called to approve the Financial Statements as at 31 December 2021, this assessment process is expected to be carried out again in the first quarter of 2022, so that its outcome be included in the recommendations to the Shareholders' Meeting, which will be called to appoint the new Board of Statutory Auditors.

The results of the assessments made by the current Board of Statutory Auditors and the recommendations expressed by the previous Board of Statutory Auditors are indicated below.

### **TRAINING AND PROFESSIONAL PROGRAMME**

With reference to the skills present among the Board of Statutory Auditors, the assessment process conducted on the basis of the information provided by the Board of Statutory Auditors noted the balanced division of skills accrued mainly through professional experience.

With reference to the skills deemed necessary by the Board of Statutory Auditors, the Board of Directors - based on the results of the assessment process conducted on the basis on the information provided by the previous Board of Statutory Auditors - recommended that the skills already present in the previous Board of Statutory Auditors be maintained.

#### **GENDER COMPOSITION**

With reference to gender balance, the Board of Directors acknowledged the findings of the self-assessment, relative to 2018, by the previous Board of Statutory Auditors, which considered it unnecessary to recommend more stringent requirements than those laid down by legislation.

The self-assessment process relative to 2019 showed that the skills and experience necessary for the purposes of the composition of the Board of Statutory Auditors are present across both genders.

#### **AGE**

It is recalled that with reference to age, following the self-assessment process for 2018, it was not considered necessary to make specific recommendations.

The self-assessment process relative to 2019, in the light of the activities carried out by the Board of Statutory Auditors during the same year, shows that the current composition by age is adequate.

#### **RESULTS**

The composition of the current Board of Statutory Auditors is considered substantially in line with the Company Policy.



# THE GROUP'S CORPORATE GOVERNANCE

## ERG'S VALUES

Lawfulness, honesty, fairness, equality, confidentiality, equity, integrity, transparency, responsibility and sustainability: the values and principles that guide the Group in its business activities have strengthened over time and are fully expressed in the Code of Ethics.

The members of the governing bodies of the Group's companies, our employees and the people who work together with us are called to comply with the principles set out in the Code of Ethics and – each within their respective roles and responsibilities – with our governance rules.

## THE STRUCTURE OF ERG S.P.A.'S BOARD OF DIRECTORS AND OF ITS BOARD COMMITTEES AS AT 31 DECEMBER 2019

Office	Members	List (M/m) <sup>*</sup>	Executive/ non-executive	Independent pursuant to Code and Consolidated Finance Act (T.U.F.)	% participation <sup>**</sup>	No. other positions <sup>***</sup>	Date of first appointment <sup>****</sup>	Control and Risk Committee		Nominations and Remuneration Committee	
								****	**	****	**
Chairman	Edoardo Garrone	M	Esecutivo		100%	3	16/10/1997				
Deputy Chairman	Alessandro Garrone	M	Esecutivo		100%	1	16/10/1997				
Deputy Chairman	Giovanni Mondini	M	Non Esecutivo		90%	1	16/10/1997				
CEO	Luca Bettonte	M	Esecutivo		100%	–	15/12/2009				
Director	Massimo Belcredi	M	Non Esecutivo	Code T.U.F.	100%	1	29/04/2003	Yes	100%		
Director	Mara Anna Rita Caverni	M	Non Esecutivo	Code T.U.F.	100%	2	24/04/2015	Yes	100%		
Director	Barbara Cominelli	M	Non Esecutivo	Code T.U.F.	90%	1	24/04/2015			Yes	100%
Director	Marco Costaguta	M	Non Esecutivo		100%	5	20/04/2012				
Director	P. Francesco Lanzoni	M	Non Esecutivo	T.U.F.	90%	2	29/04/2003			Yes	100%
Director	Silvia Merlo	M	Non Esecutivo	Code T.U.F.	100%	4	24/04/2015			Yes	100%
Director	Elisabetta Oliveri	M	Non Esecutivo	Code T.U.F.	100%	3	23/04/2018	Yes	89%		
Director	Mario Paterlini	m	Non Esecutivo	Code T.U.F.	80%	1	23/04/2018				

\* This column indicates M/m according to whether the member was elected from the majority list (M) or the minority list (m).

\*\* This column indicates the participation percentage of Directors at the Board of Directors' and Committee meetings (no. appearances/no. meetings held during period in which the member has held their position).

\*\*\* This column indicates the number of Director or Statutory Auditor positions held by the relative subject in other companies listed on regulated markets, including foreign markets, in financial, banking, insurance companies or companies of significant size, different to those held in ERG Group companies.

\*\*\*\* This column indicates a member of the BoD being part of the Committee.

\*\*\*\*\* This column indicates the date of the first appointment of the Directors starting from 16 October 1997, the date the company was listed on the stock exchange.

## GOVERNANCE

Corporate Governance involves a set of rules and activities. The elements comprising and giving rise to corporate governance are the statutory bodies, the board committees and the corporate governance documents that regulate their operation.

Our Corporate Governance is structured according to a traditional model, based on which:

- the Board of Directors, appointed by the Shareholders' Meeting, is responsible for determining and achieving the strategic objectives of both the Company and the entire Group;
- the Board of Statutory Auditors, again appointed

by the Shareholders' Meeting, has supervisory duties.

The statutory audit is entrusted to Independent Auditors at the Shareholders' Meeting on the basis of a reasoned proposal by the Board of Statutory Auditors.

## THE BOARD OF DIRECTORS

The current Board of Directors is composed of twelve members. It was appointed at the Shareholders' Meeting on 23 April 2018 and will remain in office until the Shareholders' Meeting called to approve the Financial Statements as at and for the year ending 31 December 2020.

## SUSTAINABILITY IN THE BOARD OF DIRECTORS

The Board of Directors and the Board of Statutory Auditors of ERG, following the best practices suggested by the Corporate Governance Code, self-assessed the level of their skills to identify any areas to be looked into further.

Specifically, the questionnaire used by the Directors identified a number of skills already regarded as necessary by the previous Board of Directors:

- knowledge of the energy sector
- audit, compliance, legal and corporate
- sustainability
- strategy
- corporate governance
- finance and accounting
- risk management
- management skills
- international experience
- remuneration policies

and asked each Director to express his/her level of knowledge (on a scale from 1 to 5) on each skill indicated.

The analysis of the results showed the Board of Directors' level of "confidence" on each specific subject. As regards sustainability, it emerged that 17% of Directors regarded themselves as having excellent skills (score 5), 50% good skills (score 4) and 33% sufficient skills (score 3).

The Sustainability Committee includes the Chairman, the Executive Deputy Chairman and the Chief Executive Officer.

Again as regards sustainability, the skills were acquired through entrepreneurial experience, as managers or executive directors (41% of cases), and through professional experience, as consultants or nonexecutive members of a board or board committees (47% of cases).

**Protection of minorities**

A Director was appointed from the minority list submitted by a number of institutional investors, in compliance with the principles of protecting minorities laid down in the Consolidated Finance Act (T.U.F.).

**Compliance with gender balance**

33% of Directors in office are the less represented gender. This percentage complies with the gender balance criteria established by current legislative and regulatory provisions, which require that at least one third of the elected Directors be reserved for the less represented gender.

Pursuant to the new rules, the new Board of Directors, which will be appointed by the Shareholders' Meeting called to approve the Financial Statements as at and for the year ending 31 December 2020, shall ensure that at least two fifths of the Directors elected are from the less represented gender.

The average age of the members of the Board of Directors is around 56: 2 members (17%) are less than 53 years of age.

For further information about the appointment procedure, see the section "Report on Corporate Governance" at the [www.erg.eu](http://www.erg.eu) website.

The Board of Directors has set up three internal committees:

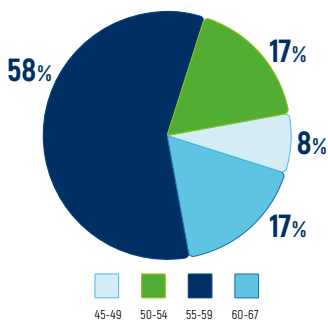
- the Control and Risk Committee, which supports the assessments and decisions taken by the Board of Directors with regard to the Internal Control and Risk Management System, as well as those related to approval of the periodical financial reports;
- the Nominations and Remuneration Committee, which performs the role and responsibilities provided by the Corporate Governance Code for the Nominations and Remuneration Committee;
- the Strategic Committee, which has consultative and proposal-making functions towards the CEO and the Board of Directors in the definition of strategic business guidelines, portfolio guidelines, strategic finance guidelines and policies, and single extraordinary finance transactions.

**SIGNIFICANT INVESTMENTS AS AT 31 DECEMBER 2019**

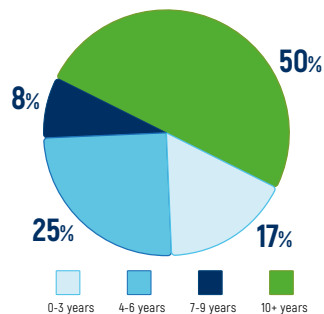
Direct shareholder	% share of ordinary capital and voting capital
San Quirico S.p.A.	55,628%
Polcevera S.r.l.	6,905%
Other Shareholders	36,502%
Treasury shares	0,965%

- there are no securities conferring special control rights;  
 - there are no employee stock option plans.

**BOD - BREAKDOWN BY AGE**



**DOB - SENIORITY OF DIRECTORS (% of total Directors)**



CORPORATE BODIES AND BOARD COMMITTEES OF ERG S.P.A.



SHAREHOLDERS

Approves the financial statements, appoints the Board of Directors, the Board of Statutory Auditors and the Independent Auditors, and resolves on changes to the Articles of Association and on extraordinary transactions such as mergers, demergers and capital increases.



BOARD OF DIRECTORS

Approves the periodic financial reports, defines the strategic guidelines, the fundamental aspects of the organisational structure and the corporate governance system, resolves on significant transactions, and assesses the company's performance.

Composed of 12 members, 6 of which are independent\*. Held 10 meetings in 2019, with an average duration of around 2 hours and 30 minutes.



BOARD OF STATUTORY AUDITORS\*\*

Oversees compliance with the law and with the Articles of Association, adherence with correct administration principles, and the adequacy of the ICRM System\*\*, and ensures the independence of the Independent Auditors.

Comprised of a Chairman, 2 Standing Auditors and 3 Alternate Auditors. 15 meetings were held in 2019 with an average duration of around 2 hours and 30 minutes.



CONTROL AND RISK COMMITTEE

Assists the Board of Directors in decisions relating to the approval of periodic financial reports, pertaining to Group Governance, the ICRM System\*\*, obligations pursuant to Legislative Decree 231/01 and the Finance Division\*\*\*.

Comprised of one Chairman and 2 members, all non-executive and all independent as per the Consolidated Finance Act and mostly independent as per the Corporate Governance Code. 9 meetings were held in 2019, with an average duration of around 2 hours and 30 minutes.



NOMINATIONS AND REMUNERATION COMMITTEE

Makes recommendations regarding the remuneration of Directors with powers or specific duties, and the definition of remuneration policies and incentive plans for Group management\*\*\*.

Comprised of one Chairman and 2 members, mostly independent as per the Corporate Governance Code. 6 meetings were held in 2019, with an average duration of around 1 hour.



STRATEGIC COMMITTEE

Assists the Chief Executive Officer and the Board of Directors in defining strategic business, portfolio and finance guidelines, and in decisions relating to long-term strategic plans, the Group's investment budgets and significant investments.

Comprised of one Chairman and 5 members. 10 meetings were held in 2019 with an average duration of around 2 hours and 45 minutes.



\*\* Appointed on 17 April 2019

\* 5 independent as per the Corporate Governance Code and 1 independent as per the Consolidated Finance Act ("T.U.F.").

\*\* Internal Control and Risk Management System.

\*\*\* Responsible for formulating opinions for the purposes of the Procedure for Transactions with Related Parties.

**THE BOARD OF STATUTORY AUDITORS**

The current Board of Statutory Auditors is composed of three standing auditors and three alternate auditors. It was appointed at the Shareholders' Meeting on 17 April 2019 with a three-year mandate; the mandate conferred upon the Board of Statutory Auditors will therefore expire on the date of the Shareholders' Meeting called to approve the Financial Statements as at 31 December 2021.

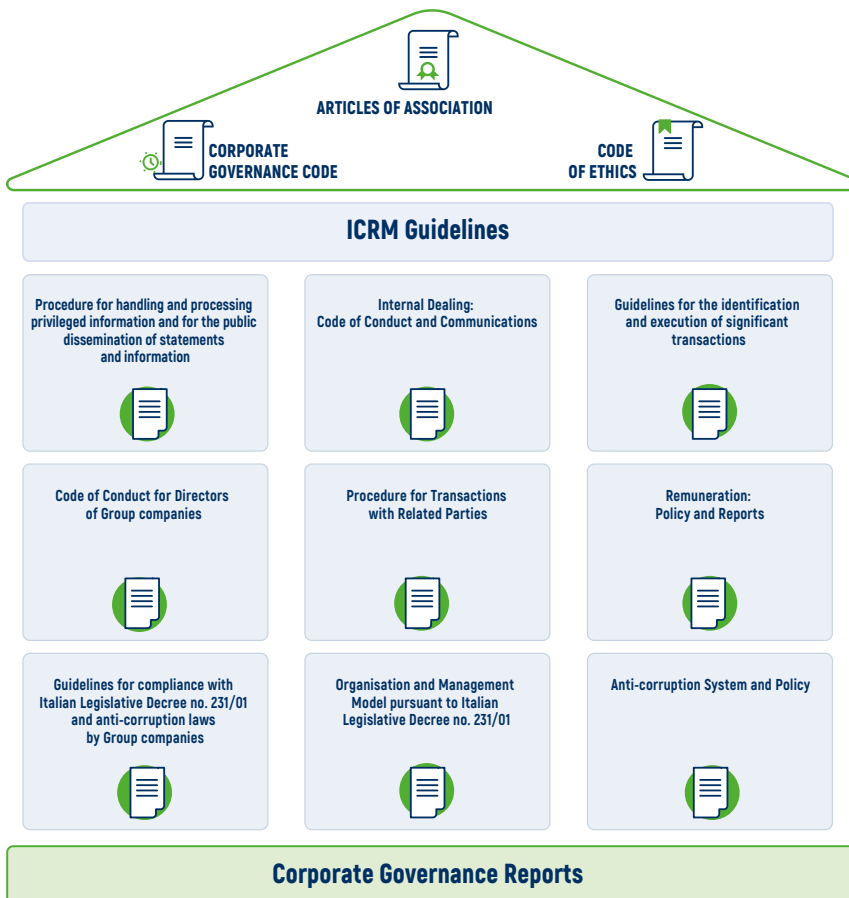
**Protection of minorities**

The Chairman of the Board of Statutory Auditors

and an alternate auditor were appointed from the minority list submitted by a number of institutional investors.

**Compliance with gender balance**

33% of the Standing and Alternate Auditors are the less represented gender. Pursuant to the new rules, the new Board of Statutory Auditors, which will be appointed by the Shareholders' Meeting called to approve the Financial Statements as at and for the year ending 31 December 2021, shall ensure that at least two fifths of the Auditors elected are from the less represented gender. Since the two-fifths stipulation is arithmetically



INTERNAL COMMITTEE



**SUSTAINABILITY COMMITTEE**

Directs and supervises the management of issues related to Corporate Social Responsibility (CSR), and in particular:

- Defines the Group's sustainability guidelines and promotes the implementation of consistent practices concerning corporate social responsibility;
- Approves, monitors and evaluates the objectives of sustainability and the priority areas of intervention in CSR issues;
- Approves the preparation timing and procedures for the Non-Financial Statement (NFS) and for CSR initiatives.

**INVESTMENT COMMITTEE**

- Supports the CEO in evaluating investment proposals;
- Expresses a reasoned technical and economic-financial opinion for the Strategic Committee in the various phases of the investment process.

**HUMAN CAPITAL COMMITTEE**

- Defines and monitors the main Human Capital development programmes and processes;
- Supports the Executive Deputy Chairman and the CEO in decisions concerning strategies that determine the value of the human capital of ERG;
- Monitors the effective implementation of the Human Rights Policy, dealing with any non-compliance reports.

**MANAGEMENT COMMITTEE ENGINEERING DEVELOPMENT**

- Monitors the relevant projects of the Group in the specific area of Engineering Development, supporting the relative Project Leader, as well as ensuring the alignment of all Organisational Units on the priorities and ensuring consistency with the decisions of the Investment Committee;
- Analyses development opportunities and the technological development of the business.

**MANAGEMENT COMMITTEE RUNNING**

- Monitors the Group's economic, financial and industrial results through standardised reporting and control models;
- Follows the changes in the reference institutional and regulatory framework, sharing growth trends, opportunities and risks;
- Monitors the activities and projects in the field of domestic and foreign institutional relations.

**MANAGEMENT COMMITTEE BUSINESS DEVELOPMENT AND M&A**

- Monitors the relevant projects of the Group in the specific area of Business Development, supporting the relative Project Leader, as well as ensuring the alignment of all Organisational Units on the priorities and ensuring consistency with the decisions of the Investment Committee;
- Analyses business development opportunities both in terms of geographic expansion and technological diversification.

**RISK COMMITTEE**

- Supports the CEO in defining financial and market risk management strategies and policies;
- Provides the CEO with useful input for the authorisation of financial and market risk management operations, the monitoring of the implementation of major operations and the checking of their relative effects.

**CREDIT COMMITTEE**

Has competence, for the entire Group, in matters regarding the granting of credit lines, schedule analysis and collection trends, assessment and verification of overdue recovery plans, general assessment of credit performance.

impossible, and hence inapplicable, in the case of corporate bodies with three members, CONSOB clarified, through a consultation document, that numbers in such cases should be rounded down and not up, as currently prescribed in the Issuers' Regulations.

### INDEPENDENT AUDITORS

The Independent Auditors were appointed at the Shareholders' Meeting on 23 April 2018, for years 2018 - 2026; consequently, the appointment for the statutory audit will expire on the date of the Shareholders' Meeting called to approve the Financial Statements as at 31 December 2026.

For further information on the role played by each body, see the "Corporate Governance" section on the website [www.erg.eu](http://www.erg.eu).

### INTERNAL COMMITTEES

The Group's governance also includes Internal Committees (non-board committees composed of Group managers) with advisory and proposal functions towards executive Directors.

For further information, please visit the "Corporate Governance / Committees" section of the website [www.erg.eu](http://www.erg.eu).

### PROCEDURES TO PROTECT NON-CONTROLLING SHAREHOLDERS

The Group's main procedures for the protection of minority shareholders are summarised below.

#### **Code of Conduct for Internal Dealing (purchase/ sale of company shares)**

Aimed at regulating disclosure obligations in respect of the market, ERG S.p.A. and CONSOB, with reference to transactions involving ERG shares/ debt instruments issued by ERG or derivatives or other related financial instruments carried out, directly or indirectly, by Relevant Persons and by persons closely associated with them.

#### **Guidelines for the identification and execution of significant operations**

The purpose of the Guidelines is to determine:

- criteria for the identification of significant operations identified within the meaning of the existing Corporate Governance Code and not covered by the powers granted to the Chief Executive Officer and the Executive Deputy Chairman of ERG S.p.A.;
- the principles of conduct to be followed for the carrying out of such operations.

#### **Procedure for handling and processing relevant and privileged information and for the public dissemination of statements and information**

The Procedure contains provisions relative to the handling and processing of Relevant Information and Privileged Information, as well as the arrangements to be observed for the public dissemination of Privileged Information directly relating to ERG S.p.A. and/or the Subsidiaries and/or the Joint Ventures.

Further information on the different documents is available on the website at [www.erg.eu/corporate-governance/ethics and governance](http://www.erg.eu/corporate-governance/ethics-and-governance).

### THE INTERNAL CONTROL AND RISK MANAGEMENT SYSTEM

ERG Group's Internal Control and Risk Management System (hereinafter also the "ICRM System") consists of a set of corporate tools, organisational structures, standards and rules necessary to ensure sound and correct management of the company, in keeping with the goals defined by the Board of Directors.

The main actions performed by the control function are identifying, measuring, managing and monitoring the main risks, as well as setting up appropriate information flows. The ICRM System involves the entire organisational structure of the Group, from the Board of Directors of ERG and of

its subsidiaries to all company staff.

The main parties involved and their respective duties are the following:

- the Board of Directors, which guides and assesses the adequacy of the Internal Control and Risk Management System;
- the Executive Deputy Chairman, in charge of the Internal Control and Risk Management System, responsible for verifying the correct functionality and the overall adequacy of the ICRM System;
- the Chief Executive Officer, who identifies the main corporate risks;
- the Control and Risk Committee, tasked with supporting, through a preliminary analysis, the assessments and decisions of the Board of Directors pertaining to the ICRM System, as well as those relating to the approval of periodic financial reports;
- the Board of Statutory Auditors, which monitors observance of the law and of the Articles of Association, compliance with the principles of sound administration, and the adequacy of the ICRM System organisational structure (for aspects within its competence);



- the Supervisory Body, which oversees compliance with the Code of Ethics and verifies the effectiveness and adequacy of the Organisation and Management Model pursuant to Italian Legislative Decree 231/01;
- the Chief Audit Officer, in charge of verifying the viability and suitability of the ICRM System.

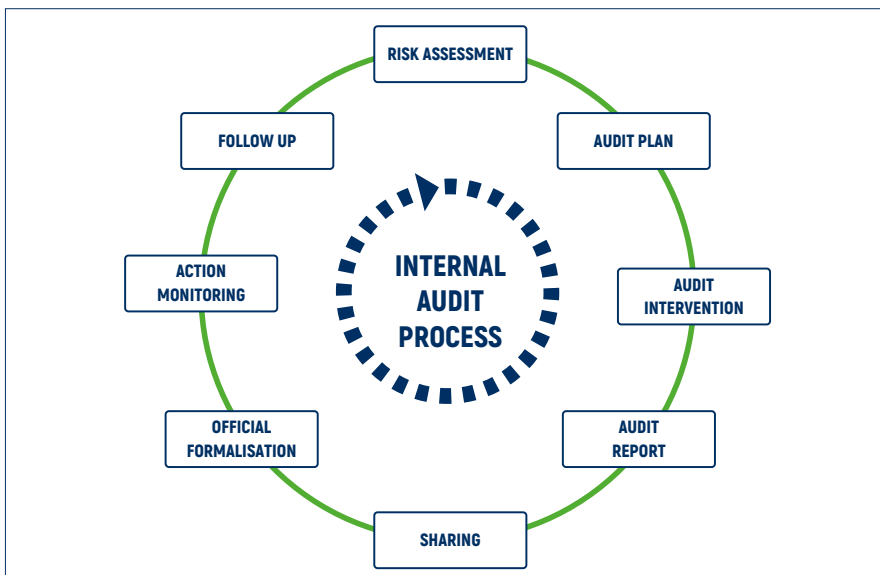
Other relevant players with specific duties include Group Management, primarily responsible for internal control and risk management activities, and second-level control functions, including the Manager responsible for preparing the company's financial reports, the Group Risk Management & Corporate Finance department and the Compliance functions dealing especially with overseeing legal risk and non-compliance.

For further information, see the "Internal Control and Risk Management System Guidelines" and the "Report on Corporate Governance and Ownership" available at [www.erg.eu](http://www.erg.eu).

**INTERNAL AUDIT**

As part of the rules and activities pertaining to Corporate Governance, the Internal Audit department assesses the adequacy of the ICRM System, of which it is an integral part, and specifically:

- ensures objective and independent activities of "assurance" and "consultancy" to Top Management of the Holding and of the Group's Companies to improve the effectiveness and efficiency of the internal control and risk management processes;
- helps the corporate organisation achieve its goals by adopting a professional and systematic approach that is able to generate added value through the assessment and improvement of the internal control, risk management and Corporate Governance processes;
- verifies the operation and suitability of the ICRM system and, in particular, checks that Management has identified the main risks, that



the risks were consistently assessed and that the mitigating actions have been defined and implemented. Furthermore, it checks that the risks identified have been handled in keeping with the resolutions of the Board of Directors, with external regulations and with the Group's internal rules.

Risk Assessment is the first logical step of the Internal Audit process since it identifies the areas of greater relevance which must be further examined (included in the three-year "rolling" audit plan), consistently with the size of the Internal Audit Division.

The three-year "rolling" plan comprises the following methodological phases:

- "Risk Assessment", that is, the definition of a hierarchy of "Risk-Based" processes (which may be potentially subject to Auditing) based on the Group's "Risk Catalogue", developed by

Group Risk Management & Corporate Finance as part of the "IRM" (Integrated Risk Management) process. The Risk Assessment process requires:

- acquisition of the most recent version of the Risk Catalogue developed by the Enterprise Risk Management OU (Group Risk Management & Corporate Finance department);
  - analysis of the Risk Catalogue's risk sheets and of the correlations with the Group's processes (Process Map);
  - definition of parameters (or weights) for assessing the processes related to the Risk Catalogue risk assessments and preparation of process ranking (with prioritisation of risk-based processes);
  - definition of the processes subject to audit.
- Generally, managerial processes related to strategic risks and monitored by the BoD and Top Management are not taken into account, as also activities overseeing specific regulatory

## INTERNAL AUDIT PROCESS ON THE NFS

As part of its cross-functional activities, Internal Audit (including for "231" purposes) carries out checks on some of the processes that contribute to the Consolidated Non-Financial Statement drawn up pursuant to Italian Legislative Decree no. 154/2016 and on the relative KPIs.

The scope of action is defined by identifying, for each of the areas of the NFS (Economic, Social, Environmental Responsibility), the relevant processes/activities, understood as those that give rise to the data used to determine the KPIs reported in the document published.

Once the scope of action has been identified, the objective of the audit activity and the 231 checks is analysed as per the approved Plans, in order to define the degree of coverage of the control activities carried out with respect to the relevant NFS activities.

The following activities were carried out in 2019:

- specific verification of the NFS preparation process;
- coverage of the processes that contribute to the NFS in the context of the planned Internal Audit/231 activities, equal to 16 out of a total of 23.

With reference to the results, the checks carried out did not reveal any exceptions that might undermine the effectiveness of the Risk Control and Management System overseeing these activities.

events, which cannot be verified using Audit instruments and techniques;

- integration with auditing areas relating to the risk of fraud/non-compliance with the Code of Ethics, not included in the "Risk Catalogue", but part of the Internal Audit mandate;
- modifications and/or supplements resulting from the planning and from the results of the Audits carried out during previous years;
- assessment and possible receipt of any requests and/or suggestions from the Executive Deputy Chairman in charge of the Internal Control and Risk Management System, the Control Bodies and the Group's Top Management;
- submission of the draft three-year Plan to the Control and Risk Committee and receipt of any observations;
- submission of the final draft three-year Plan to the Board of Directors for formal approval.

Planning must ensure the following objectives:

- coverage of all business areas on a biennial basis;
- coverage of foreign subsidiaries, envisaging at least one Audit/year;
- performance of one ICT Audit/year;
- verification of corrective actions to be taken, agreed upon with the corporate Management of reference and based on the results of the completed Audits;
- "saturation of production capacity" of Internal Audit resources.

To integrate the control activities, maximise their effectiveness and minimise any overlapping, Audit activity planning is coordinated with other control activities, especially with the checks carried out by other internal control functions of the Group, the coordination of which is the subject of specific annual meetings (at least 4).

Regarding the type of actions taken, the Internal Audit Division activities are divided as follows:

- Audit: activities designed to analyse a process, understand risks, identify and verify the functioning of the controls. Audits may be carried out in two ways:
  - by company, or single organisational unit, checking the activities and control exercised by management on this unit (general review and organisational audits);
  - by process, cutting horizontally across all the organisational lines affected, even of different companies, and examining both operational and administrative aspects (process audits);
- Follow-up: activities verifying the actual implementation of the corrective Action Plan. Internal Audit checks the actual implementation of the corrective actions by holding meetings with the functions subject to audit and carrying out document checks on the controls implemented following the agreed actions;
- Ad-hoc consulting/actions: in order to support and respond to specific requests from our Management. Internal Audit may provide support and assistance activities; the nature and scope of these activities are defined together with the internal client, depending on staff's expertise and knowledge and on the basis of the function's independence.

Internal Audit also carries out periodic checks on behalf of the Supervisory Bodies of the Group's companies. These checks are aimed at verifying the effectiveness of the Organisation, Management and Control Models pursuant to Italian Legislative Decree no. 231 adopted by the companies themselves. The detailed operating procedures of the checks are defined together with the Supervisory Bodies of the Group's companies, also in relation to the Audit Plan activities.

In 2019, Internal Audit completed all the interventions set out in the Audit Plan approved

by the Board of Directors in 2018, and carried out the checks in compliance with the 231 Models as provided for in the Plans approved by the Supervisory Bodies of the Group's companies.

The eight audits carried out during 2019 (in addition to the two special projects carried out at management's request) required an average period of 13 weeks each for completion (regarded as the time lapsing between the date of the project start meeting and the date on which the final Report was issued).

Upon completion of the activities, a total of 51 observations were issued, which gave rise to 101 corrective action plans shared with the company management of reference, to which further 9 were added following half-yearly 231 monitoring. The average, around 2 action plans per observation, is in line with the department's internal goals.

The following table summarises the activities completed in 2019 with indication of any deviations from the Plan.

TYPE OF INTERVENTION	PLAN APPROVED	NUMBER OF INTERVENTIONS
INTERNAL AUDIT	8 interventions + 2 special projects	8 interventions + 2 special projects
FOLLOW UP	4 quarterly interventions	4 quarterly interventions
231 MONITORING	2 half-year cycles	2 half-year cycles

# ENTERPRISE RISK MANAGEMENT

Risk Management activities are key to us reaching our goals of growth, efficiency and risk mitigation. These activities strengthen our ability to create value for shareholders and stakeholders and allow us to ensure the sustainability of the business in the medium to long term.

Enterprise Risk Management (ERM) is the Group's structure that supports management in identifying, assessing and monitoring risks, as well as defining the most effective response strategies for their mitigation.

The approach adopted by ERM is based on the 2018 edition of the CoSO framework "Enterprise Risk Management (ERM) - Integrating with Strategy and Performance", aimed at illustrating the nature and the profile associated with the main risks that may affect the achievement of business planning and sustainability objectives. According to the ERM model, risk management in the ERG Group is a structured and continuous process, put in place in order to address the risks faced by the organisation with a united

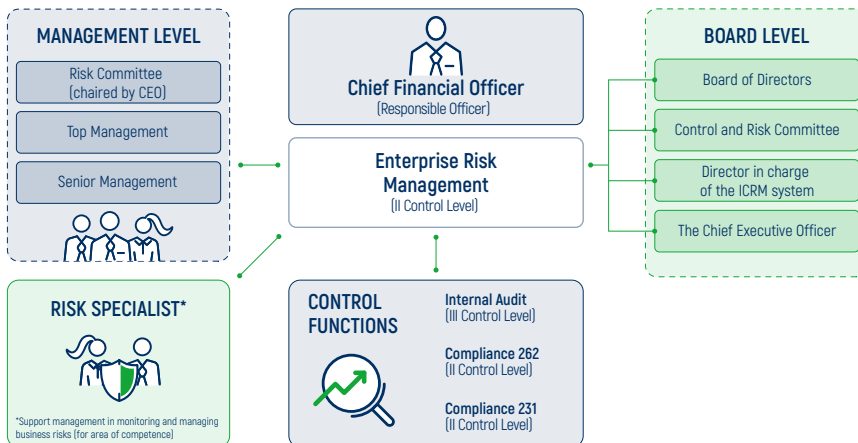
approach, and to provide management with the information necessary to consciously take the most appropriate decisions for the purpose of achieving the strategic growth objectives, creating value for the company, and safeguarding it.

The process involves integrated risk management between the systems implemented at company process level based on the specific Risk Evaluation methods and tools.

The main goals of ERM are:

- obtaining an integrated and dynamic view of the main Group corporate risks that may affect the achievement of the objectives of the Business Plan;
- strengthening the corporate culture at all levels and the awareness that adequate risk assessment and management positively affect the achievement of goals, the creation of value for the company and medium-long term business sustainability;
- promoting the dissemination of risk management in business processes in order to

## PARTIES INVOLVED



- ensure consistency in the methodologies and tools used to manage and control risks;
- developing a common language and disseminating an appropriate risk management culture;
- providing a consistent approach in order to identify events that may affect company activities;
- ensuring the carrying out of activities,

- coordinating the Risk Specialists and the other persons involved in the process;
- strengthening of the strategic planning processes through "informed" decision-making processes in a "risk adjusted" approach.

The Enterprise Risk Management process provides for the involvement of all Group structures (from "Management level" up to

RISK	DESCRIPTION	MANAGEMENT STRATEGY IMPLEMENTED BY THE ERG GROUP
<b>1 - Natural variability of renewable sources</b>	The production volumes are subject to variability due to the natural mutability of renewable sources (water, wind and sun) which, in the event of lower contributions, may adversely affect the production of renewable plants and, subsequently, Group results.	<ul style="list-style-type: none"> <li>Diversification of the generation portfolio from both a technological (Wind/Solar/Hydro/Thermal) and geographical (at European level) point of view in order to compensate for changes in the various renewable sources (Wind/Solar/Hydro).</li> <li>Use of highly accurate forecasting systems to draw up a plan for production and short-term operational activities.</li> <li>Scheduling the plant downtime according to the periods when the renewable sources' contribution is lower.</li> <li>Use of industrial control systems (SCADA) for the continuous monitoring of the performance of plants – through specific KPI indicators – and of their status, which make it possible to intervene promptly in the event of accidental failure and to reduce machinery downtime.</li> <li>Programmes for the continuous improvement of the processes for managing and maintaining assets in order to ensure their increased efficiency.</li> <li>Insurance coverage to mitigate the risks related to Business Interruption and Property Damage in the generation portfolio.</li> </ul>
<b>2 - Price risk</b>	Risk linked to the volatility of market prices of commodities (in particular electricity and gas), which can affect the Group's results.	<ul style="list-style-type: none"> <li>Definition of risk exposure limits and their regular monitoring.</li> <li>Escalation process if the approved limits are exceeded.</li> <li>Use of financial instruments to hedge the price risk only if there is an underlying asset.</li> <li>Contractualisation of indexed sales formulas, if possible, to transfer risks to customers.</li> </ul>
<b>3 - Legislative and regulatory changes</b>	Possible worsening of the national and international legislative/ regulatory framework in the countries in which the Group operates that may negatively impact the achievement of business targets.	<ul style="list-style-type: none"> <li>Legislative and regulatory monitoring through institutional relations, related channels, comparison with operators in the sector, and the specialised press.</li> <li>Active participation in consultations to protect the Group's interests.</li> <li>Maintenance of effective and long-lasting relations with local stakeholders in the countries in which the Group operates (e.g. through territorial development and sustainability projects).</li> <li>Sensitivity Analysis to assess the effect of the main regulatory evolutions on the Group's results.</li> <li>Periodical reporting to Management.</li> </ul>
<b>4 - Downgrade rating</b>	Risk linked to potential downgrading by the Rating Agency that could limit the ability to access the capital market and/or increase the cost of funding with negative effects on the Group's operating results, financial position and cash flows, and on its reputation.	<p>The risk mitigation strategy, which is aimed at preventing the occurrence of "crisis" situations (e.g. liquidity; breach of financial covenants) that could lead to a downgrade of the rating, is structured over various levels and involves the pursuit of:</p> <ul style="list-style-type: none"> <li>a balanced financial structure in terms of duration and composition;</li> <li>the continuous monitoring of the actual and expected results and of the financial balances;</li> <li>investment planning consistent with existing financial covenants and associated risks;</li> <li>the search for a business portfolio that ensures stable cash generation from its business activities, including through the geographical and technological diversification of its plants.</li> </ul>

RISK	DESCRIPTION	MANAGEMENT STRATEGY IMPLEMENTED BY THE ERG GROUP
<p><b>5 - New investments</b></p>	<p>Possible uncertain events originating from various factors, for example, scenario (micro/macro-economic, political, regulatory, business-related), technical, operational, financial, organisational, etc. which may have an impact on the decision of a new investment and/or its success.</p>	<ul style="list-style-type: none"> <li>• Specific Organisational Units tasked with ensuring the achievement of growth objectives through new investments (organic growth and/or M&amp;A).</li> <li>• Structured processes for the selection of investments consisting of subsequent project examination and approval activities including, inter alia, internal and external supporting studies, benchmark analysis, legal and regulatory analysis, sustainability models and financial assessment/planning.</li> <li>• Timely analysis for risk-relevant projects which include:               <ul style="list-style-type: none"> <li>(i) Potential impact and strategy/actions to contain/eliminate the risk;</li> <li>(ii) Follow-up items for mitigation process monitoring.</li> </ul> </li> <li>• Periodic WACC/HR updating, also through benchmarking, to ensure an adequate return with respect to the expected risk profile.</li> </ul>
<p><b>6 - Cyber attacks against production industrial systems</b></p>	<p>Potential cyber-attacks that exploit vulnerabilities may bring industrial production systems to a standstill and, subsequently, affect the Group's results (e.g. Revenue).</p>	<ul style="list-style-type: none"> <li>• Security assessment to identify system criticalities and supporting infrastructures.</li> <li>• Definition and implementation of a Security Program to adapt processes, systems and infrastructure to best practices aimed at increasing levels of safety.</li> <li>• Development of security awareness plans and training to users.</li> <li>• Use of automatic instruments (e.g. Intrusion Detection Systems) for prevention, detection and accident management purposes.</li> <li>• Cyber Crime insurance coverage.</li> </ul>
<p><b>7 - Failure to protect the reputational capital</b></p>	<p>Internal/external events which may negatively affect the reputation of the ERG Group (amongst the different factors: financial performance, Ethics and Integrity, Social Responsibility, HSE Policies, ICT Security, crisis management, etc.).</p>	<ul style="list-style-type: none"> <li>• Specific communication and information activities aimed at maintaining the Group's high level of reputation among stakeholders, which include, among other things, a structured Corporate Social Responsibility process with specific social responsibility initiatives and dissemination of Non-Financial Information;</li> <li>• Active relationships with all the main stakeholders and media, and monitoring of stakeholder perception;</li> <li>• Communication activities through website/social media and continuous monitoring of the perception of the ERG brand by stakeholders.</li> <li>• Structured process of Reputational Crisis Management, which makes it possible to promptly manage and limit the effects of crisis, in order to protect the reputation of the ERG Group.</li> </ul>
<p><b>8 - Anti-Corruption compliance</b></p>	<p>The possibility that one of the Companies in the Group and/or a director, representative or employee of the same, could be involved in proceedings for offences committed in breach of anti-corruption laws that may involve the application of sanctions against the aforementioned persons (both physical and legal persons) and negative repercussions in terms of reputation.</p>	<ul style="list-style-type: none"> <li>• Adoption of a system of behavioural rules (Code of Ethics and Anti-Corruption Policy) valid for all the Group.</li> <li>• Adoption of an "Integrated Anti-Corruption Model", for all Italian and foreign Companies in line with best practices.</li> <li>• Definition of information flows for Anti-Corruption System monitoring.</li> <li>• Regular training on anti-corruption matters and ongoing efforts to raise awareness among management on the culture of ethics and of business integrity.</li> <li>• Adoption of the "Significant Third Party Due Diligence Procedure", provided for by the Anti-corruption System and Policy.</li> <li>• Definition and implementation of Compliance Programmes to check compliance with the Anti-Corruption Policy.</li> </ul>
<p><b>9 - Industrial risks and HSE</b></p>	<p>Risks due to the malfunctioning of plants, which may cause problems in production processes and/or negatively affect HSE.</p>	<ul style="list-style-type: none"> <li>• Technological and geographical diversification of the generation portfolio in order to limit negative impacts.</li> <li>• Constant supervision by Management and implementation of a Business Continuity Management/Asset Integrity Management process that ensures the proper maintenance of production assets.</li> <li>• Technological development of plants and emergency management plans; specialist HSE audit and monitoring of plants.</li> <li>• Adoption of certified Management Systems (ISO 14001 and OHSAS 18001-ISO 45001) and continuous training for all the staff performing activities inside the plants.</li> <li>• Specific insurance coverage levels for business interruption, property damage and injuries to the personnel.</li> </ul>

"Board Level"), passing through the second-level control structures (e.g. Compliance) and third-level control structures (Internal Audit), which together with the ERM make up the Internal Control and Risk Management System.

To this end, the ERM model is developed by means of:

- identifying and assessing the Group's main risks and defining the necessary strategies to mitigate the risks and the relative control tools;
- continuously checking smooth operation and effectiveness of the risk management process, providing to management with a clear representation of the "dynamic" evolution of risk mapping.

More specifically, the Enterprise Risk Management methodology includes:

- integration between the ERM model and corporate strategies and, in particular, the "Plan and Budget" process, allowing the alignment between strategic planning and risk assessments;
- creation of synergies with Company departments that carry out specific risk assessment activities (e.g. HSE, ICT);
- introduction of specific, quantitative and qualitative Key Risk Indicators (KRI) for the structured and dynamic monitoring of risk trends and the development of risks over time;
- a six-monthly reporting activity that provides information about the development of the main

risks mapped.

The ERM process is implemented with a Risk-Based approach contributing to the definition of our Business Plan through the identification of specific goals, the analysis of the risk profile associated with them, and the identification of management and monitoring strategies.

At an operational level, the Mangers - through the support of the Enterprise Risk Management Organisational Unit - identifies the risks under its responsibility and provides advice to mitigate the risks of current actions/projects. The results of this process are consolidated through Group risk mapping where priorities are defined in order to support their coordination and integrated management.

All risks mapped according to the ERM approach are included in an "ERG Group Risk Catalogue". As is customary, the Group's Risk Universe (the standard catalogue of homogeneous risk classes) was updated in the first quarter of 2019, on the basis of an external benchmarking activity and of specialised publications, to include "Emerging Risks".

The tool supports Management:

- during the risk assessment (and especially risk identification) phase since it includes all areas where risks may arise;
- in the consolidation phase, by checking whether

## ERM GOALS REACHED IN 2019

Risk Assessment activities involved all of the Group's companies, both in Italy and abroad, together with all Senior and Middle Management. We identified 42 "main" risks (15 of which TOP) divided into Strategic, Financial, Operating (including HSE and ICT risks) and Compliance risks. We further divided the risks within these categories into "external/internal" and "transformation/permanent".

some risk areas have not been analysed/covered, allowing them to be examined in more depth, if necessary.

More specifically, during the most recent update we integrated the Risk Universe (which currently includes more than 60 risk classes) carrying out specific investigations focused in particular on the issues of Climate Change and Sustainability in general. Following the update of the Risk Universe, we carried out ERM risk assessment activities and the Group's Risk Catalogue was updated. More specifically, two assessment cycles were carried out during 2019, which involved all Group companies in Italy and abroad, for the identification of "TOP Risks" and "Gold Risks".

The results of the ERM process are periodically reported to:

- the Management/CFO/CEO, who assess the appropriateness of the risk profile in relation to the goals set and the actions taken to mitigate the risks;
- the Board Committees, which are tasked with

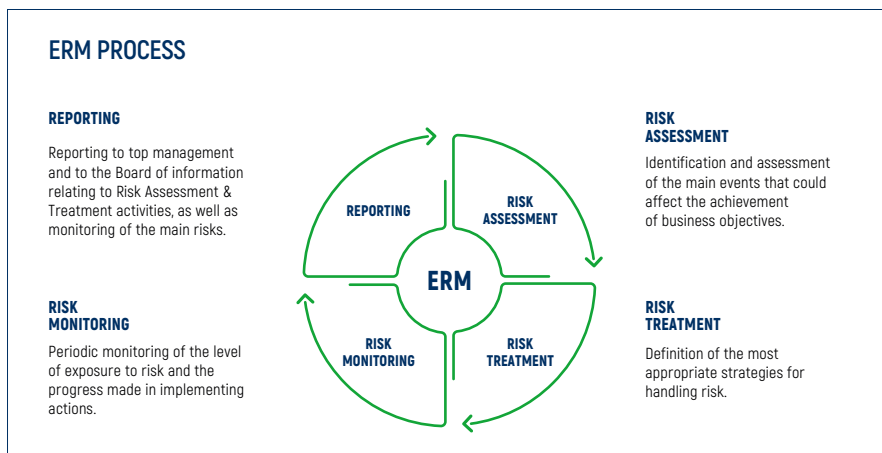
the assessment of the overall effectiveness of the Integrated Risk Management process.

During 2019, we integrated the risk reporting activity with the Group's "ERM Risk Dashboard" which monitors the risk variations of the ERM Risk Catalogue by comparing the results obtained in the current half year with those of the previous half year.

Monitoring involves two indicators:

- the risk profile, which is monitored by shifting the residual risk in the likelihood-impact matrix: any change in Likelihood and/or Impact that affects the risk profile makes it possible to measure the trend compared to the previous half year (increase, stable, decrease);
- the Key Risk Indicator: a specific risk indicator that only shows the quantitative changes and the trend of changes compared to the previous half year of the specific indicator monitored.

More specifically, the main risks run by the ERG Group are listed in the "Risk and Uncertainties" chapter of the Report on Operations, to which reference may be made for further details.



## CLIMATE CHANGE RISK MANAGEMENT

In 2019, ERG developed a process to analyse the impact that Climate Change may have on its business. The project was developed in accordance with the guidelines of the TCFD (Task Force on Climate-related Financial Disclosure) transposed by the European Commission into the "Guidelines on non-financial reporting: Supplement on reporting climate-related information" and required an analysis, with consequent disclosure, of four pillars:

- Governance;
- Strategy;
- Risk Management;
- Metrics & Targets.

Whereas the Group Governance framework in relation to these matters and the strategy were very clear, identifying the risks and opportunities was a much more in-depth task.

The main steps in the process were the following:

1. identification of the reference scenarios;
2. identification of the variables present in the scenarios that could impact ERG's business;
3. identification of the risks and opportunities related to climate change in relation to ERG's business;
4. identification of the corporate functions responsible for the governance, monitoring and management of Climate Change issues;
5. identification of the strategies for managing the risks or achieving the opportunities.

Scenarios were chosen from among those most widely accredited in literature, more specifically:

- one physical scenario developed by the Intergovernmental Panel of Climate Change (IPCC) that shows the response of the Earth's climate to changes in atmospheric concentrations of GHG, in the absence of mitigation measures. In this scenario it is

estimated that, if mitigation strategies are not implemented and current production rates continue, emissions of greenhouse gases will cause an average temperature increase of +1.5°C by 2040, and subsequently +2°C, with significant effects for the planet;

- two transition scenarios that focus on assumptions of the development of climate policies and technologies to reduce GHG emissions:
  - the Below 2 Degree Scenario (B2DS) of the International Energy Agency (IEA), used by the Science Based Target Initiative (SBT) to set the greenhouse gas emission reduction targets;
  - the Sustainable Development Scenario (SDS) of the IEA, which uses the Sustainable Development Goals (SDGs) as targets.

The mitigation strategies consistent with the transition scenarios mentioned require that in order to keep the increase in average temperatures below 2.0°C a 25% reduction in emissions would be needed by 2030, reaching net zero around 2070, while for a target of 1.5°C, global CO<sub>2</sub> emissions would need to be reduced, compared to 2010, by approximately 45% by 2030, reaching net zero around 2050.

The different variables that may impact ERG's business were subsequently identified and classified into Physical (acute and chronic) and Temporary (Regulatory, Market, Reputational, Technology) events.

Equally, the analysis aimed to identify all the opportunities, generated by Climate Change, that could work in the Group's favour.

The first fact that emerged from the analysis is that ERG, having already achieved ante litteram the "just transition" towards a decarbonised economy, has already implemented actions

and processes that allow it to be resilient and ready to face a predominantly green generation model. The strategy is clear and outlined in the Business Plan: continue the path of growth in the renewables sector increasing, over the 2018-2022 Plan period, installed capacity in RES by approximately 850 MW (+30%). The governance of the issues relating to Climate Change is divided between Board and Management. The Board is responsible for strategic guidance, designing the Group's green future, analysing the economic, regulatory and market scenarios in order to identify the best development opportunities while continuing to support the low carbon transition. The Management is responsible for managing the assets, with an increased focus on issues such as: managing contributions to optimise production, technological development and increasing the efficiency of plants in order to extract the greatest possible value, asset integrity, and the environmental and safety

management to ensure business continuity.

In addition, the Governance model implemented by ERG includes a Sustainability Committee that plays a coordinating role with regard to sustainability matters and, more specifically:

- defines the sustainability policies aimed at creating value over time for shareholders and stakeholders;
- examines the sustainability goals and processes;
- examines the non-financial reports submitted to the Board of Directors.

These include monitoring the environmental impact of avoided emissions and CO<sub>2</sub> saved as a result of production from renewable sources, which are reported annually in the Non-Financial Statement. Below is the analysis, in table form, of the risks and opportunities identified, using as a reference the structure proposed by the TCFD and the reference scenarios.

In conclusion, in order to counter Climate Change risks and seize any opportunities, the ERG

	Potential event	Description of risk / Opportunity	Potential financial impact	Risk management strategy/strategy for realising opportunities (main aspects)
PHYSICAL Acute	Increase in the frequency and intensity of extreme weather events	<b>RISKS</b> Damage to plants with impact on production. Damage to infrastructure (e.g. roads from landslides) that prevents access to plants with impact on availability/generation capability of production plants.	Increase in operating costs. Reduction in revenue. Higher insurance costs.	Business continuity management process that guarantees the correct maintenance of production assets, through risk assessment activities, business impact analysis. Technological diversification (Wind/Hydro/Solar/Thermo) and territorial distribution of assets across the various regions and countries. Certification of HSE Management systems in accordance with international standards. Identification of the most appropriate wind turbines based on the windiness of the site. Insurance coverage.
		<b>OPPORTUNITY</b> n.a.	n.a.	n.a.
PHYSICAL Acute	Increase in the frequency and intensity of extreme weather events	<b>RISKS</b> Supply chain interruption with impact on plant availability.	Increase in operating costs. Reduction in revenue.	Selection of suppliers belonging to International Group that manage their production processes with a view to business continuity management in addition to identifying backup suppliers. Definition of strategies for the management of warehouses (minimum levels of stock and main components) and different spare parts warehouses located across several geographical areas. Supply contracts with safeguard clauses. Insurance coverage.
		<b>OPPORTUNITY</b> n.a.	n.a.	n.a.

	Potential event	Description of risk / Opportunity	Potential financial impact	Risk management strategy/strategy for realising opportunities (main aspects)
PHYSICAL Acute	Increase in the frequency and intensity of extreme weather events	<b>RISKS</b> Damage to the electricity and/or gas distribution network.	Plant unavailability. Reduction in revenue.	Technological and geographical diversification of the generation portfolio in order to limit impacts. The security of networks is guaranteed by National TSOs (TSO for the electricity network and SNAM for gas).
		<b>OPPORTUNITY</b> n.a.	n.a.	n.a.
PHYSICAL Acute	Heat waves	<b>RISKS</b> Reduction in the performance of plants with a negative impact on their efficiency and on the production of electricity. Increased plant maintenance.	Increase in operating costs. Lower revenue.	Technological and geographical diversification of the generation portfolio in order to offset the impact caused by the change in temperature (Wind/Solar/Hydro). Continuous monitoring of the performance of plants through specific KPIs in order to implement predictive/preventive maintenance strategies. Programmes for the continuous improvement of the processes for managing and maintaining assets in order to ensure their increased efficiency.
		<b>OPPORTUNITY</b> Increase in the demand for electricity for cooling purposes.	Increase in revenue.	Operation and Maintenance activities aimed at ensuring high availability of production facilities. Development and implementation of production plans that take account of demand trends.
PHYSICAL Chronic	Increase in average temperature	<b>RISKS</b> Lower efficiency of plants. Increased evaporation of lakes with a consequent decrease in the availability of water.	Lower revenue.	Technological and geographical diversification of the generation portfolio in order to offset the impact caused by the change in temperature (Wind/Solar/Hydro). Continuous monitoring of the performance of plants through specific KPIs. Programmes for the continuous improvement of the processes for managing and maintaining assets in order to ensure their increased efficiency.
		<b>OPPORTUNITY</b> Greater radiation with a consequent increase in the production of photovoltaic plants.	Higher revenue.	Technological and geographical diversification of the generation portfolio in order to compensate for changes in the various renewable sources (Wind/Solar/Hydro) due to the change in temperature. Use of increasingly accurate forecasting systems to reduce forecasting errors, including through the use of complex statistical tools. Programmes for the continuous improvement of the processes for managing and maintaining assets in order to ensure their increased efficiency.
PHYSICAL Chronic	Increase in sea level	<b>RISKS</b> The significant rise in sea level could result in the need to modify the sea-water pump system used to cool the CCGT plant.	Higher maintenance costs.	The CCGT is in a high position with respect to the sea, and sea levels are not expected to rise significantly enough for the plant to be considered at flood risk.
		<b>OPPORTUNITY</b> n.a.	n.a.	n.a.

	Potential event	Description of risk / Opportunity	Potential financial impact	Risk management strategy/strategy for realising opportunities (main aspects)
PHYSICAL Chronic	Reduction in rainfall (Southern Europe)	<p><b>RISKS</b></p> <p>Decrease in electricity production of hydroelectric assets.</p>	Reduction in revenue.	<p>Technological and geographical diversification of the generation portfolio in order to compensate for changes in the various renewable sources (Wind/Solar/Hydro/Power).</p> <p>Scheduling of renewable energy plant downtime and maintenance according to the periods when the contribution of the specific renewable source is lower.</p> <p>Development and implementation of production plans that take account of the change in contributions of the various renewable sources.</p>
		<p><b>OPPORTUNITY</b></p> <p>n.a.</p>	n.a.	n.a.
PHYSICAL Chronic	Change in the intensity, direction and frequency of winds	<p><b>RISKS</b></p> <p>Decrease in the production of electricity due to the scarcity of the resource or prevailing wind direction for wind farms.</p> <p>Uncertainty of weather forecasts that could result in inaccurate production programmes.</p>	<p>Reduction in revenue.</p> <p>Increase in operating costs.</p>	<p>Technological and geographical diversification of the generation portfolio in order to compensate for changes in the various renewable sources (Wind/Solar/Hydro/Power).</p> <p>Use of increasingly accurate forecasting systems to reduce forecasting errors, including through the use of complex statistical tools.</p>
		<p><b>OPPORTUNITY</b></p> <p>Increase in the production of electricity by wind farms in the event of increase in the frequency and intensity of winds.</p>	Increase in revenue.	<p>Technological and geographical diversification of the generation portfolio.</p> <p>Preparation of production plans for generation assets.</p> <p>Definition and implementation of a strategic development plan.</p>
TEMPORARY Regulatory and linked to policies	Change in grants and incentives from the Government or international organisations	<p><b>RISKS</b></p> <p>Reduced incentives for investment in production from RES.</p>	Lower revenue.	<p>Technological and geographical diversification of the generation portfolio to enable access to the various incentive systems in the different countries and for the different sources.</p> <p>Drafting of development plans and plans for investment in renewable energy plants that take account of the RES incentive scenario in the target countries.</p> <p>Specific organizational unit dedicated to the continuous monitoring of developments in reference national and international legislation.</p> <p>Establishment and maintenance of relations with the reference Institutions at the national and international level aimed at protecting the interests of the Group.</p>
		<p><b>OPPORTUNITY</b></p> <p>Increase in incentives for investment in production from RES.</p> <p>Increase in availability of capital for Green investments.</p>	Higher revenue.	<p>Drafting of development plans and plans for investment in renewable energy plants that take account of the RES incentive scenario in the target countries.</p> <p>Specific organizational unit dedicated to the continuous monitoring of developments in reference national and international legislation.</p> <p>Establishment and maintenance of relations with the reference Institutions at the national and international level aimed at protecting the interests of the Group.</p>

	Potential event	Description of risk / Opportunity	Potential financial impact	Risk management strategy/strategy for realising opportunities (main aspects)
TEMPORARY Regulatory and linked to policies	Change in the regulatory framework for greenhouse gas emissions	<b>RISKS</b> Tightening up of international/national regulations with introduction of limits on greenhouse gas emissions for power generation plants.	Lower revenue (Thermo).	Technological and geographical diversification of the generation portfolio in order to compensate for the tightening up of regulations affecting a single technology.  Business Plan that provides for the growth of the ERG Group in renewable-based power generation and the maintenance of a Power Thermo plant that helps to ensure the safety of the national electricity grid.  Programmes for the continuous improvement of manufacturing processes in order to increase efficiency.
		<b>OPPORTUNITY</b> Increase in the demand for electricity due to coal phase-out.	Higher revenue.	Business Plan that provides for the growth of the ERG Group mainly through the development of Renewable Resources.  Continuous monitoring of the performance of plants and emissions through specific indicators and KPIs.  Programmes for the continuous improvement of manufacturing processes in order to increase efficiency.
TEMPORARY Regulatory and linked to policies	Change in the regulatory framework for greenhouse gas emissions	<b>RISKS</b> Review of the ETS system with consequent increase of the price of CO <sub>2</sub> .	Increase in operating costs due to purchases of CO <sub>2</sub> quotas (Thermo).	Specific organisational unit dedicated to the continuous monitoring of developments in reference national and international legislation.  Collaborative dialogue with institutions and with government and regulatory bodies in the sector.  Balancing of the purchase cost of CO <sub>2</sub> with the formula for the sale of electricity.
		<b>OPPORTUNITY</b> Increase in the demand for electricity due to coal phase-out.  Competitive and reputational advantage for ERG as a result of having been able to anticipate legislative and market demand.	Higher revenue.	Business Plan that provides for the growth of the ERG Group mainly through the development of Renewable Resources and the maintenance of a Power Thermo plant that helps to ensure the safety of the national electricity grid.  Programmes for the continuous improvement of manufacturing processes in order to increase efficiency.
TEMPORARY Regulatory and linked to policies	Variability in the price of natural gas	<b>RISKS</b> Reduction of the price of natural gas with a reduction of the PUN (National Single Price), since it is considered a "marginal" technology, in the absence of coal.	Reduction in revenue.	Balancing of the purchase cost of GAS with the sale price of electricity.
		<b>OPPORTUNITY</b> Possible increase in the price of natural gas with subsequent increase in the PUN (National Single Price), since it is considered a "marginal" technology, in the absence of coal.	Higher revenue.	Business Plan that provides for the growth of the ERG Group mainly through the development of Renewable Resources.  Continuous monitoring of the performance of plants and emissions through specific indicators and KPIs  Programmes for the continuous improvement of manufacturing processes in order to increase efficiency.

	Potential event	Description of risk / Opportunity	Potential financial impact	Risk management strategy/strategy for realising opportunities (main aspects)
TEMPORARY Market	Uncertainty of electricity demand	<p><b>RISKS</b></p> <p>Reduction in electricity demand due in particular to increased "energy efficiency" and the development of "Distributed Generation".</p>	Reduction in revenue.	<p>Sale of electricity via bilateral contracts/PPAs with short/medium/long-term deadlines.</p> <p>Programmes for the continuous improvement of manufacturing processes in order to increase efficiency.</p>
		<p><b>OPPORTUNITY</b></p> <p>Increase in the demand for electricity due in particular to the increase in "Smart Mobility" (electric cars) and increased use of efficient heating systems (heat pumps).</p>	Increase in revenue.	Strategic industrial development plan that provides for the growth of Group production plants in order to meet the growing demand.
TEMPORARY Market	Increase in competitive pressure	<p><b>RISKS</b></p> <p>Increased competitiveness due to entry of new electrical operators (e.g. increase in distributed generation, electric mobility) and/or greater energy efficiency.</p>	Reduction in revenue.	<p>Strategic development plan for the Group that provides for growth in RES in the target countries that have dispatching priority versus other sources.</p> <p>Sale of electricity via bilateral contracts/PPAs with short/medium/long-term deadlines.</p>
		<p><b>OPPORTUNITY</b></p> <p>n.a.</p>	n.a.	n.a.
TEMPORARY Reputational	Change in reputation	<p><b>RISKS</b></p> <p>n.a.</p>	n.a.	n.a.
		<p><b>OPPORTUNITY</b></p> <p>Improvement in Group reputation resulting from the strategy of investing mainly in RES.</p> <p>Competitive and reputational advantage for ERG as a result of having been able to anticipate legislative and market demand.</p>	Increase in revenue.	Strategic industrial development plan that provides for the growth of Group production plants in order to meet the growing demand.
TEMPORARY Technological	Promotion of energy efficiency and renewable energy plants	<p><b>RISKS</b></p> <p>n.a.</p>	n.a.	n.a.
		<p><b>OPPORTUNITY</b></p> <p>Improvement in efficiency of plants</p> <p>Better perception of the Group resulting from its strategy of investing in RES.</p> <p>Competitive and reputational advantage for ERG as a result of having been able to anticipate legislative and market demand.</p>	<p>Reduction in operating costs.</p> <p>Increase in revenue.</p> <p>Reduction in the cost of capital (Green Bond, Green New Deal).</p>	<p>Strategic industrial development plan, which provides for further growth through RES.</p> <p>Programmes for the continuous improvement of manufacturing processes in order to increase efficiency.</p> <p>Structured Corporate Social Responsibility process. ERG Green Bond issue.</p>

	Potential event	Description of risk / Opportunity	Potential financial impact	Risk management strategy/strategy for realising opportunities (main aspects)
TEMPORARY Technological	Demand for carbon neutral electricity generation	<b>RISKS</b> n.a.	n.a.	n.a.
		<b>OPPORTUNITY</b> Better perception of the Group resulting from its strategy of investing in RES. Competitive and reputational advantage for ERG as a result of having been able to anticipate legislative and market demand.	Increase in revenue. Improved access to capital market (Green Bond, Green New Deal).	Strategic industrial development plan, which provides for further growth through RES. Structured Corporate Social Responsibility process. Active communication and information relations with the main stakeholders and with the media. Continuous monitoring of the perception of the ERG brand by stakeholders. ERG Green Bond issue.
TEMPORARY Resilience	Effects of climate change	<b>RISKS</b> n.a.	n.a.	n.a.
		<b>OPPORTUNITY</b> Possibility of anticipating the adverse effects of climate change and taking appropriate measures to prevent or reduce to a minimum any damage that may result from it.	Increase in revenue. Reduction in costs.	Technological and geographical diversification of the "As Is" generation portfolio. Strategic industrial development plan that provides for further technological and geographical diversification of the generation portfolio through the growth of RES in different target countries. Programmes for the continuous improvement of manufacturing processes in order to increase efficiency.

Group makes its decisions in a "conscious and responsible" manner, implementing a climate strategy (understood as a reduction of industrial impacts) that is closely integrated with business strategy, based on the following actions:

- maintenance and development, both at board and management level, of a culture and a positive approach, that leads the way and is resilient to change, and the ability to evolve and reposition promptly in the context of the energy transition underway, taking maximum advantage of the challenges and opportunities;
- implementation of a plan for the development and production of energy from renewable sources (mainly: Wind, Hydro and Solar) in Italy and abroad, which has made it possible to "eliminate" atmospheric CO<sub>2</sub> emissions through the use of "clean technologies" instead of traditional generation;
- pursuit of a strategy focused on territorial and technological diversification, in order to

compensate for the negative impacts resulting from climate change;

- continuous monitoring of regulatory developments in the countries in which the Group operates and the establishment and maintenance of effective and long-lasting relations with its stakeholders;
- introduction into the portfolio strategy of bilateral contracts/PPAs for sales of electricity with medium/long-term maturity in order to be able to counteract the greater volatility and any downward pressure on prices that may emerge as a result of the effects linked to Climate Change (many of which with opposing impact on prices during the energy transition period);
- specific communication activities to maintain the Group's high level of reputation among stakeholders, which include, among other things, a structured Corporate Social Responsibility process (sustainability reporting, monitoring of sustainability objectives, ESG rating).

# RISK MANAGEMENT ACTIVITIES WITHIN THE SCOPE OF NFS TOPICS

Italian Legislative Decree No. 254/2016, which introduced the Non-Financial Statement, replicating the provisions of the European Directive on this matter, identified the issues related to the business model adopted, business activities implemented, the main non-financial indicators and main management risks, caused or faced by the company, as the minimum requirements in terms of content that should be reported in the NFS<sup>1</sup>.

In order to ensure our document is fully compliant with legislation, in 2019 we examined in depth and systematised the analysis of the main risks already reported on in past years. Through this analysis we have been able to verify the presence within the company of specific controls, both in terms of structured processes involving specific control activities and in terms of accountability.

For each issue and related risk element, the following were also identified and defined: the main business processes involved, their inclusion in a specific risk assessment (at "Operational" or "Enterprise" level), inclusion in the Group Risk Policy, the presence of specific systems governing the issue.

This activity showed the systems governing the material topics to be effective, not only because these are provided for by specific regulations, but also because they are an integral part of the ERG Group's approach.

The presence of certified management systems in the health and safety and environmental areas ensure the constant monitoring of both regulatory updates and field activities. It is no coincidence, therefore, that these two elements were recognised as the most relevant also in the context of the materiality analysis.

Some elements, mainly linked to the personnel area such as the respect for human rights, gender equality and dialogue with social partners, although not regarded as "material" for the ERG Group, in view of the countries in which it operates and the legislation existing therein, are carefully safeguarded through policies (Code of Ethics, Sustainability Policy, Human Rights Policy), governance instruments and working practices.

The results of the analysis carried out give us a clear picture of our company and its way of doing business, which has always been characterised by a focus on principles and ethical values, such as the inclusion and the promotion of diversity.

The analysis showed that, with respect to the risks generated and suffered with reference to the topics envisaged by Decree 254/2016, they are adequately managed through a Governance structure (policies, procedures and segregation of duties) and specific controls aimed at guaranteeing constant monitoring.

For more details, please refer to various chapters.

<sup>1</sup> DNFs must also report information regarding environmental, social and personnel management, as well as containing information regarding the policies adopted by the company to protect human rights and to fight corruption.

## PRIVACY: IMPLEMENTATION AND TRAINING

Since implementing the Privacy management system in May 2018 (the date on which the Regulation (EU) 2016/679 - GDPR entered into force), the ERG Group continued to monitor and develop it throughout 2019. The targets set in 2018 and the actions shared with the Board of Directors have been implemented. In particular, we:

- subjected our system to a "Quality Assurance" process carried out by a specialist external company to verify that the Group is in line with the standards defined by the Regulation (EU) 2016/679 - GDPR, the result of which was positive;
- launched a training process extended to all the Italian staff of the ERG Group who, in the course of their work, carry out activities that require the processing of personal data (so-called 'accountability principle').

Training was carried out on the basis of two main modules:

- Basic training module, applied to the entire ERG Group (in Italy), and mainly concerned with general data protection aspects (applicable principles, changes with respect to the Privacy Code pursuant to Italian Legislative Decree 196/2003, roles and responsibilities, sanctions, codes of conduct, violations, data subjects and their rights, consent and consent management, processing register, etc.);
- Personalised classroom training module, provided to a limited group of people who process personal data in a more specific and in-depth manner than the recipients of the previous module. This module is above all concerned with

aspects relating to definitions, positions (roles and responsibilities), main actions to be carried out and operational implications (information notice, collecting and managing consent, breach management, processing register, management of video surveillance, processing of employees' personal data, relations with third-party suppliers, training, management of figures, interaction with the DPO and/or with Control Bodies, etc.).

In the first case, 365 employees underwent training, on the other hand, with regards to classroom training, the course was provided to 100 employees, including the Top Management reporting directly to the Chief Executive Officer.

Certification for passing the final test is required in order to demonstrate the "accountability" of the ERG Group to the Italian Privacy Guarantor in the event of any checks.



# OUR PRINCIPLES

The principles of conduct that our Group requires all stakeholders to observe in terms of legality and, in particular, anti-corruption are outlined in the Code of Ethics, the Anti-Corruption Policy and the relevant sections of the 231 Models.

The ERG Group considers corruption to be a material topic: it is a serious phenomenon that could endanger and damage business continuity, our integrity and the reputation of our employees and Group wherever and with whoever they operate. Consequently, since 2004 we have adopted a Group Code of Ethics, updated over time to take into account changes to legislation, best practices and the business, until the current edition approved in August 2018.

Furthermore, the Group's Italian companies have adopted their own 231 Models with the aim of formalising, inter alia, specific anti-corruption control systems, which have been updated and integrated over time to take into account changes to the business, operations in new countries and any new legislation.

In 2017, to further confirm our commitment to combat all forms of corruption, ERG Group's Anti-Corruption System and Policy were approved, inspired by the best international standards and, in particular, standard ISO 37001:2017, which certifies this system in all jurisdictions in which ERG operates.

In 2018 the principles were also outlined in more detail in the updated version of the Sustainability Policy. In 2019 the Anti-Corruption Policy and System were updated to take account of the Group's entry into the solar sector and specific rules of conduct were introduced with regard to relations with the Public Administration, the whistleblowing system and the adoption of a specific Due Diligence Procedure for significant third parties.

All of our documents are approved by senior management and must be observed at all levels, from directors to employees and collaborators. In order to guarantee the full acknowledgement of the principles of conduct adopted by the Group, we carry out periodic communication and staff training initiatives, as well as on-boarding programmes and targeted online training for new personnel employed.

The documents are translated into the main languages used within the Group [English, French and German] and are made available on the Group website in order that they may be read and approved by our stakeholders in all of the countries where we operate.

*The Policy is the document that outlines the principles and general goals of the Anti-Corruption System for all Group Companies, including the prohibition and prevention of any kind of corrupt conduct. To achieve this objective, the Policy provides all Employees of the ERG Group, and those who operate with or on behalf of the Group in Italy or abroad, with the principles and rules to be observed to ensure compliance with the Anti-Corruption laws. The ERG Group adopts adequate Regulatory Tools to prevent and combat corruption: the Code of Ethics and, for Group's Companies established under Italian law that have chosen to adopt it, the 231 Models.*

*[...]*

*the ERG Group, in consideration of its growing expansion abroad, has decided to further consolidate its prevention system through the adoption of an Anti-Corruption System in line with the most advanced national and international standards.*

*[...]*

*Group Companies must respect the anti-corruption laws and regulations in force from time to time in all of the countries in which they carry out all or part of their operations (the "Anti-Corruption Laws"). In general, the Anti-Corruption Laws classify as illegal and, consequently, punish the promise, offer, payment or acceptance, directly or indirectly, of money or other benefits for the purposes of securing or maintaining a deal and to obtain an unfair advantage. In particular, pursuant to the Anti-Corruption Laws, corrupt conduct is defined as the following: the payment (or promise to pay) money or other benefits (e.g. donations, hospitality), directly or through a third party, to Public or private entities in order to: i) influence an act or decision, inducing them to do or not do anything in accordance with or in violation of their legal duty or in any case to secure an unfair advantage; ii) induce the Public or private entity to use their influence with the organisation for which they operate in order that it adopt (or that it not adopt, in the case of penalties) an act or a decision.*

From the ERG Group Anti-Corruption Policy

# OUR ANTI-CORRUPTION MANAGEMENT METHODS

## ANTI-CORRUPTION POLICY AND DUE DILIGENCE PROCEDURE FOR KEY THIRD PARTIES

Our Anti-Corruption Policy advises all those who collaborate with the ERG Group in Italy and abroad of the conduct required and prohibited in order to protect our employees and companies from possible risks of corruption in the broadest sense: active and passive, public and private.

The first edition of the Anti-Corruption Policy was adopted by the Board of Directors of ERG S.p.A. in October 2017 along with the Anti-Corruption System, the document through which the Group measures its exposure to corruption risk in relation to:

- (i) structure and dimension;
- (ii) Corporate Governance system;
- (iii) business sectors and activities carried out;
- (iv) countries of operation;
- (v) third parties with whom it has business relations (e.g. partners, suppliers/customers, developers).

The System identifies:

- i) the strategic, organisational and operational objectives that, by adopting the System, the Group intends to achieve (in line with the zero tolerance approach to corruption);
- ii) the internal regulatory tools that include, first and foremost, the Anti-Corruption Policy, which enables its implementation;
- iii) the roles and responsibilities of Top Management, the Internal Audit and the Compliance 231;
- iv) the monitoring and verification activities that guarantee continuous operation and improvement;
- v) the information flows and reporting system that enable the detection of any anomalies.

In particular, the Anti-Corruption Policy declares the Group's commitment and establishes guidelines to ensure compliance with Anti-Corruption system requirements aimed at:

- a) fully rejecting and preventing corruption, according to a "zero tolerance" principle;
- b) ensuring compliance with all Anti-Corruption Laws, with particular reference to those applicable in the countries where the Group operates;
- c) identifying anti-corruption controls and implementing them in internal regulatory instruments (especially in anti-corruption procedures);
- d) identifying training activities on the Policy and on compliance with the Anti-Corruption Laws and their recipients;
- e) guaranteeing the commitment to continually improve the Anti-Corruption system.

We define further operating goals on an annual basis, in line with the Policy's general goals, which are reflected in the [annual] Compliance Plan drawn up by the "231 Compliance" Organisational Unit and presented to ERG S.p.A.'s Control and Risk Committee and to subsidiaries' competent corporate bodies.

Inter alia, rules of conduct are established, which must be observed during relations with institutions and control bodies, in procurement activities of goods and services and in the management of expenses for gifts, sponsorships, donations and entertainment. Facilitation payments are strictly prohibited.

The Anti-Corruption Policy must be acknowledged and observed not only by employees but also by our suppliers and partners. To this end, it is published on our website and expressly referenced in the contracts signed with our business partners.

Following an update to the risk assessment on the Group activities, in August 2019 the Board of Directors of ERG S.p.A. approved the latest edition of the Policy. The new text was subsequently adopted by all Group companies in Italy and abroad.

To date, the main activities identified where corrupt conduct may occur are:

- Gifts and Representation Expenses, Donations and Sponsorships;
- Business development operations and selection of Counterparties, Partners and Developers;
- Relations with the Public Administration and the Authorities;
- Purchase of goods and services, consultancies and professional services;
- Recruitment of Employees and HR management within the ERG Group;
- Securing and managing loans/grants from the Public Administration and private organisations with equivalent status.

For more details refer to the Policy available on [www.erg.eu](http://www.erg.eu).

The amendments considered the new Due Diligence Procedure for significant third parties and the opportunity to better specify the methods for communicating and managing report of possible breaches of the Policy, which may be submitted by any company and any stakeholder to [compliance231@erg.eu](mailto:compliance231@erg.eu).

Furthermore, the minimum requirements for the content of the reports and the associated management process have been defined, with particular focus on:

- the organisational units required to acknowledge the report and make the appropriate investigations;
- the tools through which the implemented actions can be traced;
- the cases where the report may be filed without further investigation;
- the tools, which protect the confidentiality of the whistle-blower and the person to whom the report refers;
- the cases where penalties may be imposed on the whistle-blower for the wilful submission of an unsubstantiated report.

Finally, the Group's commitment to punish any form of retribution towards those who - in good faith - submit a report as well as those who violate the confidentiality of the whistle-blower and/or the person to whom the report refers was formalised.

Consequently, we have defined the Sanctioning System through which ERG punishes breaches to the principles and code of conduct contained in the Policy.

In 2019 no reports of possible breaches to the Anti-Corruption Policy were received.

To identify the anti-corruption controls to be implemented of our potential counterparties before signing an agreement or contract, ERG's CEO and the managers who report directly to the same approved the Due Diligence Procedure for key third parties.

In particular, the due diligence activities monitor the existence of conflicts of interest with counterparties as well as the presence, with regard to the same, of investigations or legal proceedings for corruption or other serious offences (fraud, money laundering, etc.). These controls are implemented through a self-certification process carried out by the counterparty and a check of the same carried out through an IT system that monitors the presence of "adverse media", convictions and Politically Exposed Persons. Any red flags are evaluated by the competent manager with the support of the 231 Compliance unit, which is responsible for, inter alia, monitoring the implementation of the Anti-Corruption System at Group level and responding to any doubts on the application of the Policy and the Procedure.

Controls of third parties not only refer to suppliers and subcontractors but also customers, partners in corporate transactions, directors and statutory auditors of Group companies and agents. To support the monitoring process we have introduced the self-certification process for the condition of the counterparty, and to ensure its ease of use among all stakeholders the document has been translated into all of the languages of the Group's countries of operation [including Polish, Bulgarian and Romanian].

### **231 MODELS AND SUPERVISORY BODY**

Every operating company of the Group established under Italian law has approved its own 231 Model that contains, inter alia, specific monitoring protocols and bans in relation to the activities that may expose the company to public and private corruption offences. In particular, the controls regard relations with members of the Public Administration, the management of gifts, sponsorships, donations and entertainment expenses, purchases of goods and services, as well as the management of financial resources.

The general section of the 231 Model, which indicates the general control principles (traceability of transactions, separation of duties, etc.) is published on the website for consultation also by third parties. The complete document is published on the company Intranet and posted on the noticeboards in company offices.

The special section of the 231 Model outlines the code of conduct (and prohibited conduct) that must be observed to prevent the risks of offences to which the Italian companies of the ERG Group may be exposed, identified and evaluated during specific risk assessment activities that are periodically carried out in response to significant organisational changes and new legislation for the Group, considering, inter alia, the business sectors and the activities carried out, the organisation adopted and the third parties involved in the implementation of the activity.

The Supervisory Body consists of 3 members, one of whom is an external member. It is appointed by the Board of Directors and is responsible for monitoring the adequacy of the 231 Model, proposing the necessary updates and receiving and processing any reports of possible breaches to the 231 Model and the Code of Ethics. To this end the procedure for the transmission of periodic and occasional data streams has been approved and is regularly updated.

The Supervisory Body meets periodically to examine the data received and assess any further investigations. During the meetings, reports of monitoring activities carried out by the Internal Audit (231 audits, 231 tests, etc.) are examined and, where deemed necessary, the managers of at-risk activities are heard. Furthermore, specific data streams between the Supervisory Bodies of Group's companies are provided for when these are relevant to multiple companies.

The SB checks and makes sure that whoever makes a report in good faith is not subject to any retaliation, discrimination or penalisation, whether direct or indirect. It also ensures that the identity of this individual is protected, without prejudice to legal obligations and the protection of the Company's rights or those of the persons accused wrongly and/or in bad faith. Furthermore, the Group undertakes to punish anyone who breaches the privacy of the whistle-blower and/or the alleged perpetrator.

If the SB verifies the non-existence or obvious groundlessness of the reports, it dismisses them after drafting a specific report.

Any reports that prove to be unfounded, intentionally or with gross negligence, lead to the application of the Sanctioning System envisaged by the 231 Models.

In 2019 no reports of possible breaches of the Code of Ethics and the 231 Models were received.

#### **ANTI-CORRUPTION CONTROL SYSTEM MONITORING**

In order to monitor the correct implementation of the control system and compliance with the provisions of the Anti-Corruption Policy and the Key Third Party Procedure, the "Compliance 231" function has shared a procedure for the management of the data streams that must be submitted to it with company department managers. With reference to activities at risk of corruption, this procedure reflects that already adopted by the Supervisory Bodies of the ERG Group to monitor the functioning and compliance of the 231 Models.

In 2019 the periodic and occasional data streams were regularly received and mainly regarded inspection visits, reporting on compliance with Italian Law 262/05 and the management of relations with representatives of the Public Administration. 231 controls [audits and specific tests] are also carried out by the Internal Audit.

#### **TRAINING**

In 2019 we entirely redesigned our training programmes, both with regards to online training and classroom sessions, diversifying the content based on the activities actually carried out by employees, creating examples and target case studies in line with working activities. The aim was to increase engagement and raise awareness about the company code of conduct among employees.

In particular, three different training programmes have been designed for the three “professional families” (staff, production and sales), comprising a short introduction to Italian Legislative Decree no. 231/01, simulations of working activities, discussions about the case studies and a final questionnaire to test learning.

For the online training, aimed at new personnel employed, video are used, stimulating interaction between the user and the person in the case study through questions of different difficulties and a final exam.

Furthermore, in 2019 we carried out a widespread training exercise on the Anti-Corruption Policy, the Due Diligence Procedure for Key Third Parties and the data streams that must be submitted to the “Compliance 231” function, aimed at managers of activities at risk of corruption in Italy and abroad. For employees in offices outside Italy, training was delivered in English.

The table below summarises the classroom-based training carried out in the year (231 and anti-corruption).

Italian Leg. Decree 231/01*	Unit of measurement	2019
Number of people	No.	23
Course duration (per single session)	Minutes	120
Total hours	Hours	2
No. of sessions	No.	1

\* Training activity started in December 2019 and concluding in January 2020 with two additional sessions and the participation of 43 employees from the “staff” category.

Due Diligence Procedure for Key Third Parties and Anti-Corruption Policy	Unit of measurement	2019
Number of people	No.	89
Course duration (per single session)	Minutes	60
Total hours	Hours	18
No. of sessions	No.	18



# ECONOMIC RESPONSIBILITY

# 2

The creation of sustainable value added over time is possible thanks to a series of actions aimed at improving our way of doing business, transforming them into a competitive advantage.

Improving processes, technology and business practices for increasingly reliable and high-performance plants.

An eye on technological innovation to prepare our path towards the future.

**744** EUR million

ECONOMIC VALUE DISTRIBUTED

**3,077** MW

TOTAL INSTALLED CAPACITY

**7,959** GWh

of electricity produced

**91.8** %

CAPITAL INVESTED  
IN PLANTS FUELLED BY  
RENEWABLE SOURCES

## ECONOMIC VALUE GENERATED AND DISTRIBUTED

Current amounts (EUR million)	2019	2018	2017
Revenue	1,035	1,050	1,065
<b>Economic value distributed</b>	<b>(744)</b>	<b>(795)</b>	<b>(746)</b>
Production costs	(383)	(426)	(450)
Remuneration of personnel	(81)	(80)	(79)
Remuneration of public administration	(57)	(54)	(51)
Remuneration of debt capital <sup>(1)</sup>	(107)	(105)	(89)
Remuneration of risk capital <sup>(2)</sup>	(112)	(128)	(75)
Remuneration for the community	(2)	(2)	(2)
<b>Economic value withheld by the Group</b>	<b>291</b>	<b>255</b>	<b>319</b>
Amortisation and depreciation	299	275	252
Remuneration of the company	(8)	(21)	67

(1) Interest paid and other financial expenses to service debt.

(2) Dividends distributed by the Group net of extraordinary disbursements.

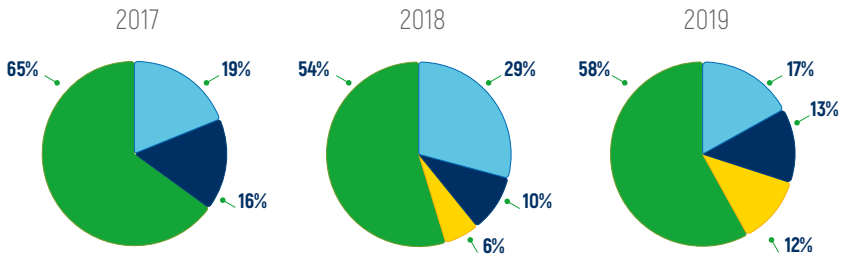
Current amounts (EUR million)	2019	2018	2017
Net value added	1,035	1,050	1,065
Production costs	(383)	(426)	(450)
Remuneration of personnel	(81)	(80)	(79)
Remuneration of public administration	(57)	(54)	(51)
Remuneration of debt capital	(107)	(105)	(89)
Remuneration for the community	(3)	(2)	(2)
Amortisation and depreciation	(299)	(275)	(252)
<b>Profit before non-controlling interests</b>	<b>105</b>	<b>108</b>	<b>142</b>
Profit attributable to non-controlling interests	-	-	-
Profit attributable to the parent	105	108	142

### ERG GREEN BONDS: THE STRENGTH OF CREDIBILITY

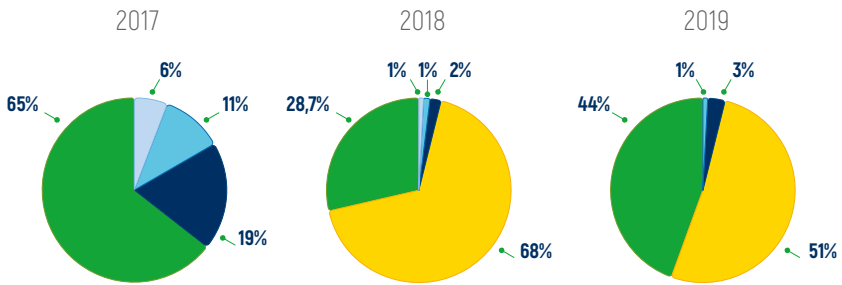
In 2019, in line with our 2018-2022 Business Plan we reached an important fund-raising target: we finalised the launch of green bonds for a total of EUR 500 million, maturing in April 2025 and aimed exclusively at institutional investors. Using the Green Bond Framework certified by Vigeo Eiris, the leading European social and environmental rating agency, we have committed to allocate the proceeds generated by the bond to refinancing our investments made in the last three years in the wind and solar sectors. The results are remarkable: the Green Bonds received around 270 orders for a total amount of EUR 3.2 billion (over six times the original amount of EUR 500 million), with orders peaking at EUR 3.5 billion before the announcement of the final price. Thanks to the success of the bonds, returns of 1.933% were established (1.80% spread), around 0.35% lower than the initial pricing indications established when the bond issue was launched and in line with the returns offered by Italian government bonds of equal duration. Avoided CO<sub>2</sub> is the indicator which, when drawing up reports, highlights the added value of our plants in the fight against climate change, and is the same indicator used when reporting the benefits of an ESG loan issued at the end of 2018 for EUR 240 million.

# KEY ECONOMIC INDICATORS

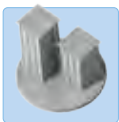
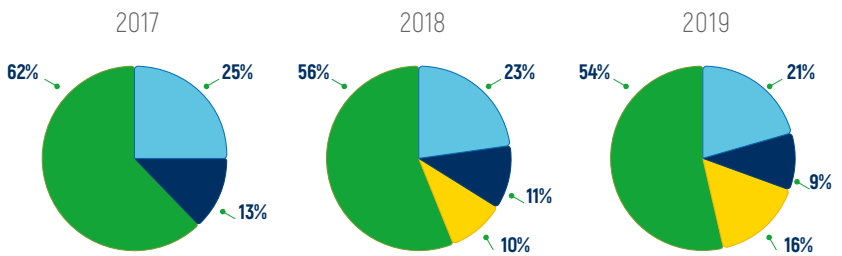
## EBITDA



## INVESTMENTS DURING THE YEAR



## INVESTED CAPITAL



CORPORATE



HYDROELECTRIC



THERMOELECTRIC



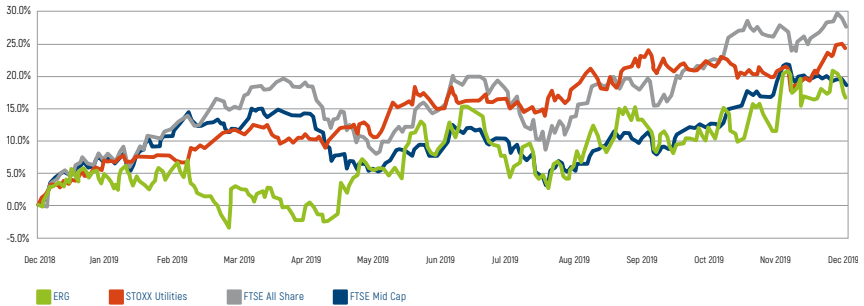
SOLAR



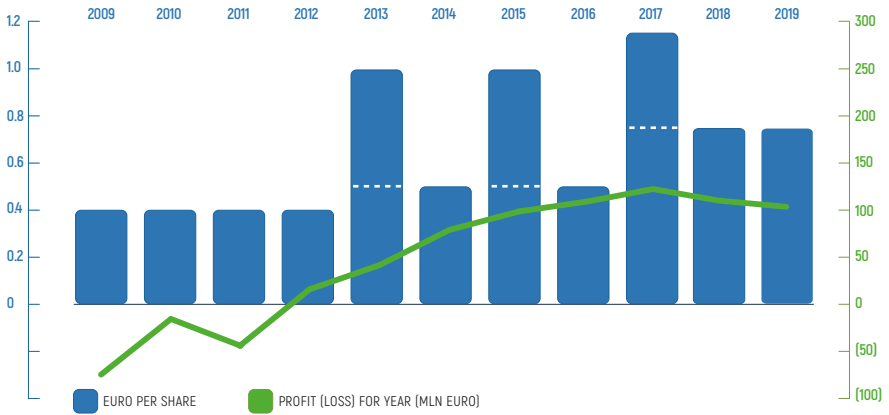
WIND

# ERG'S STOCK MARKET PERFORMANCE

ERG VS. EURO STOXX UTILITIES, FTSE ALL SHARE AND FTSE MID CAP  
Change % from 28/12/2018 to 30/12/2019



SHAREHOLDER REMUNERATION IN COMPARISON WITH ANNUAL FINANCIAL RESULTS



## SHAREHOLDER REMUNERATION

Our Group has always maintained a careful asset management policy in order to guarantee the long-term continuity of the group. An analysis of the financial results over the years and related distributed dividends provides further evidence of the success of this approach.

In recent years, ERG has been able to satisfactorily remunerate the capital invested by its shareholders. In 2019, an ordinary dividend of EUR 0.75 per share was paid out (EUR 0.75 in 2018).

# ERG GROUP'S PLANTS

79

	Installed capacity in MW at end of 2019	Installed capacity in MW at end of 2018	Production in GWh			Plant availability <sup>(1)</sup>			Incentive scheme
			2019	2018	2017	2019	2018	2017	
<b>WIND</b>									
Italy	1,093	1,093	2,161	2,012	2,117	23%	21%	22%	Feed-in tariff, GRIN (former Green Certificates), GO (Guarantees of Origin)
Germany	272	216	465	337	369	20%	18%	19%	Feed-in tariff
France	359	307	794	552	491	25%	23%	22%	Feed-in tariff
Poland	82	82	255	219	248	36%	31%	35%	Guarantees of Origin
Bulgaria	54	54	135	138	157	29%	29%	33%	Feed-in tariff
Romania	70	70	190	176	201	31%	29%	33%	Green Certificates
UK	-	-	-	29	29	-	-	-	Green Certificates (ROC)
<b>Total - Wind</b>	<b>1,929</b>	<b>1,822</b>	<b>4,000</b>	<b>3,464</b>	<b>3,612</b>	<b>24%</b>	<b>22%</b>	<b>23%</b>	
<b>WATER</b>									
ERG Hydro	527	527	1,229	1,740	1,144	97.64%	97.87%	96.63%	GRIN (Green Certificates), RID (dedicated withdrawal), RES (renewable sources), GO (Guarantees of Origin)
<b>SUN</b>									
Italy	141	90	226	130	-	81.70%	79.10%	-	Feed-in Tariff
<b>Total renewable sources</b>	<b>2,597</b>	<b>2,439</b>	<b>5,455</b>	<b>5,334</b>	<b>4,756</b>				
<b>NATURAL GAS</b>									
ERG Power	480	480	2,504	2,151	2,453	64.04%	64.80%	63.20%	TEE (energy efficiency certificates) <sup>(2)</sup>
<b>Total electricity production</b>			<b>7,959</b>	<b>7,485</b>	<b>7,209</b>				
<b>Electricity purchases</b>			<b>7,161</b>	<b>6,143</b>	<b>4,536</b>				
<b>Total electricity sales</b>			<b>15,120</b>	<b>13,627</b>	<b>11,747</b>				

<sup>1</sup> The value of plant availability is calculated as follows:

- "load factor" for wind farms is the ratio between the actual production values in relation to the theoretical maximum production values [calculated taking into account the actual commissioning of each individual wind farm];
- the "1st principle overall performance" index for the thermoelectric plant is calculated in accordance with the procedures laid down by Italian Ministerial Decree of 5 September 2011 [CAR].

<sup>2</sup> ERG Power does not have any free CO<sub>2</sub> allowances under the EU-ETS regulation.

## MANAGEMENT OF WIND FARMS

With over 11 years of experience in the wind energy sector, we are now Italy's leading wind energy operator. We have embarked on an ambitious journey of transformation and growth, both organically with the development of green field plants, and through acquisitions. This has brought our total installed capacity to around 1,100 MW while simultaneously strengthening our presence in another six European countries (France, Germany, Poland, Bulgaria and Romania, with significant investments in wind power ongoing in the United Kingdom).

Thanks to extensive knowledge of plants, the continuous training of our staff and our ability to analyse preventively critical situations, we have been able to operate effectively on a market driven primarily by financial dynamics.

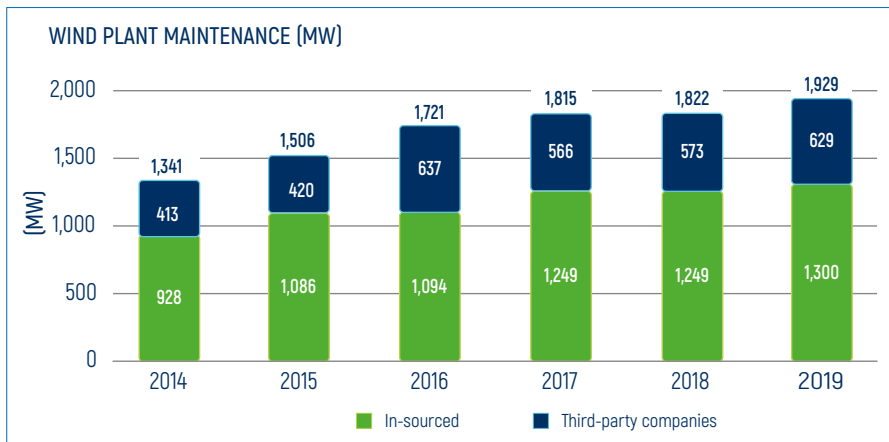
In this regard, we have successfully implemented and launched the "Level 2 SCADA" project, which involves the use of a single, centralised, real-time control system to monitor the turbines at the various wind farms. Consequently, we are able to harmonise and manage our alert or alarm

systems remotely, regardless of the technology used, resetting the turbines when necessary and re-activating them once the problem has been resolved. To date, all of our Italian plants and some of our sites abroad are managed in this way, internalising operation and maintenance activities. This optimisation of activities not only minimises machine downtime but also facilitates the identification of significant breakdowns in the plants and the development of efficient management of spare parts logistics.

### THE EVOLUTION OF MAINTENANCE

The constant search for improvement in performance is the principle behind the evolution of our approach to maintenance. Initially, only breakdown maintenance was managed, and repairs were only carried out in the case of a fault; this was very costly in terms of machine downtime, as all activities must be initiated when the system is off, generating significant production loss.

The natural evolution of this scenario was the introduction of preventive maintenance, based



on periodic revisions scheduled regardless of the machinery's operating conditions. While this approach enabled us to avoid machine downtime, it generated high costs relating to the planned replacement of components presumed to be damaged but which had not yet completed their "useful life".

The logical and consequential next step was to implement a preventive maintenance approach. By monitoring the operating conditions of the wind turbine generator, it is possible to detect the source of a fault and thus make timely decisions on the best course of action, guaranteeing:

- a considerable improvement in terms of plant reliability and safety;
- better organisation of resources;
- a reduction in maintenance costs;
- the minimisation of production losses.

Thanks to progressive growth of specific expertise and the willingness to make our systems increasingly efficient, we have developed a "Condition Based Maintenance" approach, based on predictive maintenance supported by a "personalised" prevention system. In this regard, we have drawn up our own maintenance documents for our turbines, personalising maintenance activities and cycles based on our extensive knowledge of the wind turbines and redistributing the activities, time frames and intervention methods appropriately.

### Condition Based Maintenance

We have installed Condition Monitoring Systems (CMS) on the majority of our multimegawatt fleet: 390 turbines, for a total capacity of 813 MW across Italy, France and Germany. This has enabled us to monitor the operational status of the components of the drive train, comprising the rotor bearings, gearbox and generator, which are most exposed to the risk of breakage and, therefore, have the greatest economic impact.

Specifically, the CMS uses a series of accelerometers to analyse the vibrations produced by the drive train of the turbines, which change based on wear and tear of the components and the relative damage generated. Based on the knowledge acquired and on statistical data, we defined the specific acceptable vibration thresholds (machine in good condition), alerts and alarms for each component and each type of breakage. The gathered data enables us to detect quickly which turbines need to be monitored and to hypothesise the location and extent of the damage and its likely duration. Thanks to the extensive implementation of these tools, our technicians are now able to give priority from the technical standpoint to maintenance of turbines.

In 2019 we extended this "predictive approach" to analyse the wear and tear of blade bearings. Wear generally occurs around the two main axes of the bearing and becomes evident when the blades are at the limit of their aerodynamic load. The monitoring system consists of a sensor for each blade and a switchboard designed to collect



and transmit data. The output shows the trend of deformation and its variability over time; by analysing this trend, the system can identify any structural problems affecting the blade and thus allow maintenance activities to be scheduled in advance.

Another application of predictive maintenance adopted in 2019 is the ultrasound wear and tear analysis of the blade pivot, specifically the screws that connect each blade to the hub, the centre of the rotor. The system operates in very similar way as a radar: a probe emits waves, which pass over the material and, in the case of any discontinuities, are reflected back in an irregular way. The signal reflected by the discontinuity contains information about the dimensions, geometry and nature of the anomaly, enabling the operator to interpret the information shown on the screen and schedule the necessary corrective measures.

Over the year we implemented a strategy to adopt this technology and use it extensively throughout our activities, first providing the appropriate training.

In fact, our staff follow specific training courses leading to award of the UNI EN ISO 9712 certification. The practical on-site implementation has resulted in the broad sharing of know-how through learning-by-doing programmes, the definition of internal operating practices and the establishment of tolerance thresholds based on benchmark standards during inspection activities.

Thanks to this innovative approach, we are now able to replace blade pivots before a full breakdown occurs. As well as limiting machinery downtime (it is much simpler to manually remove a semi-broken pivot), this means the wind turbine is able to produce at maximum power without restriction.

Providing adequate technical training to our employees is fundamental to internal efficiency: there are currently three teams of technicians able to inspect all of our turbines twice a year, and we intend to increase this number in light of the approval of an additional specific training programme at our Technical Training Centre in Caraffa.



#### Review of maintenance check-lists

Our extensive knowledge of the plants has enabled us to improve our preventive maintenance processes, in-sourcing, evolving and streamlining routine maintenance activities based on maintenance documents developed by manufacturers.

We have drawn up check-lists and customised operating instructions for the various technologies to meet the real technical and maintenance needs of our wind farms. We decided to commence works on the Vestas multimegawatt asset, which offered greater margins for optimisation. The main objectives established during the check-list review were:

- to modify the frequency of certain activities to lighten the maintenance process;
- to modify the implementation sequence to optimise repair times;
- to introduce the principle of intervention priority for the resolution of faults;
- to optimise the management of medium and

long-term planning;

- to introduce certain activities not included on the manufacturers' check-list, adding any measures deemed advantageous;
- to eliminate redundant activities, which are already managed remotely with a focus on activities with genuine added value;
- to standardise the documentation;
- to produce Italian versions of documents to make them more easily understandable by the entire technical workforce;
- to consider various wind technologies;
- to share technical know-how;
- to raise awareness among staff, which the complete hand-over of assets.

After first focusing on the more modern turbines, we then implemented the same approach for smaller turbines, which are older and in widespread use in our wind farms: the Vestas V47 model. The improvements and optimisation measures were established on the basis of the recent "Aging Management Plan".

At end of 2019 we created a working group composed of teams of Italian and French technicians, with the aim of drawing up the maintenance documentation for the Nordex technology, the most commonly used technology at our sites, with activities due for completion by mid-2020.

The plan also provides for the completion of the process to internalise the check-lists and related operating instructions for the other technologies used at our wind and solar systems.

### Infrastructure maintenance

A wind farm is composed of more than turbines: it consists of a series of infrastructure both civil, such as the roads within the sites, and electrical, such as the cable ducts and substations, which

connect the various areas of the plant and enable the energy produced to be distributed.

All maintenance activities for this infrastructure (which also extend to our recently acquired solar plants) are managed with a view to regulatory and specialist technical compliance, monitoring the characteristic parameters of each device subjected to regular controls and maintenance. The systems currently under direct management include:

- 26 electrical substations composed of 30 high voltage bays with 32 power transformers;
- 1,060 electrical stations;
- 1,200 km of medium voltage cable ducts and service roads.

We carry out 250 site maintenance interventions each year, repairing roads, cable ducts, objects and pitches used by cranes to hoist replacement parts required for the nacelle.

The civil maintenance process involves the constant monitoring of the status of repair of infrastructure. During these works the landscaping maintenance plan is also applied, involving grass cutting at the roadside, at wind turbine generator (WTG) sites and at photovoltaic fields.

The annual maintenance plan, which extends to all forty Italian plants, also provides for extraordinary intervention activities in the event of landslides. Another important activity is the implementation of the special snow-clearing plan, which guarantees site accessibility, as well as ploughing access and site roads; the plan also extends to municipal or provincial roads, contributing to better access in the communities where we operate.

We also oversee the maintenance of the plant substations and cabinets, providing for standard and highly specialised activities such

as, for example, the thermographic monitoring of components. The electrical substation is the central element of each plant: in fact, the substation transforms all of the generated electricity prior to its introduction into the National Transmission Grid. The high/medium-voltage substation is connected to electrical cables that run from the turbines (cable ducts) or photovoltaic systems.

We were the first operators in Italy to apply this model, and plans are in progress to improve the preventive maintenance system by supporting thermographic with ultrasound analysis.

Other infrastructure management activities include the maintenance and repair of cable ducts, carried out in synergy with civil

maintenance, in the case of excavations, and electrical maintenance, for connections. Thank to these activities, conducted as part of a structured plan, ERG Power Generation is one of Italy's leading operators and is able to guarantee the provision of appropriate maintenance, with rapid response and repair times, including within 24 hours, and always in line with reference legislative and safety standards. Approximately 70 repairs are carried out each year, enabling the continuation of targeted redevelopment within the recabling project, installing up to 30 connections. Furthermore, we are also committed to modernising several medium-voltage systems, with the aim of increasing their efficiency and safety, and replacing the low-voltage cables of turbines or substations.

## THE IN-SOURCING OF PHOTOVOLTAIC PLANTS MAINTENANCE

We acquired our first photovoltaic plants in late 2018, marking our "entry" into a new and important technology of the renewable energy sector. We immediately began to in-source the maintenance of our plants, which until that point had been managed by third-party operators other than the plant's owner. This transition was completed in line with our business approach.

The first months of 2018 marked the operational launch of our asset in-sourcing process that, mirroring the path taken for our wind assets, involved monitoring the performance of the plants to detect significant trends and identify the necessary improvement measures. This activity extended to both plant management and maintenance, leading to the implementation in late 2018 of a management and operating structure able to conduct maintenance on the new technology. In early 2019 we in-sourced activities at two wind farms that, thanks to the logistical proximity to our wind operating centres, enabled us to further optimise processes.

In the initial phases especially, the ability of the Operations department to launch improvement projects was crucial, resulting in an immediate boost in performance: in particular, we made use of the extensive experience of the wind technicians during the recabling (the replacement of interconnection cables) and tracker maintenance (the system that enables the solar panels to follow the sun's movements) projects.

Today, one year on from the launch of direct maintenance activities at our photovoltaic plants, we have confirmed our position as a recognised operator on the Italian market able to provide the complete ordinary and extraordinary management and maintenance of our assets. This important result has been achieved thanks to a professional, well-prepared and highly qualified work team.

## LENGTHENING LIFE... IS POSSIBLE!

The theoretical useful life of a wind farm is approximately 20 years. Some of our wind farms have been in operation for more than 15 years; with a view to ensuring internal efficiency and a positive impact on the business, we are currently investigating solutions to increase the life of these wind turbine generators.

This has led to the launch of the "Life Extension Plan" project. This initiative involves all kW turbines not covered by the Repowering project and all multi-MW turbines over fourteen years old. The project has three main steps:

- Lifetime Extension Analysis: a preliminary study that, after comparing site loads to design loads, determines the theoretical residual life of the structural parts and main components, introducing long-term recommendations to optimise the potential useful life;
- Aging Management Plan: the study and evaluation of all elements that can reduce the useful life of the most "stressed" components, defining ad hoc monitoring and inspection protocols. In this phase, tolerance criteria are set for the inspections and technical solutions adopted to monitor the usage of the useful life of each component;
- Long Term Life Management Plan: this represents a genuine Operation & Maintenance activity, which implements the protocols defined by the Aging Management Plan in the field.

The initial studies, conducted on orographically and climatically more difficult sites, seem to confirm that, with the appropriate inspection and maintenance strategies on the more critical components (mainly blade bearings and the mainframe), the useful life of a turbine can be extended to 30 years.

The first inspections and field activities are

outlined below:

- mainframe: it has the structural function of supporting the loads and stress transmitted from the rotor to the tower, preventing these being transferred to the components of the drive train, as well as to the rotor. Through a specific study, we identified 30 points to subject to constant visual control using penetrating liquids. As a result of this operating decision, some of our technicians took courses on methods to perform "Non-destructive technical tests" and earned their certification according to the UNI EN ISO 9712 standard. These controls have now been incorporated into the operating procedures and six monthly maintenance check-lists for the V47 turbines;
- blade bearings: they play a fundamental role in the proper functioning of the wind turbine generator because they guarantee the correct positioning of the blade to the wind. The predictive measures undertaken regard the replacement of the lubrication grease with a better performing version suitable for application and targeted cleaning, aimed at completely removing any grease from inside the bearing which may potentially be polluted by metal particles caused by excessive wear.

A pilot project is also underway to determine the possibility of extending the maintenance intervals of V47 turbines through the installation of an automatic lubrication pump for the main bearings and generator bearings.

Automatic lubrication enables grease to be applied at the correct intervals, improving the operational efficiency of maintenance cycles and providing the correct amount of grease at the correct time, thus improving the useful life of the turbine.

## REBLADING: GREEN LIGHT FOR THE TECHNOLOGICAL INNOVATION PROJECT

The Reblading project, an innovative and ambitious initiative aimed at wind farms, was brought to fruition in the first half of 2019 with ERG's successful installation of new blades on 20 turbines in the Avigliano wind farm in Basilicata.

ERG is the first wind farm owner to install also new wind turbines.

The project provides for the replacement of the original blades, produced by the manufacturer over 20 years ago, with a new blade, which is innovative both in terms of its materials and its aerodynamic design.

The new blade offers improvements in performance and producibility, enabling the existing turbine to be modernised. For this reason, during the maintenance activities, replacements were carried out of the components and systems that regulate the position of the nacelle and the blades (lever mechanisms) and are necessary for correct operation.

The most interesting element of the project is the

newly installed blade: produced using different methods and materials to the existing blades, it is also around a metre longer and has an optimised aerodynamic profile. In addition to the traditional fibreglass used for the composite of the original blade, the new blade uses carbon fibre, which enables the construction of a more streamlined and high-performing shape.

Thanks to the efficient and meticulous management of the preliminary phases of the project, the monitoring activities did not highlight any particular issues. The only difficulty regarded the need to approach each individual phase of the works with the knowledge that the standard equipment and movements would no longer be appropriate, given that the measurements and weights of the new blades were substantially different.

The replacement of the blades, which altered the technical balance calibrations of the turbine, resulted in the need to modify the control system, introducing a new system able to interface



directly with the centralised management and control systems.

Thanks to the new blades, new linkages and the new control system, the resulting turbine is structurally new and requires its own patent and trademark, in line with current EC standards.

Once the new technical data sheet had been drawn up for the new machine, the turbine ownership was transferred: ERG officially became the producer and manufacturer of the new turbine

with 49 metre rotor. Analyses and calibrations are currently underway to confirm the anticipated increase in performance.

## REBLADING IN NUMBERS

- 20 turbines certified with new blades and controllers;
- 60 blades replaced;
- 60 blade bearings replaced;
- full revision of all mechanical components connected to the blades;
- 5,800 hours/man for blade and controller assembly;
- 400 hours/man for pre-assembly at the blade production factory;
- 0 accidents/injuries.



## RENEWABLE ENERGY TO SUPPLY THE NATIONAL GRID

Following the entry into service of numerous renewable energy plants, reactive power management has become one of the main problems when managing the National Transmission Grid.

In this regard, in 2019 we launched a project in France aimed at enabling the substation used by three of our plants to participate in balancing the electricity grid, through the installation of special devices at the substation and on certain turbines able to produce and/or absorb electricity based on the immediate needs of the grid.

## MANAGEMENT OF HYDROELECTRIC PLANTS

Hydroelectric energy is currently the main renewable energy source used globally for the generation of electricity. It represents the second-highest contribution to the installed capacity of our Group: over 500 MW, placing us among the leading hydroelectricity producers in Italy.

Our plants are located at the Terni hydroelectricity complex, where many of the dams and infrastructures date back to the early 1900s. Their historic presence in the region has contributed not only to the development of manufacturing activities (Terni's industrial complex, for example) but also the growth of local tourism, thanks to activities aimed at exploring the beauty of the natural environment on which the hydroelectricity complex relies.

This complex covers a vast area including Umbria, Lazio and the Marche regions, and comprises 19 plants with 40 production groups (of which three mini-plants built in 2017), seven large dams and 155 km of watercourses, tunnels and conduits.

The sources used for electricity production are the Nera, Velino and Tiber rivers, which together represent a water system that is well connected with the territory, enabling the creation of important natural areas, such as:

- the Oasis of Alviano on the Tiber river;
- the Nera River Park and the Marmore waterfalls.

Plant technical and energy efficiency has increased in the last decade, thanks partly to a six-year "revamping" process aimed at reconstruction and modernisation. Involving 28 of the 37 production groups, the process also had the direct consequence of increasing environmental and safety standards.

The efficiency process enabled us to implement automatic and remote systems with higher performance characteristics and develop an online plant monitoring system, increasing our ability to prevent faults or malfunctions in the hydraulic systems.



## PRODUCTION PROCESS

Hydroelectric plants transform the hydraulic energy of a water course into electricity. As the water mass falls from top to bottom (the so-called hydraulic drop), it activates the turbine-alternator groups located at the base of the hydraulic drop to generate electricity according to the following three phases:

- initial transformation into kinetic energy, thanks to the movement of the water;
- subsequent transformation into mechanical energy, thanks to the operation of the turbines;
- final transformation into electricity, thanks to the alternator positioned on the turbine axis.

Our plants are in succession to one another and, thanks to this characteristic water coming out of one production plant above is captured and sent to the plant below to be used in a new drop, along with additional water from other rivers belonging to the surrounding river network. Consequently, the same water is used several times, making the most of its energy content.

At the end of the cycle, the water is returned to the river basin, maintaining the same quantity and quality as when it was withdrawn, and can flow back into the natural water cycle.

## MANAGEMENT PROCESS

Our business approach to plant management involves numerous synergies with the various technologies in use, extending beyond production-related issues to include management methods, tools and software. An example is our Condition Based Maintenance (CBM) approach, which was initially applied to our wind technologies and later extended to our hydroelectric plants.

After the initial study carried out in 2017, in the last two years we have implemented Online Hydro Plant Monitoring (MONLHy) across the main plants

in the complex. This monitoring envisages the following phases:

- installation of systems to monitor vibrations, gases dissolved in transformers, turbine flow rates and other relevant quantities for continuous monitoring;
- logging of the measurements on a centralised database;
- implementation of a machine diagnostics and performance analysis system.

The project generates positive impacts in the short and medium term, including:

- reduced maintenance costs thank to:
  - the rapid recognition of potential faults and consequent reduction in damage and costs for accidental events;
  - improved planning of maintenance activities;
  - extension of the useful life of the machine;
- increased plant availability and productivity with consequent increase in production revenues;
- minimisation of waste produced thank to reduction in replacement parts.

This new approach is supported by the digitalised system of plant management and maintenance flows: the system facilitates the systematic planning of monitoring activities in accordance with the plant's condition.

The system communicates with the CBM process and, based on the management parameters entered into the system and any anomalies detected (deviations from optimum function), enables the immediate planning and prioritisation of maintenance activities.

Moreover, it provides online access to all plant documentation as well as enabling the results of controls and maintenance activities to be logged and archived.

The system is also able to communicate with resource management, assigning activities to each technician based on their skills, the logistics and, by communicating with the component replacement system, the availability of spare parts (organising the supply of the same, where necessary).

Possible further developments may regard the management of work permits, integrating the monitoring of technical, environmental and safety performance of third-party companies into the system to enable their prompt evaluation.



## THE ABC HYDRO PROJECT

The ABC (Asset Book Cards) Hydro Project aims to provide access to the Group's hydroelectric asset data through a single digital tool, thus restricting its distribution while also improving usability. The project is structured over two consecutive phases: Basic and Advanced, supported by the development of an appropriate mapping system.

The data considered at Basic level include the master, technical and administrative data (e.g. licences, fees, etc.), documents (data sheets, reports, etc.), certified emails sent or received, cartographic and HSE information. At the Advanced level, KPIs, dynamic diagnostic analysis elements and Operation and HSE statistical indices are incorporated.

The cartographic information has a very user-friendly interface and a data structure developed at multiple levels through which it will be possible to overlay, with respect to the base map, multiple land registry or administrative maps, or data regarding administrative or river flooding plans. This enables users to both collect and access various types of data relating to the same asset (plant, dam, duct, etc.), thus improving management and control activities.

## NEW MINI HYDRO PLANTS

With the acquisition of the Terni Hydroelectric Complex we began studying its technical characteristics in order to identify energy efficiency opportunities based on the best possible use of every available altitude difference and flow, in a way that makes the best possible use of a precious renewable resource: the energy potential of water flows.

The mini hydro plant projects, first launched in 2016, focused on the energy use of water released downstream of each existing barrier (e.g. Minimum Vital Flows).

In 2019 we obtained permission for three new mini hydro plants, for an overall power of approximately 250 kW and an estimated annual productivity of 2.20 GWh.

The three plants were developed on the basis of an individual design shaped by specific drop and flow characteristics, in detail:

- a plant with a "Pelton" turbine, with a flow of 200 l/s, was installed at the Salto dam;
- a "Kaplan" turbine, with a maximum flow of 3 m<sup>3</sup>/s, was installed at the Borgo Cerreto pumping station;
- a "Kaplan" turbine, with a flow of 2 m<sup>3</sup>/s was installed at the intake structure of the Monte Argento plant.

Since the planning stage of the mini-hydro plants, we have paid the utmost attention to the environment and landscape. In line with the sustainable development model we have adopted, these plants have been designed and constructed with the aim of reconciling the best possible use of water resources with the minimisation of impacts and the enhancement of the local area.

With this in mind, tree planting was planned to mitigate the visual impact of the plants and

protect the tree species present in the areas affected by the works. Where appropriate, we also carried out reforestation activities and installed furniture (benches, picnic tables, etc.) in public areas to improve the plant's integration with the landscape.

Another focal point was the hydro-geological continuation of the river. In the 2017 builds, for example, we incorporated a "fish ladder", a lateral bypass with flowing water that enables fish to overcome the barrier posed by the infrastructure as they swim against the current.

From a plant development point of view, various other modifications are being assessed with a view to partially or completely reconstructing existing plants to improve efficiency and optimise the renewable nature of our electricity generation infrastructure.



## MANAGEMENT OF THE THERMOELECTRIC PLANT

ERG Power's thermoelectric plant is located in the Priolo-Melilli (SR) multi-company site, and consists of a Combined Cycle Gas Turbine (CCGT), a low-impact, high-efficiency cogeneration system powered by natural gas. It has a total installed capacity of 480 MW and is composed of:

- two twin modules, each of which comprises two gas turbines and respective heat recovery steam generators, which fuel a steam turbine;
- auxiliary systems necessary for operation of the plant;
- a GIS (Gas Insulated Switchgear) substation with two voltage levels (380 kV and 150 kV) that permits connection to the National Transmission Grid and to the Internal Electricity Network of the multi-company site at Priolo.

The plant's gas turbines are fuelled exclusively by methane and their exhaust fumes (still hot - around 600°C) are channelled into heat recovery steam generators. This steam is used to:

- produce electricity using a steam turbine;
- distribute steam throughout the site network thanks to flow distribution flues at various pressure levels.

Furthermore, thanks to the technology used by

the burners (low NOx), it is possible to minimise emissions and reach high levels of efficiency.

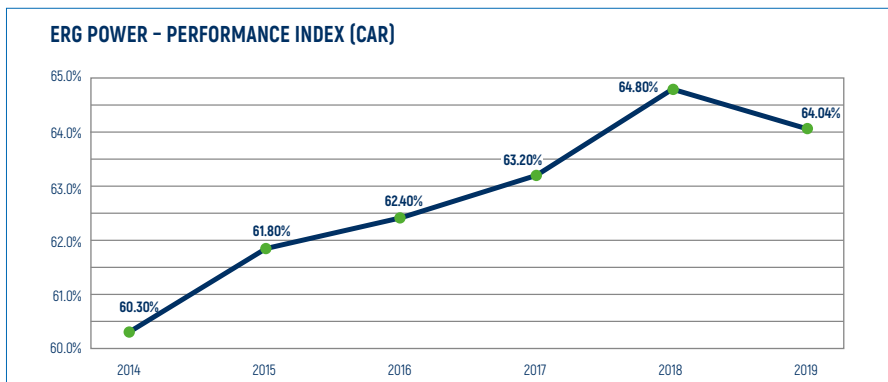
Thanks to this system, we are able to:

- channel all steam produced by the CCGT into the multi-company site network;
- sell any electricity produced and not consumed on site to the National Transmission Grid.

### MAINTENANCE AND EFFICIENCY OF THE CCGT

The CCGT at Priolo is the only plant of the ERG Group's electricity generation infrastructure not to use renewable resources. Despite this, thanks to the comprehensive redevelopment carried out in 2010, we have access to a completely new, modern and efficient plant, which holds TEE energy efficiency certificates, and thanks to latest generation burners, produces very low emissions of CO<sub>2</sub> and NOx.

Energy efficiency is part of the core business of a thermal plant and as such we are committed to constantly increasing the performance of our plant: for this reason, over the years we have implemented a "continuous improvement" process, involving all technical personnel to help



identify the "changes" that could increase the plant's productivity.

In this context, we have developed several valuable technical projects:

- thanks to the project aimed at reheating methane and air entered into the turbine, we have improved overall efficiency;
- we have revised the steam network and reduced system losses;
- following activities to increase the efficiency of the internal electricity distribution network, we have optimised our systems and the reliability of the site system.

The general shut-down of module 2 of the CCGT in November 2019 was a significant step in the process to improve plant efficiency, enabling us to work on all the hot parts of the module's gas turbines and carry out extraordinary maintenance on the plants.

In particular:

- we replaced the high-pressure rotor of the steam turbine with a new model and new

technology (including new metalwork), which will enable greater operating flexibility of the machine and improve system reliability;

- we continued with the cryogenic cleaning of the boilers, increasing the heat recovery capacity of the exchangers.

These activities enabled us to increase the general efficiency of the system and, in particular, reduce the plant's specific consumption.

This trend can also be seen in data for emissions per kWh produced, which have fallen constantly over the years with a reduction of 4.5% since 2015.

Thanks to these activities we are also aiming to improve the flexibility and reliability of our plants, while the positive benefits have also reverberated on economic performance.

This continuity and flexibility of operations and the ability to adapt the plant has enabled us to efficiently follow the trends of energy market demands and to participate in the dispatching services market.



## THE CAR RENEWAL PROJECT

The high performance of ERG Power's Combined Cycle Gas Turbine (CCGT) have been recognised by Italy's Energy Service Operator (Gestore dei servizi Energetici - GSE) through the award of the High Performance Cogeneration (Cogenerazione ad Alto Rendimento - CAR) certification. It is the largest plant to receive this recognition, with a plant layout that is able to achieve overall thermodynamic efficiency that is much higher than the average (well above 60%). In fact, the plant produces, through combined cycle, electricity and thermal energy (heat useful for other production cycles) by using the same primary energy (methane gas). More precisely, its configuration allows us to produce electricity and supply the "steam network" of the entire industrial complex with process steam at different pressure and temperature conditions.

After 10 years of service, during which the plant received the support envisaged by Directive 2004/8/EC through the award of the Energy Efficiency Certificates (TEE), in the course of 2019 we established a work group to identify the most suitable investments and further optimise the efficiency of the CCGT structure with new technical solutions and turbines. The group evaluated the different technological options available on the market, which could optimise the existing assets in terms of the plant itself and its operation. Furthermore, preliminary verification was sought from the authorities (GSE) regarding the practicality of the improvement measures proposed with a view to receiving CAR certification. The project will have the overriding advantage of extending the useful life of the CCGT, improving current performance, energy efficiency and consequently, the emission index per kWh produced. This improvement is linked primarily to:

- the recovery of lost performance due to aging;
- the improved performance of new, latest-generation machinery.

This project will enable us to rejuvenate our plant, further increasing its efficiency and helping to maintain a modern, sustainable and competitive plant in line with the various measures undertaken by ERG to combat climate change.



## ENERGY EFFICIENCY OF OUR PLANTS

As a "large business" and an "energy-intensive company", every four years the ERG Group is required to carry out an analysis of its most energy-intensive plants: the diagnosis in 2019 concentrated on the energy performance on plants compared to 2018.

This analysis aims to provide an adequate understanding of the energy consumption profile of the plants, highlighting activities with poor energy efficiency in order to identify and evaluate the potential energy saving margins.

We grouped all of the plants of the ERG Group based on specific energy consumption figures and conducted the analysis for ERG Power's combined cycle plant, the hydroelectric system in Galletto, Monte Sant'Angelo, and the Borgo Cerreto pumping station.

As regards ERG Power, energy consumption refers to:

- natural gas (methane) for use in gas turbines, which effectively counts for all incoming energy consumption (99.6%);
- electricity, acquired or self-generated, which is used to produce demineralised water, to provide utilities (compressed air, etc.) and for general services on the production site (lighting, offices, etc.);
- steam, used to produce demineralised water and to pre-heat the methane for the cogeneration process;
- diesel fuel, used to test the correct operation of the emergency generators.

The results of the detailed technical analysis of ERG Power were compared with benchmark industry data: overall performance (first principle)

was 64.8%, against the benchmark score of 63%. The average electricity performance was 45.1%, against the benchmark of 42.5%.

The plant is therefore more efficient than average; consequently, no improvement or efficiency measures are required.

As regards ERG Hydro, energy consumption refers to:

- electricity acquired or self-generated, used to power the ancillary production or pumping services, the intake structure (diversion or lifting) and general lighting and heating services;
- the diesel fuel required to power the heating systems for civil buildings and to activate the emergency generator units during periodic tests or in the case of a power outage.

In particular, electricity imported from outside the site is used to power the specific ancillary services of each production unit during generator starting phase. When the generator is running, the group automatic control system switches the power supply of the group services from the external line to use the self-generated electricity.

The energy diagnosis for ERG Hydro for 2018 revealed that the Galletto M.S. Angelo and Borgo Cerreto plants had an electricity consumption index of 0.83% of net production, against an average of 0.94%, emphasising that our plant is fully in line with industry standards and that no improvement measures are required.

## MANAGEMENT OF ENVIRONMENTAL MARKETS

The culture of environmental responsibility is becoming increasingly widespread in the international community and drives the development of sustainability plans at a global level. It is a priority that affects all levels of society, from individual citizens to entire communities, from businesses to institutions. With 80 years of history behind us, here at ERG we have adopted a positive approach to the challenges posed by sustainability and were one of the first operators to place its importance at the very heart of our business, with a portfolio of different renewable production sources and technologies.

As part of this positive feedback cycle, we are committed to pursuing a process to certify our plants and have oriented ourselves towards the growing Guarantees of Origin (GO) market. A Guarantee of Origin is a voluntary certification

that confirms the renewable origin of the energy source used by the certified plant. Specifically, the GO is an electronic certification that provides the end client with a guarantee of the renewable source of a certain amount of energy produced by an IGO-certified plant by the Italian Energy Services Operator (GSE), as provided for by European Directive 2009/28/EC. In particular, for each MWh of renewable electricity entered into the grid by the certified plants, the GSE issues a Guarantee of Origin certificate to the producers of that electricity, who can in turn transfer this to their clients.

In 2019 the ERG Group completed the IGO certification procedure for all of its renewable energy plants in Italy, from the hydroelectric plants to the solar and wind plants.

After this procedure, we recorded a 67% increase in the production of Guarantees of Origin (GOs),



from 1.97 TWh in 2018 to 3.3 TWh in 2019, with an estimated maximum production capacity of approximately 3.7 TWh. We use GO production in three ways:

- some of the GOs are used by ERG to be "cancelled", in order to guarantee to its end clients that the energy consumed is produced by renewable sources;
- some are exported to the European market;
- the remaining GOs are sold along with the electricity to other operators with whom ERG has long-term contracts.

As regards the European market, Guarantees of Origin are being produced and requested on an increasing basis, as shown by data produced by the AIB (Association of Issuing Bodies), the body responsible for coordinating the various producing countries at European level. The thermoelectric plant at Priolo, as a high-efficiency cogeneration power plant, enjoys the benefits of Energy Efficiency Certificates (TEE) or "white certificates". In fact, thanks to its technical characteristics the plant is able to obtain the simultaneous production of electricity and steam

whilst generating high efficiency and significant energy savings.

Consequently, it is able to accrue approximately 100,000 TEEs per year for ten years from the entry into operation of each module. In particular, in 2019 the plant has accrued 114,000 TEEs.

Linked to the production in a specific year, the Energy Efficiency Certificates are assigned by the GSE in the subsequent year, when they are available for sale to customers through bilateral negotiation or sold in market sessions organised by the Energy Markets Operator (Gestore dei mercati energetici - GME).

In order to guarantee compliance of the ERG Power plant with the European Union's Emissions Trading Directive, which implements worldwide emission reduction targets, we purchase on the market CO<sub>2</sub> certificates corresponding to the emissions generated by the CCGT plant (as the plant does not have any free CO<sub>2</sub> allowances).

These quantities are certified by an independent third party, as required by the Emission Trading regulations.

## THANKS TO OUR PRODUCTION WE SAVE PRIMARY ENERGY SOURCES

We operate a high-efficiency cogeneration plant that, thanks to its configuration, is eligible for the Energy Efficiency Certificates awarded by the GME. The TEEs certify the primary energy savings obtained through the plant's technological configuration: each year the plant saves over 100,000 TOE (each TEE corresponds to one TOE), equating to approximately 600 tons of CO<sub>2</sub>.



TOE - Tons of Oil Equivalent

## THE GROUP'S SUPPLY CHAIN

The creation of value for our business partners is delivered through the responsible management of our suppliers, who play an essential role in our ethical and sustainable management.

The Group's main supplies are technical in nature and relate, on one hand, to the construction of new wind energy plants and, on the other, activities to maintain and improve the efficiency of existing plants in various sectors (wind, hydroelectric, solar and thermoelectric).

A significant number of our supplies are sourced from leading international companies, such as suppliers of turbines in the construction of new wind farms, or leading industrial groups with regard to maintenance activities. However, we pay the utmost attention of medium and small-scale suppliers operating in Italy or abroad, often close to our plants, as well as to individual professionals.

In general, we do not purchase raw materials for production, with the exception of the methane gas used to supply the Priolo CCGT, which, together with electricity, is the only energy source supplied to the Group. To reduce the environmental impact of our activities, we buy certified electricity from renewable sources where possible, thereby significantly reducing SCOPE 2 CO<sub>2</sub> emissions.

### SUPPLIER MANAGEMENT

Thanks to our transparent and ethical approach, we have developed constructive relations with our suppliers, creating value over time. We work with businesses that guarantee the application of the highest health and safety standards; in return, we guarantee to remunerate the services provided at market value and to comply with the contractual

conditions agreed.

Our Procurement department defines our procurement policies and manages the centralised procurement of goods, services and jobs for the Group.

The aim is to streamline the process and increase efficiency and efficacy, through the application of an approach centred on:

- the strategic management of product categories and sourcing;
- close synergy with the departments requesting the supplies;
- the fusion of transversal skills to maximise the use of tenders.

Sustainability is one of the key pillars of this process. This is promoted from the registration and certification stage through a web portal introduced in 2019. Anyone who operates with ERG must register and update their personal details using the online tool (including through the receipt of automatic reminders), acknowledging and accepting the contents of the Code of Ethics, the Code of Conduct, the 231 Model and ERG's Anti-corruption Policy.

A fundamental element of the contractual relationship with our suppliers is, therefore, the acceptance of the principles of legality, transparency and fairness expressed in these documents. Furthermore, this is an essential prerequisite for the participation in tenders and the allocation of purchase orders.

In the event of breaches of these principles, following the outcome of the due verifications, various actions may be taken: the cancellation of the purchase order, the termination of any

contracts in place and, finally, exclusion from the Vendor List.

The qualification questionnaires include general questions and more technical ones specific to the product category in question. Furthermore, information relative to the protection of human rights, the prohibition of child labour, the right to fair treatment and the prohibition of

discrimination is also requested.

In particular, in the case of contractors, additional focus is given to health, safety and the environment, and the questionnaire begins with questions on the following topics:

- existence of suspensions or bans;
- high accident rates, which preclude the continuation of the qualification procedure;



- specific questions regarding current processes and procedures, which generate an assessment score;
- certain requirements, such as the adoption of management systems or the possession of certification issued by international bodies, which simplify the process and improve the overall score.

The combination of the economic, financial, technical, organisation and safety assessment determines the length of the qualification, which can vary from one year to a maximum of three.

Another element considered significant is the economic threshold of the qualification: this must not exceed 30% of the supplier's turnover in order to avoid situations of dependency. This enables us to guarantee an appropriate economic/financial equilibrium for the supplier, avoiding a significant tie to our Group.

We conduct constant monitoring of our suppliers, both in the case of individual purchase orders or framework agreements, through technical performance evaluations carried out by our internal departments above a certain threshold and based on objective indicators, and through the use of a compliance portal, which flags any negative information such as the presence on international Black Lists.

With regard to HSE performance, all suppliers and their subcontractors who provide services for the ERG Group, excluding intellectual services or the simple supply of materials or equipment, are assessed by the internal operator according to predefined criteria. The assessment criteria include:

- comprehensive employee documentation;
- the presence of duly authorised staff and means;
- the use of appropriate PPE;
- compliance with environmental and quality standards;

- the presence of an overall judgement on safety performance.

The Procurement department collects these assessments, along with those provided by the HSE department, for use in the on-site monitoring activities carried out during the works. The department then carries out any correction measures and may decide to suspend a supplier or proceed with their entry into the Black List in the case of poor performance and/or negative information, or significant events that may include, but are not limited to:

- non-ethical conduct by the supplier;
- serious environmental or workplace health and safety incidents;
- serious non-compliance, identified during audits or on-site checks;
- failure to update or provide the documentation required by workplace health and safety regulations;
- documented infringements to legal requirements.

#### MANAGEMENT OF SUBCONTRACTING

As regards the tenders, we believe in the importance of engaging with the second level of the supply chain, extending our controls to subcontractors. Pursuant to the procedures in force, all requests for entry to the supply chain must, prior to the commencement of works, provide the following information to the Procurement department:

- the type of activities subject to subcontract;
- the extent in percentage terms of the subcontract compared to the total works;
- the guarantee of the maximum discount applied with respect to contract prices.

The Procurement function proceeds to validate the process after a careful documentary check, including verification of the regularity of remuneration and contributions and compliance with the workplace health and safety regulations.

## ADOPTION OF THE SUPPLIER CODE OF CONDUCT

The Supplier Code of Conduct, approved by our Board of Directors on 31/10/2019, is aimed at ERG's suppliers, contractors, subcontractors and business partners who are required, through the explicit approval of the document at the time of registration, to adopt the values that guide our business activities and to ensure their application throughout the supply chain.

Compliance with the regulations contained therein is an essential element of the obligations assumed for all legal intents and purposes by the recipients, who are obliged to inform, share and illustrate the principles and guarantee compliance among employees, subcontractors, and third-party companies and their employees.

The document includes provisions based on the principles announced at the ILO (International Labour Organization) fundamental conventions

and the Universal Declaration of Human Rights of the United Nations, as well as the ten principles of the Global Compact of the United Nations:

- Governance and Business Integrity: ethics, anti-corruption, compliance, transparency, and privacy in business activities;
- Respect for Human Rights, focus on employees and local communities: working conditions and practices, health and safety in the workplace, respect of human rights throughout the supply chain;
- Respect for the environment: legislation and principles relating to reducing and mitigating the environmental impact.

Furthermore, the methods and tools for monitoring and ensuring compliance with the Code of Conduct are defined, including channels for reporting non-compliance and the management of any significant cases of non-compliance.

## THE "SUSTAINABLE PROCUREMENT" PROJECT

In 2019 we launched a project aimed at pursuing sustainability in the supply chain, in line with our sustainability strategy and objectives. The project aims to efficiently manage the environmental, social and economic impacts while promoting good business practices throughout the life cycle of products and services.

Directed by the Procurement department with support from an inter-departmental work group, the project is structured into two phases: the initial concept and planning phase will conclude by January 2020, followed by an implementation phase carried out in the subsequent months. To date, we have concluded the draft of the Supplier Code of Conduct, finalised the risk analysis for the categories of products used, and identified the suppliers to be monitored next year. The questionnaire, the sustainability indicators and the audit procedures/improvement plans to be used during supplier assessments have yet to be finalised.

# ENVIRONMENTAL RESPONSIBILITY

# 3

Over 5.4 TWh of electricity produced from renewable sources that have enabled us to save over 3 million tonnes of CO<sub>2</sub> in a year, a cogeneration plant with very low emissions, certified management systems, development projects managed with a close eye on the environment.

In this way we contribute to combating climate change and safeguarding biodiversity.

**3,086** kt

CO<sub>2</sub> AVOIDED BY USING  
RENEWABLE ENERGY SOURCES

**5,455** GWh

OF ELECTRICITY GENERATED  
FROM RENEWABLE SOURCES

**0.14** kg CO<sub>2</sub>/kWh

CARBONISATION FACTOR  
ELECTRICITY PRODUCTION

**89** %

OF ELECTRICITY USED DERIVING  
FROM RENEWABLE SOURCES

## THE EUROPEAN AND GLOBAL APPROACH TO CLIMATE CHANGE

The international scientific community is now in agreement that climate change represents a genuine threat to future generations and that it is largely the result of human activity.

This increasing awareness is the result of the commitment that international scientific institutions have shown towards studying the phenomenon and expressing the need to implement and guarantee environmental protection at global level.

The "Earth Summit" United Nations Conference held in 1992 in Rio de Janeiro marked the beginning of this journey and was characterised in particular by the signing of the "Declaration on Environment and Development". It was during the third Conference of the Parties (COP) and the signing of the Kyoto Protocol in 1997 that the need to decarbonise the economy led to the first international commitment by developed countries to reduce greenhouse emissions. This commitment only came into force in 2005 with the ratification of the Protocol by Russia and Canada.

Since then, the issue of the environment, and in particular the importance of combating climate change, has run alongside those of economic development and social well-being, gaining global importance and playing an increasingly pivotal role.

First the European Community and then the European Union firmly believe in the need to combat global warming. It is no coincidence that in 2007 the European Union launched one of the most ambitious decarbonisation programmes. Known as the "20-20-20 package", the programme consisted of a series of quantitative targets for 2020 that each member state was required to meet. In particular, the package defined three

main objectives:

- 20% reduction in greenhouse gas emissions;
- 20% of energy requirements satisfied by renewable sources;
- 20% increase in energy efficiency.

The EU's leading role in the fight against climate change was further pursued in the following decade. In October 2014 the "European Energy Union" was established, identifying the need for further and more ambitious targets for the reduction of greenhouse gases, the increased reliance on renewable energy sources and the reduction in consumption by 2030.

These ambitions led the EU to become a driving force in December 2015 when, along with 195 countries, the Paris Agreement was signed during the COP 21.

The Paris Agreement, which came into force in 2016, represents an important step in the global fight against climate change caused by human activity. In fact, it requires the signatories to develop plans to reduce greenhouse gas emissions in order to limit the increase in global temperatures to "well below" 2°C, and to make every effort to keep this increase within 1.5°C. The commitments undertaken in Paris led the EU to approve the "Clean Energy for all Europeans Package" (CEP) in November 2016, consisting of a powerful set of regulations and directives that outline the legislative framework to support the path towards the decarbonisation of the EU by 2030.

The CEP defined the following main objectives for the transition towards energy decarbonisation by 2030:

- a reduction of at least 40% in greenhouse gas

emissions (compared to the levels recorded in 1990);

- at least 32% of the EU's final energy consumption deriving from renewable energy;
- an improvement of at least 32.5% in energy efficiency.

In particular, our business is affected by the following CEP directives and regulations:

- the revised renewable energy directive;
- the Energy Union Governance regulation proposal;
- the revised internal electricity market directive;
- the directive regarding common rules for the internal electricity market.

Thanks to the CEP, Italy and other EU Member States were required to define their 2030 decarbonisation policy at national level, through

respective National Energy and Climate Plans (NECPs). These Plans must be approved by Brussels and implemented through adequate operating programmes.

In line with the 2030 Clean Energy Package, the new European Commission instated in 2019 announced the European Green Deal, formalising its will to extend its climate commitments through its pledge to make Europe carbon neutral by 2050. This target could reasonably lead to the definition of even more ambitious targets than those set for 2030.

In these years of profound and rapid transformation in the energy sector, as proven throughout our history, ERG has always understood how to anticipate the evolving dynamics.

In 1992 ERG - which at the time was still operating

## THE NATIONAL ENERGY AND CLIMATE PLAN

As established by the Clean Energy Package adopted by the European Union, every Member State has committed to sending Brussels a National Energy and Climate Plan (NECPs), which establishes the path towards decarbonised energy production to 2030. Italy submitted a first draft in January 2019 while the final version, following a structured evaluation and consultation process at national level, was sent to the Commission in early 2020.

For Italy, the main targets for national decarbonisation by 2030 can be summarised as follows:

- 30% of all gross energy consumption served by renewable energy;
- 22% of all gross energy consumption in the transport sector served by renewable sources;
- 1.3% of annual gross energy consumption in the heating and air conditioning sector served by renewable sources (indicative);
- 43% reduction of primary energy consumption compared to the PRIMES 2007 scenario (prior to the 2008 financial crash) (indicative);
- minimum 33% reduction of greenhouse gas emissions for sectors not included in the Emission Trading System compared to emissions in 2005;
- electricity interconnection with neighbouring states of at least 10%;
- achievement of the indicative target of 55% of gross electricity consumption served by renewable sources;
- confirmation of the planned withdrawal from carbon-fuelled electricity generation by 2025.

In June 2020 the European Commission will publish its final assessment of the NECPs that must be revised in 2023 in consideration of the new targets established by the European Green Deal.

in the oil sector - began to generate electricity through a highly innovative system that avoided the emission of millions of tons of combustible fuel oil each year through the production of electricity.

In the early 2000s, when the 20-20-20 package was in the process of ratification, ERG entered into the wind power sector and secured a significant market share.

Marking the beginning of ERG's sustainable transition, in 2008 the Group signed an agreement that would later lead to its definitive exit from the oil business in favour of a more significant presence in the wind sector and the use of a high-yield gas cogeneration plant, launched in 2010.

ERG's evolution continued in 2013 when it became the leading onshore wind energy producer in Italy and one of the top ten largest producers in Europe with over 1,000 MW of installed capacity, at a time when electricity generation still relied heavily on fossil fuels in the country.

The exit from the oil sector soon marked ERG's radical transformation into an independent energy producer entirely from high-yield cogeneration and renewable sources. The Group also expanded its portfolio of technologies, entering the hydroelectricity sector with the acquisition of the Terni hydroelectric complex in

2015, expanding in other European countries and making its entry into the solar industry in recent years.

Following the adoption of the Clean Energy Package and the 2030 NECPs, ERG continues to lead the way in wind generation in Italy and is one of the top European renewable energy producers, with a total installed capacity of over 3,000 MW and a production structure based on four different technologies: over 1,800 MW and 140 MW in the wind and solar sectors respectively, 527 MW in the hydroelectricity sector and 480 MW in the natural-gas based high-yield thermoelectric cogeneration sector.

In line with Europe's decarbonisation policies, for the future we have drawn up a Business Plan dedicated exclusively to the development of the electric RES sector, increasing our portfolio capacity of 850 GW - with investments of over EUR 1.7 billion mainly in the wind energy sector - both in Italy and in other target countries in Europe: France, Germany and the United Kingdom.

Our 2018-2022 Business Plan is consistent with the objectives of the Italian NECP, concentrating on solar and wind energy generation and focusing in particular on the repowering initiatives, which represent one of the main areas for development outlined in the Business Plan.

## EUROPEAN GREEN DEAL

The European Commission has launched the European Green Deal (EGD) project, a concrete action aimed at transforming Europe into the first climate-neutral continent. The resulting legislation ratifies the EU's target to achieve climate neutrality and eliminate atmospheric CO<sub>2</sub> emissions by 2050.

The EGD outlines a path for socially equitable transition, being designed so as not to leave behind any European region or citizen, and will trigger a cycle of public and private investments estimated to be EUR 1,000 billion by 2030. The "General plan for the reduction of greenhouse gas emissions by 2030", which aims to achieve a reduction of 50-55% by 2030, is particularly significant. This will enable the EU to achieve "climate neutrality" (zero man-made CO<sub>2</sub> emissions) by 2050.

# OUR PRINCIPLES THE GROUP'S CODE OF ETHICS

*"ERG believes that the complete compatibility of its activities with [...] the local area, natural resources and the surrounding environment is an essential condition both for the acceptability of its plants and its operational activities, and to achieve its growth objectives.*

*ERG thus constantly works to ensure that the business operations of all Group companies are carried out with full respect [...] for the environment, intended in the broadest sense, carefully considering these factors as part of the long-term planning process and encouraging the adoption of environmentally friendly and energy efficient technologies.*

*As a socially responsible business, which also counts on the active contribution of all Recipients, ERG aims to:*

- [...] ensure constant attention and commitment to improving its performance in the environmental field, monitoring and reducing energy use, minimising waste production, complying with the legal limits for atmospheric, water and ground emissions, responsibly and carefully using natural resources and protecting local ecosystems and biodiversity;*
- assess environmental and social impacts before undertaking new activities or introducing modifications and innovations to processes and products;*
- establish relationships based on dialogue and constructive collaboration, marked by the utmost transparency and trust, with institutions and all stakeholders, with the goal of developing its activities while respecting local communities;*
- maintain high levels [...] of environmental protection by implementing management systems that are developed, periodically verified and certified according to internationally recognised standards and introducing management and intervention methods and procedures, based on the careful analysis and assessment of risks, in order to deal with possible emergencies;*
- provide continuous information, awareness-raising activities and training to consolidate the [...] environmental protection principles at all levels of the company.*

*Finally, as confirmation of the huge importance ERG gives to [...] environmental protection, the evaluation of each employee's individual performance considers whether or not their conduct is in line with company policies, and particularly the above points."*

From the Code of Ethics ERG

## OUR MANAGEMENT METHODS WITH REGARD TO ENVIRONMENT

The attention we focus on managing the environmental aspects of our plants goes well beyond simply complying with our legal obligations. We have implemented integrated environmental and safety management systems that comply with the international ISO 14001 (environment) and OHSAS 18001 - ISO 45001 (safety) standards to guarantee the constant monitoring of processes at our Italian production sites, paying equal attention to the issues of the Environment and Safety and integrating their management.

At Group level, our values are expressed in the Code of Ethics and the Sustainability Policy.

In all our technologies (wind, solar, hydroelectric and thermoelectric power) an integrated HSE management system has been adopted:

- each Group company has its own HSE policy which draws on the principles laid out both in the Group's Code of Ethics and in the Sustainability Policy;
- the head of the company (Managing Director, General Manager, Sole Director etc., as applicable) is responsible for its implementation, guaranteeing the correct application of the system, also by third parties, and is also in charge of ensuring regulatory compliance;
- a HSE unit, co-ordinated at central level, which - for each technology - provides the support for the legislative monitoring, the checking of the on-site activities and supervision of the correct implementation of the operating procedures in the environmental and health and safety sphere;
- the Operating Units which directly manage the plants in accordance with the matters envisaged by the integrated management system, ensuring the accurate legislative compliance and the observance of the policies of all the other commitments voluntarily undertaken by the Group.

At the beginning of 2017, a Group HSE unit was set up with the aim of guaranteeing the observance of the legislation in force relating to health, safety and environment, by means of the development of an integrated HSE system at Group level and the co-ordination of the HSE Organisational Units dedicated to the different generation technologies. An integration, which in ERG's vision, has the objective of designing and accomplishing a single management system which, maintaining the different technologies of the operating areas, makes it possible to harmonise and simplify all those "transversal" processes relevant for the safety and environmental aspects. A project has also been developed at group level which in the next few years will lead to the environmental and safety certification of the Group's international companies, with priority given to France, Germany and the UK. The absence of environmental non-compliance penalties received by our companies during the year is indirect proof of the quality of the management systems we have adopted and the effectiveness of our procedures.

In addition, recognising just how significant having a local plant is for the resident population, we believe that communication and information is a priority issue. For this reason, our hydroelectric and thermoelectric plants are registered with EMAS and this, thanks to the Environmental Declaration published each year, makes it possible to report the results of the management of relevant environmental aspects on a continuous basis, including in relation to fixed objectives. As well as operations management, a structured monitoring system based on the Organisational and Management Model has been implemented for the Italian companies in accordance with Italian Legislative Decree 231/2001.

# IDENTIFIED RISKS AND SPECIFIC MANAGEMENT METHODS

The Group's commitment in this area also takes the form of an analysis of the potential impact of its activities on the various environmental matrices. For the most relevant issues, the specific risks identified and the relative Management Systems adopted in each of the three different technologies are presented below.

## USE OF ENERGY RESOURCES

The ERG Group **renewable energy plants** (wind, solar and hydroelectric) use a fairly small amount of electricity acquired from the grid, enough to guarantee a continuous supply of electricity to the ancillary systems and safety systems.

During regular operations the plants produce enough electricity to satisfy their requirements.

The ERG Power **thermoelectric plant** uses natural gas as its primary source, producing the energy it requires during operations. Grid electricity is only required to power some services outside the plant and in the event of plant shutdowns.

Given the nature of our business there are no specific risks regarding the supply of energy sources.

In order to minimise the consumption of energy resources, for all technologies projects have been launched to identify opportunities to improve plant efficiency by improving processes and adopting new technologies and more modern and efficient machines.

In order to minimise the environmental impact deriving from the purchase of energy from the national grid, following a decision by the Sustainability Committee the ERG Group has made a pledge to procure certified electricity from renewable sources.

This policy is applicable to all of the Group's plants wherever technically possible.

The quantities and relative indicators are reported on the pages at the end of the document.

## EMISSIONS OF GREENHOUSE GASES AND POLLUTANTS

The ERG Group's **renewable energy plants** (wind, solar and hydroelectric) do not generate direct emissions. As regards indirect emissions, please refer to the paragraph "Use of energy resources".

The ERG Power **thermoelectric plant** fuelled by natural gas generates CO<sub>2</sub> emissions that are disclosed in accordance with the EU-ETS regulation and certified by an external body (it does not benefit from free allocations of CO<sub>2</sub> allowances). Other emissions (NO<sub>x</sub> - nitrogen oxides and CO - carbon monoxide) are measured thanks to continuous monitoring systems certified according to the UNI 14181 standard.

Some of the high voltage electrical equipment at our plants (switchboards and switches) is insulated using sulphur hexafluoride (SF<sub>6</sub>). This gas is classified as a greenhouse gas: the plant Operating Units (for all technologies) monitor eventual dispersions and intervene as quickly as possible to eliminate leaks and

to restore the correct quantities. Other greenhouse gases (various forms of F-Gas) are present in the air conditioning systems of our plants. The plant Operating Units (for all technologies) monitor eventual dispersions and intervene as quickly as possible to eliminate leaks and to restore the correct quantities. Given the nature of our business certain potential risks relating to the regulatory system and market outlook have been identified with relation to the CCGT plant in the context of energy transition towards a decarbonised economy with regard to SCOPE 1 emissions. Refer to the paragraph on climate impacts according to the TCFD approach for more details. The quantitative data relating to the various emissions and relative indicators are reported on the pages at the end of the document.

### USE OF WATER RESOURCES

Water resources are used differently according to the technology. In any case, none of our plants are located in areas suffering from water shortages.

For the **wind farms** this aspect is "not material" as they do not use water resources in their production processes.

For the **solar plants** this aspect is "not material" as they do not use water resources in their production processes. The water is only used to wash the panels and to maintain the greenery in the relevant areas of the plant.

Neither is this aspect material for to the **hydroelectric plants** as the water drawn from rivers and reservoirs is used for the production of electricity and to cool the systems before being returned to its source in the same quantity and quality.

The **thermoelectric plant** mainly uses two sources of water: seawater to cool the plants and untreated water to produce the demineralised water needed to generate steam. Seawater is drawn and returned in the same quantity and quality: the use of this source does not impact on the availability in the environment of resources used for human consumption. Once demineralised, the untreated water is used to produce the steam required by the plant to replenish the CCGT steam cycle and to supply the site's industrial customers so they can fuel their production processes. The water drawn for the replenishment of the CCGT steam cycle is returned to the environment in the form of steam or condensation and does not impact the availability of water for human consumption.

Given the nature of our business the potential risks identified relate to the available of natural resources for the hydroelectric technology and the use of water resources for the CCGT plant for the production of process water. No significant impacts for the other technologies were recorded. As regards the first aspect, reference should be made to the paragraph that analyses climate impact according to the TCFD approach.

As regards the second aspect, the topic was not considered a risk but in any case technological improvements to the plants are consistently identified in order to reduce the consumption of untreated water through the reuse of water deriving from other site plants.

The quantities and relative indicators are reported on the pages at the end of the document.

## OTHER IMPACTS OF OUR ACTIVITIES

Following the materiality analysis in the "environmental protection and biodiversity" sphere, additional details regarded as representative of ERG's business have emerged and are therefore covered in the report:

- visual and noise impact of the plants;
- management of biodiversity;
- effluents and waste;
- oil spillage in water.

The impact and management of these individual aspects vary according to the technology: below is a summary of these elements and their relative management systems.

### Visual and noise impact

**Wind farms:** the aspects and potential risks relating to visual and noise impact on the environment are assessed as part of the authorisation process by the relevant authorities which includes both an environmental impact assessment (the interaction between the plants and natural matrices such as fauna in general, resident and migratory birds, the ecosystem, flora, water resources etc.) and a social impact assessment (interaction between the plants and local communities in terms of visual and noise impact, accessibility, impact during the construction and management phases etc.). More specifically, all new large Italian plants are subject to an EIA (Environmental Impact Assessment) by the Ministry for the Environment. Similar authorisation processes are in place in all other European nations in accordance with the general regulations of the European Union. As a result, all plants are constructed in accordance with applicable laws, making this a non-material aspect during the operation of the plants.

**Solar installations:** the aspects and potential risks of the visual impact on the environment are assessed as part of the authorisation process by the relevant authorities which includes both an environmental impact assessment (the interaction between the plants and natural matrices such as fauna in general, resident and migratory birds, the ecosystem, flora, water resources etc.) and a social impact assessment (interaction between the plants and local communities in terms of visual and noise impact, accessibility, impact during the construction and management phases etc.). Visual impact mitigation actions (planting of trees along the perimeter of the plant) have been implemented where requested during the authorisation process. As a result, all Group plants have been constructed in accordance with applicable laws, making this a non-material aspect during the operation of the plants.

**Hydroelectric plants:** the majority of plants and relative hydraulic works are historically part of the landscape; some sites (e.g. the Galletto power plant) are also of particular architectural interest. The visual impact of the plants and sites is not a material aspect.

The new mini-hydro plants positioned to take advantage of releases from dams were built on the basis of the authorisations issued by the relevant authorities which include an environmental impact assessment (potential risks generated by the interaction between the plants and natural matrices such as fauna in general, and fish in particular, the river ecosystem, the availability of water resources for social use or to guarantee the survival of plant and animal life along the banks etc.) and a social impact assessment

(potential risks generated by the interaction between the plants and local communities in terms of visual and noise impact, accessibility, impact during the construction and management phases, etc.). As a result, they are developed with respect for applicable laws, making this a non-material aspect during the operation of the plants. The noise generated outside the plants is only a significant aspect for those located near to homes or residential areas. Noise emission measurement and monitoring campaigns have been carried out in order to check compliance with applicable noise pollution legislation. The measurements taken were compliant with the legislation, making this a non-material aspect during the operation of the plants.

**Thermoelectric plant:** the ERG Power plant occupies around 25 hectares of the approximately 900-hectare multi-company site of Priolo (SR). In terms of both noise and visual impact, the location of the plant at the centre of this site - a major industrial district - means that it does not have any visual impact on the resident community. Periodic measurements, carried out at the edges of the site, demonstrate that the noise emissions comply with the legal limits, making this a non-material aspect during the operation of the plants.

#### Management of biodiversity

The assessment of the potential risks and the impact of new plants on the biodiversity in the areas in which they are located is the subject of assessment and authorisation by the relevant authorities during the permit issuing phase (see above with regard to the protection against visual and noise impact).

The environmental management systems certified in accordance with the ISO 14001 standard involve the constant monitoring of the interactions between the plants and the environmental matrices: in this way the provisions of the authorisations will continue to be observed.

**Wind farms:** the main form of interaction between the wind farms and biodiversity regards the resident and migratory birds that pass through or nest in the wind farm areas. Preventive analyses prior to the construction phase and subsequent monitoring (where requested) are carried out to make sure that the farms do not interfere with the regular life of the birds. The periodical analyses carried out (detailed in past Sustainability Reports) show that the turbines have become an integral part of the areas in which they are located and are therefore recognised by birds as part of the landscape.

**Solar plants:** the main form of interaction between the solar plants and biodiversity regards soil occupation deriving from the extension of the photovoltaic plants across the territory. Soil occupation means the loss of farmland or the replacement of the previous vegetative state. These aspects are assessed as part of the authorisation process by the relevant authorities and form part of the environmental impact assessment (where necessary). All plants are constructed in accordance with applicable laws, making this a non-material aspect.

**Hydroelectric plants:** the main impact for the hydroelectric plants with regard to biodiversity relates to the maintenance of the minimum water release levels in order to protect wildlife in the rivers downstream of the dams (Minimum Vital Flows). The definition of these flows is established in the Licensing Decrees, which form the basis for the management of the hydroelectric plants. The Environmental Management Systems guarantee compliance with the regulatory provisions; this aspect is not considered a specific risk.

**Thermoelectric plant:** the ERG Power plant is located on the multi-company site of Priolo Gargallo (SR). There are no interactions between the plant and areas of high biodiversity.

#### Effluents and waste

All Italian plants have an Integrated Management System certified in accordance with the ISO 14001 (environment) and OHSAS 18001 (safety) standards. The hydroelectric and thermoelectric plants are also registered as per the EMAS regulation.

The existence of certified management systems guarantees the constant monitoring of updates to the regulations and that plant operations are carried out according to procedures that respect best practices and the reference regulations.

One of the goals common to all of the ERG Group's Organisational Units is minimising the amount of waste produced and maximising its recovery.

Refer to the published article which outlines the specific activities designed to optimise the management of waste and effluents.

#### Oil spillage in water

All hydroelectric plants have an Integrated Management System certified in accordance with the ISO 14001 (environment) standard and are registered as per the EMAS regulation. The existence of these systems guarantees the constant monitoring of updates to the regulations and that plant operations are carried out according to procedures that respect best practices and the reference regulations.

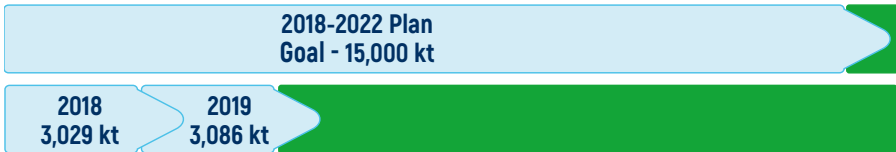
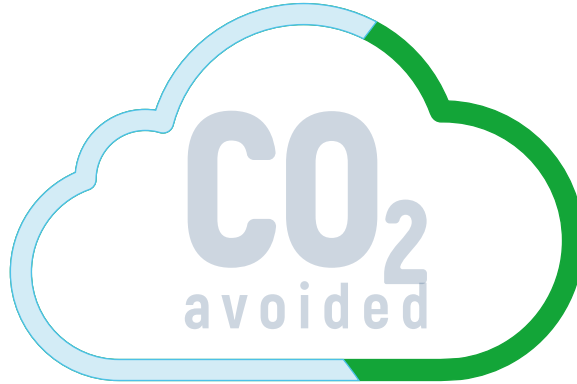
The oils used in the hydroelectric plants are designed to feed the lubrication and/or hydraulic circuits that govern the plants. These feature on the list of hazardous substances with a potential risk in the event they leak into the water following the accidental breaking of circuits, for example.

The management of this risk is structured into various levels, including:

- use of biodegradable oils - "Best available technology" - which decompose on contact with water;
- specific O&M activities with scheduled and periodic checks on plants with the aim of reducing the risk of lubrication and/or hydraulic circuits breaking;
- the presence of systems for the active detection (24-hour monitoring), collection and filtering of process water oil.



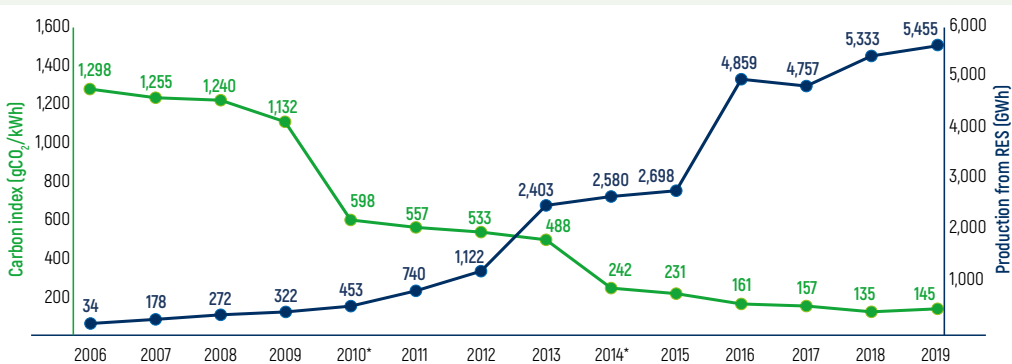
## CO<sub>2</sub> AVOIDED: 2018-2022



To calculate CO<sub>2</sub> avoided we have used the gCO<sub>2</sub>/kWh conversion factor published by Terna in its annual reports and referred to the thermoelectric power output of each country.

## DECARBONISING OUR ELECTRICITY OUTPUT

The transformation of our Group has enabled us to gradually reduce the carbon intensity of our output over the years. In this way, at the end of 2019 we had reduced the carbon intensity of our output by 90% since entering the renewable energies sector. In the last four years we have reduced it by 37%.

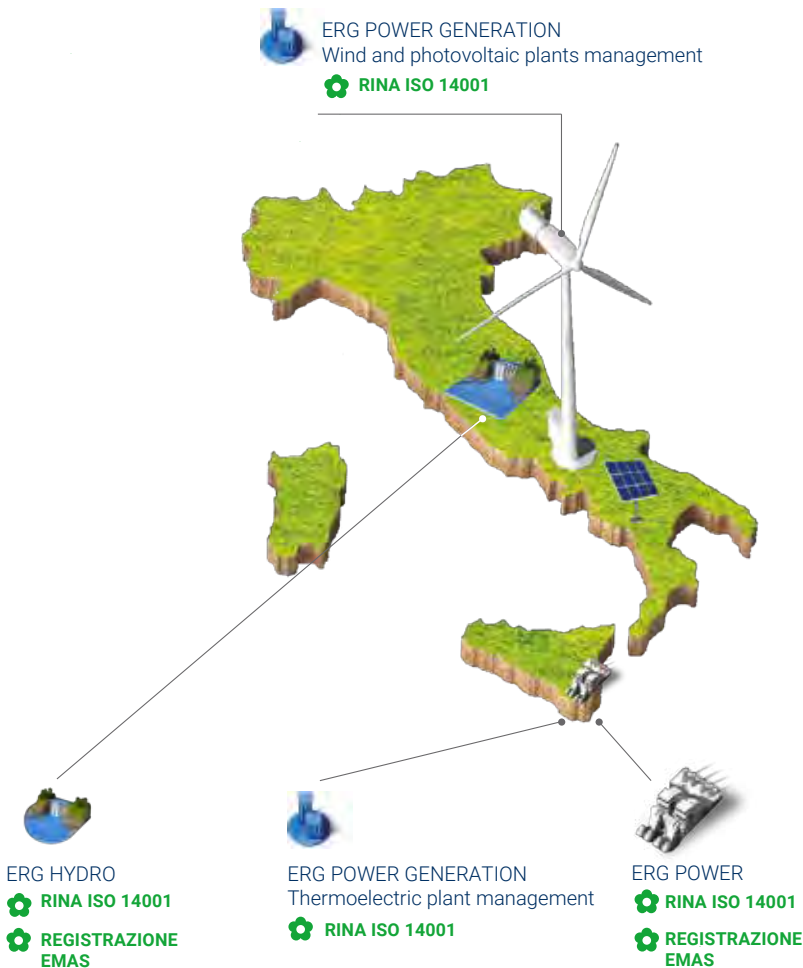


\* The two points of discontinuity were caused by the entry into operation of the ERG Power plant to replace the pre-existing CTE plants in 2010 and the sale of the ISAB Energy plant in 2014.

# ENVIRONMENTAL CERTIFICATIONS

Our management of environmental aspects is not solely rooted in compliance; it is also dictated by our willingness to streamline and optimise our approach to business. With this in mind, we have implemented certified management systems, where possible integrated with health and safety systems, and are committed to extending their application to optimise our processes and reduce the impact of the activities we carry out

on a daily basis. With the One Company project launched in 2017, we centralised the operational activities within ERG Power Generation, with the consequent concentration of risks related to the management of assets in the company itself. It became necessary, therefore, to rationalise the corporate management system, adjusting and harmonising the health, safety and environmental management procedures into an integrated



environmental and safety system covering the different operational areas (Hydro, Wind&Solar and Thermo).

The project implemented between 2018 and 2019 enabled us to achieve important results, among others:

- the environmental certification of operating activities regarding the photovoltaic plants acquired in 2018;
- transition to the 2015 version of ISO 14001 standard for all certified units (Thermo, Wind&Solar, Hydro);
- the publication of a manual on the integrated functioning of management systems, together with a new framework of Group guidelines and procedures.

Thanks to the above, from the end of 2019 all of our plants located in Italy were certified according to ISO 14001:2015 standard, accounting for over 70% of our installed capacity and around 59% of plant operatives.

Governance of these aspects is the responsibility of plant managers, in line with the policies defined by the Group Code of Ethics, the Sustainability Policy and the HSE policy adopted by the company. The management objectives of the various environmental and performance improvement

matrices are defined in line with the Group's management and compliance objectives.

We believe that as part of this process of environmental efficiency it is essential to engage with all of our stakeholders, particularly local communities, expressing our environmental performance in a transparent and direct way.

For this reason our hydroelectric plants and thermoelectric plant (CCGT) are also EMAS registered. The document outlines the commitments undertaken by management with regard to the environmental management of our plants, the objectives established, the resources allocated and, year after year, the current status of activities.

With a view to further ensuring environmental efficiency, by 2021 we are aiming to extend the ISO 14001 and ISO 45001 certifications to the legal entities recently established in France, Germany and the UK, thus applying a universal system for the management of wind farms.

The following pages describe our environmental management best practices in relation to the different matrices and the measures implemented to minimise the impact of our activities.

## ERG GROUP'S EMAS REGISTRATIONS

The thermoelectric plant of ERG Power and the hydroelectric complex of ERG Hydro, in addition to holding ISO 14001 (Environmental) and OHSAS 18001 (Safety) certifications, obtained EMAS registration (EcoManagement and Audit Scheme) pursuant to European Regulation (EC) no. 1221/2009. These registrations involve the annual updating of our Environmental Declarations, a public document that enabling us to maintain constant dialogue with local communities.

We truly believe that active dialogue and a sustainable development model are essential for our growth while respecting the environment and bringing value to our community.

# ATMOSPHERIC EMISSIONS: A SUSTAINABLE AND RELIABLE COMMITMENT

Our commitment to the fight against climate change is consolidated through the implementation of strategies aimed at the production of renewable energy and the minimisation and compensation of the emissions generated by our activities.

The environmental management systems adopted to stimulate sustainable growth allow us to optimise our production processes, control plans, monitoring systems and continuous improvement goals.

While producing electricity from renewable sources does not generate direct emissions, as part of our energy transition our technology portfolio also contains a CCGT, a natural gas-fuelled high-yield cogeneration turbine.

This confirms our willingness to reduce both direct and indirect greenhouse gas (GHG) emissions and minimise our impact on the natural environment.

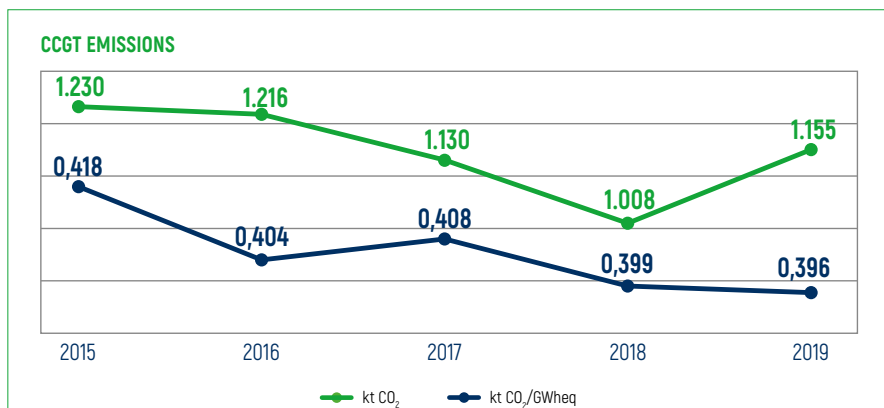
## SCOPE 1 GHG EMISSIONS

Almost all of our direct emissions ("Scope 1" emissions) result from the operation of ERG Power's CCGT plant. In operation since 2010, the plant has a configuration that guarantees high yields and minimal emission levels in line with the Best Available Techniques (BAT) and well below the legal limits. The improvement processes introduced over the years have led to an increase in efficiency and a gradual reduction in emissions per MWh produced.

As the plant is subject to the EU-ETS regulation and does not benefit from the allocation of free allowances, the CO<sub>2</sub> emissions are certified by a third party and sent to the Italian Ministry for the Environment on an annual basis.

Other Scope 1 emissions are generated by:

- SF6 (sulphur hexafluoride) leaks from some high voltage equipment;
- F-gas (fluorinated gases) leaks from air conditioning systems;



- the use of company vehicles.

The values of these emissions are negligible (approximately 0.05% of total SCOPE 1 emissions).

In 2018 we adopted a sustainable transport programme that takes account of the Group's mobility requirements and the distribution of our employees across Italy: around a third of employees are located in Genoa, with the remainder split between the sites in Rome and Terni and the plants distributed across the country.

Although this geographic distribution precludes the direct implementation of sustainable transport, we have aimed to optimise the logistics regarding employee transport in order to reduce our environmental impact as much as possible. In particular, the following measures have been adopted:

- company vehicles can be shared by employees for transfers between the Group's sites (typically Genoa-Terni and Rome-Terni transfers);
- vehicles for General Services, generally used in the city, are 100% electric;
- our "car policy" involves the use of hybrid vehicles.



## GREEN DRIVING

In France our offsetting project has cancelled out 52 tonnes of CO<sub>2</sub> emissions generated by the company transfers.



**SCOPE 2 GHG EMISSIONS**

Meanwhile, our indirect GHG emissions from energy consumption (“Scope 2” emissions) are generated by the purchase of national grid electricity required for the functioning of the plants if they are not operational, and by condominium services for the offices.

In mid-2016 the Sustainability Committee approved a project for the supply of renewable

energy for all Group requirements where technically feasible.

We have continued to pursue this commitment over the years with around 89% of our supply requirements met using renewable energy at the end of 2019, with estimated savings of around 12,000 tonnes of CO<sub>2</sub>.

**GREEN ENERGY FOR OUR ADDITIONAL CONSUMPTION**

In order to minimise the environmental impact deriving from the purchase of energy from the national grid, following a decision by the Sustainability Committee the ERG Group has made a pledge to procure certified electricity from renewable sources. This policy is applicable to all of the Group's plants wherever technically possible.

2016	2017	2018	2019
51%	84%	86%	89%

**THE REDUCTION OF SCOPE 2 EMISSIONS**

Emissions can also be reduced by using energy more efficiently: for this reason we have launched a project to replace existing lighting systems with new LED technology systems. The first step in this direction took place in 2016 in the Genoa offices and at the ERG Power plant. In 2017 we extended the project to the ERG Hydro site in Terni. At this site the energy diagnosis studies have made it possible to improve the efficiency of the heating, air conditioning, sanitary water and lighting systems.

Commissioning of new plants in the offices and in the control rooms, will produce savings of around 700 kWh/year (-57% consumption).

The balance for the activities will therefore make it possible to reduce consumption of over 500 t/year of CO<sub>2</sub>.

### OTHER ATMOSPHERIC EMISSIONS

Atmospheric emissions are generated by burning methane gas in our CCGT plant, which was launched in 2010. However, the NO<sub>x</sub> (nitrogen oxide) emission levels are well below legal limits and in line with the BAT, thank to high-yield combustion units that reduce emissions.

These emissions (NO<sub>x</sub> - nitrogen oxide, and CO - carbon monoxide) are constantly measured through Monitoring Systems (EMS), which monitor the plant during “normal” and “transition” operating phases and verify compliance with the legal limits. If the instrument is unavailable, they also calculate and validate the missing data.

The validity and functionality of the equipment for monitoring and maintaining the performances of the EMSs is guaranteed by application of the UNI EN 14181:2015 standard that establishes the periodic maintenance and calibration by both internal staff and specialised companies, with a

final audit by external bodies.

Thanks to the use of methane there are no particulate emissions.

### SCOPE 3 EMISSIONS

Our indirect GHG emissions (“Scope 3” emissions) comprise emissions generated by:

- employee transfers. The travel agency that manages employee transfers reports the data based on a certified method, according to which indirect emissions in 2019 amounted to around 1.0 kt of CO<sub>2</sub> (0.9 kt in 2018);
- the wind energy supply chain. The estimated values, calculated using the Life Cycle Assessment (LCA) of certain turbine models (over 79% of production and around 83% of machines), come to around 31 ktCO<sub>2</sub>.

It is much more difficult to estimate the emissions along the supply chain for the other technologies (hydroelectric and thermoelectric) as the plants



are comprised of numerous components from different suppliers, unlike wind farms, which have a single supplier. Furthermore, some of the hydroelectric infrastructure were built between 1920 and 1950, and their environmental impacts can therefore be considered to have already been amortised over the years.

Our contribution to reducing the emission of pollutants is further formalised in our "Plastic-Free" project. Thanks to this initiative, we have significantly reduced our use of bottled water

through the introduction of water purifiers throughout the public network and the substitution of plastic single-use cups with paper ones, resulting in a reduction of around 15 t of CO<sub>2</sub> in 2019 and around 26 t on an annual basis.

Emissions relating to the electricity acquired and resold in Italy to wholesalers and end clients have not been reported in line with the recommendations of the GHG Protocol - Appendix A - "Calculation of indirect emissions generated by acquired energy".

### CDP 2019: B RATING CONFIRMED FOR ERG

The Carbon Disclosure Project (CDP) is an initiative that was launched to collect and disseminate both quantitative and qualitative information and data on the strategies that companies adopt to combat climate change. In 2019 we were awarded a B rating, confirming our performance in 2018 when we introduced a new assessment method. Previous assessments had seen us achieve an A- rating in 2017 and, in 2016, the "Best Newcomer Italy" award with an entry rating of B.

The confirmation of the B rating assigned by CDP places us among the companies with a management approach that includes "coordinated actions for the management of climate change issues".

The result achieved is in line with the average rating for the Utilities sector (B rating) and is above the average for Europe (C rating).

2016	2017	2018	2019
B	A-	B	B

This result is an important acknowledgement for us, not only because it recognises the transparency of our communications but also because it is the confirmation of our unyielding commitment to adopting strategies that promote a form of sustainable development that combines economic performances with a reduction in CO<sub>2</sub> emissions. Our business strategy, focused on the production of renewable energy and in line with the indications of COP 21, regards the development of green energy, respect for the environment and transparency towards our stakeholders as key elements in combating climate change.



## BLADES AND NOISE: AN INNOVATIVE SOLUTION

The noise emitted by the turbines is caused by the aerodynamic friction between the blades and the air: the rotation speed at the tip of the blade can be very high.

For this reason, the important stage of defining the plant's location in the region is always carried out with the utmost attention, in compliance with legislation and the needs of the local communities who are directly involved in the stakeholder engagement process.

One example of this is the wind farm in western France, where certain residential areas were affected by noise generated by the plants in specific meteorological conditions, particularly at night when there is less background noise and with certain prevailing winds.

To meet the needs of the local community we combined our industrial know-how of wind farm management with the professional expertise of our technical suppliers, leading to the launch in 2019 of a study aimed at identifying appropriate technological solutions to reduce noise.

After a significant assessment period, a technical solution based on aeronautical technology was identified; plans are in place to install aerodynamic attachments to the blade tips that, by reducing the aerodynamic vortices produced by the friction, substantially reduces the noise produced as the blade sweeps through the air.

The positive impact is twofold: on the one hand we will reduce the acoustic impact of the installation, while on the other we will have the opportunity to maximise production, avoiding limitations in certain hours and operating conditions.



## ENVIRONMENT-FRIENDLY BUILDING ACTIVITY

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The main drivers of our 2018-2022 Business Plan, presented to the Financial Community in March 2018, include - in addition to international growth - the technological renewal of the wind fleet in Italy through the Repowering and Reblading projects. Repowering involves the replacement of old wind turbine generators with latest-generation models with better output, reducing the total number of WTG by around half while at the same time increasing the overall power of the wind farm (twofold, on average) and its producibility (threefold, on average), without increasing land use. This also facilitates the optimum use of the original site, makes use of existing infrastructure, which is adapted where necessary, (e.g. roads, cable ducts and substations, lighting systems and ancillary services) and, most importantly, avoids making any significant changes to the site's environmental biodiversity.

Reblading involves the replacement of the blades of the existing turbines with latest-generation blades of similar lengths (around +5%) but with better performance characteristics, generating an increase in producibility of around 15-20% with the same amount of power.

In terms of meeting the decarbonisation targets established at European level, it would have been equally possible to produce the same amount of energy from renewable sources through the construction of a new, completely different site. With the same conditions, this would have entailed:

- the occupation of a new hill crest;
- the construction of new roads;
- the construction of foundations and supports for new turbines at new sites;
- the laying of new medium voltage lines on new access routes, involving new subsoil strata;

- the construction of a new electrical substation for the receipt and transformation of the MV and HV electricity generated;
- the creation of a new delivery point to feed the energy produced into the National Transmission Grid.

Demonstrably, the construction of a new site would have had a greater impact on the environment.

The evaluation of the environmental and social issues associated with the construction of a new wind farm is subject to a particularly complex authorisation procedure, coordinated by central institutions, the Italian Ministry for the Protection of the Land and Sea (MATTM), the Italian Ministry for Cultural Heritage, Activities and Tourism (MIBACT), and local institutions, who are required to evaluate the analyses and studies carried out by the proposing entity.

In particular, the MATTM focuses its attention on the main environmental impacts such as bird life, noise, waste, electromagnetic radiation and "shadow flickering".

MIBACT orients itself towards the landscape and architectural impact.

With regard to these more significant elements, we can state that:

- activities to monitor noise pollution, defined as "the introduction of noise into the residential or external environment such to harm or disturb human rest and activity, endanger human health and negatively impact ecosystems", aim to assess the effects/impacts on the population, ecosystems and/or individual species with reference to specific legislative provisions, standards, technical regulations and guidelines. The analyses showed that the

new plants guarantee a reduction in sound emissions thanks to the improved aerodynamic performance of the blades, the slower rotation of the rotor (generating fewer trails and vibrations and, therefore, noise), the larger dimensions of the turbine that, being taller, mean that the noise source is further away from the land, and the considerable distance of the turbines from residential areas;

- in order to identify the impact of the new plants on local or migratory bird life, a monitoring plan was launched and will be continued throughout the construction works and the operation of the plant itself. The monitoring procedures adopted mainly refer to the contents of the "Protocollo di Monitoraggio dell'Osservatorio Nazionale su Eolico e Fauna", the monitoring protocol of the Italian wind and wildlife observatory, produced in collaboration with ISPRA, ANEV (the Italian Wind Energy Association) and the NGO Legambiente, as well as industry practices. The bird and wildlife analysis, which also takes into account the species present, has enabled the potential risks of interference of the existing and future plant to be assessed. The risk of collision particularly affects migrating species and, with reference to the new plants, is minimal. The fact that the plant has been present for a number of years has likely facilitated the development of tolerance

mechanisms among the anthropophilic wildlife that visit the area. The spatial development of the new plant, characterised by the reduction of the number of turbines (albeit higher), reduces the wildlife barrier effect and thus reduces the obstacle for migrating bird species, as well as increasing the available air space for birds in flight. Moreover, the risk of collision has been proven to decrease in correspondence with the increased size of turbine thanks to the lower rotation speed of the blades.

- the considerable reduction in the number of wind turbine generators installed also has positive repercussions in terms of the landscape, reducing the so-called barrier effect and land use;
- the amount of waste produced will be decreased by 50% thanks to the reduction in the number of turbines.

Repowering, as well as re-using existing structures and infrastructure, enables interventions to be carried out to restore the areas, which are occupied and due to be dismantled, restoring the terrain to its original natural and vegetative state, with a view to preserving and respecting the environment. The dismantlement is carried out with careful management focused on reuse and, where possible, recycling.



## WATER SAVINGS TO IMPROVE EFFICIENCY

We produce electricity using four different technologies: wind energy, solar energy and hydroelectric energy, as well as thermoelectric energy powered by natural gas.

The hydroelectric plants use water to power the turbines, releasing the same quantity and quality of water withdrawn back into the atmosphere. The only potential source of pollution for receptors is the water used for cooling the plants, which could be accidentally contaminated.

For several years ERG Hydro has implemented plant solutions to prevent oil leaks in the environment. These include:

- the increased safety of system operating pressures, which has made it possible to reduce the volume of lubricating oil in plants;
- the use of next-generation synthetic

biodegradable oils, which are able to decompose in the water and with the presence of carbon dioxide without being harmful.

Furthermore, all of our plants have tanks for the collection of natural plant drainage and water used to cool the machines that separate out any oily parts. Appropriate management solutions and specific tank emptying systems prevent traces of oil from being spilled downstream.

The CCGT thermoelectric plant meanwhile uses various sources of water for different functions:

- seawater is used to cool the plants and then returned to the natural water cycle in the same quality and quantity, minus the natural evaporation that takes place during the process;
- untreated fresh water (mix of surface and



groundwater) supplied by the site utilities consortium is dematerialised by the SA9 plant and transformed by the thermoelectric power plant into steam, which is used to produce electricity and as a heat vector for site customers. The multi-company site in Priolo Gargallo also uses demineralised water in other technological areas of its plants.

We constantly monitor these processes to streamline and optimise our consumption. In fact, we have set ourselves specific consumption recovery and reduction targets, which are reported annually in the plants' EMAS statement. In particular, over the years we have recovered fresh water flows in both the electricity production cycle and in other plants at the Priolo site, reusing the various flows to power the demineralisation plant and thus reducing both withdrawals and the resulting effluents.

More specifically, the following flows have been recovered:

- treated and partially desalinated water from the groundwater treatment plant, which would otherwise have been discharged into the sea (approx. 14 million m<sup>3</sup> in 2019);
- backwashing water (for washing the reverse osmosis ultrafiltration system) from the same SA9 plant (approx. 600,000 m<sup>3</sup> in 2019);
- water from the tanks used to collect steam condensation from the thermoelectric power plant boilers (approx. 6.000 m<sup>3</sup> in 2019).

In 2019 the amount of recovered water came to around 2.0 million m<sup>3</sup>, giving the demineralisation plant an efficiency of 60.9% (around 58% in 2018), calculated as the ratio between demineralised water produced and total incoming water during the process.

The water flow recovery index, calculated as

the percentage relationship between recovered water flows and demineralised water produced, was 41.0% (41.3% in 2018, 32.3% in 2017 and 33.8% in 2016).

The photovoltaic plants use water to clean the surfaces of the panels; this process is carried out multiple times during the year using mechanical means. Consumption is reported in the tables of the reference indicators, but is not significant: 1,252 m<sup>3</sup> (494 m<sup>3</sup> in 2018).



## WASTE MANAGEMENT AND MINIMISATION

The responsible and sustainable management of a company also involves minimising its environmental impact, with the reduction in the amount of waste produced by the plants.

Given the nature of our business activities, comprising a production cycle based on renewable sources, we do not generate processing waste in the strict sense.

The waste produced originates mainly from plant maintenance: the maintenance optimisation plan, which in recent years has been reported in the economic sustainability section, envisaged a change of approach for the maintenance of our assets, transitioning from preventive maintenance to predictive maintenance. This process has gradually been applied to all of the technologies managed internally by the Group. The direct effect was to minimise the replacement of main components, reducing costs, machine downtime and waste.

Furthermore, we aim to optimise our industrial processes and identify the areas where waste can be transformed into a resource. Our commitments, which are monitored directly by

our plant managers, are reported in the annual reports produced for EMAS purposes in the context of the environmental management systems adopted by the company.

One particular type of waste is the wood which is transported along the river Tiber, particularly during floods, and accumulates along the banks of Lake Corbara. This wood has never been treated in any way; consequently we have decided to use it to enhance and protect the environment, rather than simply consider it as waste.

After a long period of coordination with the Region of Umbria we identified the feasibility of using it, for example, to recover energy in biomass plants.

Since the end of 2018 Corbara wood can be managed according to the Decision of the Regional Council concerning the "Guidelines for the management of vegetation residues deriving from the maintenance of green areas and the woody material deposited along the banks of reservoirs and rivers".

Among other things, these guidelines establish the possibility of considering the wood that

### "OFFICE MADE" COMPOST

In 2019 our Paris office implemented the "Office Made Compost" project, an initiative aimed at providing a new life to the food waste generated by the office canteens, with the opportunity of recycling this waste in an ecological and sustainable way.

In the canteen, organic waste is deposited in an earthworm-composter, within which the worms feed directly on the waste and the associated micro-organisms, triggering the composting process and transforming the waste into humus, which can be used as a fertiliser and is the ideal substrata for plant growth. The compost generated is used for the office plants and in employees' gardens.

The initiative represents an example of a virtuous circular economy, designed and implemented directly by employees at the Paris office who have raised their awareness of environmental issues and formalised them in a sustainable project.

accumulates on the banks of the lake as reusable material and therefore suitable for activities such as energy recovery, the wood industry or the production of soil improvers.

The preliminary collection, gathering, sorting and storage operations must firstly be illustrated to the supervisory bodies in a report that describes the activities and the areas involved in detail.

All of this is designed to support a circular

economy that optimises the use of natural resources and minimises the impoverishment of the land.

Removing these residues from our rivers is useful for the industrial sector but also very important for the environment as it helps keep both water and riverbanks clean, generating hydraulic and hygiene benefits and minimising hydrogeological risk.

## WIND TURBINES: FULLY SUSTAINABLE PLANTS

Our repowering initiatives are at the core of our development plan in Italy, aimed at replacing the oldest wind turbines with a lower number of latest-generation, high performance models.

One of our areas of greatest focus is the sustainable management of the old wind turbines, which represent a significant number of plants that have reached the end of their technical life. A study by ANEV, the Italian Wind Energy Association, in 2017 showed how almost all of the materials used to construct a wind turbine (tower, nacelle and blades) are recyclable, making it easier to dispose of at the end of its useful life. This study theorised the disassembly of the construction elements, identifying potential new uses.

Material	Origin	Scenario
Steel	Tower and other components	90% re-usable
Cast iron	Foundations and other components	90% re-usable
Copper	Electrical components	95% re-usable
Aluminium	Electrical components and structure	90% re-usable
PVC plastic	Other components	100% landfill
Fibreglass	Blades and nacelle structure	100% landfill
Lubricating oils	Turbine's mechanical parts	90% re-usable

Source: ANEV

Together with other leading businesses in the industry, we are actively identifying and analysing possible options to minimise the amount of materials sent to landfill.

The same study also analysed the Energy Pay Back Time (EPBT), i.e. the time needed to reach a balance between the energy used during the extraction, production, design, transportation, installation, future dismantling and recycling phases of the facility and the energy it produces when operational.

For example, for a 2 MW wind turbine, currently the most common type in Italy, the estimated average EPBT is around 9 months. After this time, a wind turbine has already produced the amount of energy needed for its entire life cycle: this is another factor that underlines the environmental compatibility of producing electricity from renewable wind power.

## THE PLASTIC-FREE PROJECT

2,500 kg of plastic saved, enabling the avoidance of around 15 t of CO<sub>2</sub> in just four months in 2019, with estimated savings of approximately 26 t of CO<sub>2</sub> per year.

This briefly summarises the main results achieved by the Plastic-free project implemented by ERG in 2019. The project has been driven by numerous people within the company thanks to an increasing and widespread awareness of more sustainable lifestyles and a close focus on the environmental impact of our activities.

ERG employees from the general services, purchases, communications and sustainability departments have participated in the CSR Working Group, a highly motivated group that set itself the target of studying the best initiatives to eliminate or reduce the everyday office habits that result in the use of plastic.

The first goal identified was to eliminate the use of plastic bottles and glasses from vending machines. These targets posed significant challenges as, among other things, they required the identification of an alternative solution to be used by technicians working "in the field": the chosen solution involved the use of containers that can be refilled in operating centres and transported in vans.

Office staff have all been provided with a refillable mug that can be used at drinking water fountains. Vending machines selling hot and products were another area of focus: plastic glasses were replaced with paper ones, and bottles were replaced with biodegradable alternatives.

Supported by a major staff communication and awareness raising campaign, the project was

implemented at all of the Group's Italian and foreign offices. Thanks to the support of our providers, we also adopted a broader approach, with the result that all ERG catering services are now plastic-free. The objectives defined by the project were also used as a specific corporate objective: the "savings" in the amount of plastic used represent the Green Pay parameter for the definition of the Group's 10% "Performance Bonus" (see the industrial relations sections).

This approach to "sustainable procurement" was also extended to our cleaning services, implementing a policy for the obligatory use of certified environmentally friendly cleaning products and "PEFC" or "FSC" paper.

When evaluating the proposals submitted for the tender, consideration was also given to criteria designed to reward contractors who commit to the adoption of environmental management improvement measures, such as dosing systems or cleaning systems aimed at reducing consumption of chemical substances, energy, water resources, and waste.

Another area of intervention, albeit not strictly related to the plastic-free project, was the management of printers: the new contract not only provides for the use of highly energy efficient machines but also involves the adoption of carbon offsetting measures throughout the machines' life cycle.



## THE OASIS OF ALVIANO

In the eastern part of the Alviano lake, slightly upstream of the dam of the same name, there is an oasis that occupies around 400 of the lake's 900 hectares which hosts many resident bird species and, thanks to its geographical position, has also become a stopping point for migratory birds.

It has all the typical features of humid freshwater areas - marshes, a pond, swamps, a water meadow, one of the largest woods in Central Italy - and is home to a huge number of bird species, such as great white egrets, stilt birds and ospreys, and many different amphibians, such as crested newts and agile frogs. The "Heronry" is home to over a hundred mating pairs of grey

herons, cattle egret, little egret, squacco heron, black-crowned night heron and cormorant.

The mammals that live in the oasis include foxes, boars, badgers, porcupines and hedgehogs and extremely rare wildcats.

Furthermore, in 2019 as part of the "Bee Safe" project launched by the WWF, an "insect garden" was created in order to attract several species of pollinating insects.

This year's activities involved the maintenance of the "flooded prairies", which, following the flood of 2012, were filled with mud, with a significant variation in morphology and the consequent growth of weeds.



*Kindly lent by the Oasis of Alviano - Marco Branchi*

With the mud having been removed in past years, activities in 2018 and 2019 concentrated on the cutting of weeds which, reaching up to 4 metres high in some places, prevented many birds from stopping and blocked tourists' view of the species. Moreover, a drystone wall was built to improve a section of the Oasis by providing a passage for reptiles.

These measures immediately revitalised the Oasis from both a natural point of view and in terms of tourism, which saw considerable development: in 2019 the Oasis welcomed around 6,700 visitors.

The redevelopment of the watchtower, the refurbishment of the observatory and the educational workshop, and the creation of a photography hide by the pond on the water's edge contributed to improving the touristic attraction of the site. In particular, around 1,400 photography enthusiasts were able to develop their passion at

the Oasis. Thanks to hides perfectly integrated among the wildlife, ideally positioned in relation to the sun and close to the feeders that attract the animals, we are able to offer a suitable environment for those devoted to this hobby.

There were plenty of visits from school pupils who were able to study the life of the marsh in a laboratory equipped with microscopes, cameras and screens, gaining first-hand experience of all the phases of a biology research project. The events organised for industry experts, which offered an opportunity to discuss naturalistic topics, were extremely well received.

Thanks to an agreement between ERG and the province of Terni, the Oasis of Alviano has been managed by the WWF since 1990 and is currently one of the top locations in Italy for nature photography, drawing enthusiasts from around the country to capture the beauty of its views.



*Kindly lent by the Oasis of Alviano - Paolo Scrimatore*

# SOCIAL RESPONSIBILITY

# 4

Safety and certified management systems as a key condition for the management of the business and our assets.

Training, the enhancement of talent and inclusion are the principles of our approach to people.

Suitable remuneration for attracting talent and motivating managers.

We support the development and promotion of the local areas in which we operate by providing training activities for youths and incentivising the launch of new businesses.

**100%**

CERTIFIED ITALIAN COMPANIES  
ISO 14001 AND/OR OHSAS 18001 - ISO 45001  
CONSISTENT WITH THEIR ACTIVITIES

**20.8%**

FEMALE EMPLOYMENT

**99.7%**

EMPLOYEES ON PERMANENT  
EMPLOYMENT CONTRACTS

**7.8** days

OF TRAINING PER EMPLOYEE

## OUR PRINCIPLES THE GROUP'S CODE OF ETHICS

*ERG believes that the complete compatibility of its activities with the health and safety of its workers, the local area, natural resources and the surrounding environment are essential conditions both for the acceptability of its plants and its operational activities, and to achieve its growth objectives.*

*ERG thus constantly works to ensure that the business operations of all Group companies are carried out with full respect for the health and safety of Group and third-party employees as well as the environment in the broadest sense, carefully considering these factors as part of the long-term planning process and encouraging the adoption of environmentally-friendly and energy efficient technologies. [...]*

*Finally, as confirmation of the huge importance ERG gives to the values of health, safety and environmental protection, the evaluation of each Group employee's individual performance considers whether or not their conduct is in line with company policies, and particularly the above points. [...]*

From the ERG Group's Code of Ethics

Furthermore

*The Group's sustainable approach takes the form of policies aimed at protecting and developing its Human Capital through: [...] the adoption and application of certified processes and procedures, also supported by the adoption of Health and Safety Management Systems certified in accordance with recognised standards, aimed at minimising risks and removing the causes which may jeopardise the health and safety of its personnel and the third parties who operate at the Group's plants and/or offices. [...]*

From the ERG Group Sustainability Policy

Furthermore

*In observance of these principles we intend [...] to encourage careful and responsible management within the sphere of safety in the workplace, aimed at the prevention of accidents, injuries and occupational diseases and the protection of the health of the workers, by means of:*

- the precautionary assessment of the risks associated with the activities and the processes handled for the purpose of adopting appropriate technical-operational mitigation solutions;*
- the verification that, both the design and construction of new plants, and the realisation of changes to processes, equipment, the organisation (structure and/or roles), are supported by an analysis/assessment of the risk;*
- the identification and on-going monitoring of the significant dangers of accidents linked to the plants run, and adopting suitable prevention measures in line with standards of recognised validity;*

- *the use of systems and processes aimed at ensuring the intrinsic safety of the activities;*
- *the checking and assessment, in terms of safety, of the reliability of the contractors and the suppliers;*
- *the drawing up of emergency plans aimed at the protection of the population, the environment and those who work in the Facilities, in the event of an operating anomaly and/or a significant accident;*
- *the registration, analysis and communication of the accidents and near misses, planning and implementing the necessary improvement action.*

From the Quality, Environment and Safety Policy

## OUR MANAGEMENT METHODS WITH REGARD TO HEALTH AND SAFETY

The ERG Group pays close attention to managing the Health, Safety and Environment aspects of its plants, going well beyond straightforward compliance processes: for this reason, all of the Group's Italian companies have adopted Integrated Environment, Health and Safety Management Systems compliant with the ISO 14001 (Environment) and OHSAS 18001 - ISO 45001 (Health and Safety) standards.

The latter shall subsequently be extended to Group companies outside Italy.

In this way we ensure constant supervision of the processes carried out within our production sites via operations which permit the systemic integration between the two areas (Environment and Safety) which are held in equal consideration.

In all our technologies (wind, solar, hydroelectric and thermoelectric power) an integrated HSE management system has been adopted:

- each Group company has its own HSE policy which draws on the principles laid out both in the Group's Code of Ethics and in the Sustainability Policy;
- the head of the company (Managing Director, General Manager, Sole Director etc., as applicable) is responsible for its implementation, guaranteeing the correct application of the system, also by third parties, and is also in charge of ensuring regulatory compliance;
- an HSE unit, co-ordinated at central level, which - for each technology - provides the support for the legislative monitoring, the checking of the on-site activities and supervision of the correct implementation of the operating procedures in the environmental and health and safety sphere;
- the Operating Units which directly manage the plants in accordance with the matters envisaged by the integrated management system, ensuring the accurate legislative compliance and the observance of the policies of all the other commitments voluntarily undertaken by the Group.

In 2017 a Group HSE unit was set up with the aim of spreading a Culture of Knowledge and Risk Prevention with regard to health, safety and environmental issues and of guaranteeing the observance of the legislation in force by means of the development of an integrated HSE system at Group level and the co-ordination of the HSE Organisational Units dedicated to the different generation technologies. An integration, which in ERG's vision, has the objective of designing and accomplishing a single management system which, maintaining the different technologies of the operating areas, makes it possible to harmonise and simplify all those "transversal" processes relevant for the safety and environmental aspects.

According to the safety procedures in force, employees, third parties and occasional guests are previously informed and trained on what to do, and in particular what procedures to implement, if an emergency occurs at the operating sites. Furthermore, emergency management simulations and evacuation drills are carried out periodically.

The Group actively collaborates with the workers' safety representatives and constantly involves them to analyse the risks linked to health and safety and to organisational changes; it organises systematic meetings in order to discuss and evaluate any improvements that could be made.

## IDENTIFIED RISKS AND SPECIFIC MANAGEMENT METHODS

The Group's commitment in this area also takes the form of the analysis of the possible impacts of its business activities on health and safety.

In general, we can divide the analysis up into three areas:

- impacts on the health and safety of workers;
- impacts on the health and safety of third party workers who operate at our plants;
- impacts on the health and safety of the individuals who live in the vicinity of our plants.

The analysis of the possible impacts of the activities on the health and safety of the workers, both employees and third-party companies who operate at our plants, is carried out within the sphere of the Management Systems and is based on legislative compliance and on the best sector practices.

The adoption of these systems permits the use, for whomever operates in our plants, of uniform procedures and suitable control systems: also thanks to on-site audit activities, we guarantee an ongoing supervision and continual checking of the correct running of the activities.

These controls are joined by the accurate analysis of the causes of any accidents, as well as near misses: in this way we implement a series of preventive actions which, using the "lesson learning" method, can prevent the repetition of accidents or the transformation of near misses into accidents.

Since we believe that the protection of health and safety is a generalised cultural fact and must not be a

"unilateral initiative of the ERG Group", we promote the collaboration and involvement of employees and third parties via dedicated meetings and events which may stimulate active participation in the processes, also by means of the formalisation of indications and suggestions for the improvement of Health and Safety standards: we usually reward active participation also by means of internal competitions.

The Group objectives regarding the safety of employees (included in the Sustainability Commitments) envisage the "absence of accidents caused by safety shortfalls in the plants and in the offices". The reporting is available in the specific section of the document.

Also, the impacts on the health and safety of the individuals who live in the vicinity of the plants are handled with a view to an Integrated Management System and, therefore, are analysed for each technology:

**Wind farms:** in the design phase, the class of the turbines is selected for the specific site and, therefore, the size is developed so as to operate safely during the entire life cycle of the plant. The wind turbines installed at our wind farms are designed and constructed by leading construction companies according to the pertinent international legislation, so as to ensure the safety and health of the workers when running. These turbines are also compliant with the necessary certification in terms of electricity generation, structural reliability and safety specifications relating to installation and start-up. The maintenance programme implemented by the Company permits the running of the wind farm under safety conditions for the entire life cycle of the site.

**Hydroelectric plants:** over the last few years, revamping work has been carried out on many electricity generation units with the adoption of latest generation machines and equipment which observe stringent design/installation standards with respect to the safeguarding of the health and safety of the operators and third parties during the running and maintenance activities. Furthermore, the inspection and maintenance programmes ensure the permanence of the expected safety levels. However, the hydraulic works connected to the generators (in particular the dams) represent an element of attention: their structural safety is constantly monitored by the Group units which also collaborate with the Institutions tasked with the periodic checking of their stability.

An additional significant element of these plants in the handling of the safety of the area on which they are located are the so-called overflow "detention activities" which the dams perform thanks to their accumulation capacity. Accordingly, the overflow surges of the rivers due to heavy rainfall are interrupted, the water collected and released in a controlled manner so as to decrease the impact. Obviously, the regulation of the overflows is carried out according to well defined operating protocols agreed with the local Authorities which require the full conciliation of the opening manoeuvres of the mobile parts so as to guarantee the safety of the populations downstream from the dams.

The **thermoelectric plant** is included within the context of the Priolo Gargallo multi-company site, where numerous industrial activities co-exist. The gas turbines installed are latest generation, Low NO<sub>x</sub> in type and therefore guarantee very contained emissions well under the authorised thresholds. Machines and equipment are compliant with stringent design/installation standards with respect to the safeguarding of the health and safety of the operators and third parties involved in the running and maintenance

activities. Furthermore, the inspection and maintenance programmes ensure the permanence of the expected safety levels.

Very stringent safety protocols are applied within the site in consideration of the type of plants present (in particular the presence of a refinery subject to the legislation on RIR - major risk accident plants). The emergency response service in the event of emergency is ensured by the Fire Brigade and A&E/Nursing services present at the site; the co-ordination with the local authorities, in accordance with the matters envisaged by the Multi-company Internal Emergency Plan, guarantees the intervention of outside support so as to contain any emergency situations at the site and safeguard the population which lives in the surrounding areas.

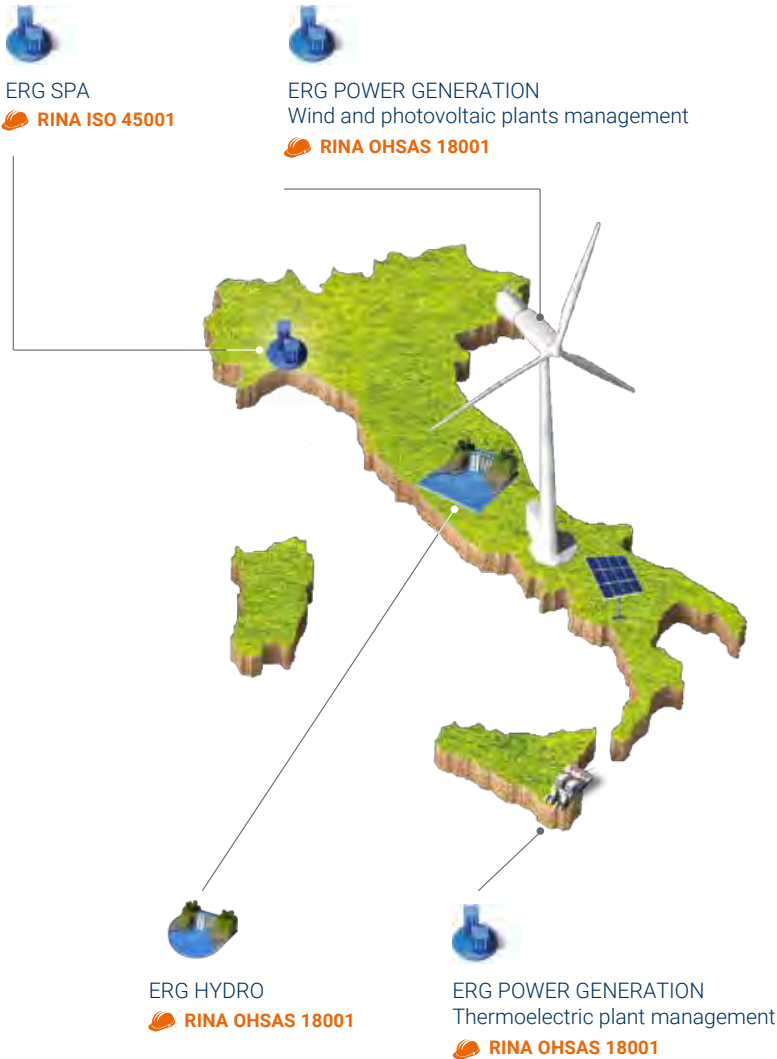


# LEADERSHIP IN SAFETY

The direct management of our plants is at the heart of our business model. In the wind and solar sector in particular, we have proven ourselves to be at the cutting edge by becoming one of the first operators to have insourced plant maintenance, creating opportunities to generate

value, minimise critical situations and maximise efficiency.

Conducting our activities in complete safety is a fundamental value, ensuring compliance with regulatory and compliance directives while also



guaranteeing a safe and protected working environment for our operators.

Despite the rigorous approach applied to our operations, over the years we have seen a slight increase in accidents associated with the greater number of maintenance hours, which has now stabilised at relatively low levels. These accidents were not the result of negligence with regards to the safety of the plants but rather unsafe conduct.

Based on this evidence, in 2019 we launched a programme aimed at employees and third-party companies to:

- raise user awareness about the importance of safe conduct during daily on-site activities;
- reinforce the habit of reporting "near misses", events which - although not resulting in damage - could have led to an accident.

The aim of the programme is to identify all of the potential risks that may cause emergencies or dangerous situations in order to prevent or mitigate them. We adopted this approach because the difference between an "accident" and a "near miss" lies not in the cause or evolution of the event, but rather in the different levels of development of the consequences or the random presence of people or things.

A detailed analysis of the accidents, aimed at identifying the root causes, showed the significance of the human factor and behavioural aspects in the dynamics of the events. Following this analysis, we began to plan an initiative aimed at positively impacting the behaviour of every individual with regard to safety in the workplace.

A healthy work system is fuelled by a widespread culture of safety and by good practices, supported by the implementation of certified

management methods. With this in mind, we have consolidated our commitment through the continuous adoption of safety, environment and quality management systems, in line with the international reference standards.

At the end of 2019 all Italian plants were certified according to the OHSAS 18001 regulation, covering over 90% of the Group's workforce at 31 December.

In 2018 ISO 45001 was published, in response to which we planned a pathway to transition our safety management systems to align with the requirements of the new regulation: ERG S.p.A., was the first Group company to receive this new certification at the end of 2019.

In 2020 we intend to extend the certification to ERG Power Generation and our wind&solar, power and hydro activities.

#### THE LEADERSHIP IN SAFETY PROJECT

"Leadership in Safety" is a cultural change programme designed to significantly improve leadership in safety, with a flexible methodology that adapts well to the different business contexts that characterise our Group, which



## THE NEW ISO 45001 STANDARD

The new standard UNI ISO 45001:2018 is the first voluntary standard approved at international level in the field of occupational health and safety. In particular, the standard promotes the use of common language across all organisations. Moreover, having acknowledged the criteria established at international level by the ISO (International Organization for Standardization) on the back of the voluntary standards for quality (ISO 9001) and the environment (ISO 14001) published in 2015, it can be easily integrated into other environment and quality management systems.

In this way, organisations are able to operate according to consistent and fully integrated methods that develop around two key points: the context of the organisation and worker participation.

These two principles were included in the Group's Sustainability Policy, thereby serving as another useful tool to support the Group's management systems.

Organisations adopting the new standard aim to:

- improve occupational health and safety;
- eliminate dangers and minimise risks;
- seize opportunities and take charge of any cases of non-compliance associated with their activities.

The process began from a deep understanding of the organisation and its context, enabling the implementation and maintenance of a management system, which is fully integrated into the geographic, social and economic fabric in which it operates, understanding the needs of workers and other stakeholders and viewing their needs and expectations as logical requirements.

Another fundamental aspect is the engagement of the workers themselves: the organisation must establish, implement and maintain a valid process for the consultation and participation of workers at all organisational levels. Worker participation is considered by the standard and has been integrated into ERG's processes along with the leadership and guidance of senior management, recognising the important input of those who operate our plants on a daily base when defining best operating practices, which much go beyond mere theoretical identification.

All workers can actively participate in a process aimed at reducing health and safety risks, identifying opportunities where they can positively influence our performance in terms of health and safety in the workplace.



operates in four different technological fields over a very broad and diverse region.

The key elements of the programme are:

- the engagement of the CEO, applying a top-down approach throughout the organisational structure to convey a clear and credible message aimed at change;
- constant and persistent engagement, in the understanding that true cultural and behavioural change is sustained over time by a series of coordinated projects;
- the creation of an easily comprehensible Safety Vision, to enable everyone in the company to fully understand the project's objectives;
- the personal commitment and dedication of each manager, who must feel emotionally involved and included;
- the use of simple and practical cultural change methods, proven to influence behaviour in an effective way;
- the use of innovative language to promote the leadership in safety philosophy throughout the organisation and the support the cultural change;
- the use of support materials and follow-up strategies to effectively implement the cultural change programme throughout the organisation;

- the focus on HSE departments to transform them into passionate and enthusiastic programme facilitators and focal points at local level.

The main recipients of the project are the Group's operational managers, namely those with team management responsibilities, the HSE team and, later, the entire Group workforce.

The programme will develop over several years and was launched in 2019 with the organisation of an event aimed at senior management, whose engagement is essential to ensure the top-down diffusion of a clear and credible message of change throughout the entire organisation.

Later in 2019, a further five workshops were held, involving all operational managers. At the end of the workshops, certain management figures (country managers and generating units managers) were selected to take part in a cascade coaching programme. In these following sessions, the managers received the guidelines and tools required to enable them to independently deliver training courses to their colleagues.

At the end of the cascade events, in 2020 an informal leadership phase will begin, supporting the initial top-down approach with a bottom-up programme.

In certain sectors, Safety Champions will be identified who, thanks to their socially influencing personalities, will become informal leaders regardless of their position in the company. The examples set by these informal leaders will be unconsciously followed by their colleagues, supporting and accelerating the process of cultural change throughout the organisation.



## SAFETY WALKS AND ON-SITE HSE AUDITS

The principles and regulations that govern occupational health and safety and the environment must also be respected by third-party companies who do business with us. For this reason, during the year our Group HSE Organisational Units carry out numerous on-site audits to verify regulatory compliance. As well as these checks, the standards outlined by the management systems help to monitor workplaces and processes. In 2019, 116 controls comprising on-site audits and specific checks were carried out at the ERG Power plant with a very low rate of non-conformance recorded among third-party companies (approx. 8% of HSE audits). At the Hydroelectric Complex, 31 on-site HSE audits were carried out on contractors and sub-contractors; non-conformance mainly regarding documentation were discovered in 40% of cases. In addition, 27 Safety Walks & Talks were held: discussions on site with suppliers on operating procedures and the analysis of on-site activities in order to identify "unsafe conditions" and relative improvement actions. With regard to the number of audits in the wind sector: 368 audits were carried out, of which 332 took place on-site to oversee the reblading works in Italy and the new construction sites in the United Kingdom. We believe it is essential to maintain constructive partnerships with contractors in the management of health and safety topics, ensuring that the monitoring tools in place facilitate a path of continuous improvement for both parties. Furthermore, it is possible to promote the importance of virtuous behaviour by following the concrete example of our employees and by launching awareness-raising and training initiatives aimed at everyone involved.

**368**

WIND POWER  
CHECKS

**116**

THERMAL POWER  
CHECKS

**29**

THERMAL POWER  
CHECKS

**58**

HYDRO POWER  
CHECKS

## THE INTERNAL SEMINAR ON HSE PERFORMANCE

ERG, in the context of Elettricità Futura, an association of producers of electricity from renewable sources and conventional sources, participates in the Environment, Health and Safety Committee: a technical-scientific task force set up to support the Strategic Committee to develop, disseminate and facilitate the development of a culture of safety and respect for the environment in the electricity sector. After the work of the Task Force, the logic of sharing experiences and practices (whether internal to the Group or represented by external benchmarks) led us to organize a day of joint work between the managers of the various technologies, the HSE managers and top management. The work focused on analysing the 4 accidents that occurred in 2019: it was found that the main cause of the accidents were behavioural aspects.

Group coordination and sharing of experiences allow us to tackle the issue of safety in a univocal and coordinated way by extracting the best practices adopted in each plant, spreading them across and creating common operating practises that will be the basis of Group safety in the future.

## "SAFework HYDRO" FOR THE MANAGEMENT OF WORK PERMITS

For ERG, the safety of our employees, the local communities and our activities is intrinsic to providing a sustainable working environment. In particular, to safely manage activities at our hydro plants we have adopted three main tools:

- the Interference Risk Assessment Document (Documento Unico Valutazione Rischi da Interferenza - DUVRI);
- the "Work Permit" document (PLav);
- the "Safework" management system.

While the DUVRI is a legal requirement pursuant to the Consolidated Law on Occupational Health and Safety (Italian Legislative Decree no. 81/2008), the other two tools were specifically designed and implemented by ERG in 2019.

Through the active implementation of these tools, we aim to manage interference risks when handing over works to third parties, in order to prevent or mitigate them to ensure the health and safety of people and assets.

The use of the DUVRI enables the Group to manage - from a regulatory standpoint - the risks during the handover phase: the client uses this document to assess the risks and indicate the measures adopted to eliminate or, where possible, minimise the interference risks between the contracted activities and/or the activities carried out at the same site by the client.

This document also certifies that operators have been duly informed.

The DUVRI is directly connected to the "Work Permit" issued to those responsible for operating the plant: this is a dynamic risk assessment

document, contextualised both by location and time, which highlights the environmental procedures and safety measures to be adopted prior or during the works. With regard to the activities entrusted to the contractors, this document does not consider the specific risks or those "inherent to the job" but rather represents the authorisation for the execution of an assigned work under contract and is drawn up following an analysis of the activities, carried out by technicians with specific expertise of HSE risks.

To coordinate these processes and documents we have looked to our Group's virtuous management systems and, in this regard, "Safework" represented a best case example at the ERG Power's CCCT plant in Priolo. For this reason the system was imported and implemented into the hydro systems.

We have also made the system available as an app, providing third-party professionals contracted to carry out activities at our plants with access to complete, immediate and up-to-date information.

The system contains floor plans of the plants and facilities, enabling users to highlight ongoing works and the areas in operation in order to provide a visual overview of potential interference risks with other activities being carried out nearby.

The "third-party site access system" is another interface that enables ongoing activities to be monitored and reported in a continuous way, optimising management processes and promoting efficient, sustainable and safe working practices.

## DETENTION OF RIVER OVERFLOWS

As well as nineteen power plants, ERG Hydro manages seven major dams and twenty-two minor dams located on the Velino, Nera, Tiber rivers and their tributaries.

The dams and water works are designed to convey the river water to the power plants and to guarantee appropriate safety levels, managing and monitoring natural variations in flowrate (overflows) and mitigating the impacts on the region.

In case of overflows, the effective management of reservoirs, especially those with a significant capacity, makes it possible to modulate the releases of water downstream from the dams in quantities that can be received by the water basins, containing the flowrates within the riverbeds. Consequently, it is therefore possible to exploit their accumulation capacity so as

to release lower flowrates downstream, thus operating a "detention" of the river overflows.

During the overflows, the Terni control room continuously monitors the plants and water works remotely, managing river water transits to prevent flooding. This is possible thanks to the rainfall and flowrate detection systems installed throughout the area, and the constant contact with the Authorities (Civil Defence Agency, Regional Operations Centres, Prefectures, Municipal Authorities, etc.).

Besides remotely managing the plants and water facilities, our surveillance personnel are always on site at all the dams and are professionally trained to handle critical situations, while abundant command and control systems are installed in order to operate the drainage equipment.



## SEISMIC MONITORING

ERG Hydro owns our hydroelectric assets and operates seven large dams (Aja, Alviano, Corbara, La Morica, Marmore, Salto and Turano), with a total reservoir volume of approximately 600 million cubic metres of water.

Located in a part of central Italy where earthquakes are known to occur, our structural monitoring activities of dams and related infrastructure such as aqueducts, road bridges over lakes and, not least, our offices are extremely important.

The structural monitoring of the dams is entrusted to a team of engineers who periodically measure the horizontal and vertical movements of the dam and its rotations and deformations.

All the data originating from the instrumental monitoring system is stored in an "IT database" for subsequent analysis and validation, enabling us to analyse a number of key parameters in order to assess the integrity of the structure, such as the "up-stream/downstream" change in direction of the crowning (top part of the dam), the under-pressure values and the values of losses or filtrations. The calculations are based on the straightforward flowcharting of the data at ten-year intervals (analysis of long-term trends) or on statistical conduct-related models, which make it possible to compare the forecast values with the real measurements carried out in the field. In the event of major discrepancies, we perform additional instrumental controls to analyse any anomalies in the structural behaviour of the dam.

Once the data has been recorded, they are sent to the Supervisory Authority every month, and

every six months we produce a report on the state of the dam containing all the data from the previous five years. In addition, twice a year the Supervisory Authority carries out a "supervisory visit" during which it verifies the functioning of all the equipment installed at the dam and takes sample measurements of the structural monitoring system of the infrastructure.

In 2019 we carried out numerous structural checks of the Group's plants and launched seismic improvement works on the viaducts over the Salto and Turano lakes, the surge tank at the Preci plant, the Rosciano flume and the Villavalle (Terni) offices.

Another intervention regarded the surge tank at the Preci plant, a civil engineering work built on the top of the hill overlooking the plant that serves as an expansion tank for the release of excess pressure generated within the penstock.



THE oscillations and vibrations resulting from its particular shape dictate its reinforced concrete structure and hilltop location. Consequently, we have implemented projects to line the linear elements (the "legs": beams and pillars) and add carbon fibre reinforcements to the tank.

Other seismic improvement projects regarded the flume at Rosciano, which belongs to the 42 km Medio Nera inlet tunnel which flows into the Piediluco lake.

The project involves the construction of reinforced concrete girders along the upper duct, the installation of special shock transmitters at the duct's expansion joints, reinforced concrete lining for the beams



connecting the two arches and the insertion of rods into the ground at either end of the aqueduct. The works aim to maintain the original static operation of the structure while preserving its aesthetic appearance in view of the aqueduct's historical value.

Finally, we have invested heavily in seismic improvements at the Villa Fabrizi in Papigno (Terni) building, home to ERG Hydro's head offices. In 2019 the executive plan was commissioned and finalised and the works - due for completion by April 2020 - were officially launched.

The Villa Fabrizi building is composed of a central walled building dating to the eighteenth century, and two reinforced concrete annexes located at the two ends of the main building, which were constructed in the twentieth century.

The seismic improvement works planned for the main building involve reinforcements to the wall cladding, the closure of historic niches in the walls, the installation of steel chains and the addition of metal reinforcements to the girders along the top of the building.

As regards the two reinforced concrete annexes, the scheduled works provide for the stiffening of the structural frames and the installation of steel connections to link the two wings to the main building.

As well as the seismic improvement works, architectural restyling and energy efficiency works are also planned. In particular, new air conditioning systems, central heating units, and electric and remote devices will be installed, aimed at improving the building's energy efficiency rating.

## OUR PRINCIPLES THE GROUP'S CODE OF ETHICS AND SUSTAINABILITY POLICY

*People are a key factor in the existence, development and success of any company. ERG therefore pays particular attention to protecting the rights and developing the abilities and skills of all its employees so that they can realise their full potential and professionalism and, as a result, contribute to achieving the Group's objectives in accordance with the commitments to social and environmental responsibility established by the management. ERG guarantees respect for the rights of its workers and offers equal working opportunities to all, on the basis of individual professional profiles and potential performance levels, without any discrimination, disapproving of all harmful behaviour against individuals and pledging to adopt the most suitable supervisory measures to this end. For this reason ERG, in accordance with all laws, regulations and company policies in force, pledges to:*

- select, hire, pay, train and assess people according to merit and professional expertise, without any political, trade union, religious, racial, language or sexual discrimination;*
- guarantee a work environment in which the dealings between colleagues are characterised by loyalty, correctness, collaboration, reciprocal respect and trust;*
- guarantee the freedom of association of workers and recognise their right to collective bargaining;*
- respect contracts and collective labour agreements with particular reference to the regulation on remuneration, working hours, rest periods, weekly rest, mandatory leave and holidays;*
- offer suitable working conditions from a health and safety standpoint, as well as respectful of everyone's moral personality, in order to foster interpersonal relationships free of prejudice;*
- counter any form of intimidation, hostility, isolation, undue interference, conditioning or harassment, sexual or of any other type or kind;*
- ensure that, within a framework of reciprocal rights and duties, workers are guaranteed the possibility of expressing their personality and reasonable protection of their sphere of confidentiality in personal and professional dealings;*
- intervene in the event of attitudes not compliant with the principles set out above.*

*To implement the above, ERG undertakes to make available, via its internal communication channels and the competent organisational units, information on policies for management of the individuals, in accordance with the confidentiality restrictions established by good business management criteria; it also undertakes to develop the professional skills of its employees through training, with growth and development programmes supported by adequate budgets.*

*Each organisational units manager is obliged to involve their co-workers in the performance of the work*

*and the achievement of the assigned objectives; in turn, the latter will have to participate with the spirit of collaboration and initiative, actively contributing to the implementation of the established activities. There are plenty of opportunities to take part in discussions and decisions geared towards achieving the business objectives, in which the various points of view expressed by co-workers help the unit manager to take final decisions with greater confidence.*

From the Code of Ethics ERG

*The Group's sustainable approach can also be seen in its policies to protect and develop Human Capital. For this reason ERG requests that all those who collaborate with the Group's companies, whether employees, suppliers, contractors or partners, respect the principles outlined in the "Policy for the protection of Human Rights".*

*The Group also respects and upholds these principles by:*

- monitoring respect for the principles of the Universal Declaration of Human Rights, the declarations of the International Labour Organization and the principles of the UN Global Compact;*
- adopting and applying processes and procedures, also supported by the adoption of Safety Management Systems certified in accordance with recognised standards, aimed at minimising risks and eliminating the causes which may endanger the health and safety of its personnel and the third parties who operate at the Group's plants and/or offices;*
- complying with all legal obligations regarding the involvement of employees, or their representatives, in business reorganisation processes; guaranteeing the equality of the individuals, meaning the commitment to ensuring equal opportunities without any discrimination based on political opinion, nationality, age, gender, sexual orientation and/or intimate human characteristics;*
- recognising the role of the social partners as counterparties in the definition of suitable labour management policies;*
- granting the individuals the freedom to join and/or associate themselves with trade unions or workers' organisations;*
- developing activities and policies to improve the work-life balance;*
- underlining the key role its people play in achieving the company's goals, using appropriate assessment systems and supporting professional development training initiatives.*

*Aware that the active contribution of all individuals is essential to achieving the above objectives, ERG develops ongoing targeted information, awareness raising and training activities.*

From the ERG Sustainability Policy

In addition, in 2018 the ERG Group adopted its own Human Rights Policy, available at [www.erg.eu](http://www.erg.eu).

## OUR MANAGEMENT METHODS WITH REGARD TO HUMAN CAPITAL

We attribute great importance to the management of human resources given the fundamental role they play in the development and management of our business.

Our principles are outlined in the Group Code of Ethics, in the Sustainability Policy and in the Human Rights Policy.

HR governance is delivered via two committees: the Human Capital Committee and the Supervisory Body established in accordance with Italian Legislative Decree no. 231/2001.

The Human Capital Committee is tasked with:

- defining and monitoring the main human capital development programmes and activities (career/replacement plans, talent identification and management, training, leadership model, etc.);
- providing support to the Executive Deputy Chairman and the Chief Executive Officer in decisions relating to strategies that determine the value of ERG's human capital;
- monitoring the implementation of the Human Rights Policy and managing related non-compliance reports.

In its role as Ethics Committee, the Supervisory Body established pursuant to Italian Legislative Decree no. 231/2001, monitors the correct application of the Code of Ethics with specific regard to the issues of respect for human rights, equal opportunities, etc.

It also manages any reports on these issues received via the communication channels made available to all employees and also third parties (dedicated email address and regular postal address).

The management of relations with social partners is delegated to the HR unit, which reports, with regard to strategies and results, to the Head of Human Capital & ICT.

All relations with employees, with the collective representatives of employees and with the social partners are always conducted with respect for the legislation in force in all countries in which we are present, guaranteeing the correct application of the National Collective Labour Agreements of the sector in question.

## IDENTIFIED RISKS AND SPECIFIC MANAGEMENT METHODS

With reference to its scope, the ERG Group has analysed the aspect of gender equality, the implementation of the international agreements, the dialogue with the social partners, the respect of human rights, the measures adopted for preventing violations and impeding discriminatory action.

The analysis, performed internally, took into consideration the countries in which the Group operates, the business sector, the legislation and the practices which we make reference to, the implementation of the policies and the Management Models, the governance structure.

Downstream from the analysis, the spheres - even if important - are not considered to be sources of risk particularly by virtue of the operating practices which ensure the observance of said principles.

A specific Human Rights Policy has nonetheless been adopted by the Group since 2018 in order to clearly express and formalise the approach to these issues. The policy was published on the official ERG website. There are also systems and operating procedures that regulate the processes of personnel recruitment and management, which guarantee respect for the principles set out in the Human Rights Policy.



# HUMAN CAPITAL

ERG believes that it is our People that make the difference: based on the strength of our values and our history, we believe that the Company is more than a set of gears with perfectly defined tasks in a machine and instead a living system in which individual talents interact in a stimulating environment, that can be “used” and developed to generate value and innovation.

ERG’s human capital is based on the talent, expertise and relationships of our employees: for over 80 years, the respect and valorisation of each individual have been intrinsic parts of ERG’s culture.

This means that the context in which we operate

on a daily basis must be the best possible in order to allow people to express themselves to the best of their ability, thus maximizing the value of the company’s Human Capital: none of the Group’s results could have been achieved without the full contribution of our people. Going forward, the development of know-how, skills and motivation is essential for the Group’s sustainability.

ERG has defined its Leadership Model in a way that involves employees in the methods to achieve the goals of the business plan, in line with the results, values, skills and conduct that drive career development within the Group.

**ERG LEADERSHIP MODEL FOR THE STRATEGIC PLAN 18-22**

BEHAVIOUR	RESPONSIBILITIES	VALUES	
<p><b>LEADING &amp; INSPIRING</b> Setting and inspiring</p> <ul style="list-style-type: none"> <li>Lead by example and inspire others by inspiring what you see and doing it.</li> <li>Empower people to own responsibility and support them in finding their path.</li> <li>Weigh up the risk and benefits and take a stand, even if it's not the easiest or "most popular" option.</li> </ul>	<p><b>RESULT DRIVEN</b> Things always happen</p> <ul style="list-style-type: none"> <li>Convey the right sense of urgency, based on priorities.</li> <li>Ensure operational excellence through planning and monitoring.</li> <li>Challenge, engage and reward people to jointly work towards high levels of performance.</li> </ul>	<p><b>FORWARD THINKING</b> Envisioning and moving into the future</p> <ul style="list-style-type: none"> <li>Develop medium and long-term visions, which respond to meet the whole picture.</li> <li>Effectively work to convert strategic guidelines into operational action plans.</li> <li>Look for opportunities in changing context and explore different ways of achieving goals.</li> </ul>	
<p><b>TALENT ENABLING</b> Recognising, developing and supporting talent</p> <ul style="list-style-type: none"> <li>See / recognise talent in a person and cultivate it.</li> <li>Clearly define the development process and schedule frequent reviews in order to address appropriate self-fulfillment.</li> <li>Provide timely, comprehensive, fact-based and unambiguously feedback to people and recognise and value their personal brand.</li> </ul>	<p><b>INCLUSION</b> Adopting an empathetic and engaging style to drive involvement</p> <ul style="list-style-type: none"> <li>Talk and listen to overcome differences and foster positive relationships.</li> <li>Clearly define the delegation process and schedule frequent reviews in order to address appropriate self-fulfillment.</li> <li>Build positive relationships through open discussions to achieve a high level of trust.</li> </ul>	<p><b>COME TOGETHER</b> Building cross-functional high performance teams</p> <ul style="list-style-type: none"> <li>Facilitate the sharing of goals, information and knowledge of achievement.</li> <li>Adopt a "win-win" attitude and celebrate personal success with that of the team.</li> <li>Maximise knowledge and expertise to generate and deliver the most effective outcomes.</li> </ul>	
<b>HERITAGE</b>	<b>SUSTAINABILITY</b>	<b>PASSION</b>	<b>CHALLENGE</b>

**we are ERG**  
#WELCOMEDIVERGENCE

The processes that guide the development of human capital transform the Leadership Model into individual and collective operational plans.

In line with this approach, ERG takes a “holistic view” of its employees: through the various talent management procedures in place, the Group’s People Managers are able to “observe” and interact with their colleagues through observation points focusing on performance,



expertise, skills, development potential and motivation.

The same approach is promoted for personal development, encouraging employees to identify their skills in order to develop and perfect them.

At ERG, "talent" refers not to an individual with extraordinary potential, but rather that distinctive characteristic that enables someone to achieve out-of-the-ordinary results naturally in an enjoyable way.



**CAREER MANAGEMENT**

The "career system" guarantees selectiveness, sustainability and fairness through a development system based on job title:

- Specialist;
- Professional;
- Manager;
- Senior Manager;
- Director.

Each position has a range of job titles that people can achieve based on seniority (experience, adaptability, skills, performance trends, leadership style).

The Human Resources Committee annually defines the pipeline of candidates who over the next three years can be appointed as Managers

and Senior Managers, and monitors their performance results in the various criteria.

**SKILL MANAGEMENT**

On an annual basis, after assessing the Human Capital Coverage, a series of actions for the development of technical skills within the company are defined.

In 2019 the priorities regarded the Project Management and developing knowledge of the Solar technology.

**FEEDBACK**

ERG believes that feedback is fundamental to creating high-performing teams and promoting personal development.

Alongside the performance assessment systems focused on professional results, ERG also aims to assess the effectiveness of management skills through its People Manager and comprehensive feedbacks as part of the Senior Manager development programmes.

To support the feedback process, credits can be awarded to colleagues through the People portal in order to provide positive, contextualised feedback related to the skills outlined by the Leadership Model.

**PERFORMANCE**

Performance Management is based on measuring the results achieved during the year and follows a top-down logic throughout the organisational structure. In line with the business plan and the budget, annual targets are set for the CEO and then for collaborators.

The objectives are corporate and/or individual in nature and involve an alignment and comparison meeting at the start of the year followed by feedback at the end of the year to capitalise on

the learnings presented throughout the year. In 2019 individual objectives are set for 297 people, amounting to 39% of the workforce.

**INTERNAL MOBILITY**

“Experiences” are one of the pillars of the Group’s professional and managerial growth system. ERG uses Job Posting to gather internal applications and connect individual aspirations with the corporate development opportunities.

Furthermore, employees can use the People Portal to outline their growth plan and specify their professional aspirations for the next three years.

**SUCCESSION PLAN**

Internal careers dynamics are guided by the Management Team and Human Capital. With the support of Key Leaders, possible successors for all company roles are mapped. In this way it is possible to develop replacement plans for the people currently in that position and to guarantee the sustainability of individual growth and the continuity in terms of results in the event of resignations, job rotation or reorganisations.

The latest update revealed that there are no significant organisational deficiencies due and that for all positions there are candidates that could be developed within three years, confirming ERG’s strong position with regard to turnover and professional growth.

**LIFE-LONG LEARNING**

Training is a fundamental lever for the development of Human Capital. ERG has defined three essential training pathways:

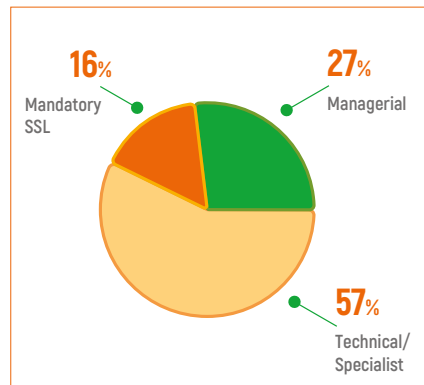
- legally mandatory training;
- technical and specialist training;
- managerial training.

In 2019 a total of 46,758 hours of training were provided, up 36% on the previous year compared to an increase in average workforce of 3%.

In terms of technical and specialist training, in 2019 our international development was supported by a considerable increase in hours dedicated to studying foreign languages and cultures.

On average, every ERG employee receives 7.76 days of training per year.

Percentage participation in training activities is 97.75% of the average workforce, in line with the previous year.



**YOU LEARN: GROW YOUR ENERGY**

ERG’s management training is aimed at all Group people, regardless of the role covered, professional seniority, personal background, business sector and work site. Employees can choose which training courses they want to take part in from the catalogue, helping them to realise their own personal development plan.

The training courses bring otherwise “distant” colleagues together, exploring the same themes and sharing their stories, experiences and professional skills to mutually enhance diversity. The classrooms are deliberately heterogeneous

in order to spread an understanding of ERG that goes beyond geographical borders or roles covered within the Company.

The educational model adopted consists of four phases - pre-work, classroom, on the job activities and monitoring. Each phase may include a combination of these training methods, formed of:

- informal learning: stimulus, in-depth studies, analysis, pre-class exercises and shadowing, coaching, implementation of action plans;
- formal learning: classroom sessions with physical or remote presence, webinars, e-learning and mobile learning activities;
- social learning: follow-ups for comparison, tutorship, group coaching where employees can share their experiences with others.

**Internal certification**

ERG has adopted the Franklin Covey 7 Habits Model to support effectiveness and leadership development.

In 2019 the habits were compared with the skills and conduct outlined in the leadership model and everyone who finished the training course was invited to self-certificate internally as a 7 Habits Expert. In 2020, we will also make it possible to qualify as "Change Agents".

This is a way of incentivising and supporting our employees' leadership development in order to progressively extend the impact of their management skills.

In 2019, 103 people were certified.

KPIs IN OUR TRAINING			
2017	37,950 HOURS OF TRAINING PROVIDED	6.6 DAYS OF TRAINING PROVIDED PER PERSON	97% PARTICIPANTS IN THE COURSES
2018	34,356 HOURS OF TRAINING PROVIDED	5.9 DAYS OF TRAINING PROVIDED PER PERSON	92% PARTICIPANTS IN THE COURSES
2019	46,758 HOURS OF TRAINING PROVIDED	7.8 DAYS OF TRAINING PROVIDED PER PERSON	98% PARTICIPANTS IN THE COURSES

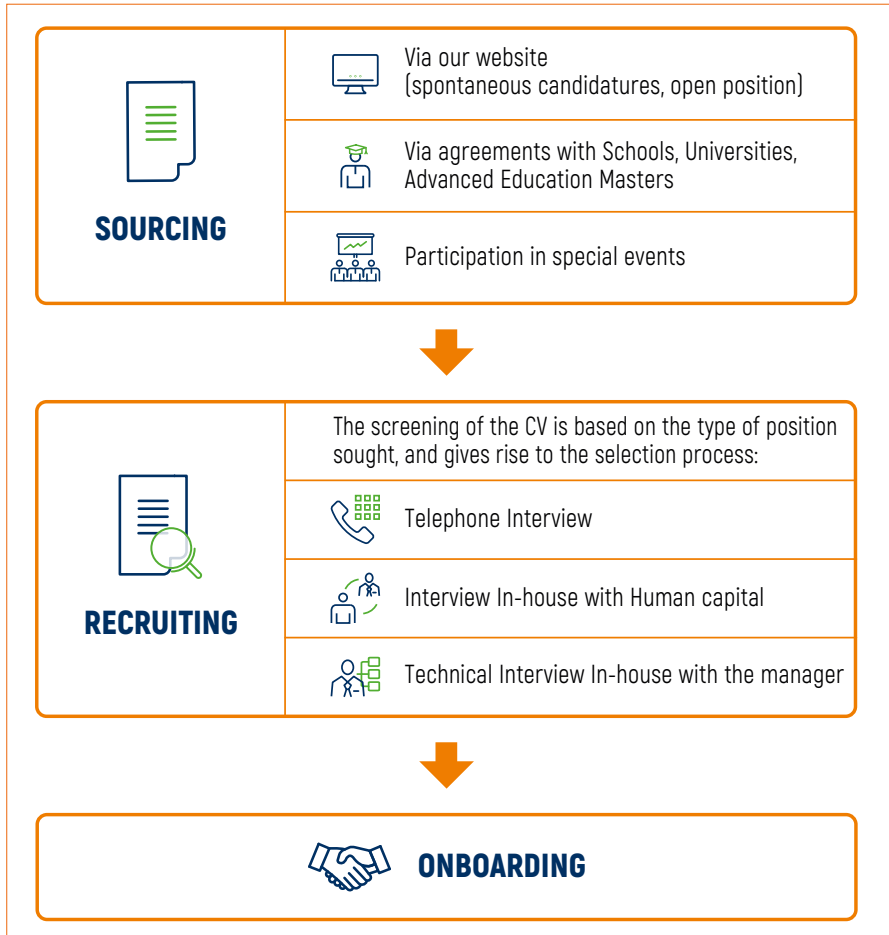
**THE SEARCH FOR NEW TALENT**

ERG's performance depends on the quality of the people who work for us. Consequently, our talent acquisition is structured in a way that enables us to meet, attract, select and integrate

new employees that suit our current and future requirements.

The process has three stages.

The onboarding stage is essential to effectively



integrate new employees into the Company and is based on a plan to enable the newcomer to settle into their team and reach their maximum potential as soon as possible.

Online communication (website, social media, job board, etc.) is an essential channel for promoting ERG as an employer and to connect us with

high-value candidates. In this sense, the Talent Management team works in partnership with the Communications team to raise awareness about ERG and improve the candidate experience, systematically updating the quality of its communications through comparisons with the main international benchmarks. In 2019 ERG

confirmed its top position in the Italian rankings published by Potentialpark, was named the top climber in the European ranking and was recognised on the Lundquist ranking for best practices. For the first time, we also appeared in the Universuum ranking.

ERG's Employer Value Proposition is based on three pillars:

- GreenenERGymakers: ERG produces electricity from clean, renewable and sustainable sources. Working for ERG means playing a starring role in the sustainable economy, helping to protect the environment and improve quality of life.
- Self-accountability and Employability: each person is responsible for their own growth in terms of training, refreshing skills, unlocking and enhancing personal potential and proposing possible career paths, working to create a

“sustainable future” for their professional lives.

- Talent: The talent of every single person. At ERG we encourage employees to discover and develop their own skills while learning to do the same with others.

ERG has developed partnerships with leading universities and training bodies in Italy focused on the development of essential skills for the energy sector.

Several ERG managers and experts have lent their experience to university and post-graduate training courses. ERG also takes part in Career Days and welcomes work experience students who are nearing the end of their studies.

In 2019, 50% of new hires originated from the network generated by these events or from direct applications, while the remaining 50% were head hunted.



## INDUCTION SEMINAR 2019

Thirty-seven new colleagues from the various ERG offices took part in the 2017-2018 edition of the Induction Seminar, an event that provides a complete overview of our company.

The seminar consists of various meetings in which the company presents itself via the voices, accounts and experiences of its employees. It is an opportunity for colleagues to get to know areas and people that they would not normally come into contact with, providing a comprehensive overview of our company and its values in the process.

During the second itinerant module participants have the chance to visit the ERG plants (hydroelectric, thermoelectric and wind energy) at the production sites of Terni, Priolo and Carlentini. The various topics examined touch on technical, operational, sustainability and business ethics issues: we want to familiarise all of our new hires with the principles ERG adheres to in its business activities.



## THE POWER OF DIVERSITY

Since 2019 "The Power of Diversity" has represented the initiatives aimed at optimising ERG's ability for inclusion. ERG's transformation is primarily the result of acquisitions which - in terms of our "People" - has dramatically increased our internal diversity: cultural background, nationality, age, gender, professional background, work culture. ERG is a supporting member of Valore D, founded in 2009 and the first Italian association to promote diversity, talent and female leadership. This important network now includes 200 businesses, with over 2 million employees and a total turnover of over € 500 billion. With the support of Valore D, ERG monitors which HR processes are enhancing ERG's female presence through the Inclusion Impact Index. Furthermore, some of ERG's female employees are taking part in training and networking events aimed at young talent, middle managers, C-Level employees and the HR and Communications team.

In 2019 we launched training sessions aimed at promoting inclusive language and recognising and eliminating cognitive bias. In 2020 these seminars will become essential elements of our People Manager training. ERG conducted a survey of the entire Group workforce to monitor perceptions of Diversity and Inclusion. Diversity is considered a driver of future success and areas of satisfaction and those requiring improvement were identified.

The level of Engagement of the participants was also measured. In 2019, ERG continued to enjoy company engagement and personal work satisfaction levels above the average international benchmark. People have a strong sense of self-efficacy with regard to their activities and maintain positive relationships with colleagues and People Managers. The survey will be repeated in 2021 to monitor the effectiveness of the actions taken.



# HUMAN CAPITAL COVERAGE: WHAT HAPPENED IN 2019?

Human Capital Coverage is a consolidated measurement tool used by the ERG Group for a number of purposes in the HR department and in other Group areas.

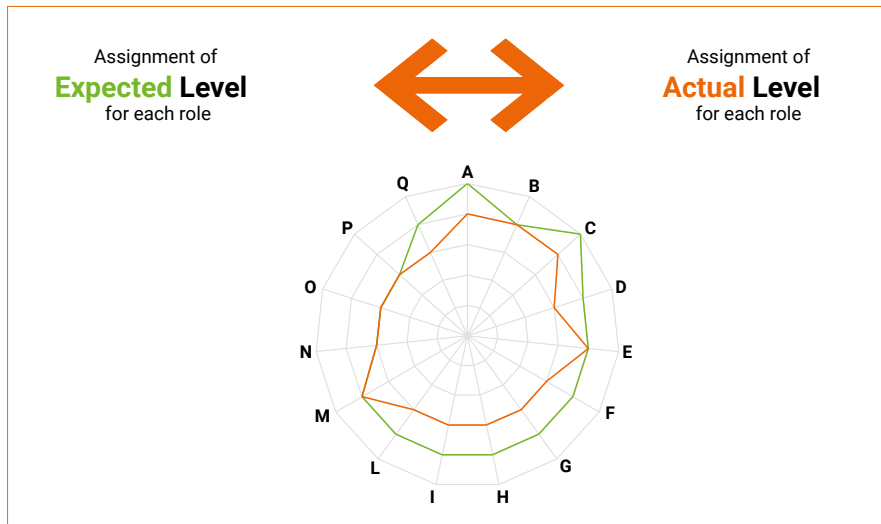
In 2019 certain changes were made to the organisational structure and, with the transition to the "One Group" model which broadened the Group's logics, it became necessary to develop a more "international" and outward-looking approach, with an eye on the confirmation of the growth factors envisaged in the business plan, including with regard to the ERG Group's Human



Capital Coverage.

The primary objective also remains unchanged: compare the level of expertise "expected" for each role with the "actual" level assessed for people in different roles.

This year we were able to compare the results



with data from the five previous years, making the most of the data generated.

On the basis of the new initiatives launched in 2019, this year the Talent Management & Compensation area once again decided to use models and information provided by the HCC to formulate its professional growth and training

activities where the indexes showed that there were aspects that could be improved. What's more, the HCC has become a useful tool for the basis of the 2020 HRBP programmes, presenting important developments in the various areas, including on the basis of the results of the HCC.

The HCC is continually evolving: compared to 2018,

changes were made to the model in 2019 and new pathways were followed (functional model), confirming the level of growth, which began in 2017 with the new reorganisation and which continued in 2018/2019, reaching 93% coverage at Group level.

In 2019, our "Human Capital Coverage" index was 93%, an increase of around 3 percentage points compared to 2018 in a somewhat different context (restructuring of the Human Capital and ICT departments) with revised organisational approaches.

The main factors which brought about this increase are due to the following elements:

- identification of the company's organisational areas where measures were needed;
- suitable development of organisational

processes to improve productivity within some specific action areas;

- training based on clear principles also taken from the analyses developed with the HCC.

Competence, expertise, know-how and the ability to learn are fundamental characteristics for individuals but also represent the resources on which the company's future is built.

From a sustainability perspective, ERG invests greatly in the growth of individuals and in Self Employability: with a view to this, the HCC index is also a tool used by our employees to continuously adapt to changes of the labour market and to continue their professional development along a specific direction.

KPIs OF "HCC" PROCESS				
2017	700 EMPLOYEES ASSESSED	100% COMPANY EMPLOYEES <sup>(1)</sup>	385 SKILLS IDENTIFIED	87% HCC COVERAGE
2018	725 EMPLOYEES ASSESSED	100% COMPANY EMPLOYEES <sup>(1)</sup>	400 SKILLS IDENTIFIED	90% HCC COVERAGE
2019	732 EMPLOYEES ASSESSED	100% COMPANY EMPLOYEES <sup>(1)</sup>	401 SKILLS IDENTIFIED	93% HCC COVERAGE

(1) Excluding the first line reporting to the CEO.

# “WE ARE ERG, ERG IS WITH US” GROWTH AND INCLUSION OF ERG’S PEOPLE

Our people are central to ERG’s approach to business. ERG recognises the value of the commitment shown by its people and supports them throughout their entire “ERG lifetime” through the “Reward system”, the integrated corporate welfare model and the work-life balance systems.

### REWARD SYSTEM

A fundamental principle of the ERG Group is to ensure equal opportunities of economic recognition for all its individuals, each in relation to their respective professional ability and characteristics. Furthermore, the Group takes an active approach to the implementation of policies and procedures aimed at preventing any conduct of a discriminatory nature.

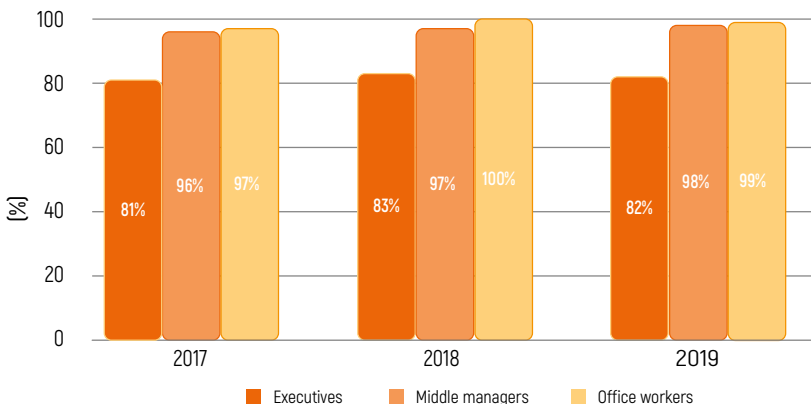
The ERG Group’s remuneration policy is based on the recognition of merit. Merit is the benchmark by which the remuneration systems generate a sense of belonging, motivating and encouraging

people to improve, and acknowledging and rewarding results achieved, the quality of people’s professional contributions and their development potential. Fairness, Sustainability and Selectivity are the main pillars that support the remuneration policy of the ERG Group. Fairness is guaranteed through periodic updates based on the reference markets and considering the indications of external stakeholders; Sustainability is understood as the perfect balance between individual aspirations and the company’s financial position. Finally, Selectivity is the development of the high performers and the recognition of the market conditions for normal contributors.

As regards fixed remuneration, thanks to our salary policy we eliminate the average differential between male and female “office workers” (45% of the workforce) and limit it to 2% in the “middle managers” category (26% of the workforce).

The analysis of the remunerative positioning

WOMAN/MAN REMUNERATIVE DIFFERENTIAL<sup>(1)</sup>



1 Percentage ratio between the average fixed remuneration for women for each position they belong to and the average fixed remuneration for men for the same position.

of the minimum salary level per category and gender with respect to that established per category by the National Collective Labour

Agreements indicates a starting salary for each category in line with the values established by the National agreements.

### DIFFERENCE BETWEEN MINIMUM ERG GROUP ITALY PAY AND APPLICABLE NATIONAL COLLECTIVE LABOUR AGREEMENTS

Position	2019		2018		Change 2019/2018	
	Women	Men	Women	Men	Women	Men
Executives	134%	110%	134%	110%	-	-
Middle managers	106%	106%	106%	106%	-	-
Office workers	111%	113%	110%	114%	+1%	-1%

### DIFFERENCE BETWEEN AVERAGE ERG GROUP ITALY PAY AND APPLICABLE NATIONAL COLLECTIVE LABOUR AGREEMENTS

Position	2019		2018		Variazione 2019/2018	
	Women	Men	Women	Men	Women	Men
Executives	134%	163%	134%	161%	-	2%
Middle managers	132%	134%	132%	136%	-	-2%
Office workers	122%	124%	123%	125%	-1%	-1%

In 2019 we further consolidated our short-term incentive system for the Group's managers at all levels, as well as for a pool of Professionals selected on the basis of the critical importance of their role.

The system sets a number of corporate goals shared by all participants, measured by the EBT index<sup>(2)</sup>, and three individual goals depending on the importance of the person's role and measured on the basis of quantitative indicators linked to economic and/or project related parameters.

The system has two clauses aimed at highlighting and pursuing two aspects of sustainability:

- Health and Safety of ERG employees: the system includes a Sustainability Clause according to which the corporate objective will not apply in the event of an accident that results in the death

or permanent level of invalidity of a Group's employee of greater than or equal to 46%.

- Finance and Organisation: this is ensured by the clawback clause.

For more details on the system see the Report on remuneration and compensation paid.

In 2019 all Directors and Managers at all levels and 53% of company Professionals<sup>(3)</sup> participated in the short-term incentive system. The number of women increased by 15% compared with 2018 and represented 16% of participants in the system.

The short-term incentive system is supported by the 2018-2020 Performance Share long-term incentive system, aimed at directors with executive roles and a small selection of key leaders in managerial roles whose actions have a

<sup>2</sup> Consolidated result before IAS taxes at current values.

<sup>3</sup> Data referring only to Italian companies and to country managers of foreign companies.

direct impact on the achievement of the targets of the 2018-2021 Business Plan. The plan is part of the strategy and promotes the sustainability of the company over time, incentivising management towards the achievement of strategic results in line with the targets of the Business Plan, with a view to sustainable performance. The 2018-2020 Performance Share plan involves the allocation of a pre-established number of

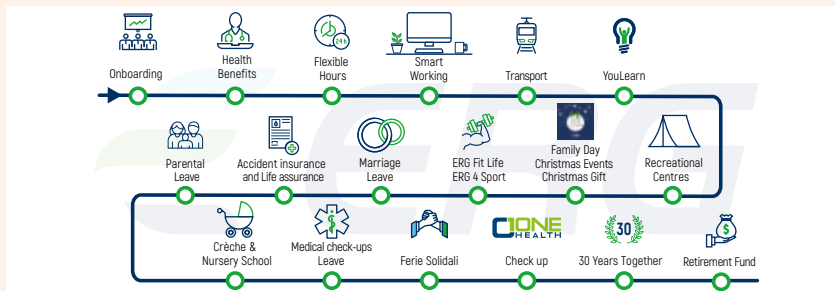
ordinary ERG shares. The shares are assigned at the end of the three-year vesting period if a predetermined Group's EBITDA (earnings before interest, tax, depreciation/amortisation and impairment losses) target is met for the 2018-2020 period. The plan includes a clawback clause. For more details on the system see the Report on remuneration and compensation paid.



## 80 YEARS OF ERG, 80 ACTIONS

To mark the 80th anniversary of ERG and in recognition of the contribution our people have made to the transformation of the Group, the Garrone and Mondini families rewarded all employees of the ERG Group's Italian companies with 80 shares. This bonus involved 664 employees and 53,120 shares in the ERG S.p.A. portfolio.

## ERG'S LIFE ROADMAP



### CORPORATE WELFARE

Our integrated Welfare model has formed organically and has developed over our 80 years of history. It centres on our employees, with the aim of meeting the needs of different categories of the company workforce and the emerging needs for a positive work-life balance.

The system supports employees when they

first join the company through the “on-boarding” programme, during which the new employee is able to get to know ERG through the eyes of its people, and continues to provide support throughout the various stages of their professional and private life until their time in the world of work comes to its natural conclusion (see box and infographic).

## SMARTWORKING

To meet the needs for a positive work-life balance among ERG people, in partnership with trade unions in 2019 the “SmartERG” project was designed and approved, introducing the concept of Smartworking as a new approach to work.

The project involves a six-month trial period starting in early 2020, at the end of which the company will assess its usefulness and impact on the company to decide whether or not to continue and extend it. Participation is voluntary and involves the Genoa and Rome offices, with the exception of departments whose work is not compatible with smart working.

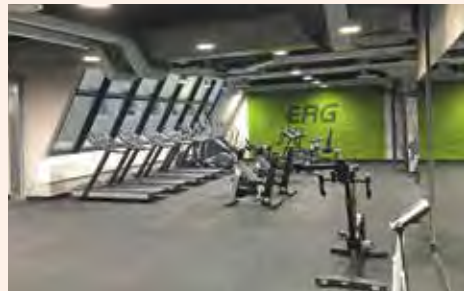
## ONEHEALTH


















Having finalised the unification of our employee welfare programmes, this year the voluntary cancer prevention programme has been rolled out at all of our Italian offices. 80% of eligible participants signed up to the programme. The main checks carried out were upper and lower abdomen echo cardiograms (men and women), PSA testing (men over 50), and breast ultrasound and mammograms (women over 40).

## MENS SANA IN CORPORE SANO: ERG FIT LIFE

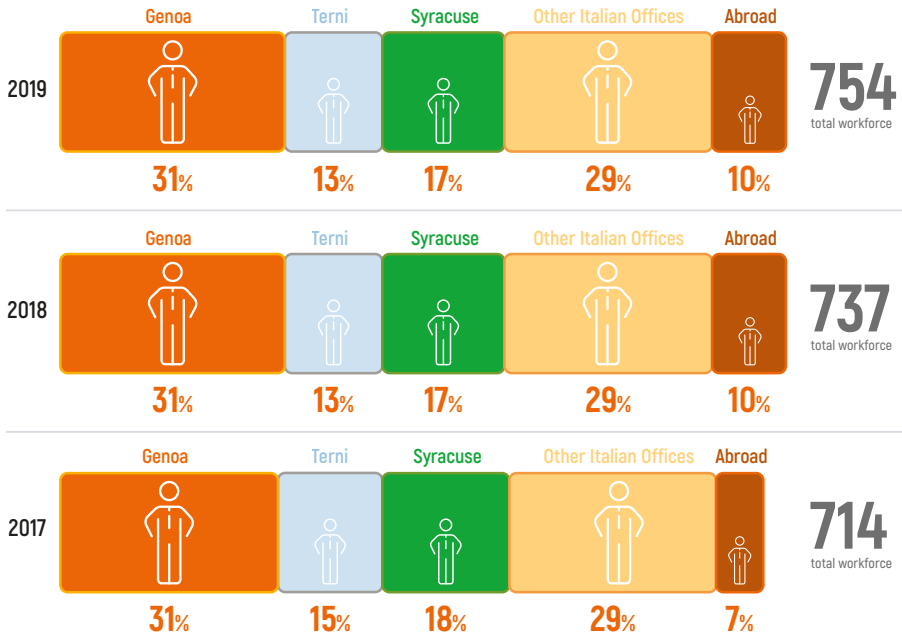
A new gym full of equipment with machines for all kinds of exercises divided into three areas - cardio, floor exercises, equipment - as well as instructors for the courses and personal trainers to follow all those that work out. The perfect place to improve the work-private life balance while staying in shape, relieving daily stress and ensuring you are more reactive and productive in the rest of your free time.

On this basis we opened the gym for all Group employees at the Genoa site: a brand new industrial-style 400 m<sup>2</sup> space with the best equipment and the latest cutting-edge inventions to guarantee users a healthy and comfortable environment.

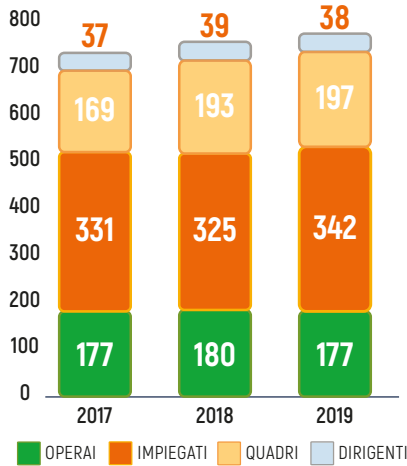


Training		Onboarding	ERG orientation programme aimed at introducing the company, the main tools available and the main stakeholders to enable the new employee to settle in quickly.
		You Learn	Training course aimed at increasing the individual value of people.
Health		Health benefits	Health insurance that guarantees a percentage reimbursement of health expenses in public and private healthcare institutions.
		Prevention programmes and nursing offices	Prevention protocols differentiated by the types of risk associated with the workplace (head offices, production sites). Voluntary cancer prevention programmes. Flu vaccination campaign. Additional leave for medical check-ups.
		Additional accident insurance and life assurance	Additional and improved insurance coverage compared with legal and contractual obligations.
Social security		Supplementary pension scheme	Supplementary pension funds supported by company contributions.
		Tax advice	Agreements with CAAF (Authorised Tax Assistance Centre)
Work-life balance		SmartERG	Pilot smartworking project involving one day a week spent at the office and department.
		Marriage leave	More flexible marriage leave compared with national legislation.
		Parental leave and compulsory leave of absence	During maternity leave, employees retain access to corporate benefits. Compulsory maternity leave is fully paid.
		Facilitation	Flexible working hours to facilitate return to work after maternity.
		Crèche & nursery school	Agreements or reimbursements for employees who use crèches and Agreements or refunds for employees that use these services.
		"Ferie Solidali"	Transfer of holidays to "needy" colleagues with participation of ERG.
		Transport	Contribution at sites not sufficiently served by a public transport system.
Wellness and free time		ERG 4 Sport centres	ERG Fit Life: company gym in Genoa. Agreements with sports centres at other offices. Direct participation in national and international sports events.
		Free time	Recreational centres. Company volunteering projects.
Community		Events	Family Day. Christmas gift and Christmas Party. 30 years together.

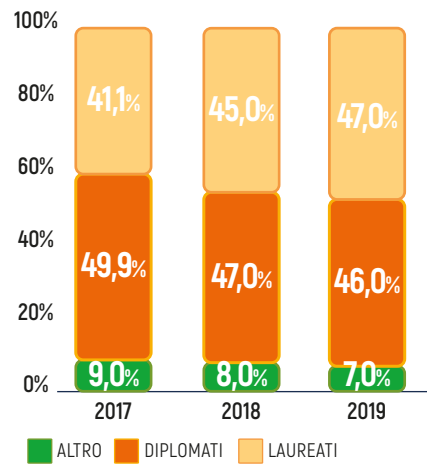
# ERG GROUP: PEOPLE AND ORGANISATION



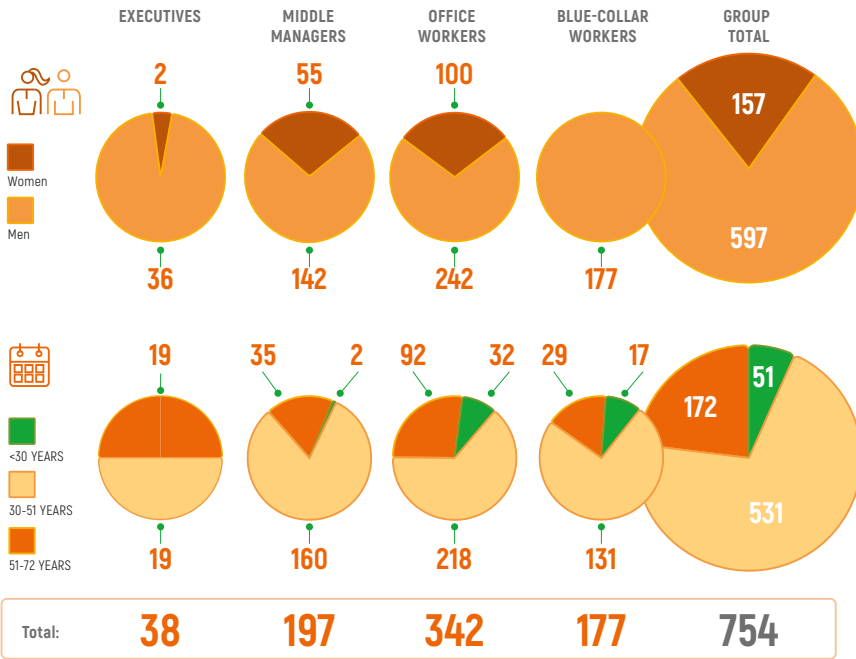
## CHANGE IN EMPLOYMENT CATEGORY



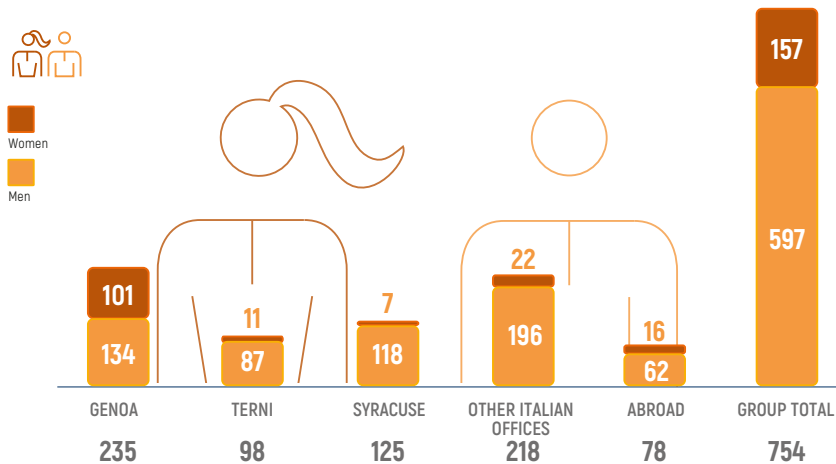
## LEVEL OF TRAINING



EMPLOYMENT CATEGORY BY AGE AND GENDER



GENDER BY SITE



## ERG INVESTS IN INDUSTRIAL RELATIONS

2019 was an important year for the ERG Group's new industrial relations model, not only in terms of innovation but also the development of new tools to optimise social dialogue.

Over the year the new 2019-2021 Performance Bonus was defined which, for the first time, has a simplified and unified national structure.

As has always been the case in ERG's tradition of industrial relations, the model represents the shared viewpoint of all the Social Partners identified at the end of a series of consultations

at national, regional and company level.

Since 2019, a Performance Bonus has been offered to the Group's Italian workforce, based on a single economic indicator (Group EBITDA) and the technological performance of the Group's areas of operation (wind, hydro, power and solar). This represented a considerable leap in quality, recognising for the first time the value of the Group's One Company dimension and its transversal impacts on production.

In addition, at regional level the allocation of the bonus was linked to the achievement of the

<b>Profitability Index</b> 50%		<b>ERG S.p.A.</b> ERG Power Generation S.p.A. ERG Hydro S.r.l.	
		<b>GROUP EBITDA (100%)</b>	
<b>Productivity Index</b> 50%	<b>Wind (25%)</b> KII Trend	<b>Solar (5%)</b> KII Trend	
	<b>Power (25%)</b> KII Trend	<b>Hydro (25%)</b> KII Trend	
	<b>KPI HR (20%)</b> Green Pay/Sustainability		

following sustainability and Green Pay objectives: reduction of plastic consumption with a view to going plastic-free;

- reduction of consumption of toner;
- reduction of accident frequency and severity rates.

The connection between the company's "green" dimension and the economic enhancement of the corporate performance bonus represents an innovative Green Pay model at national level and an experience that will influence future negotiations between the Company and its Social Partners.

## NEW METHODS OF ENGAGEMENT WITH SOCIAL PARTNERS: BILATERAL COMMITTEES

At ERG we have created new spaces, in addition to the traditional models, where we can develop our dialogue and engage in preventive discussion with Social Partners. By signing the Industrial Relations Protocol we finalised the foundation of three new mixed Bilateral Committees, composed of company representatives and trade union officials. The aim of the Committees is to consolidate the dialogue between the Company and Social Partners in order to further explore the issues that will later be subject to trade union negotiations.

The three Committees, composed of 9 representatives appointed by the trade unions (5 men and 4 women), are aimed at the following areas:

### **Bilateral Committee on Health, Safety and the Environment:**

- planning of inter-company "safety" projects and disclosure activities aimed at external suppliers;
- analysis of accidents and "near misses" trends;
- best practices and virtuous behaviour;
- company safety competition;
- specific HSE training courses;
- analysis of contractor conduct.

### **Bilateral Committee on Training and Professional Development:**

- analysis of the Group's training plans;
- evidence of main training requirements;
- training plans to support possible employee relocation;
- technological impacts on the organisation of work and 4.0 evolution of required skills..

### **Bilateral Committee on Equal Opportunities:**

- analysis of current and future projects aimed at equal opportunities and non-discrimination;
- promotion of studies into the work carried out by women in the company and relative training courses;
- analysis of direct initiatives to remove objective and subjective obstacles to actively pursue equal opportunities in the company, as part of a Diversity Management approach.

## COMMUNICATION WITHIN ERG

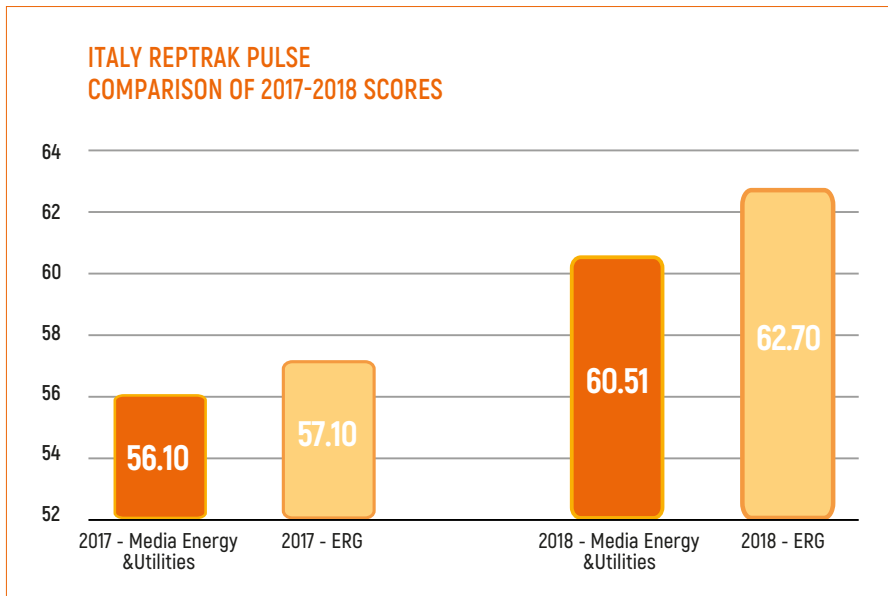
### EXTERNAL COMMUNICATIONS

To drive our business model in a fair and comprehensive way, we believe that internal and external communications activities are of fundamental importance.

Our aim is to construct trusting long-term relationships with our stakeholders, to maintain

an ongoing dialogue that encourages debate, and to protect and grow our reputation capital.

In terms of positioning, the most recent official survey conducted by the Reputation Institute in 2018 placed us well above the average score given to the Energy & Utilities sector.



### THE METHOD ADOPTED BY THE REPUTATION INSTITUTE

*"The reputation of an organisation is the sum of the expectations, perceptions and opinions developed over time by all stakeholders (customers, suppliers, investors, media, etc.) in relation to the quality of an organisation, its characteristics and the expected behaviour."* With this in mind, we monitor public perception and opinion through various tools, such as the annual study into business reputation in Italy (Italy RepTrak® Pulse), conducted in January each year by the Reputation Institute, the leading global business consultancy firm for reputation measurement and management, using the CAWI (Computer Assisted Web Interviewing) method on a sample of General Public, which is representative of the Italian population between 18-64 years (ISTAT demographic).

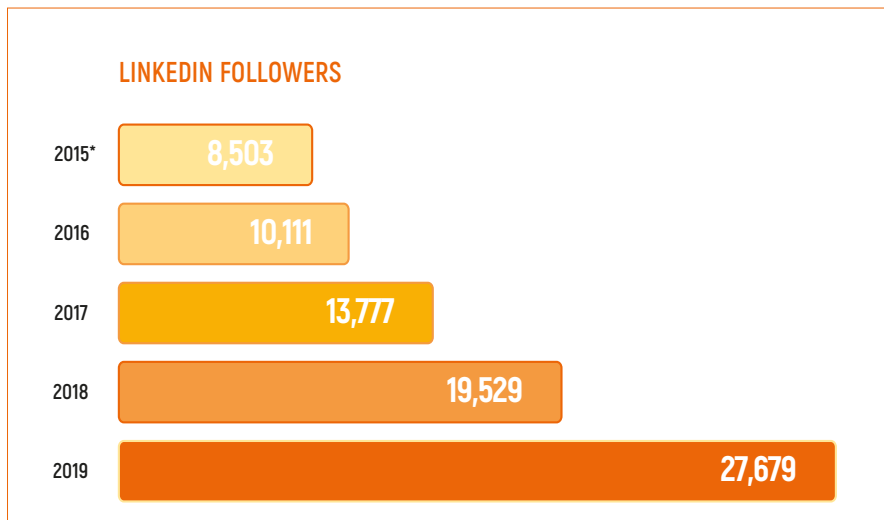
Over the years we have focused on the development of a digital communication system, which is able to reach our reference stakeholders in a widespread and immediate manner, with targeted contents and without intermediation. Transparency, quality and promptness are the mainstays of our communication through our company website and social channels Twitter, LinkedIn and YouTube.

As well as being based on key values like promptness and dynamism, our communication strategy also aims to illustrate aspects of company life at ERG with the goal of consolidating our reputation as a leading green energy producer and strengthening our relations with our stakeholders. Outside Italy, to engage with local stakeholders

in our countries of operation we are using social media to develop our ERG\_France Twitter account and report our activities on the ERG France LinkedIn page. Recently, we have also begun to tweet to our stakeholders in the UK through the ERG\_uk channel.

LinkedIn is where we post information about our business operations and financial results, interviews with management, information about CSR projects and activities and any current job vacancies, which we also post on the Twitter account @ERGcareers. At the end of 2019 our company page had seen a further increase in the number of followers, jumping from 19,660 at the end of 2018 to 27,679.

Moreover, the positive impacts of our engagement were proven by the analysis



carried out by Lundquist, the leading corporate digital communications researcher established

to promote the transparency and completeness of online information.

## WEBRANKING AND ".TRUST" 2019

In December the results of Webranking Italy 2019 edition were published, Europe's most important study into the quality of corporate communications, which seeks to promote the transparency and comprehensiveness of online information.

Conducted by Lundquist in collaboration with Comprend, it examined 112 listed companies, which were given a score of between 0 and 100; the average score given to Italian companies was 43. Our website gained 0.8 points compared with 2018 for an overall score of 77.6, maintaining our eleventh position in the ranking. 2019 marks the first year of the ".Trust" analysis, the results of which were published in November.

The study assesses the quality of digital information, considering how companies present their data, how they create an effective narrative and how they involve their users and stakeholders.

The challenge of effective communication today is learning how to use transparency to create an effective narrative to describe the company's strategies, supporting it with examples and stories. ERG was placed in the virtuous "Narrators" bracket as one of the best-in-class companies.



We also recount the ERG universe through debates, the participation of our top

management in industry events, conferences and lectures at leading universities.



**INTERNAL COMMUNICATIONS**

We are pleased to be able to define our internal communications plan with the symbol H2H - Human to Human. Completely overhauled in 2019, the plan has the following aims:

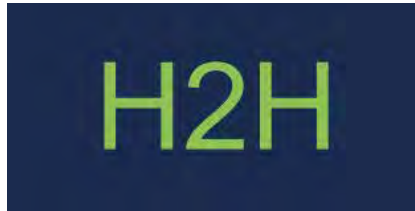
- to put safety first;
- to promote interaction between people and two-way communication;
- to promote inclusion;
- to disseminate and develop understanding of the Business Plan;
- to give voice to workers in the field;
- to give more space to operational language and not just strategy and finance;
- to disseminate and develop knowledge of our history.

This is the spirit that has driven us to launch projects such as:

- Evolving Safety, an awareness-raising campaign focused on safety;
- Like & Comments, the system for collecting feedback on news posted on the Intranet;
- Business Plan Insights, pages of the Intranet

dedicated to exploring the projects set out by the plan;

- Video interviews, live broadcasts from people in the field;
- Ted Talks, a selection of talks chosen from the famous think-tank and posted on the Intranet to generate dialogue about the topics that most affect us.



Furthermore, in relation to the process of consolidating ERG as a player in the "green economy", during the year we organised internal initiatives aimed at informing, involving and stimulating ERG personnel with regard to their "green responsibility" and environmental sustainability principles, such as #ERGPlasticFree initiative.

**ON-LINE COMMUNICATION TOOLS**



Intranet portal (ERGate)

ERG people can find all the information they need on "company life" on the Intranet. This tool is designed to promote the spreading and sharing of information, documents, images, projects, etc.

- creation of a section dedicated to the progress status of the 2018-2022 business plan projects: videos, photographs and documents to get to know the main figures and activities in the field;
- corporate news and updates accessible from mobile devices;
- "like and comments" features for news items.

In 2020 the graphics and usability of the portal will be entirely redesigned.



House Organ (TeamERG)

TeamERG is the digital and interactive company magazine which contains stories, projects and the most important events of the Group. It is available online on a quarterly basis.

GROUP MEETING



"The Challenge Inside"  
21-22 March 2019

The annual meeting between the top management and ERG's key leaders took place at Camogli (GE). A new formula was adopted for 2019 based on a talk show, with project leaders taking to the stage. All of the speeches made at the Group Meeting were published in full on the Intranet portal and made available to the entire company workforce.

CORPORATE EVENTS



Family Day

The annual event for employees' children between 3 and 12 years of age and their families was attended by around 230 participants (120 in 2018) at the Genoa, Terni and Syracuse offices. Once again it was organised in collaboration with Legambiente, which helped plan the event and the workshops on green energy.



Corporate  
volunteering

In collaboration with Legambiente, in November 2019 we organised our third Corporate Volunteering day at the Priolo Gargallo and Melilli marinas in Syracuse. The initiative emulated the success of the first day organised in Genoa (Villa Croce) in November 2017 and those at Piediluco lake in 2018, and forms part of "Puliamo il Mondo", the Italian version of Clean Up the World, for the tidying and cleaning of urban centres.



Christmas Party

For the traditional End-of-Year events we gathered and toasted each other at our Syracuse, Rome and Genoa offices. While colleagues from Germany, the United Kingdom and Eastern Europe gathered in Genoa, our French colleagues took part in the event in Rome, visiting the Terni Hydroelectric Complex for the first time.

COMPETITION



EverywhERG

EverywhERG is the competition launched in 2019 with the aim of collecting images that represent our Green outlook for our Instagram profile. The images represented green situations and scenarios around us, giving a 360° view of our surrounding environment while also focusing on people. The photographic storytelling project aimed to explore the green aspects of our everyday lives, exploring the places we visit both inside and outside the working environment with the people who belong there.

SPORT



ERG for fit

Launched at the end of October 2018 at the Genoa offices and open to all employees, the ERG gym comprises 31 next-generation machines and a team of personal trainers to help people while they work out.



Edinburgh Marathon

Running has been a traditional activity at ERG for many years now, underlining the great importance that the company attributes to team spirit and the values of sport. At the end of May the ERG Running Team took part in the Edinburgh Marathon Festival, one of the biggest sporting events in the UK.



Terni Marathon

For the fourth consecutive year, we have been an official sponsor of the San Valentino Marathon, now in its ninth year, held in Terni on Sunday 17 February. The event is a great celebration of sport and energy for the region and for the #greenenERGymakers, many of whom took part with great enthusiasm.



BikERGs

Now in its fourth year, the BikERGs biker rally came to Sardinia, exploring the wonderful roads, incredible scenery (from the rolling Gallura hills and the Barbagia mountains to the splendid limestone plateaus of Supramonte) and pristine beaches of the eastern coast.

## THE MAIN COMMUNITY INITIATIVES

### ENVIRONMENT, HEALTH AND SOCIAL DEVELOPMENT



#### ERG Re-Generation Challenge

The second edition of the ERG Re-Generation Challenge, the business plan competition created to provide students, start-ups and companies with the opportunity to develop business initiatives concluded in January 2019.

The second edition was national in scope, focusing particularly on the regions of South and Central Italy, and 120 entrepreneurial projects were submitted. The three best ideas were awarded a sum of money to help develop their projects.



#### Vai col Vento!

Now in its sixth year, the environmental education project "Vai col Vento!" (Go with the wind!) is dedicated to third-year middle school pupils in the municipalities that host our wind farms. The project has been sponsored by the Italian Ministry of the Environment since its launch and - as of 2016 - also by the Carabinieri police. The 2019 edition involved around 1,800 students from the Regions Sicily, Calabria, Basilicata, Campania, Molise, Apulia and Sardinia. The initiative aims to raise the awareness of students and teachers as to the active role the younger generations can play in safeguarding the environment and developing the culture of sustainability, involving classroom lessons focused on renewable energy sources, and wind in particular, on environmental topics, climate change and energy efficiency. The lessons are complemented by guided visits to the wind farms during which our expert technicians illustrate the various phases of developing, managing and running a wind farm right through to the production of electricity.



#### A tutta Acqua!

Dedicated to high school students in Umbria, Lazio and Marche where our hydroelectric plants are located, the third edition of environmental education project "A tutta Acqua!", developed in follow-up to "Vai col Vento!" and adopting the same format, was held in the spring of 2019. As well as the training sessions and guided tour of the Galletto plant, the students also have the chance to visit the protected area of the Marmore waterfalls.



#### Progetto Scuola

In 2010 we launched "Progetto Scuola" ("School Project") to support activities in schools of all levels and types in the province of Syracuse. In 2019 we once again supported the Legality Project organised by the provincial headquarters of the Carabinieri of Syracuse through the launch of the competition entitled "Un casco vale una vita" ("Helmets save Lives") dedicated to third-year middle school pupils. We also supported the "Icaro 2018" road safety education project organised by Syracuse's provincial Traffic Police division, which involves approximately 2,000 high school students.

ENVIRONMENT, HEALTH AND SOCIAL DEVELOPMENT



Electricity Day

This event is dedicated to final-year students of technical schools in the areas where our plants are located, and organised as part of "Progetto Scuola". The initiative has taken place in the province of Syracuse for 13 years and 2019 marked the fourth consecutive year for the events the towns of Terni, Perugia, Rieti and Viterbo: in November the students visited the Galletto hydroelectric power plant while in Sicily students had the opportunity to visit the combined cycle plant in Melilli and the control centre of the Carlentini wind farms.



A scuola di Energia

In 2019 ERG, Legambiente and ARPA Umbria signed a Memorandum of Understanding which led to the launch of the "A scuola di Energia" (Learning about Energy) project. 260 first grade middle school students took part in the initiative with the aim of raising awareness about renewable energy and its positive impact on the environment.



MUS-E Onlus Foundation

We support the MUS-E Onlus Foundation, which organises projects aimed at primary schools with an elevated presence of immigrant children or those from difficult socio-family situations so as to involve pupils in creative art initiatives to promote school integration.



Amici Ospedale Gaslini di Genova

We became "Friends" of G. Gaslini Hospital in Genoa where thousands of children from all over Italy and the world are hospitalised each year, aiming to spread the word through our digital "get well soon" card. The association helps to raise money for the hospital to fund special projects and technological development, and a fundraising platform has been created.



Flying Angels association Non-Profit Foundation

We support the Flying Angels association that, in partnership with a scientific committee and local organisations, helps to transport promptly children who need urgent medical treatment to hospital. By buying Flying Angels Christmas baubles, in December we helped to pay for the flights of two children from under-developed nations to the Gaslini hospital for life-saving treatment.



The Oasis of Alviano

The WWF has taken care of the Oasis of Alviano since its establishment, in 1990, and contributes to the maintenance of the environment and to better reception facilities. An Environmental Education Centre is located inside the park, which also includes seven bird-watching hides equipped with noticeboards and explanatory panels to help recognising the many species. A tower was also built to watch the birds.

CULTURE AND KNOWLEDGE



Umbria Jazz  
Foundation

We support the Umbria Jazz Foundation which organises the "Umbria Jazz" Festival in July in Perugia: during the musical festival the main square in the town was renamed "ERG Square". We also contributed to the organisation of Umbria Jazz Spring, held in Terni.



INDA  
Foundation

We support the Istituto Nazionale del Dramma Antico (INDA, National Institute of Ancient Drama) Foundation which since 1914 has been organising and staging festivals of classical works at the Greek Theatre of Syracuse and promoting the classics culture in Italy and throughout the world.



Science  
Festival

In November ERG took part in the seventeenth edition of the Science Festival, which was held in Genoa between 24 October and 4 November. The ERG stand at the portico of the Doge's Palace (Palazzo Ducale) welcomed over 6,000 visitors who, thanks to VR headsets, were able to take a virtual journey through the wonderful regions in which we operate.



Communications  
Festival

In 2019 we supported the Communications Festival in Camogli (12-15 September). The main theme of the 2019 event was "Civility", explored through a series of conferences, forums, round tables, interviews, workshops and shows that looked at social, economic, political, financial and scientific aspects



CSR IS  
Sustainability and  
Social  
Innovation  
Expo

Spreading the culture of Sustainability is very important to us: this is why we support the "CSR IS - Sustainability and Social Innovation Expo". In 2019 the theme of the event was "the regions of sustainability". We attended the stage held in Genoa in May and the final nation-wide event in October at the Università Bocconi in Milan. An important initiative not only for showcasing our best practices for Corporate Social Responsibility but also for stimulating networking among some of the most important CSR players.



TEDx Genova

We sponsored the TEDx Genova "X kind of Magic" event held in February at the Magazzini del Cotone (Cotton Warehouses) of Porto Antico. TEDx (Technology Entertainment Design) is a non-profit organisation founded in California in 1984 which aims to raise awareness of ideas of value.



Convegno Giovani  
Confindustria

We sponsored the annual Convegno Giovani (Youth Conference) Confindustria held in Rapallo (GE) in June. In the conference's forty-ninth year, the topic for 2019 was "Global: The Economy of Connections".



### Boot Camp

We supported the eighth edition of the "Boot Camp", an educational event provided to the members of the Young Entrepreneurs Group of the Genoa Confindustria. A mix of theory and practice to develop useful skills for tackling the difficult context that Italian companies currently operate in.

### Il Mulino Netti

ERG donated a precious piece of local history to Narni: Mulino Netti. Inside his family-owned watermill, the young Aldo Netti began to experiment with a machine connected to the buckets of the water wheel and succeeded in the "miracle" of generating enough electricity to power the lights of the town of Narni. Inside the old building, the Municipality of Narni will create an environmental documentation and learning hub as part of the project to enhance the gorges and valley of the River Nera.



### Fra' Sole - Assisi historic monument

ERG supports the Assisi historic monument through the "Fra' Sole" project, which aims to implement a series of targeted actions to improve the Convent's sustainability. ERG provides green energy to the Sacred Convent of Saint Francis as well as support for other activities.



### CIVITA

We are members of CIVITA, an association that promotes and manages Italy's cultural heritage and protects, promotes and increases the accessibility of its artistic heritage also by organising exhibitions, movie screenings and European projects.

## YOUNG PEOPLE AND SPORTS



### Torneo Ravano

In 2018 we were once again the main sponsors of the "35<sup>th</sup> Torneo Ravano - 26<sup>th</sup> Coppa Mantovani", the biggest school sports tournament in Europe. Held at Fiera di Genova, Genoa's exhibition district, the event was attended by over 6,000 primary school children (3<sup>rd</sup>, 4<sup>th</sup>, and 5<sup>th</sup> classes) from schools in Liguria, Lower Piedmont and the province of Siena who participated in 12 different sports (boys' and girls' football, rugby, volleyball, basketball, cycling, fencing, athletics, sailing, rowing, water polo and, for the first time, tennis), all of which played strictly in teams.



### Trofeo Archimede ed Elettra

In 2019, the 27<sup>th</sup> edition of the "Trofeo Archimede ed Elettra" was held: this event is the traditional school sports competition in the Province of Syracuse. Held at the "Riccardo Garrone" ERG Sports Centre in Syracuse, the event involved over 1,000 students from 22 primary and middle school in Syracuse and the surrounding province.



Stelle nello Sport

In our role as Gold Sponsor, we took part in the 20th edition of "Stelle nello Sport" (Sports Stars), a project designed to promote the values of sports among an increasingly large sector of the population in Liguria, focusing particularly on young people and schools and with an emphasis on lower-profile sports, support for Paralympic sports and fundraising for the Gigi Ghirotti Association of Genoa and the Fondazione Areo non-profit organisation.



Aon Open Challenger - Giorgio Messina Memorial

In September we sponsored the 16th edition of AON Open Challenger - Giorgio Messina Memorial. Held in Genoa, the event is the second biggest tennis tournament in Italy after the International Italian Open.



NPC Cares

In 2016, we became partners of "NPC Rieti Pallacanestro" to support the "NPC Cares" project: this initiative was created by the Rieti-based sports team to support the healthy mental and physical development of young people through sports and the success stories of well-known champions. In 2018 ERG contributed to redesigning the historic basketball court in the Regina Pacis district of Rieti.



Piediluco Rowing Club

In 2019 we've also supported the activities of the Rowing Club of Piediluco, used by the Italian Rowing Federation (F.I.C.) as an Olympic National Preparation Center. The Nautical Center of Piediluco hosts several successful international competitions, including the "Memorial D'Aloja" international competition, which involves the participation of 25 nations from 5 continents. In April 2019 it was also signed a Convention for strengthening the structures that are already in place, so that it can host more international events in the future.

Summer camp at Piediluco lake

Inside the spaces made available by Circolo Canottieri di Piediluco, we have organized for the second year in a row the Summer Recreation Center for the children of employees of the Terni Hydroelectric Power Plant, offering an opportunity for meeting and socializing for children and teenagers during the closing period of schools, also supporting their families. The participants were involved by an experienced staff of educators and instructors who organized water activities in the natural environment of the lake, involving the participants in rowing, kayaking, sailing, tennis and swimming.



ERG Sports Centre Syracuse

The "Riccardo Garrone" ERG Sports Centre in Syracuse was subject to a series of renovation works beginning in 2007. It is now an important sports centre that supports the community and the region, with a strong emphasis on young people.



SAFE Cup 2019

We participated in the XV Edition of the SAFE Cup - The Energy Tournament - promoted by SAFE, an organization with which ERG collaborates in the context of the Master in Energy Resource Management. The teams representing the main institutions and companies in the energy and environment sector competed in five-a-side football and beach volleyball competitions.

## THE EDOARDO GARRONE FOUNDATION

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In 2019 the Edoardo Garrone Foundation confirmed its mission, continuing to give new shape to the philanthropic commitment of the Garrone and Mondini families.

Thanks to its continually evolving portfolio of projects, the Foundation constantly supports and promotes social, economic and cultural development of the territory, giving particular attention to mountainous areas.

Young people are at the centre of the Foundation's efforts, with original and innovative training programmes designed to promote their personal growth, boost their potential and provide them with the tools and skills necessary to play an active part in a sustainable future.

### RESTARTALP® IDEAS THAT MOVE MOUNTAINS

ReStartAlp®, a temporary incubator of business ideas in the Apennines, promotes the creation and development of start-ups whose purpose is the enhancement, promotion, protection and sustainable development of Italy's mountainous regions. The project is the result of partnerships with a growing network of partners; in 2019 the Edoardo Garrone Foundation was joined by: Fondazione Cariplo, Fondazione Symbola, Club Alpino Italiano (CAI), Legambiente, Fondazione Buon Lavoro, Alleanza Mobilità Dolce (A.Mo.Do.), Banca Popolare Etica, Fondazione CIMA, UNCEM, PEFC Italia, Federbim and Federforeste.

In 2019 the ReStartApp® for Italian walks offered the opportunity for nine people under the age of 40 to develop their business idea to enhance the

network of footpaths and trails throughout Italy's countryside.

During the year, two projects, ReStartAlp® 2018 – an alpine business incubation campus – and ReStartApp® for Central Italy – a business acceleration programme aimed at the regions of central Italy affected by the 2016 earthquake – were completed in March and June respectively.

### APPENNINOLAB

Now in its fifth year, AppeninoLab was held on 15-21 July 2019 in the evocative setting of Parco delle Capanne di Marcarolo (AL). At the event, around 30 high school students had the opportunity to explore the resources of the Apennines.

The aim is to raise young people's awareness of the potential of the local region and the new economic opportunities offered by mountain sport, tourism and the environment.

Thanks to contributions from experts, specialists and professionals who introduced the students to success stories, original ideas and past experiences, some of the most pressing issues associated with the mountain environment were discussed, from the sustainable use of environmental resources to the new professional opportunities offered by the Green Economy, and the promotion of slow tourism and outdoor sports as a way of revitalising the territory.

The fifth edition of AppenninoLab was further bolstered by the contribution of meteorologist and climatologist Luca Mercalli, who discussed



climate change and environmental challenges, and the lesson given by rural philosopher Massimo Angelini about the beauty of the rural landscape and alpine agriculture.

Orienteering through the forests and trails of the natural park, mountain biking and archery are just some of the outdoor sports that the young participants were able to try in collaboration with various Italian National Sports Federations. The field activities included nature walks with botanical and entomological exercises and team building.

#### GENOVA SCOPRENDO

The Genova Scoprendo (Discovering Genoa) project promoted by the Edoardo Garrone Foundation in collaboration with the Regional Schools Office for Liguria and the Accademia Ligustica di Belli Arti is now in its tenth year. The initiative aims to raise awareness about sustainable development and active citizenship among young people.

The consolidated format, in line with the methodological indications and topics issued by the MIUR, combines fieldwork, classroom sessions, events with voluntary organisations such as the Banco Alimentare association, and a trip to discover the cultural, environmental and historical heritage of Genoa's historic centre,

delivered through peer-to-peer learning thanks to the involvement of students from the Accademia Ligustica di Belli Arti.

Once again, in 2019 Genova Scoprendo (Discovering Genoa) ran the #sostenibilitàainscatola competition. The contest offers an opportunity to combine and consolidate the many values and skills acquired during the training programme. Using the "modelling" technique and using recycled materials, the classes were asked to recreate a corner of the city according to a socially or environmentally sustainable approach.

#### FUNDRAISING COACHING PLUS

In 2019 the Fundraising Coaching Plus project - in its second year - continued to support non-profit organisations in the region of Liguria to develop a structured fundraising activity, including through the use of a professional fundraiser, in collaboration with the Centro Studi Philanthropy and the University of Bologna. The aim of the project is to help the organisations to attract internal resources in the most effective way so that, going forward, they can autonomously implement a strategic growth plan based on their specific mission and goals.

The associations selected for the 2019 edition of Fundraising Coaching Plus are Istituto David Chiossoni ONLUS per ciechi e ipovedenti and Comunità Società Cooperativa ONLUS.



Inspired by the conviction that training is the best way to develop potential in the service sector, the Edoardo Garrone Foundation provides funding for two candidates - one for each association selected - to study for a Master's Degree in "Fundraising per il non profit e gli Enti pubblici" (Fundraising for non-profit and public institutions) at the University of Bologna. Furthermore, it supports the activities of fundraisers within the chosen organisations by contributing half the wages of an annual internship.

# 5 DATA AND INDICATORS

# PERFORMANCE DATA AND INDICATORS

## ECONOMIC AND FINANCIAL RESULTS

		2019	2018	2017 restated
Core business revenue	million EUR	1,022	1,027	1,048
EBITDA (restated)	million EUR	504	491	472
EBIT (restated)	million EUR	205	216	220
Net Profit	million EUR	33	133	108
of which attributable to the owners of the parent	million EUR	32	133	108
Profit att. to the owners of the parent at replacement cost <sup>(1)</sup>	million EUR	104	107	117
Total net financial indebtedness	million EUR	1,554	1,343	1,233
Net invested capital	million EUR	3,340	3,172	3,110
Investments <sup>(2)</sup>	million EUR	432	510	94
Financial leverage		47%	42%	40%

(1) Does not include inventory gains (losses) of TotalErg, non-recurring items and related applicable theoretical taxes.

(2) Property, plant and equipment and intangible assets and investments in Merger & Acquisition operations.

Total revenues in 2019 includes EUR 93 thousand in grants from Public Administration or the European Community for employee training. ERG Group does not donate to political parties.

## ERG SHARES

		2019	2018	2017
Market capitalization	million EUR	2,889	2,480	2,315
Year-end reference price	EUR	18.50	16.50	15.40
Maximum price	EUR	20.18	20.34	16.50
Minimum price	EUR	15.69	15.08	9.96
Average price	EUR	17.73	17.78	12.62
Average volume	no.	256,639	304,159	249,533

Maximum price recorded on 29/11/2019, lowest price recorded on 25/03/2019.

## CUSTOMERS

		2019	2018	2017
Intragroup customers	n.	38	22	21
Industrial customers	n.	11	8	9
Site customers	n.	12	15	11
Electricity and GO traders and wholesales	n.	37	n.a.	n.a.
Customers operating in the electricity system	n.	19	n.a.	n.a.
Operation & Maintenance customers	n.	53	n.a.	n.a.

## PERSONNEL, ORGANISATION OF WORK AND INDUSTRIAL RELATIONS

		2019	2018	2017
Employees at 31/12	n.	754	737	714
Executives of which at Genoa site	n.	38 66%	39 61%	37 59%
Middle managers	n.	197	193	169
Office workers	n.	342	325	331
Blue-collar workers	n.	177	180	177
Other external collaborators <sup>(1) (3)</sup>	n.	4	7	20
Female employment (%) of which: female employment at Genoa site (%)		20.8% 43.0%	20.1% 42.0%	20.9% 42.5%
Average time at the company (years)		<sup>(4)</sup> 12.1	9.8	9.8
Average employee age (years)		43.2	43.8	43.6
Part time employees (Italy)	%	4.2%	5.0%	4.1%
Part time employees (abroad)	%	0.0%	1.3%	n.d.
Percentage of overtime (Italy)	%	5.4%	5.4%	4.8%
Percentage of overtime (abroad)	%	3.7%	2.6%	n.d.
Unionisation rate (Italy)	%	34.0%	31.7%	31.0%
Ongoing labour disputes	n.	1	3	2
Strikes <sup>(2)</sup>	ore	-	-	-
Turnover (inbound staff + outbound staff)/headcount at 31/12	%	13.7%	13.4%	10.2%
Inbound turnover	%	8.0%	8.3%	5.0%
Outbound turnover	%	5.7%	5.1%	5.2%

(1) The 2019 figure includes 2 men and 2 women, the 2018 figure includes 4 men and 3 women, the 2017 figure includes 13 men and 7 women.

(2) Hours of Italy-wide strikes.

(3) Value restated with respect to that indicated into the 2017 Non-Financial Statement due to improved reporting methodology.

(4) Increase due to the updating of the employee database.

## TRAINING

		2019	2018	2017
Total training <sup>(1)</sup>	hours	46,758	34,356	37,950
of which required by law	%	16%	17%	n.d.
of which for technical and soft skills improvement	%	84%	83%	n.d.
Average training per employee	days/emp	7.8	5.9	6.6

[1] Total training also includes courses provided to staff who left the company during the year.

TRAINING BY PROFESSIONAL CATEGORY AND GENDER GRI 404	2019			2018			2017		
	Men hours	Women hours	Total	Men hours	Women hours	Total	Men hours	Women hours	Total
Executives	1,613	88	1,701	1,044	113	1,157	2,003	171	2,174
Middle managers	10,456	4,104	14,560	6,927	1,876	8,803	7,533	2,578	10,111
Office workers	14,429	5,365	19,794	12,002	3,579	15,581	14,600	4,455	19,055
Blue-collar workers	10,702	-	10,702	8,814	-	8,814	6,348	262	6,610
<b>Total</b>	<b>37,201</b>	<b>9,557</b>	<b>46,758</b>	<b>28,788</b>	<b>5,568</b>	<b>34,356</b>	<b>30,484</b>	<b>7,466</b>	<b>37,950</b>

AVERAGE TRAINING BY PROFESSIONAL CATEGORY AND GENDER <sup>(1)</sup> GRI 404-1	2019		2018		2017	
	Men h/emp	Women h/emp	Men h/emp	Women h/emp	Men h/emp	Women h/emp
Executives	44.8	44.0	28.2	56.5	57.2	85.5
Middle managers	73.6	74.6	48.4	37.5	60.8	57.3
Office workers	59.6	53.7	52.4	37.3	62.9	45.0
Blue-collar workers	60.5	-	49.0	-	36.5	87.3

[1] Average training by professional category and gender at 31/12.

**DETAILED ANALYSIS OF PERSONNEL (NO. OF EMPLOYEES)**

TYPE OF CONTRACT AND GENDER GRI 102-8	2019			2018			2017		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Permanent contract - Full time	597	124	721	588	113	701	564	118	682
Permanent contract - Part-time	-	31	31	-	34	34	-	29	29
Fixed-term contract - Full time	-	2	2	1	1	2	1	2	3
<b>Group Total</b>	<b>597</b>	<b>157</b>	<b>754</b>	<b>589</b>	<b>148</b>	<b>737</b>	<b>565</b>	<b>149</b>	<b>714</b>

TYPE OF CONTRACT AND REGION GRI 102-8	2019			2018			2017		
	Italy	Abroad	Total	Italy	Abroad	Total	Italy	Abroad	Total
Permanent contract - Full time	643	78	721	628	73	701	635	47	682
Permanent contract - Part-time	31	-	31	33	1	34	29	-	29
Fixed-term contract - Full time	2	-	2	1	1	2	2	1	3
<b>Group Total</b>	<b>676</b>	<b>78</b>	<b>754</b>	<b>662</b>	<b>75</b>	<b>737</b>	<b>666</b>	<b>48</b>	<b>714</b>

TYPE OF CONTRACT GRI 102-41	2019		2018		2017	
	Total	%	Total	%	Total	%
Electric (Italy)	643	85%	630	86%	112	16%
Industrial executives (Italy)	38	5%	39	5%	37	5%
French contract	44	6%	37	5%	n.d.	n.d.
Foreign contracts	29	4%	31	4%	42	6%
Energy and Oil (Italy)	-	-	-	-	372	52%
Metalworking and Mechanical Engineering (Italy)	-	-	-	-	151	21%
<b>Group Total</b>	<b>754</b>		<b>737</b>		<b>714</b>	

BY COUNTRY AND GENDER	2019			2018			2017		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Italy	535	141	676	528	134	662	531	135	666
France	37	9	46	33	8	41	14	7	21
Germany	20	4	24	22	3	25	17	4	21
UK	2	1	3	3	-	3	-	-	-
Bulgaria	1	-	1	1	-	1	1	-	1
Poland	-	1	1	-	1	1	-	1	1
Romania	2	1	3	2	2	4	2	2	4
<b>Group Total</b>	<b>597</b>	<b>157</b>	<b>754</b>	<b>589</b>	<b>148</b>	<b>737</b>	<b>565</b>	<b>149</b>	<b>714</b>

**DETAILED ANALYSIS OF TURNOVER - ITALY - GRI 401-1 (NO. OF EMPLOYEES)**

PERSONNEL EMPLOYED BY AGE AND GENDER - 2019	Men	Women	Total	Turnover rate
<30 years	12	2	14	40.0%
between 30 and 50 years	23	7	30	6.4%
>50 years	-	-	-	-
<b>Total</b>	<b>35</b>	<b>9</b>	<b>44</b>	<b>6.5%</b>
Inbound turnover rate	6.5%	6.4%	6.5%	

PERSONNEL EMPLOYED BY AGE AND GENDER - 2018	Men	Women	Total	Turnover rate
<30 years	9	3	12	44.4%
between 30 and 50 years	13	2	15	3.2%
>50 years	-	1	1	0.6%
<b>Total</b>	<b>22</b>	<b>6</b>	<b>28</b>	<b>4.2%</b>
Inbound turnover rate	4.2%	4.5%	4.2%	

PERSONNEL EMPLOYED BY AGE AND GENDER - 2017	Men	Women	Total	Turnover rate
<30 years	9	1	10	35.7%
between 30 and 50 years	14	1	15	8.0%
>50 years	1	-	1	0.2%
<b>Total</b>	<b>24</b>	<b>2</b>	<b>26</b>	<b>3.9%</b>
Inbound turnover rate	4.5%	1.5%	3.9%	

OUTBOUND EMPLOYEES BY AGE AND GENDER - 2019	Men	Women	Total	Turnover rate
<30 years	-	-	-	-
between 30 and 50 years	11	2	13	2.8%
>50 years	14	-	14	8.1%
<b>Total</b>	<b>25</b>	<b>2</b>	<b>27</b>	<b>4.0%</b>
Outbound turnover rate	4.7%	1.4%	4.0%	

OUTBOUND EMPLOYEES BY AGE AND GENDER - 2018	Men	Women	Total	Turnover rate
<30 years	2	2	4	14.8%
between 30 and 50 years	7	2	9	1.9%
>50 years	17	2	19	11.2%
<b>Total</b>	<b>26</b>	<b>6</b>	<b>32</b>	<b>4.8%</b>
Outbound turnover rate	4.9%	4.5%	4.8%	

OUTBOUND EMPLOYEES BY AGE AND GENDER - 2017	Men	Women	Total	Turnover rate
<30 years	1	1	2	7.1%
between 30 and 50 years	8	3	11	5.9%
>50 years	10	2	12	2.7%
<b>Total</b>	<b>19</b>	<b>6</b>	<b>25</b>	<b>3.8%</b>
Outbound turnover rate	3,6%	4,4%	3,8%	

### DETAILED ANALYSIS OF TURNOVER - ABROAD - GRI 401-1 (NO. OF EMPLOYEES)

PERSONNEL EMPLOYED BY AGE AND GENDER - 2019	Men	Women	Total	Turnover rate
<30 years	4	–	4	25.0%
between 30 and 50 years	7	5	12	20.3%
>50 years	–	–	–	–
<b>Total</b>	<b>11</b>	<b>5</b>	<b>16</b>	<b>20.5%</b>
Inbound turnover rate	17.7%	31.3%	20.5%	

PERSONNEL EMPLOYED BY AGE AND GENDER - 2018	Men	Women	Total	Turnover rate
<30 years	10	4	14	77.8%
between 30 and 50 years	16	3	19	35.8%
>50 years	–	–	–	–
<b>Total</b>	<b>26</b>	<b>7</b>	<b>33</b>	<b>44%</b>
Inbound turnover rate	42.6%	50.0%	44.0%	

PERSONNEL EMPLOYED BY AGE AND GENDER - 2017	Men	Women	Total	Turnover rate
<30 years	5	–	5	62.5%
between 30 and 50 years	5	–	5	125.0%
>50 years	–	–	–	–
<b>Total</b>	<b>10</b>	<b>–</b>	<b>10</b>	<b>20.8%</b>
Inbound turnover rate	29.4%	–	20.8%	

OUTBOUND EMPLOYEES BY AGE AND GENDER - 2019	Men	Women	Total	Turnover rate
<30 years	3	1	4	25.0%
between 30 and 50 years	7	3	10	16.9%
>50 years	2	–	2	66.7%
<b>Total</b>	<b>12</b>	<b>4</b>	<b>16</b>	<b>20.5%</b>
Outbound turnover rate	19.4%	25.0%	20.5%	

OUTBOUND EMPLOYEES BY AGE AND GENDER - 2018	Men	Women	Total	Turnover rate
<30 years	1	1	2	11,1%
between 30 and 50 years	2	2	4	7,5%
>50 years	–	–	–	–
<b>Total</b>	<b>3</b>	<b>3</b>	<b>6</b>	<b>8,0%</b>
Outbound turnover rate	4,9%	21,4%	8,0%	

OUTBOUND EMPLOYEES BY AGE AND GENDER - 2017	Men	Women	Total	Turnover rate
<30 years	1	–	1	12,5%
between 30 and 50 years	7	2	9	225,0%
>50 years	2	–	2	5,6%
<b>Total</b>	<b>10</b>	<b>2</b>	<b>12</b>	<b>25,0%</b>
Outbound turnover rate	29,4%	14,3%	25,0%	

## DETAILED ANALYSIS OF PERSONNEL (NO. OF EMPLOYEES)

% PROFESSIONAL CATEGORY AND GENDER GRI 405-1	2019			2018			2017		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Executives	95%	5%	38	95%	5%	39	94%	6%	37
Middle Managers	72%	28%	197	74%	26%	193	73%	27%	169
Office workers	71%	29%	342	70%	30%	325	70%	30%	331
Blue-collar workers	100%	-	177	100%	-	180	98%	2%	177
<b>Total</b>	<b>597</b>	<b>157</b>	<b>754</b>	<b>589</b>	<b>148</b>	<b>737</b>	<b>565</b>	<b>149</b>	<b>714</b>

% PROFESSIONAL CATEGORY AND AGE GRI 405-1	2019				2018				2017			
	< 30 years	30-50 years	> 50 years	Total	< 30 years	30-50 years	> 50 years	Total	< 30 years	30-50 years	> 50 years	Total
Executives	-	50%	50%	38	-	54%	46%	39	-	59%	41%	37
Middle Managers	1%	81%	18%	197	5%	79%	17%	193	1%	80%	18%	169
Office workers	9%	64%	27%	342	6%	65%	28%	325	5%	66%	29%	331
Blue-collar workers	10%	74%	16%	177	8%	74%	18%	180	11%	73%	16%	177
<b>Total</b>	<b>51</b>	<b>528</b>	<b>175</b>	<b>754</b>	<b>45</b>	<b>518</b>	<b>174</b>	<b>737</b>	<b>36</b>	<b>506</b>	<b>172</b>	<b>714</b>

AGE BRACKET AND GENDER	2019			2018			2017		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
<30 years	43	8	51	39	6	45	32	4	36
between 30 and 50 years	411	117	528	405	113	518	388	118	506
>50 years	143	32	175	145	29	174	145	27	172
<b>Total</b>	<b>597</b>	<b>157</b>	<b>754</b>	<b>589</b>	<b>148</b>	<b>737</b>	<b>565</b>	<b>149</b>	<b>714</b>

PERSONNEL EMPLOYED BY ORIGIN AND REGION	2019			2018			2018		
	Italy	Abroad	Total	Italy	Abroad	Total	Italy	Abroad	Total
Company acquisitions	-	-	-	-	12	12	-	-	-
Permanent contract	42	16	58	25	21	46	24	10	34
Temporary contract	2	-	2	3	-	3	1	-	1
Training	-	-	-	-	-	-	1	-	1
<b>Total</b>	<b>44</b>	<b>16</b>	<b>60</b>	<b>28</b>	<b>33</b>	<b>61</b>	<b>26</b>	<b>10</b>	<b>36</b>

OUTBOUND EMPLOYEES BY REASON AND GENDER	2019			2018			2017		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Resignation	20	6	26	11	3	14	14	5	19
End of temporary contract	-	-	-	-	3	3	2	1	3
Agreed resolution	17	-	17	18	3	21	12	3	15
<b>Total</b>	<b>37</b>	<b>6</b>	<b>43</b>	<b>29</b>	<b>9</b>	<b>38</b>	<b>28</b>	<b>9</b>	<b>37</b>

## SAFETY\*

INJURIES IN THE WORKPLACE (NO.)	Men	Women	Total 2019	Total 2018	Total 2017
Italy	1	-	1	4	4
Abroad	3	-	3	-	2
<b>Total</b>	<b>4</b>	<b>-</b>	<b>4</b>	<b>4</b>	<b>6</b>

FREQUENCY INDEX	Men	Women	Total 2019	Total 2018	Total 2017
Italy	1.10	-	0.89	3.61	3.53
Abroad	31.13	-	22.41	-	20.03
<b>Total</b>	<b>3.97</b>	<b>-</b>	<b>3.17</b>	<b>3.25</b>	<b>4.87</b>

Frequency index calculated as (no. of injuries x 1,000,000)/no. hours worked

SEVERITY INDEX	Men	Women	Total 2019	Total 2018	Total 2017
Italy	0.04	-	0.03	0.16	0.24
Abroad	1.43	-	1.03	-	0.24
<b>Total</b>	<b>0.17</b>	<b>-</b>	<b>0.14</b>	<b>0.15</b>	<b>0.24</b>

Severity index calculated as (no. of days lost x 1,000)/no. hours worked

OTHER SAFETY INDICATORS	Men	Women	Total 2019	Total 2018	Total 2017
Sick leave rate [%]	2.0%	2.2%	2.0%	2.2%	<sup>(1)</sup> 1.6%
Working days lost due to injuries in the workplace (no.)	175	-	175	182	300
Cases of occupational disease (no.)	-	-	-	-	-
Rate of occupational disease [%]	-	-	-	-	-
Work-related deaths (no.)	-	-	-	-	-

\* The safety indicators do not count the "other external collaborators".

(1) Sick leave rate refers to Italian employees only (no. of days absence /workable days).

## HSE AUDIT AND SAFETY WALKS

		2019	2018	2017
Wind	no.	368	237	554
Solar	no.	29	33	n.a.
Hydro	no.	58	87	51
Power	no.	116	86	53

## SAFETY

THIRD-PARTY COMPANY INJURIES		2019	2018	2017
Third-party company injuries	no.	2	2	4
Frequency index – third-party companies - Total		3.67	4.26	7.28
Frequency index – third-party companies - Italy		2.40	5.19	2.47
Frequency index – third-party companies - Abroad		7.80	-	20.67
Severity index – third-party companies - Total		0.17	0.16	0.05
Severity index – third-party companies - Italy		0.20	0.19	0.06
Severity index – third-party companies - Abroad		0.08	-	0.03

Frequency index calculated as  $(\text{no. of injuries} \times 1,000,000) / \text{no. hours worked}$

Severity index calculated as  $(\text{no. of days lost} \times 1,000) / \text{no. hours worked}$ .

**METHOD FOR ESTIMATING HOURS WORKED - THIRD-PARTY COMPANIES**

The hours worked by the employees of third-party companies have been estimated differently according to the technology involved.

Hydro, Power, Wind plants Italy and Office: manual recording of the hours worked.

Wind plants abroad: estimated hours worked, given the technical impossibility of recording the presence of O&M contractors with global service agreements, is based on the assumption that one FTE can service 15 MW, multiplied by workable days (260) and by 8 hours.

Plants under construction in the UK: hours recorded according to site report.

**METHOD FOR CALCULATING DAYS LOST DUE TO INJURIES - THIRD-PARTY COMPANIES**

Report sent by the company of the injured worker.

## SUPPLIERS

		2019	2018	2017
Active suppliers (transactions with at least one order)	no.	1,736	1,772	1,564
with registered offices or a billing address in Italy	no.	63%	65%	71%
with registered offices or a billing address in the regions where our plants are located	no.	35%	34%	35%
% expenditure local suppliers (Italy/total)		61%	77%	74%
Qualified suppliers on Vendor List	no.	997	990	920
of which: qualified based on HSE parameters	no.	231	223	226
Newly qualified suppliers in the year	no.	67	67	61
of which: newly qualified based on HSE parameters	no.	31	36	31
Average qualification time	days	41	59	103
% of tenders (of total value of purchases)		54%	53%	41%
% of tenders (of total number of purchases)		25%	29%	31%

## WIND - ENVIRONMENT AND COMMUNITY

		2019	2018	2017
Production	GWh	4,000	3,464	3,613
Load factor		24%	22%	23%
CO <sub>2</sub> avoided	kt	2,350	2,050	2,270
Indirect energy consumption <sup>(1)</sup>	GWh	12.01	11.47	<sup>(4)</sup> 11.43
% Indirect green energy consumption		97.7%	98.6%	82.3%
Indirect CO <sub>2</sub> emissions <sup>(2)</sup>	kt	0.16	0.09	1.4
Indirect energy consumptions by installed MW	MWh/MW	5.97	6.07	6.12
SF <sub>6</sub> present in the electrical equipment <sup>(3)</sup>	kg	2,723	3,230	924
SF <sub>6</sub> in stock	kg	1,424	1,424	1,333
SF <sub>6</sub> top ups	kg	1.0	0.5	3.2
equivalent to tons of CO <sub>2</sub>	t	23	12	76
F-GAS present in air conditioning systems	kg	136	88	80
F-GAS top ups	kg	-	12	-
equivalent to tons of CO <sub>2</sub>	t	-	19	-
Waste produced	t	380	185	56
of which sent to recycling		34.1%	53.3%	60.9%
Hazardous waste produced	t	49	102	35
of which sent to recycling	t	26	45	16
of which sent to recycling		52.6%	44.0%	45.7%
of which sent to disposal	t	23	49	19
of which sent to disposal		47.4%	47.7%	54.3%
Non-hazardous waste produced	t	331	83	21
of which sent to recycling	t	104	54	18
of which sent to recycling		31.4%	65.3%	85.7%
of which sent to disposal	t	227	23	3
of which sent to disposal		68.7%	28.1%	14.3%

(1) The increase in consumption is caused by the increase in the plants running.

(2) The data take into consideration the supplies of electricity from renewable production which does not generate emissions; the indirect emissions are calculated on the basis of the conversion factors relating to the gross thermoelectric production of each country published by Terna on its website [Source: Terna, international comparisons] according to a Location Based approach.

(3) Data as at year-end 2018 include quantities into the wind turbines (1,870 kg) and into plants abroad (436 kg) not included in the previous years.

(4) Value restated with respect to that indicated into the 2017 Non-Financial Statement due to improved reporting methodology.

## SOLAR - ENVIRONMENT AND COMMUNITY

		2019	2018	2017
Production	GWh	226	130	n.a.
Performance ratio		81.70%	79.10%	n.a.
CO <sub>2</sub> avoided	kt	114.36	67.99	n.a.
Indirect energy consumption	GWh	2.15	1.16	n.a.
% Indirect green energy consumption		65.3%	3.1%	-
Indirect CO <sub>2</sub> emissions	kt	0.4	0.6	n.a.
SF6 present in the electrical equipment	kg	9.80	9.80	n.a.
SF6 top ups	kg	-	-	n.a.
equivalent to tons of CO <sub>2</sub>	t	-	-	n.a.
Area covered by photovoltaic plants	m <sup>2</sup>	901,699	630,291	n.a.
Water used for panel cleaning	m <sup>3</sup>	1,252	494	n.a.
Waste produced <sup>[1]</sup>	t	-	-	n.a.
of which sent to recycling		-	-	n.a.
Hazardous waste produced	t	-	-	n.a.
of which sent to recycling	t	-	-	n.a.
of which sent to recycling		-	-	n.a.
of which sent to disposal	t	-	-	n.a.
of which sent to disposal		-	-	n.a.
Non-hazardous waste produced	t	-	-	n.a.
of which sent to recycling	t	-	-	n.a.
of which sent to recycling		-	-	n.a.
of which sent to disposal	t	-	-	n.a.
of which sent to disposal		-	-	n.a.

[1] In 2018 and 2019 the Operation & Maintenance activities were performed by third parties.

## OFFICES IN ITALY

		2019	2018	2017
Indirect energy consumption	MWh	1,248	1,333	1,154
Indirect CO <sub>2</sub> emissions <sup>[1]</sup>	t	377	371	363

[1] The data take into consideration the supplies of electricity from renewable production which does not generate emissions; the indirect emissions are calculated on the basis of the conversion factors relating to the gross thermoelectric production of each country published by Terna on its website [Source: Terna, international comparisons] according to a Location Based approach.

Waste: waste produced in offices is disposed of as municipal waste and therefore quantities are not accounted for.

Water consumption: the consumption of water in the offices refers exclusively to uses for sanitary purposes and is part of the condominium services, It is immaterial with respect to the business.

## HYDROELECTRIC POWER – ENVIRONMENT AND COMMUNITY

		2019	2018	2017
Production	GWh	1,229	1,740	1,144
Technical availability plants		97.64%	97.87%	96.63%
CO <sub>2</sub> avoided	kt	622	910	631
Energy consumption from primary sources - Diesel fuel <sup>(1)</sup>	litres	19,500	32,717	17,000
Indirect energy consumption	GWh	8.23	5.46	<sup>(4)</sup> 7.35
% Indirect green energy consumption		100%	100%	100%
Indirect CO <sub>2</sub> emissions <sup>(2)</sup>	kt	-	-	-
SF <sub>6</sub> present in the electrical equipment	kg	850	820	894
SF <sub>6</sub> in stock	kg	321	321	323
SF <sub>6</sub> top ups	kg	-	2,0	2,9
equivalent to tons of CO <sub>2</sub>	t	-	47	68
F-GAS present in air conditioning systems	kg	196	189	179
F-GAS top ups	kg	-	-	-
equivalent to tons of CO <sub>2</sub>	t	-	-	-
Total releases from concession (MVF)	milioni di m <sup>3</sup>	963	957	1,057
Waste produced	t	3,104	2,861	2,866
of which sent to recycling		97.9%	99.4%	99.0%
Hazardous waste produced	t	21	13	12
of which sent to recycling	t	19	9	11
of which sent to recycling		90.5%	72.1%	91.7%
of which sent to disposal	t	2	4	1
of which sent to disposal		9.5%	27.9%	8.3%
Non-hazardous waste produced	t	3,083	2,848	2,854
of which sent to recycling	t	3,020	2,835	2,827
of which sent to recycling		98.0%	99.5%	99.1%
of which sent to disposal	t	63	13	27
of which sent to disposal		2.0%	0.5%	0.9%
of which waste removed from rivers and water basins (wood and grate cleaning residues) <sup>(3)</sup>	t	2,920	2,685	2,525
of which sent to recycling		100%	100%	100%

(1) The diesel fuel is used to fuel power supply continuity systems and for office heating; emissions are not calculated for this consumption, as the figure represents the purchases and not the consumption, furthermore no final balance is drawn up.

(2) The indirect emissions are calculated on the basis of the conversion factors relating to the gross thermoelectric production of each country published by Terna on its website (Source: Terna, international comparisons) and according to the Location Based and Market based approach.

(3) Wood and grate cleaning residues removed from the rivers represent a portion of the total waste produced. They are reported separately to point out the contribution given by the activities for the territory and the hydro-geological safety of river-beds.

(4) Data updated from 2017 Non-Financial Statement (13.9 GWh) due to subsequent checks on plant's consumption. Update made in order to show the correct trend over the years.

## THERMOELECTRIC POWER – ENVIRONMENT AND COMMUNITY

		2019	2018	2017
Production	GWh	2,504	2,151	2,453
ERG Power performance index <sup>(1)</sup>		64.04%	64.80%	63.20%
Energy consumption (primary sources - methane)	TEP migliaia m <sup>3</sup>	485,145	422,212	472,468
Indirect energy consumption <sup>(2)</sup>	GWh	1.25	0.89	0.79
% Indirect green energy consumption		19.6%	14.3%	15.3%
Direct CO <sub>2</sub> emissions <sup>(3)</sup>	kt	1,155	1,008	1,130
Indirect CO <sub>2</sub> emissions <sup>(2)</sup>	kt	0.5	0.4	0.4
NO <sub>x</sub> emissions <sup>(3)</sup>	t	393	340	364
CO emissions	t	45	42	44
SF <sub>6</sub> present in the electrical equipment <sup>(4)</sup>	kg	13,072	13,077	13,061
SF <sub>6</sub> in stock	kg	326	332	370
SF <sub>6</sub> top ups	kg	8	11	16
equivalent to tons of CO <sub>2</sub>	t	191	266	376
F-GAS present in air conditioning systems <sup>(4)</sup>	kg	944	944	823
F-GAS top ups	kg	-	3	132
equivalent to tons of CO <sub>2</sub>	t	-	4	220
Thermoelectric CO <sub>2</sub> index	kt/GWheq	0.396	0.399	0.408
Thermoelectric NO <sub>x</sub> index	t/GWheq	0.135	0.134	0.131
Thermoelectric CO index	t/GWheq	0.016	0.017	0.016
Seawater withdrawals for plant cooling systems	million m <sup>3</sup>	224	197	200
Well water withdrawals	million m <sup>3</sup>	6	6	5
Water returned to the natural cycle	% of withdrawals	97.1%	96.8%	97.1%
Cooling water returned to the natural cycle	million m <sup>3</sup>	224	197	200
Water resource use index demineralised water plant	% water produced/ inbound water	60.9%	58.6%	63.8%
Waste produced	t	861	1,546	2,079
of which sent to recycling		70.1%	54.6%	65.3%
Hazardous waste produced	t	51	174	291
of which sent to recycling	t	18	74	110
of which sent to recycling		36.0%	42.7%	37.8%
of which sent to disposal	t	33	99	181
of which sent to disposal		64.0%	57.3%	62.2%
Non-hazardous waste produced	t	810	1,373	1,788
of which sent to recycling	t	585	770	1,247
of which sent to recycling		72.3%	56.1%	69.7%
of which sent to disposal	t	225	603	541
of which sent to disposal		27.7%	43.9%	30.3%

[1] Index of "Terna" principle overall performance calculated in accordance with the procedures laid down by Italian Ministerial Decree of 5 September 2011 [CAR].

[2] The indirect emissions are calculated on the basis of the conversion factors relating to the gross thermoelectric production of each country published by Terna on its website [Source: Terna, international comparisons] and according to the Location Based and Market based approach.

[3] The data relating to the atmospheric emissions are consistent with the annual data reported for the purposes of the E-PRTR Register and with the EU-ETS declarations.

[4] The data consider plants containing a quantitative amount over 5 t. CO<sub>2</sub> eq.

## OPERATING DATA AND ENVIRONMENTAL INDICATORS - GROUP

		2019	2018	2017
Total electricity production	GWh	7,959	7,485	7,209
of which from renewable energy sources	GWh	5,455	5,334	4,756
Sales of electricity	GWh	15,120	13,627	11,747
Market share of power generation in Italy		2.16%	2.15%	2.00%
Market share of power sales in Italy		4.16%	3.78%	3.20%
Direct energy consumption (methane)	TEP	485,145	422,212	472,468
Direct energy consumption (methane)	Nm <sup>3</sup>	572,731	493,556	550,876
CO <sub>2</sub> avoided	kt	3,086	3,029	2,901
Scope 1 emission originated by energy production	kt	1,155	1,008	1,130
Other Scope 1 emissions <sup>[2]</sup>	kt	1.3	1.4	1.0
Total indirect energy consumptions	GWh	24.9	20.3	20.9
% Indirect green energy consumption		89%	86%	84%
Scope 2 emissions <sup>[1]</sup>	kt	1.4	1.5	2.2
Scope 3 emissions generated by capital goods (Wind)	kt	31	29	-
waste produced	t	4,345	4,591	5,001
of which sent to recycling	t	3,772	3,786	4,230
of which sent to recycling		87%	82%	85%
of which non-hazardous	t	4,224	4,304	4,663
of which non-hazardous		97%	94%	93%

[1] The indirect emissions are calculated on the basis of the conversion factors relating to the gross thermoelectric production of each country published by Terna on its website [Source: Terna, international comparisons] and according to the Location Based and Market based approach.

[2] The variation is determined by the inclusion of the company technical fleet not previously accounted for. The emissions generated by vehicles allocated for mixed use were counted at 50%.

# AUDIT REPORT



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(Translation from the Italian original which remains the definitive version)

**Independent auditors' report on the consolidated non-financial statement pursuant to article 3.10 of Legislative decree no. 254 of 30 December 2016 and article 5 of the Consob Regulation adopted with Resolution no. 20267 of 18 January 2018**

*To the board of directors of  
ERG S.p.A.*

Pursuant to article 3.10 of Legislative decree no. 254 of 30 December 2016 (the "decree") and article 5 of the Consob (the Italian Commission for listed companies and the stock exchange) Regulation adopted with Resolution no. 20267 of 18 January 2018, we have been engaged to perform a limited assurance engagement on the 2019 consolidated non-financial statement of the ERG Group (the "Group") prepared in accordance with article 4 of the decree and approved by the board of directors on 10 March 2020 (the "NFS").

***Responsibilities of the directors and board of statutory auditors ("Collegio Sindacale") of ERG S.p.A. (the "parent") for the NFS***

The parent's directors of ERG S.p.A. are responsible for the preparation of an NFS in accordance with articles 3 and 4 of the decree and the "Global Reporting Initiative Sustainability Reporting Standards" issued in 2016 by GRI - Global Reporting Initiative (the GRI Standards), which they have identified as the reporting standards.

The directors are also responsible, within the terms established by the Italian law, for such internal control as they determine is necessary to enable the preparation of an NFS that is free from material misstatement, whether due to fraud or error.

Moreover, the directors are responsible for the identification of the content of the NFS, considering the aspects indicated in article 3.1 of the decree and the Group's business and characteristics, to the extent necessary to enable an understanding of the Group's business, performance, results and the impacts it generates.

KPMG S.p.A. è una società per azioni di diritto italiano e fa parte del network KPMG di entità indipendenti affiliate a KPMG International Cooperative ("KPMG International"), entità di diritto svizzero.

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Padova Palermo Parma Perugia  
Pescara Roma Torino Treviso  
Trieste Varese Verona



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The directors' responsibility also includes the design of an internal model for the management and organisation of the Group's activities, as well as, with reference to the aspects identified and disclosed in the NFS, the Group's policies and the identification and management of the risks generated or borne.

The *Collegio Sindacale* is responsible for overseeing, within the terms established by the Italian law, compliance with the decree's provisions.

#### **Auditors' independence and quality control**

We are independent in compliance with the independence and all other ethical requirements of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour. Our company applies International Standard on Quality Control 1 (ISQC Italia 1) and, accordingly, maintains a system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

#### **Auditors' responsibility**

Our responsibility is to express a conclusion, based on the procedures performed, about the compliance of the NFS with the requirements of the decree and the "Global Reporting Initiative Sustainability Reporting Standards" issued in 2016 by GRI - Global Reporting Initiative (GRI Standards). We carried out our work in accordance with the criteria established by "International Standard on Assurance Engagements ISAE 3000 (Revised) - Assurance Engagements Other than Audits or Reviews of Historical Financial Information" ("ISAE 3000 Revised"), issued by the International Auditing and Assurance Standards Board applicable to limited assurance engagements. This standard requires that we plan and perform the engagement to obtain limited assurance about whether the NFS is free from material misstatement. A limited assurance engagement is less in scope than a reasonable assurance engagement carried out in accordance with ISAE 3000 Revised and consequently does not enable us to obtain assurance that we would become aware of all significant matters and events that might be identified in a reasonable assurance engagement.

The procedures we performed on the NFS are based on our professional judgement and include inquiries, primarily of the parent's personnel responsible for the preparation of the information presented in the NFS, documental analyses, recalculations and other evidence gathering procedures, as appropriate.

Specifically, we carried out the following procedures:

- 1 Analysing the material aspects based on the Group's business and characteristics disclosed in the NFS, in order to assess the reasonableness of the identification process adopted on the basis of the provisions of article 3 of the decree and taking into account the reporting standards applied.
- 2 Analysing and assessing the identification criteria for the reporting scope, in order to check their compliance with the decree.



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3 Comparing the financial disclosures presented in the NFS with those included in the Group's consolidated financial statements.

4 Gaining an understanding of the following:

- the Group's business management and organisational model, with reference to the management of the aspects set out in article 3 of the decree;
- the entity's policies in connection with the aspects set out in article 3 of the decree, the achieved results and the related key performance indicators;
- the main risks generated or borne in connection with the aspects set out in article 3 of the decree.

Moreover, we checked the above against the disclosures presented in the NFS and carried out the procedures described in point 5.a).

5 Understanding the processes underlying the generation, recording and management of the significant qualitative and quantitative information disclosed in the NFS.

Specifically, we held interviews and discussions with the parent's management personnel and personnel of ERG Power Generation S.p.A.. We also performed selected procedures on documentation to gather information on the processes and procedures used to gather, combine, process and transmit non-financial data and information to the office that prepares the NFS.

Furthermore, with respect to significant information, considering the Group's business and characteristics:

- at parent and subsidiaries level,
  - a) we held interviews and obtained supporting documentation to check the qualitative information presented in the NFS and, specifically, the business model, the policies applied and main risks for consistency with available evidence,
  - b) we carried out analytical and limited procedures to check, on a sample basis, the correct aggregation of data in the quantitative information;
- we visited ERG S.p.A. and ERG Power S.r.l.'s Priolo Gargallo production site, which we have selected on the basis of their business, contribution to the key performance indicators at consolidated level and location, to meet their management and obtain documentary evidence supporting the correct application of the procedures and methods used to calculate the indicators.

### **Conclusion**

Based on the procedures performed, nothing has come to our attention that causes us to believe that the 2019 consolidated non-financial statement of the ERG Group has not been prepared, in all material respects, in accordance with the requirements of articles 3 and 4 of the decree and the "Global Reporting Initiative Sustainability Reporting Standards" issued in 2016 by GRI - Global Reporting Initiative (GRI Standards).



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***Other matters***

The NFS presents the corresponding figures included in the 2017 consolidated non-financial statement for comparative purposes, which was reviewed by other auditors, who expressed an unqualified conclusion thereon on 27 March 2018.

Genoa, 26 March 2020

KPMG S.p.A.

(signed on the original)

Luisa Polignano  
Director of Audit

# CORRELATION BETWEEN ERG MATERIAL ASPECTS AND GRI STANDARDS

ERG Group material aspects	Correlation with GRI Standards	Scope of material aspects	Type of impact
Ethics and integrity	GRI 205: Anti-corruption (2016)	Group	Direct
	GRI 405: Diversity and equal opportunity (2016)	Group	Direct
	GRI 419: Socioeconomic compliance (2016)	Group	Direct and Indirect
Relations with stakeholders	N/A	Group	Direct
Risk management	N/A	Group	Direct
Environmental management systems	GRI 302: Energy (2016)	Group	Direct
	GRI 303: Water (2016)	Group	Direct
	GRI 307: Environmental Compliance (2016)	Group	Direct
Climate change approach	GRI 305: Emissions (2016)	Group	Direct and Indirect
Safeguarding the environment and biodiversity	GRI 304: Biodiversity (2016)	Group	Direct
	GRI 306: Effluents and waste (2016)	Group	Direct
Safety management systems	GRI 403: Occupational Health and safety (2016)	Group	Direct
Safety of infrastructure, plants and local communities	GRI 413: Local communities (2016)	Group	Direct and Indirect
Training and development of employees	GRI 401: Employment (2016)	Group	Direct
	GRI 404: Training and education (2016)	Group	Direct
Development of the local community	GRI 203: Indirect economic impact (2016)	Group	Direct and Indirect

## TABLE OF CONCORDANCE WITH ITALIAN LEG. DECREE 254/2016

Areas of Leg. Decree 254/2016	Requirements of Leg. Decree 254/2016	Reference documents 2018
Company management model	Art. 3.1, paragraph a) Description of the company model for the management and organisation of its business activities, including any models adopted pursuant to Leg. Decree 231/2001	DNF pag. 10-15
	<b>Policies</b> Art. 3.1, paragraph b) Description of company policies, including due diligence policies	DNF pag. 107-109 Sustainability Policy
Environment	<b>Risk management model</b> Art. 3.1, paragraph c) Description of the main risks, including the ways of managing these risks, generated or suffered, and which derive from the company's activities	DNF pag. 58-64, 65, 109-113
	Art. 3.2, paragraph a, b, c) Use of energy resources, distinguishing between those produced by renewable and non-renewable sources, the use of water resources; greenhouse gas emissions and emissions of pollutants in the atmosphere; environmental impact	DNF pag. 114-131
People	<b>Policies</b> Art. 3.1, paragraph b) Description of company policies, including due diligence policies	DNF pag. 148-151, Human Resources section DNF pag 134-136, Health and Safety section Sustainability Policy
	<b>Risk management model</b> Art. 3.1, paragraph c) Description of the main risks, including the ways of managing these risks, generated or suffered, and which derive from the company's activities	DNF pag 65, 136-138, Health and Safety section DNF pag 65, 151, Human Resources section
	Art. 3.2, paragraph c) Information on the impact on health and safety	DNF pag 139-144
	Art. 3.2, paragraph d) Information on HR management, including gender equality, the implementation of international conventions and dialogue with social stakeholders	DNF pag 152-167
Social	<b>Policies</b> Art. 3.1, paragraph b) Description of company policies, including due diligence policies	DNF pag. 148-151, Human Resources section Sustainability Policy
	<b>Risk management model</b> Art. 3.1, paragraph c) Description of the main risks, including the ways of managing these risks, generated or suffered, and which derive from the company's activities	DNF pag 65, 151, Human Resources section
	Art. 3.2, paragraph d) Information on social aspects	DNF pag. 168-182
Human rights	<b>Policies</b> Art. 3.1, paragraph b) Description of company policies, including due diligence policies	DNF pag. 148-151, Human Resources section Human Rights Policy
	<b>Risk management model</b> Art. 3.1, paragraph c) Description of the main risks, including the ways of managing these risks, generated or suffered, and which derive from the company's activities	DNF pag 65, 151, Human Resources section
	Art. 3.2, paragraph e) Respect for human rights, measures adopted to prevent violations, as well as actions taken to prevent discriminatory behaviour and actions	DNF pag 101, 148-151, Human Resources section
Combating active and passive corruption	<b>Policies</b> Art. 3.1, paragraph b) Description of company policies, including due diligence policies	DNF pag. 67-68 Anticorruption Policy
	<b>Risk management model</b> Art. 3.1, paragraph c) Description of the main risks, including the ways of managing these risks, generated or suffered, and which derive from the company's activities	DNF pag. 53-55, 65
	Art. 3.2, paragraph f) Information on combating active and passive corruption	DNF pag. 69-73
Diversity of governance bodies	<b>Policies</b> Art. 10.1 paragraph a) Description of diversity policies applied in relation to the composition of administrative, management and control bodies with regard to aspects such as age, gender composition, training and professional background, as well as a description of the goals, implementation methods and results of these policies	DNF pag. 38-40

# GRI CONTENT INDEX

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GRI Standard	Disclosure	Page/Link	Notes/Information/Omissions
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102-49	Changes in reporting	31-33	
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102-51	Date of most recent report	31-33	
102-52	Reporting cycle	31-33	Non-financial disclosure published on 30 April 2020.
102-53	Contact point for questions regarding the report	33	For any information relating to this document, see the "Contacts" section of the corporate website <a href="http://www.erg.eu">www.erg.eu</a> .
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<b>GRI-G4 SECTOR DISCLOSURES - ELECTRIC UTILITIES EU (2013): AVAILABILITY AND RELIABILITY</b>			
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<b>GRI-305: EMISSIONS (2016)</b>			
103-1	Explanation of the material topic and its Boundary	203-204	
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103-3	Evaluation of the management approach	109-110, 117-121	
305-1	Direct (Scope 1) GHG emissions	117-118, 197	
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<b>GRI-306: EFFLUENTS AND WASTE (2016)</b>			
103-1	Explanation of the material topic and its Boundary	203-204	
103-2	The management approach and its components	113	
103-3	Evaluation of the management approach	113	
306-1	Water discharge by quality and destination	196	Water quality data are not available: ERG Power waste water is sent to the purification plant "purifier" of the Priolo site that is responsible for its purification before discharging into surface waters.
306-2	Waste by type and disposal method	193, 197	
<b>GRI-307: ENVIRONMENTAL COMPLIANCE (2016)</b>			
103-1	Explanation of the material topic and its Boundary	203-204	
103-2	The management approach and its components	108	
103-3	Evaluation of the management approach	108	
307-1	Non-compliance with environmental laws and regulations		No significant monetary sanctions or non monetary sanctions due to failure to observe environmental laws and regulations were recorded in 2019.
<b>GRI-308: SUPPLIER ENVIRONMENTAL ASSESSMENT (2016)</b>			
308-1	New suppliers that were screened using environmental criteria	192	
<b>GRI 400: SOCIAL SERIES (2016)</b>			
<b>GRI-401: EMPLOYMENT (2016)</b>			
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103-2	The management approach and its components	150-165	

GRI Standard	Disclosure	Page/Link	Notes/Information/Omissions
103-3	Evaluation of the management approach	150-165	
401-1	New employee hires and employee turnover	188-189	
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	161-165	
<b>GRI-402: Labor/Management Relations (2016)</b>			
402-1	Minimum notice periods regarding operational changes		The minimum notice period for the operational changes adopted by ERG is compliant with the legislative provisions envisaged by national labour agreement for workers in Italy.
<b>GRI-403: OCCUPATIONAL HEALTH AND SAFETY (2016)</b>			
103-1	Explanation of the material topic and its Boundary	203-204	
103-2	The management approach and its components	135-138	
103-3	Evaluation of the management approach	135-138	
403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	191-192	
403-4	Health and safety topics covered in formal agreements with trade unions	139-142	
<b>GRI-404: TRAINING AND EDUCATION (2016)</b>			
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103-3	Evaluation of the management approach	152-155	
404-1	Average hours of training per year per employee	186	
404-3	Percentage of employees receiving regular performance and career development reviews	153-154, 159-160	
<b>GRI-405: DIVERSITY AND EQUAL OPPORTUNITY (2016)</b>			
103-1	Explanation of the material topic and its Boundary	203-204	
103-2	The management approach and its components	148-150	
103-3	Evaluation of the management approach	148-151	
405-1	Diversity of governance bodies and employees	42-43, 166-167, 187, 190	For further details relating to the composition of the governance bodies, see the matters indicated in the Report on Corporate Governance and Ownership Structures.
<b>GRI-406: NON DISCRIMINATION (2016)</b>			
406-1	Incidents of discrimination and corrective actions taken		No incidents of discrimination were recorded in 2019.
<b>GRI-407: FREEDOM OF ASSOCIATION AND COLLECTIVE BARGAINING (2016)</b>			
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	98-101, 151	
<b>GRI-413: LOCAL COMMUNITIES (2016)</b>			
103-1	Explanation of the material topic and its Boundary	203-204	
103-2	The management approach and its components	176-182	

GRI Standard	Disclosure	Page/Link	Notes/Information/Omissions
103-3	Evaluation of the management approach	176-182	
413-2	Operations with significant actual and potential negative impacts on local communities	122-124, 176-182	
<b>GRI-419: SOCIOECONOMIC COMPLIANCE (2016)</b>			
103-1	Explanation of the material topic and its Boundary	203-204	
103-2	The management approach and its components	47-49	
103-3	Evaluation of the management approach	47-49	
419-1	Non-compliance with laws and regulations in the social and economic area		No significant monetary sanctions or non-monetary sanctions due to failure to observe laws and regulations were recorded in 2019.

**Material topic not related to a GRI Standard topic specific**

**MATERIAL TOPIC: RISK MANAGEMENT**

103-1	Explanation of the material topic and its Boundary	203-204	
103-2	The management approach and its components	53-65	
103-3	Evaluation of the management approach	53-65	

**MATERIAL TOPIC: STAKEHOLDER RELATIONS**

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103-2	The management approach and its components	19-30	
103-3	Evaluation of the management approach	19-30	

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