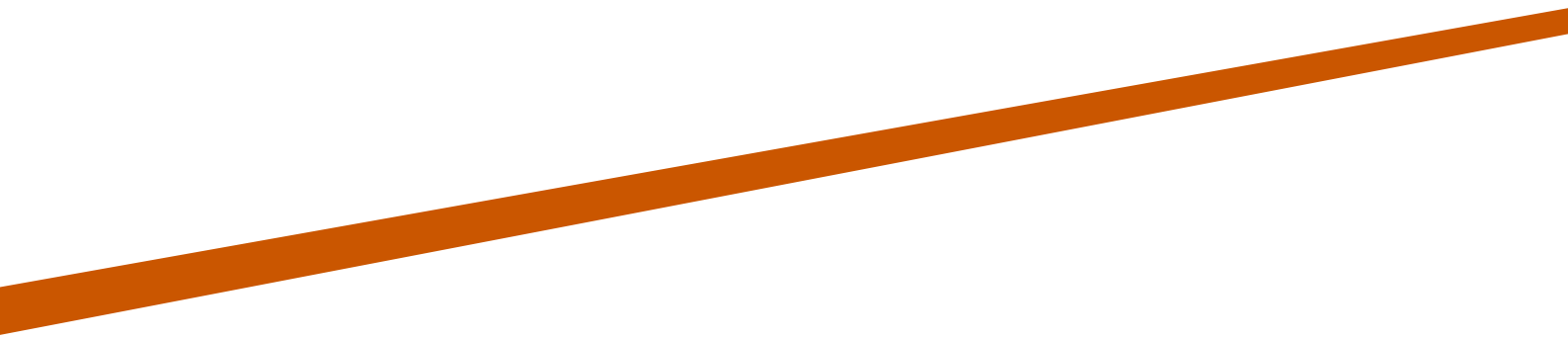


2017

Sustainability Report



Responsibility is our energy



Sustainability Report

and

Consolidated Non Financial Statement

PREPARED IN COMPLIANCE WITH
LEGISLATIVE DECREE 254/2016





Our mission

*Energy is our responsibility.
Responsibility is our energy.*

“To play a leading role in the coming sustainable energy transition, by leveraging our distinctive innovation capabilities, competencies and technologies for the benefit of all stakeholders.”

We are a major operator of grids used to transport energy.

We manage the high-voltage transmission of electricity in Italy, ensuring **security, quality and cost-effectiveness over time**.

We are working hard on **development of the electricity grid**, the achievement of ongoing improvements in operational efficiency and integration with the European grid.

We guarantee **equal access** to all grid users.

We are developing **non-regulated activities** and new business opportunities, building on the experience and technical expertise gained in managing complex systems and on our technological excellence.

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Statement to stakeholders

The world of energy is changing extremely rapidly and against this backdrop, our goal is to enable the transition to a **more efficient, secure and sustainable energy system**. Recent developments have brought a series of new challenges, such as how to manage the **decarbonisation** process and the need to guarantee security of supply and the cost-effectiveness of the service for businesses and households.

Terna is playing a strategic role in this scenario. We are developing a more resilient and sustainable grid, increasing cross-border interconnections and resolving localised congestion. We are also improving our grid, reducing the risk of interruptions to supply and implementing **innovative, digital solutions**.

Against this backdrop, in accordance with our new Strategic Plan for the period 2018-2022, presented to the financial community on 22 March 2018, we intend to give priority to investment in our domestic market. Our aim is to focus on the needs of the system, with a view to strengthening the electricity grid and enabling the integration of renewable sources. In terms of our International Activities, the new Plan concentrates on the completion of projects already in progress, preserving the Company's low risk profile. Our continued commitment, in relation to our Non-regulated Activities, is to develop value added services based on our distinctive competencies.

Sustainability is a part of our business model, with our environmental and social indicators included in the cost-benefit analysis (CBA) applied to our projects. The green economy and innovation go hand in hand: the introduction of green transformers (insulated with vegetable oil rather than mineral oil) and the dispatching of renewable energy are good examples of this.

Energy for change depends on our **people**, in whom we are continuing to invest in the knowledge that they are the key to Terna's future success. We are investing in development and training, reducing the age of our workforce through voluntary retirement schemes and by creating the conditions for new initiatives designed to attract talented young people. The aim is to create an environment in which employees can develop both personally and professionally.

At Terna, **dialogue with our stakeholders** forms the basis for everything we do. We take a proactive approach to engagement with interest parties, such as national and local authorities, municipalities, the general public, trade unions and environmental organisations, and we believe that the involvement of stakeholders is key to delivering our business objectives.

This year, we are once again proud to present you with an improved set of results, further proof of the ongoing progress achieved by the Group in terms of operational and financial efficiency. This financial strength and earnings performance are the foundations on which **we can together build** the Terna of the future.

Backed by a solid financial structure, Terna is capable of creating further lasting and sustainable value for its shareholders and stakeholders. This is why we like to say that **energy is Terna's responsibility and that responsibility is our energy**.

Catia Bastioli
Chairwoman

Luigi Ferraris
CEO



Highlights

ASA (Average Service Availability)

99.99%

This figure, close to 100% as in previous years, is a mere tenth of a percentage point below the maximum possible, confirming the high quality of Terna's services.

32%

of Italy's demand
covered by renewable
electric sources

Principal new lines entering service

- Udine West-Redipuglia
- Capri-Mainland

Land use

98.3 km

of lines demolished

Over 1,000 kilometres of lines
have been removed since 2010.

CO₂ emissions

0.47%

leakages of SF₆ as a percentage
of total installed gas capacity

Leakages of the greenhouse gas SF₆
represent the principal source of Terna's
direct CO₂ emissions.

Carbon intensity

66.0 tonnes of CO₂ per €m

In line with the last three years.

Waste reuse/recycling

87%

Recovery of machinery and packaging
exceeds 95%.

OPERATIONAL
HIGHLIGHTS

ENVIRONMENTAL PERFORMANCE
INDICATORS

Training

50 hours per capita

The number of per capita hours of training provided is well above the average for FTSE MIB companies (25.8 in 2016, based on the latest available data).

Injury rate

0.81

The injury rate is down 19% from 2016.

Turnover among the under 30s

1.0%

Turnover among the under 30s is down 49% from 2016.

Revenue

€ **2,248** mln
+6.9%

EBITDA

€ **1,604** mln
+3.8%

Profit attributable to owners of the Parent

€ **688** mln
+8.7%

Capital expenditure

€ **1,034** mln
+21%

Net debt

€ **7,796** mln
-2.3%

Total Shareholder Return

514%
since the IPO

Dividends:

Interim for 2017

7.43
euro cents per share

Final for 2017 proposed to AGM

14.57
euro cents per share

SOCIAL PERFORMANCE
INDICATORS

FINANCIAL
HIGHLIGHTS

SHARE PERFORMANCE &
SHAREHOLDER RETURN



Reader's guide

Introduction

This year, the **2017 Sustainability Report**, Terna's thirteenth annual publication focusing on the Group's environmental, social and governance performance, has partially changed its nature as a voluntary publication by **taking on the additional role of "Non-Financial Statement"**, thus meeting the non-financial disclosure requirements set out in **Legislative Decree 254/2016**.

Under the "Core" option, reporting is based on the **GRI Sustainability Reporting Standards** published in October 2016 by the GRI-Global Reporting Initiative as a development of the GRI-G4 guidelines.

In addition to the information that meets the "Non-Financial Statement" requirements, clearly identified in the table on page 18, the Report also contains additional voluntary disclosures in line with a general principle of maximum transparency.

As in previous years, the Report was **approved by Terna SpA's Board of Directors** and has undergone specific audit procedures.

The independent limited assurance report on the Non-Financial Statement, prepared by **PricewaterhouseCoopers**, is included on page 200.

The observation period is 2017, and all data refer to the year ended 31 December 2017. Significant events occurring up to 28 February 2018 are also included.

Structure of the Report

The 2017 Sustainability Report maintains its traditional approach. After the initial sections, "Profile of Terna" and "Responsible business management", it focuses on stakeholder engagement, the electricity service and innovation, the environment and people.

The most important innovation in this edition, in addition to the new graphics, is the direct reference to the SDGs ("Sustainable Development Goals") that most closely relate to Terna's core business, namely SDG 7 ("Affordable and clean energy"), SDG 9 ("Industry, innovation and infrastructure") and SDG 13 ("Climate action"). In particular, the section on the electricity service has been reorganized to show how Terna's activities specifically contribute towards achievement of the SDGs. As far as the SDGs as a whole and their 169 targets are concerned, the table linking them with the GRI indicators used in this Report - the only reference to the SDGs already present in the previous two editions of the Report - can be found on page 194.

As usual, in order to aid the reader, information corresponding to specific GRI indicators is denoted by the respective abbreviation in the margins of the text in the relevant passages (an indicator's abbreviation is placed next to the paragraph heading if the entire text is deemed relevant). This graphic solution has also been used to indicate the most significant passages regarding the SDGs.

The focus on the Tamini Group - a company that operates in sectors different from those in which the rest of the Terna Group operates - shows key environmental and social indicators (page 182). The Report concludes with the "GRI Content Index", followed by two tables linking:

- the GRI indicators with the Global Compact principles;
- the GRI indicators with the SDG targets.

The Report ends with a section that does not fall within the scope of the "Non-Financial Statement", consisting of "Key indicator tables", which reproduce the published GRI indicators, supplemented with additional ones.

Materiality

The two main events that affected the reporting of Terna's non-financial performance in 2017 - namely the entry into force of Legislative Decree 254/2016 regarding non-financial disclosure, and the decision to adopt the GRI Standards, the most up-to-date version of the standard defined by the Global Reporting Initiative - were also taken into account in the materiality analysis process for the 2017 Sustainability Report.

Regarding the selection of non-financial content to be disclosed, the Legislative Decree provides for coverage of "*environmental, social, and personnel-related matters, respect for human rights, and the fight against active and passive corruption, which are deemed relevant taking into account a company's activities and characteristics*". Such matters should be reported "*insofar as is necessary to ensure understanding of a company's activities, performance, results and impact*", thereby introducing a materiality criterion into the process of determining the topics to be reported and the extent to which they should be dealt with.

The Decree specifies that information should be provided "*in accordance with the methods and principles laid down by the reporting standard used*". Having decided to adopt the GRI Standards as a reference, Terna opted to follow the recommendations of the GRI 101 - Foundation standard, which contains the basic guiding principles regarding content definition and the quality of reporting. According to this standard, the "material" topics to be potentially included in reporting are those that reflect the significant impacts (positive and negative) of an organisation in the economic, environmental and social spheres, and which influence stakeholders' decisions.

Therefore, the materiality analysis was carried out starting with the methodological background set out from 2013 onwards, and taking into account the areas of focus specified in the new version of the Standards.

After an initial formulation of the materiality analysis in accordance with the GRI-G4 standard in 2013, in 2016 Terna conducted a thorough revision of its materiality analysis, starting with an update of the topic tree, which enabled the relevant topics to be identified, organised and named.

In 2017, in order to update the **significance for Terna** aspect, the heads of all departments were involved via an online survey that aimed to verify the level of "active management" of each of the 23 topics that make up the tree. Indeed, GRI 101 highlights how active management may be considered as an effective indicator of significance with regard to a topic and its related impacts. The assessments of significance by the 25 managers involved were submitted to the Group's senior management, which confirmed the immediate interest and comprehensiveness of the topics considered and validated the assessments resulting from the survey.

With regard to the significance for stakeholders aspect, understood to mean the degree to which a topic might influence decision-making, a number of documentary sources that highlight stakeholders' perception of significance were taken into account and analysed. These break down as follows:

- direct engagement, namely the outcomes of initiatives carried out directly by Terna and aimed at its stakeholders in order to understand their perception of significance with regard to topics (for example, for staff, local communities and the customers of the Non-regulated Activities);
- general sources, namely standards, publications, position papers, assessment tools and products produced by stakeholders that reflect their perception of significance in relation to topics.

The documentary analysis was compared and standardised with the perceptions expressed by management - during the materiality analysis carried out for the 2016 Sustainability Report - with regard to the significance of topics for stakeholders with whom they have direct contact.

The score that summarises the significance of a topic for the majority of stakeholders was obtained by combining the assessments relating to each stakeholder category with the weighting of this category in terms of influence and mutual dependence in their relationship with the Group.

The summary of the points of view of the Company and stakeholders is expressed in the **Materiality Matrix**, which enables the identification of "material" topics, namely those that are most significant for Terna and stakeholders. It also highlights any differences between the viewpoints of stakeholders and of the Company on each topic. In the matrix, the most significant topics are those furthest away from the origin; the most important topics in absolute terms are the ones furthest from the origin and, at the same time, closer to the bisector.

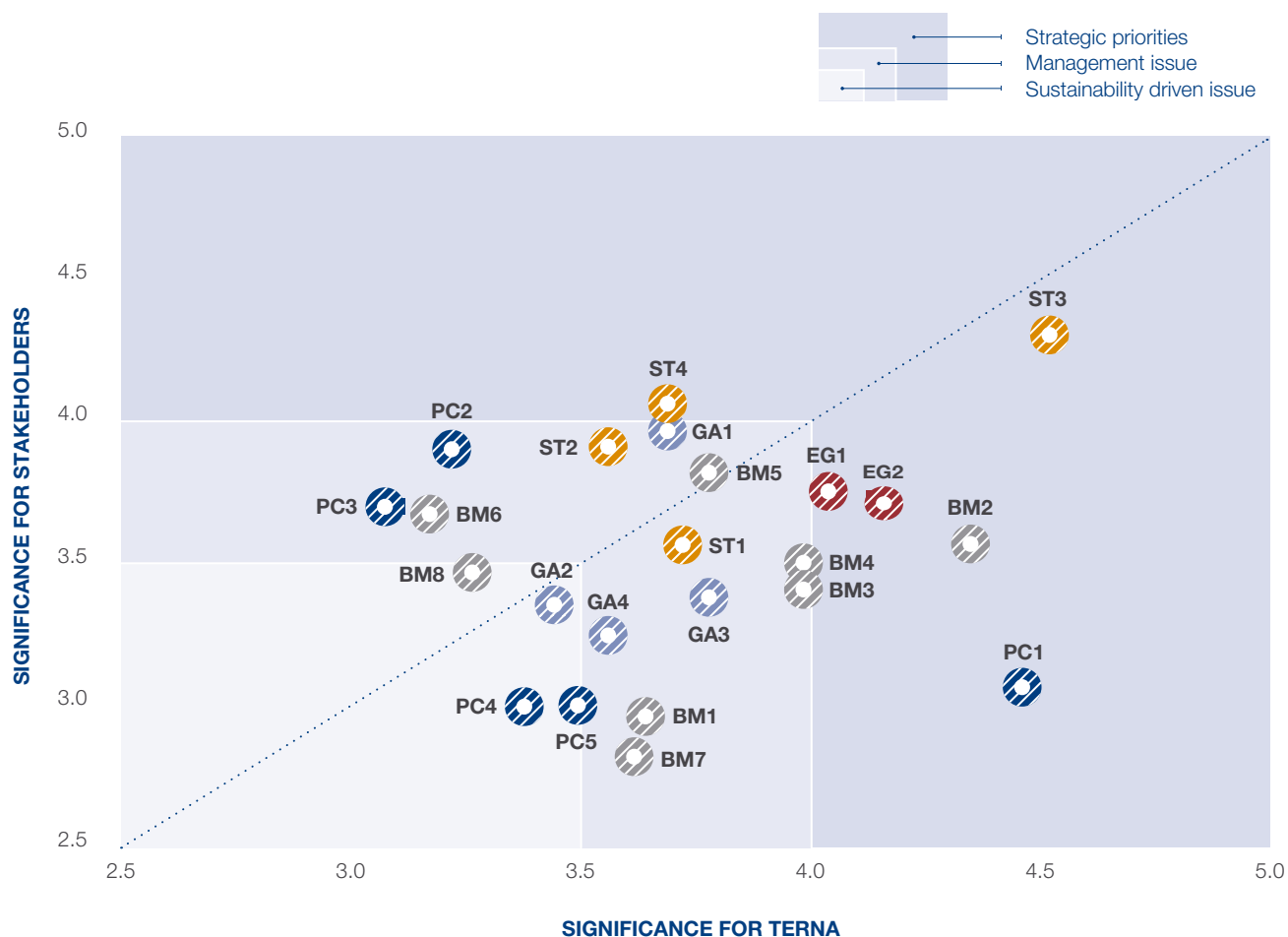
In addition to the assessment of the current significance of the topics, middle and senior management were also involved in an assessment of the prospective significance of topics. In particular, the people involved were asked to consider the extent to which the current level of management ("active management") regarding topics should be changed over the period of the Strategic Plan for 2018 - 2022, enabling Terna to achieve its strategic objectives, taking into account the Strategic Plan itself, the context and scenarios in which Terna operates, and the risks and opportunities associated with each topic under discussion. Respondents were able to assess whether the current level should be reduced, held constant, increased or completely redesigned, with resulting adjustments in terms of investment.

From this analysis it emerged that the topics requiring more substantial investment than others during the period of the Strategic Plan are:

- Development of Human Resources
- Innovation and Research
- Improved management of engagement with local stakeholders.

Terna's Sustainability Report has always aimed to provide transparent and full disclosure. The same approach has also been adopted in this document, which serves to meet the requirements of Legislative Decree 254/16. However, given the emphasis placed by the standard on materiality, it should be pointed out that some of the topics shown in the matrix are not among those that are strictly necessary *"to ensure understanding of a company's activities, performance, results and impact"*. This regards in particular: business development and diversification; the promotion of wellbeing within the Company; the protection of biodiversity; social engagement and positive impact on local areas; and the promotion of diversity and equal opportunity. These topics have been identified as falling below a minimum materiality threshold because: 1) by adding up the significance scores for stakeholders and Terna, the total materiality score is less than 7.2) the significance for Terna is less than 3.5; and 3) they do not appear among the first three topics in terms of their prospective significance. These topics - like all the significant ones - are also included in the Sustainability Report, but by virtue of the Company having opted for **voluntary disclosure**, rather due to the regulatory requirements of Legislative Decree 254/2016.

MATERIALITY MATRIX



Ethics and governance model

EG1: Alignment with best governance practices

EG2: Business integrity



Transmission service

ST1: Sustainable NTG planning

ST2: Electricity market integration

ST3: Quality, security and service continuity

ST4: Reduction in cost of service



Management of environmental impacts

GA1: Mitigation of visual impact

GA2: Protection of biodiversity

GA3: Management of electromagnetic fields

GA4: Reduction of environmental footprint



Business Management

BM1: Strategic approach to stakeholder management

BM2: Compliance with financial targets

BM3: Prudent risk management

BM4: Choice of investments and conformity with plan

BM5: Engagement with local stakeholders

BM6: Business and development and diversification

BM7: Sustainable supply chain management

BM8: Innovation and research



People and community

PC1: Health and safety

PC2: HR development

PC3: Promotion of wellbeing

PC4: Promoting diversity and equal opportunities

PC5: Social responsibility and impact on local communities

Risks and impacts

The significance of the various topics for Terna and its stakeholders is based on the impacts, both positive and negative, that are connected to them. In line with the requirement in Legislative Decree 254/2016 to explain “the main risks, generated or exposed to, in connection with” the significant topics in terms of materiality, for each of the topics identified in response to the standard, the table below shows an example of the risk involved and the type of impact for Terna and for the specific categories of stakeholder affected. In the classification of impacts for Terna, the categories used in the Company's application of the Enterprise Risk Management model have been adopted, whilst the impacts for stakeholders are broken down into:

- Service quality
- Economic
- Health and safety
- Human rights
- Quality of life, wellbeing.

TOPIC	EXAMPLE OF RISK MANIFESTATION	PRIORITY TOPIC FOR TERNA	POTENTIAL IMPACT ON TERNA	PRIORITY TOPIC FOR STAKEHOLDERS	STAKEHOLDERS POTENTIALLY IMPACTED	POTENTIAL IMPACT ON STAKEHOLDERS
Quality, security and electricity service continuity	Increase in malfunctions, grid inadequacy	yes	- Strategic/operational - Reputational - Economic/financial	yes	The community	Service quality, economic
Compliance with economic and financial objectives	Economic and financial performance below expectations	yes	- Strategic/operational - Economic/financial		Shareholders Lenders Suppliers Business partners Personnel The community	Economic
Business integrity	Behaviours in breach of statutory requirements	yes	- Compliance - Reputational - Economic/financial	yes	Shareholders / other stakeholders who are damaged by Terna's conduct	Shareholders: economic Other stakeholders: human rights, health and safety, economic
Alignment with best governance practices	Below par governance	yes	- Strategic/operational - Reputational	yes	Shareholders Lenders Suppliers Business partners Personnel	Economic (indirect)
Reduction of electricity service costs	Increase in service costs (due to Terna)	yes	- Reputational - Economic/financial in medium term - Strategic/operational	yes	The community	Economic
Mitigation of visual, landscape and acoustic impacts	Insufficient consideration given to reducing visual impact	yes	- Reputational	yes	Local communities affected by the presence of Terna's infrastructure	Quality of life, wellbeing
Optimal management of engagement with local stakeholders	Tensions with local communities affected by grid development	yes	- Reputational - Economic/financial - Strategic/operational	yes	Local communities	Quality of life, wellbeing

TOPIC	EXAMPLE OF RISK MANIFESTATION	PRIORITY TOPIC FOR TERNA	POTENTIAL IMPACT ON TERNA	PRIORITY TOPIC FOR STAKEHOLDERS	STAKEHOLDERS POTENTIALLY IMPACTED	POTENTIAL IMPACT ON STAKEHOLDERS
Workers' health and safety and correct working practices	Occupational injuries	yes	- Reputational - Economic/financial - Compliance		Personnel Suppliers	<i>Health and safety, human rights</i>
Selective investment and on-time delivery	Failure to deliver infrastructure construction projects to budget and on time	yes	- Economic/financial - Reputational - Strategic/operational		Shareholders The community	<i>Shareholders: economic The Community: service quality</i>
Integration of electricity markets	Slowdown in European integration and interconnections		- Economic/financial - Reputational - Compliance	yes	The community Electricity sector operators	<i>The community: service quality (security of supply) Economic (service costs) Operators: economic</i>
Prudent risk management	Lack of risk management preparedness	yes	- Economic/financial - Reputational - Strategic/operational		All (regarding the impact of related risks)	<i>Service quality Health and safety Human rights Indirect economic</i>
Sustainable planning of NTG development	Planning with insufficient attention paid to environmental aspects	yes	- Reputational - Compliance - Strategic/operational		Local communities Environmental organisations	<i>Quality of life, wellbeing</i>
Management and monitoring of electromagnetic fields	Failure to comply with pertinent regulations	yes	- Compliance - Reputational - Economic/financial		Local communities affected by the construction or presence of Terna infrastructure	<i>Health and safety</i>
Development of human resources	Inadequate human capital	increasing	- Strategic/operational - Reputational - Economic/financial	yes	Shareholders Terna's people	<i>Terna's people: quality of life, economic Shareholders: economic</i>
Reduction of the Group's environmental footprint	Negative environmental externalities		- Reputational		The community	<i>Quality of life, wellbeing</i>
Innovation and Research	Insufficient innovation capacity for the energy transition and business growth	increasing	- Strategic/operational - Economic/financial in medium to long term - Reputational		The community Shareholders Suppliers	<i>The community: service quality Shareholders and suppliers: economic in the medium to long term</i>
Strategic approach to stakeholder management	Failure to consider stakeholders' expectations	increasing	- Reputational - Strategic/operational		All	<i>Quality of life, wellbeing</i>
Monitoring of environmental and social aspects of the supply chain	Suppliers' behaviour not in line with Terna's sustainability policies		- Reputational - Economic/financial		Suppliers	<i>Human rights, health and safety</i>

The following table links the Legislative Decree 254/2016 ("Non-Financial Statement") topics to the topics deemed to be material during Terna's materiality analysis and by the adopted reporting standard.

LEGISLATIVE DECREE 254/2016 TOPIC	TERNA MATERIAL TOPIC	RISKS IDENTIFIED	POLICIES ADOPTED	TOPIC SPECIFIC STANDARD	TOPIC SPECIFIC DISCLOSURE	NOTES
Environmental	Mitigation of visual, landscape and acoustic impact	See materiality risks table (page 16).	Environment section	304 413	304-1 413-2 EU13	Page 19
	Management and monitoring of electromagnetic fields	See materiality risks table (page 17).	Environment section	n.a.	n.a. A qualitative description of the actions taken is provided.	Page 19
	Reduction of the Group's environmental footprint	See materiality risks table (page 17).	Environment section	305 201 301 302	305-1 305-2 305-4 201-2 301-1 302-1 302-3	Page 19
Social	Quality, security and service continuity	See materiality risks table (page 16).	Electricity service	203	203-1 EU28 EU29	Page 19
	Optimal management of engagement with local stakeholders	See materiality risks table (page 16).	Stakeholders Environment	413	413-1 413-2	Page 19
	Sustainable planning of NTG development	See materiality risks table (page 17).	Stakeholder engagement Environment	413	413-1 413-2	Page 19
Pertaining to personnel	Workers' health and safety and correct working practices	See materiality risks table (page 17).	Responsible business management People	403	403-1 403-2 403-4	Page 19
	Development of human resources	See materiality risks table (page 17).	People	401 404	401-1 404-1 EU15	Page 19
Respect for human rights	Workers' health and safety and correct working practices Monitoring of environmental and social aspects of the supply chain	See materiality risks table (page 17).	Responsible business management People	406 407 408 409 412	406-1 407-1 408-1 409-1 412-1	Page 19
Fighting corruption	Business integrity	See materiality risks table (page 16).	Responsible business management	205 206	205-1 205-3 206-1	Page 19

Scope and indicators

The data and disclosures in the Sustainability Report 2017 refer to the Terna Group, meaning the scope that includes Terna SpA and the companies consolidated on a line-by-line basis in its consolidated financial statements for the year ended 31 December 2017.

Tamini Group companies, unless otherwise indicated, are excluded from the scope given that the Tamini Group's activities are not comparable with those of the rest of the Terna Group. Data for the Tamini Group are not consistent with the data for the Terna Group and the two sets of data cannot be aggregated, as this would not fully represent the specific nature of Tamini itself and assessment of the performance of the rest of the Group would be influenced by elements that would not permit a clear and realistic reading of the data. The Tamini Group's environmental and social indicators, which are useful in helping to understand its activities, performance, results and impact on the Group, are therefore presented in a specific section on page 182.

In accordance with the materiality principle, the data presented in the Sustainability Report cover all the companies with a significant impact on sustainability (for example, in terms of their size or number of personnel, their potential impact on the environment and the community or the number of transactions/activities that took place during the year), and where Terna directly or indirectly exercises control or has the power to govern their financial and operating policies. There are no joint ventures, other subsidiaries or leased assets that might significantly influence the scope or the comparability of the environmental and social data.

In 2017, information on the 172 electricity substations formerly owned by RFI was included for the first time in the scope of the environmental data. These substations were acquired at the end of 2015 and excluded from the scope of the report for 2016. Only the substations that, by 31 December 2017, had been integrated into the Terna Group's scope of operations have been consolidated. At the same date, the remaining 182 electricity substations formerly owned by RFI were operated under an O&M (Operation & Maintenance) contracted entered into with the previous owner.

Data for subsidiaries that operate non-regulated international businesses have not been included in the calculation of the indicators published in this Report, as their inclusion would not be relevant, in terms of type of activity and number of employees (as presented in the tables on page 30-31), to an assessment of the Group's performance, its results and its non-financial impact. Data for the Montenegro-based subsidiary, Terna Crna Gora d.o.o., have been included in the scope of the sustainability indicators, unless otherwise indicated.

The data has been calculated on the basis of Terna's general accounts and other information systems. Where estimates have been used in calculating the indicators, the method used has been described.

All the GRI indicators published are listed below in the "GRI content index", in which eventual limitations with respect to the relevant requirements are noted (see page 206).

Comparative analysis of sustainability performance

In the belief that a comparison of environmental, social and governance performance should not only concern the Company but also its stakeholders, as in previous years, this Report also includes comparisons between Terna's results and those of other companies. The comparative sustainability indicators regard the following matters: CO₂ emissions, the SF₆ leakage rate, per capita hours of training and the staff turnover rate.

The main criteria adopted in the analysis, as a premise for reading and interpreting the comparisons of each of the indicators in the Report, are set out below:

Three company peer groups were chosen:

- the first consists of the leading European and non-European Transmission System Operators in terms of the number of kilometres of line operated;
- the second, covering a range of sectors, comprises large Italian companies (the 40 companies listed on the FTSE MIB on 9 September 2017);
- and the third consists of the international best performers in the Electric Utilities - ELC sector (identified by the sustainability rating agency, RobecoSAM, and included in the Dow Jones Sustainability World Index in September 2017).

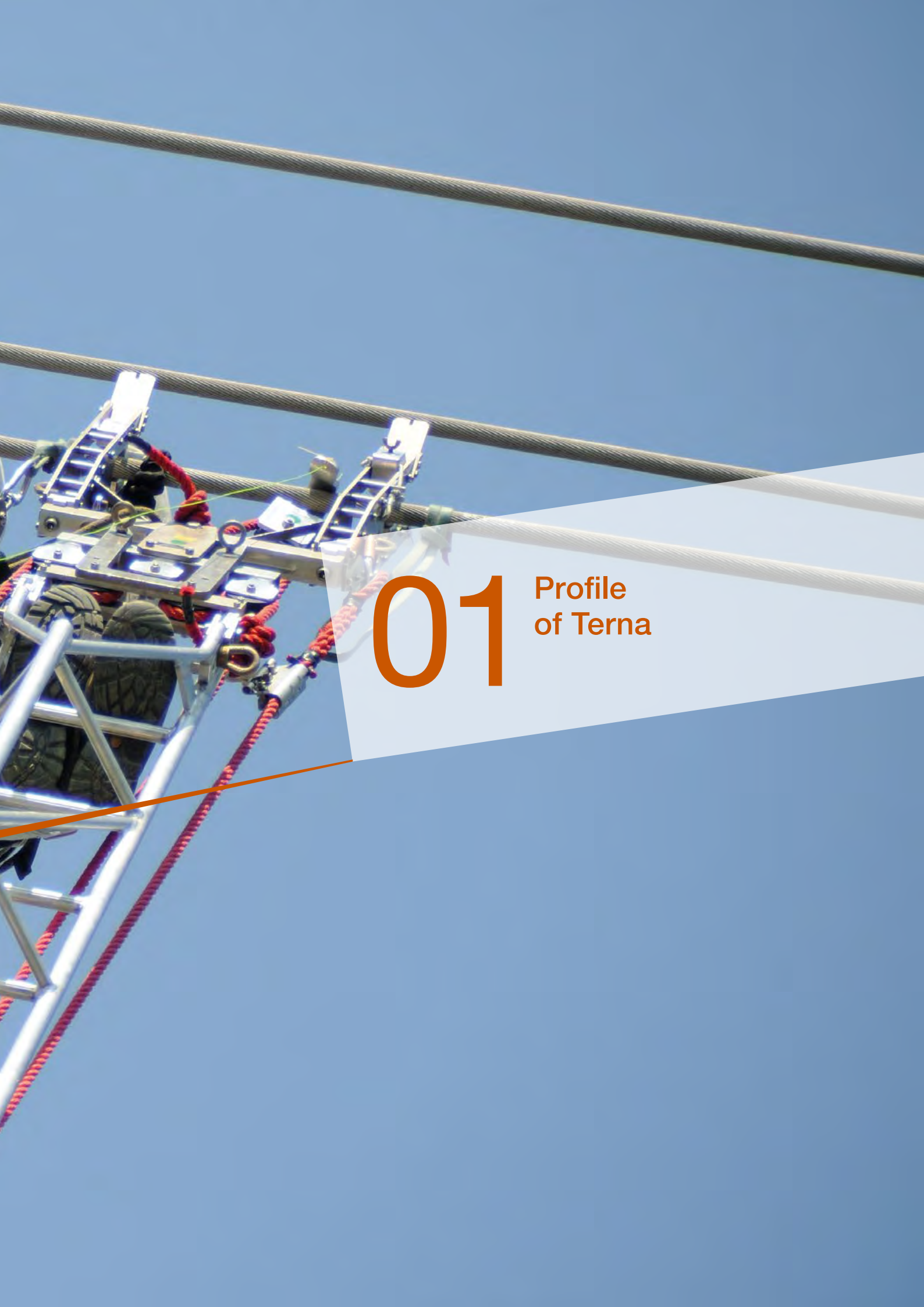
The purpose of the three peer groups - also in connection with the type of indicator examined - is to provide a comparison between companies with the same operating characteristics, including an Italian comparison and one with the top international performers from the same sector. Among the companies in the three peer groups, consideration has been given to the ones that publish useful information for comparison on their websites via their Sustainability Report (even if it has not been drawn up in accordance with the GRI guidelines) or via other documents (integrated reports, HSE reports, financial reports, etc.). This led to a reduction in the sample compared with the number of companies in the peer group at the outset. The comparative analysis necessarily refers to data for 2016, as the comparisons were made whilst the 2017 reports were being prepared, as was also the case for Terna.

It should be noted that, despite the exclusion of explicitly non-homogeneous data, in many cases doubts remain regarding the actual comparability between companies, especially in situations where significant discrepancies were found between the data reported by some companies and the average figure for the peer group.

Regarding the comparison of CO₂ emissions, the data are expressed as physical quantities in absolute terms and therefore show very different levels, depending on the type of operations and the size of the company. In this case, the comparison provides information on the different levels of significance of the environmental aspects taken into account for each company, but does not fulfil the task of making performance comparable.







01

Profile
of Terna



About us



The Terna Group's main activities are electricity transmission and dispatching in Italy, where, under a government concession, it performs the role of TSO (Transmission System Operator).

Terna is thus responsible for the planning, construction and maintenance of the grid - activities carried out under a monopoly regime - in accordance with the regulations defined by the Regulatory Authority for Energy, Networks and the Environment (ARERA) and in implementation of the guidelines established by the Ministry for Economic Development (the MED).

Based in Rome, the Terna Group owns 99.7% of the National Transmission Grid (NTG), which is among the most modern and technologically advanced transmission grids in Europe. We are the largest independent electricity transmission network operator in Europe and one of the world's leading operators in terms of the number of kilometres of overhead line managed, with around 73 thousand kilometres of high and very high-voltage lines.

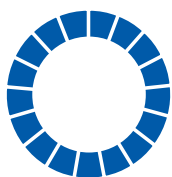
The Group is responsible for the long-term safety, quality and cost-effectiveness of the national electricity system, pursuing its development and integration with the European system. We ensure that all network users have equal access.

Alongside these activities (Regulated Activities), the Group also operates in a number of unregulated sectors in Italy, leveraging the technical expertise acquired from operation of its core business and innovation (Non-regulated Activities).

Finally, the Group offers its expertise and services to overseas customers, including in collaboration with energy operators that have an established international presence. These initiatives focus on countries that require investment in transmission plant, and which also have stable political and regulatory frameworks and a risk-return profile in line with that of the Company.

In managing all our businesses, we pay great attention to the possible economic, social and environmental impacts, and adopt a sustainable approach to business in order to establish, maintain and consolidate relationships with our stakeholders that are based on mutual trust, with a view to creating shared value.

The Parent Company, Terna SpA, is listed on Borsa Italiana's screen-based trading system (Mercato Telematico Azionario) and, at approximately €9.7 billion, ranks among Italy's leading companies by market capitalisation.



Terna and the SDGs

Approved by 193 member states of the United Nations in September 2015, the 17 Sustainable Development Goals (SDGs) form the heart of the 2030 Agenda, the global plan that aims to eradicate poverty and promote economic prosperity, social development and protection of the environment.

The 2030 Agenda sums up humanity's major priorities in the "five Ps" - People, Planet, Prosperity, Peace and Partnership: to tackle the root causes of poverty and inequality and to aim for sustained, sustainable growth for all, bringing together economic, social and environmental aspects and, at the same time, identifying new opportunities for growth.

To meet the challenges posed by the SDGs, participating countries are committed to devising national strategies and targets designed to encourage companies to adopt operational procedures and business strategies in keeping with the sustainable development goals.

In October 2017, the Italian government approved the country's "National Sustainable Development Strategy", implementing the SDGs in Italy and, in keeping with the commitments made in Paris (COP 21) and the Circular Economy package approved by the European Parliament, setting the foundations for all Italy's sustainable development policies.

Terna is playing a central role in enabling the energy system's transition to one in which production is based on renewable sources.

Terna's activities and its mission coincide almost entirely with a number of the SDGs and the related targets. These are SDG 7 ("Affordable and clean energy - Ensure access to affordable, reliable, sustainable and modern energy for all"), SDG 9 ("Industry, innovation and infrastructure - Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation") and SDG 13 ("Climate action - Take urgent action to combat climate change and its impacts"), whose implementation depends primarily on delivery of the National Transmission Grid Development Plan (hereinafter also the "Development Plan" or "2018 Development Plan"). For this reason, the section on the "Electricity service and innovation" is structured in such a way as to highlight Terna's activities that contribute to implementation of the relevant SDGs, starting with preparation of the 2018 Development Plan and the description of the progress made with respect to the previous Plans.

The SDGs, especially Goal 8 ("Decent work and economic growth"), Goal 12 ("Responsible consumption and production"), Goal 15 ("Life on land"), Goal 16 ("Peace, justice and strong institutions") and Goal 17 ("Partnerships for the Goals") are also a benchmark for the approach Terna adopts in managing its activities. This is founded on objectives such as the efficient use of natural resources, respect of the environment, cuts in emissions, waste reduction and recycling, respect for human rights, efforts to foster innovation and partnerships and to combat corruption, and transparent reporting.

Other links between Terna's activities and the SDGs are described in the section on "Community initiatives". Finally, the table on page 194 shows links between the GRI indicators referred to in this Report and the various SDGs.

BENCHMARK SDGS FOR TERNA

			SDGs
			Target
Ensure access to affordable, reliable, sustainable and modern energy for all.	Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation.	Take urgent action to combat climate change and its impacts.	

BENCHMARK SDGS FOR THE MANAGEMENT OF TERNA'S ACTIVITIES

					SDGs
					Target
Encourage sustainable, inclusive and sustainable economic growth, full and productive employment and decent work for all.	Guarantee sustainable models of production and consumption.	Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss.	Promote peaceful and more inclusive societies for sustainable development; provide access to justice for all and create efficient, accountable and inclusive organisations at all levels.	Strengthen means for implementing and renewing the global partnership for sustainable development.	

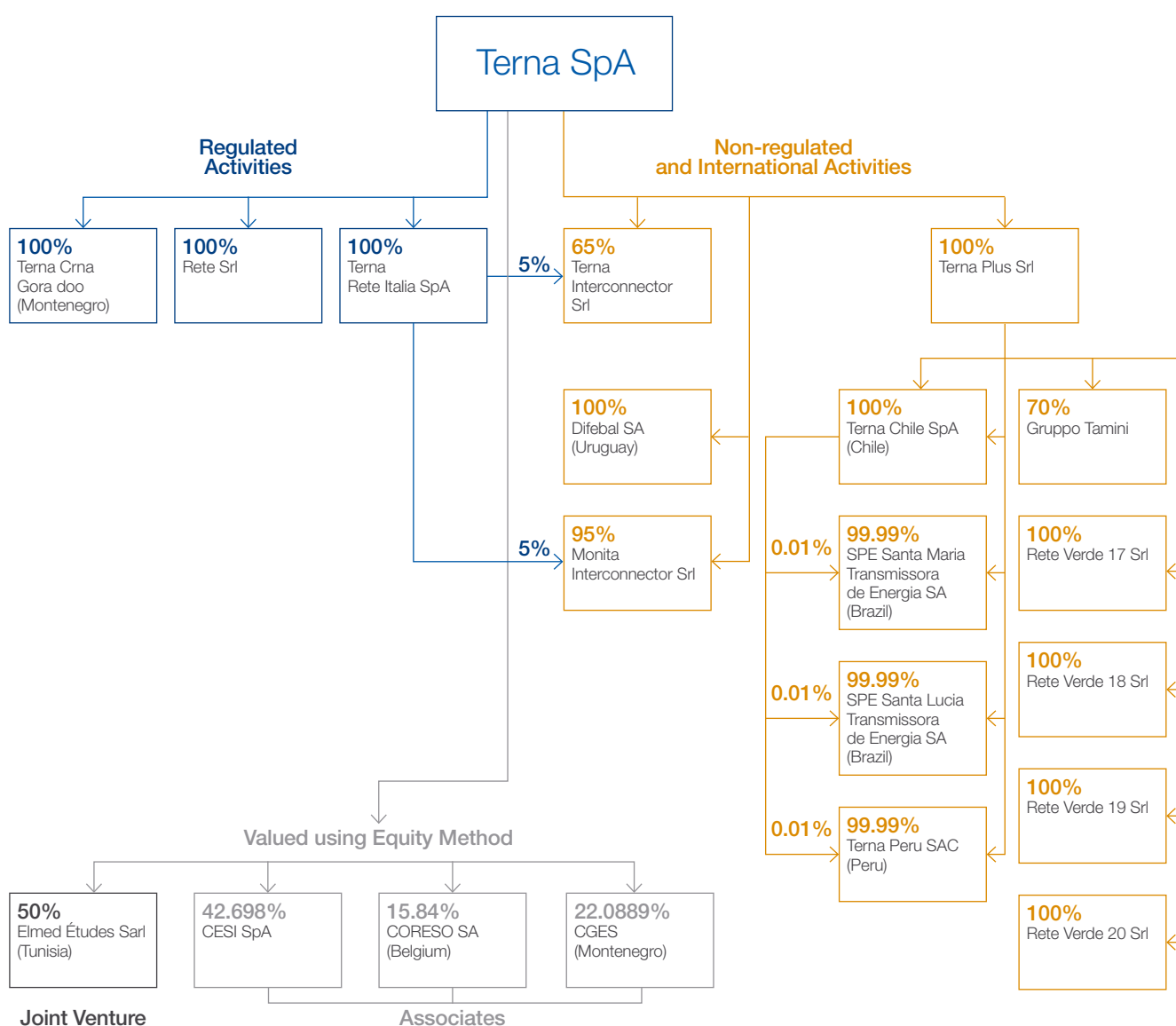


The structure of the Group



Corporate structure

The Group's corporate structure primarily comprises the Parent Company, TERNÀ SpA, to which two wholly owned operating companies report: Terna Rete Italia SpA and Terna Plus Srl. At 31 December 2017, the corporate structure breaks down as follows:



Compared with the situation at 31 December 2016, the Group has incorporated and acquired seven new companies and sold one:

- Rete Verde 17 Srl, Rete Verde 18 Srl, Rete Verde 19 Srl and Rete Verde 20 Srl are four limited liability companies engaged in the development of renewable energy initiatives provided for by the November 2016 agreement between Terna and RFI;
- Terna Peru S.A.C., a company incorporated under Peruvian law for the construction of a 138 kV line;
- SPE Santa Maria Trasmisora de Energia SA and SPE Santa Lucia Trasmisora de Energia SA, two joint stock companies incorporated under Brazilian law;
- Piemonte Savoia has been sold to the consortium, Interconnector Italia Scpa.

The Group has also carried out two mergers:

- Terna Storage Srl and Terna Rete Italia Srl with and into Terna SpA;
- T.E.S. Transformer Electro Service Srl and V.T.D. Trasformatori Srl with and into Tamini Trasformatori Srl.

SUBSIDIARIES WITH REGULATED ACTIVITIES

Company

Terna Rete Italia S.p.A.

WORKFORCE: 2,972

REVENUE: €406.5m

Rete S.r.l.

WORKFORCE: 0

REVENUE: €135.1m

Terna Crna Gora d.o.o.

Company incorporated under Montenegrin law

WORKFORCE: 9

REVENUE: €0.0m

Business

All regulated activities related to operation, routine and extraordinary maintenance, management and development of the National Transmission Grid.

Acquired in 2015 from Ferrovie dello Stato Italiane (Italian State Railways) group, the company owns 8.71% of the National Transmission Grid infrastructure.

Management of construction of the Italy-Montenegro interconnector, on the Montenegrin side.

SUBSIDIARIES WITH NON-REGULATED ACTIVITIES

Company

Terna Interconnector S.r.l.

WORKFORCE: 0

REVENUE: €77.4m

Difebal S.A.

Company incorporated under Uruguayan law

WORKFORCE: 0

REVENUE: €7.2m

Monita Interconnector S.r.l.

WORKFORCE: 0

REVENUE: €0.0m

Terna Plus S.r.l.

WORKFORCE: 29

REVENUE: €18.4m

Gruppo Tamini

WORKFORCE: 368

REVENUE: €102.7m

Rete Verde 17 S.r.l.

WORKFORCE: 0

REVENUE: €0.0m

Business

Development and construction of private infrastructure for interconnections with other countries.

Management of activities involved in the design, construction and maintenance of electricity infrastructure.

Construction and management of the Italy-Balkans interconnection as part of the Interconnector Project.

Development of new activities and business opportunities in the non-regulated Italian market, and construction and management of high-voltage infrastructure in Italy and overseas.

Production and marketing of industrial and power transformers via six production plants located in Italy in Legnano (MI), Melegnano (MI), Novara, Valdarno (VI), Ospitaletto (BS) and Rodengo (BZ).

Limited liability company engaged in the development of renewable energy initiatives.

Business

Limited liability company engaged in the development of renewable energy initiatives.
Limited liability company engaged in the development of renewable energy initiatives.
Limited liability company engaged in the development of renewable energy initiatives.
Management of activities involved in the design, construction and maintenance of electricity infrastructure.
Management of activities involved in the design, construction and maintenance of electricity infrastructure.
Management of activities involved in the design, construction and maintenance of electricity infrastructure.
Management of activities involved in the design, construction and maintenance of electricity infrastructure.

Company

Rete Verde 18 S.r.l. WORKFORCE: 0 REVENUE: €0.0m
Rete Verde 19 S.r.l. WORKFORCE: 0 REVENUE: €0.0m
Rete Verde 20 S.r.l. WORKFORCE: 0 REVENUE: €0.0m
Terna Chile S.p.A. <i>Company incorporated under Chilean law</i> WORKFORCE: 0 REVENUE: €0.6m
SPE Santa Maria Trasmisora de Energia S.A. <i>Company incorporated under Brazilian law</i> WORKFORCE: 2 REVENUE: €22.3m
SPE Santa Lucia Trasmisora de Energia S.A. <i>Company incorporated under Brazilian law</i> WORKFORCE: 7 REVENUE: €57.9m
Terna Perú S.A.C <i>Company incorporated under Peruvian law</i> WORKFORCE: 3 REVENUE: €0.0m

ASSOCIATES OR JOINT VENTURES

Business

Pure and applied scientific research aimed at making advances in the electro technical, energy, electronic and IT sectors.
Management of daily forecasting and real-time analysis of energy flows in central and western Europe, identifying possible critical issues and promptly informing the TSOs concerned.
TSO for Montenegro's electricity market. Investment acquired as part of the Italy-Balkans interconnector project.
Jointly controlled by Terna and the Tunisian company, STEG, the company is engaged in carrying out preparatory studies for construction of the infrastructure required to connect the Tunisian and Italian electricity systems.

Company

CESI S.p.A. WORKFORCE: 665 REVENUE: €121.8m
CORESIO S.A.¹ <i>Company incorporated under Belgian law</i> WORKFORCE: 35 REVENUE: €9.2m
CGES^{2*} WORKFORCE: 311 REVENUE: €29.0m
Elmed Études Sarl * WORKFORCE: 2 REVENUE: €0.0m

¹ Although the interest is less than 20%, the investment qualifies as an associate, given the existence of significant influence. The shareholders include Terna and the operators in France (RTE), Belgium (Elia) and the UK (National Grid), each with 15.84% interests, in addition to the German operator, 50 Hertz Transmission, with 7.90%.

² In full, "Crnogorski Elektroprenosni Sistem Ad".

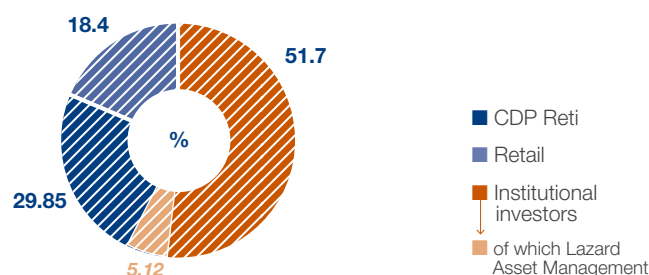
(*) The figures refer to 2016.

Ownership structure

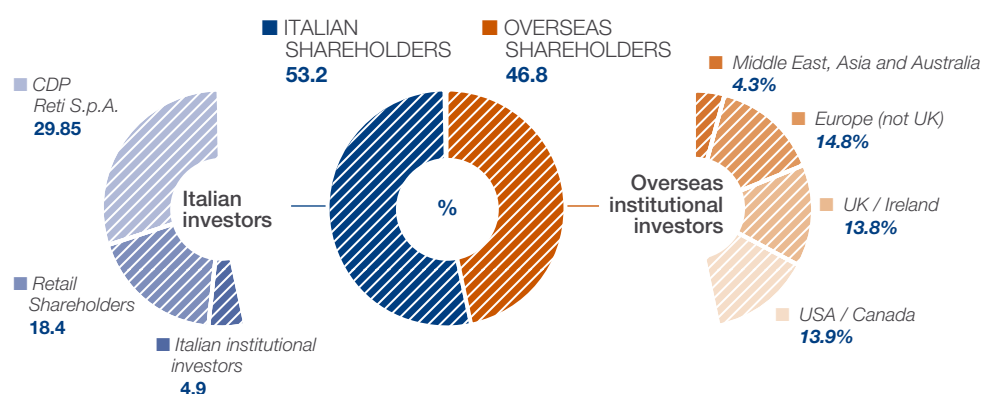
At the date of preparation of this report, Terna SpA's share capital amounts to €442,198,240, comprising 2,009,992,000 fully paid-up ordinary shares with a par value of €0.22 each.

Based on information from the shareholders' register and other data collected as at February 2018, Terna's shareholder structure breaks down as follows.

SHAREHOLDERS BY CATEGORY



SHAREHOLDERS BY GEOGRAPHICAL AREA AND CATEGORY



Information on the ownership structure, restrictions on the transfer of shares, securities that grant special rights, and restrictions on voting rights, as well as on shareholder agreements, is provided in the "Report on Corporate Governance and Ownership Structures" for 2017, published together with the Annual Report of Terna and the Terna Group. This is available in the "Investor Relations" section of Terna's website.

Socially responsible investors

At the end of 2017, 103 socially responsible investors (SRIs) had invested in Terna's shares using an approach that takes into account ESG (Environmental, Social, Governance) aspects. Overall, at the end of 2017, SRIs represented 8.32% of Terna's free float (6.35% at the end of 2016) and 10% of the capital held by identifiable institutional investors (approximately 10% at the end of 2016).

Corporate governance

The governance system is substantially in line with the principles contained in the Code of Conduct³ for listed companies adopted by Terna, with the related recommendations made by the CONSOB and, more generally, with the international best practices the Company uses as a benchmark.

The current structure of the Board of Directors requires the presence of one Chief Executive Officer, to whom the Board granted the necessary authority via a resolution approved on 27 April 2017, in which the Board defined the scope, limitations and means by which to exercise such authority.

The activities of the Board of Directors are coordinated by the Chairman. The Board of Directors consists of nine members, whose terms of office will end with the approval of the financial statements for the year ended 31 December 2019.

Board of Directors	Board Of Statutory Auditors
Chairwoman Catia Bastioli	Chairman Riccardo Enrico Maria Schioppo
Chief Executive Officer Luigi Ferraris	Standing Auditors Vincenzo Simone Maria Alessandra Zunino de Pignier
Directors Fabio Corsico Luca Dal Fabbro Paola Giannotti Yungpeng He Gabriella Porcelli Stefano Saglia Elena Vasco	Alternates Davide Attilio Rossetti Cesare Felice Mantegazza Renata Maria Ricotti
	Independent Auditors PricewaterhouseCoopers S.p.A.
Board committees	
Audit, Risk, Corporate Governance and Sustainability Committee Stefano Saglia (Chairman, independent) Elena Vasco (independent) Paola Giannotti (independent)	Nominations Committee Luca Dal Fabbro (Chairman, independent) Yunpeng He Fabio Corsico (independent)
Remuneration Committee Fabio Corsico (Chairman, independent) Gabriella Porcelli (independent) Stefano Saglia (independent)	Related Party Transactions Committee Gabriella Porcelli (Coordinator, independent) Luca Dal Fabbro (independent) Paola Giannotti (independent)

ASPECTS WORTHY OF NOTE INCLUDE:

- the high level of attendance of Directors;
- the presence of sustainability goals in the remuneration packages of the Chief Executive Officer and management.

FURTHER INFORMATION ON TERNA'S CORPORATE GOVERNANCE MAY BE FOUND IN:

- the "Report on Corporate Governance and Ownership Structures", which was approved by the Board of Directors on 22 March 2018, and is available in the "Investor Relations" section of Terna's website;
- the "Remuneration Report".

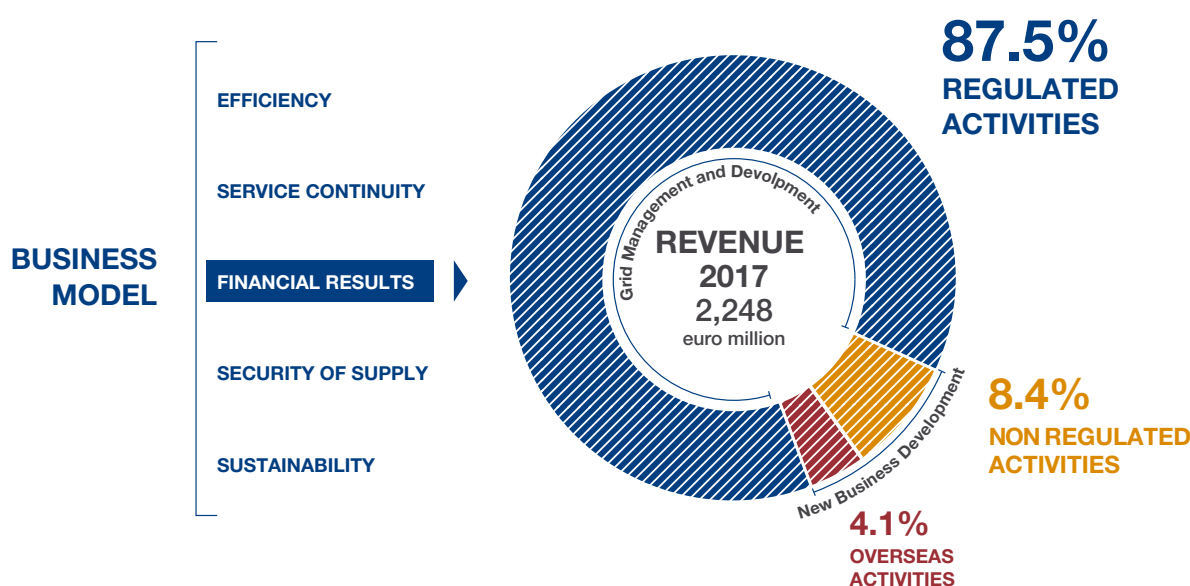
³ Edition of December 2011, updated in July 2015, and available on Borsa Italiana SpA's website at <http://www.borsaitaliana.it/comitato-corporate-governance/codice/2015clean.pdf>. The Code was drawn up by the Corporate Governance Committee for listed companies established by ABI, Ania, Assonime, Assogestioni, Borsa Italiana and Confindustria, and most recently updated in the July 2015 edition.



Terna's businesses

Terna's business model focuses primarily on its **Regulated Activities**, consisting of the transmission and dispatching of electricity. By leveraging the expertise developed in managing its core business, the Company's **Non-regulated Activities and International Activities** help to boost growth, taking advantage of the opportunities resulting from technological discontinuities and from energy sector trends in Italy and abroad.

Terna's Strategic Plan, which focuses on the long term, sets out targets, priorities and investments, based on an analysis of medium- and long-term trends that could present challenges, and on the consequent identification of the related solutions. As discussed in depth in the section on the operating environment, good examples are the changing energy scenarios and the resulting need to upgrade the electricity transmission grid, or the increasing integration of grids at European level.



The **Regulated, Non-regulated and International Activities** benefit from Terna's financial resources and the technical expertise of its personnel, which is often unique in the electricity sector and represents an example of distinctive human capital. Against a rapidly changing external environment (e.g. economic conditions, the evolution of the electricity system, technological upgrades, social issues and environmental challenges), innovation, **quality of service** and the **minimisation of environmental impacts** play a key role in driving the Group's performance.

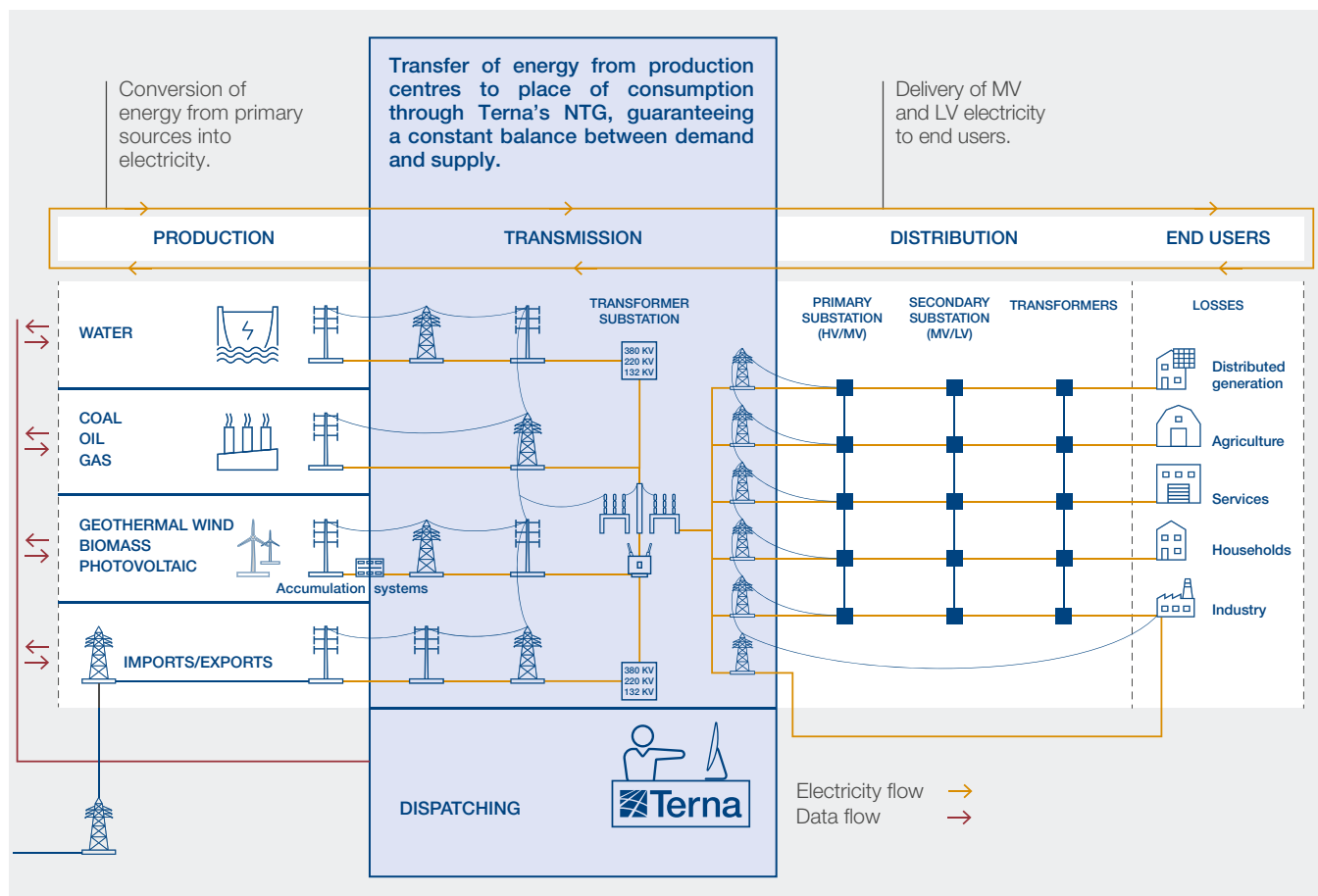
As well as avoiding the risk of failing to become aware of potential problems in a timely manner, stakeholder engagement, based on reciprocal trust and transparency, strengthens the Group's social capital and enhances the sustainability of the business model, including over the medium to long term.

Regulated Activities - Electricity transmission

The Italian electricity supply chain consists of four segments: production, transmission, distribution and the sale of electricity.

This chart illustrates Terna's core business, to which most of this Report is dedicated: transmission. This is a vital segment of the electricity service which, while not perceived as such by end users, the customers of companies that distribute and sell electricity, makes it ethically responsible towards the whole community.

For Terna, this requires a sustainable approach to its businesses, which is primarily expressed through responsible management of the NTG.



Electricity transmission breaks down into the following activities:

Planning

Close analysis of electricity flows through the grid, and the development of supply and demand projections, allow Terna to prevent the occurrence of problems and to schedule new projects needed to ensure that the system is adequate over the short, medium and long term, in relation to balancing, the safety of operations, reducing congestion and improving quality and continuity of service.

Network planning must be consistent with the objective of maximising the safe and secure integration of renewable energy sources. This means that all existing regulatory resources, including exports and imports and power generation controls, must be taken advantage of. The new works to be carried out are included in the NTG Development Plan, presented annually to the Ministry for Economic Development for approval. Terna follows the complex authorisation process.

Implementation of development initiatives

Responsibility for the design and construction of the works included in the Development Plan has been assigned to Terna Rete Italia SpA, which decides on the need for external resources and the budget, and establishes the related solutions and the technical specifications for the components and materials to be used, in compliance with the technical regulations in force. Terna Rete Italia also defines the engineering standards for plants connected to the grid, above all standards of construction and the performances required of equipment, machinery and substation and power line components. The construction of new plants is usually outsourced, whilst maintaining strict control over contractors' approaches to environmental and social concerns. Development initiatives include the construction of interconnectors with other countries and the creation of battery systems for storing electricity, which enable problems regarding regulation of the electricity system, resulting from the development of renewable energy, to be resolved and such resources to be exploited to the full.

Dispatching

Dispatching ensures a balance between the quantity of electricity injected into and withdrawn from the system, between energy supply and demand, round the clock, 365 days a year.

This activity has become more complex over time, partly due to significant growth in non-programmable renewable sources, requiring greater flexibility, especially in situations where the supply from renewable sources is very high and demand for energy is low.

This activity includes planning for the unavailability of the grid and of production plants over different time-scales, forecasting national demand for electricity, comparing demand for consistency with planned production in the free energy market (the Power Exchange and over-the-counter contracts), the acquisition of resources for dispatching and monitoring power transfers for all the power lines that make up the grid.

Real-time control of the entire system is ensured by the National Control Centre, the nerve centre for Italy's National Electricity System, which coordinates the other centres around the country, monitors the system and dispatches electricity. The Centre intervenes, by issuing instructions to producers and Remote Centres, in order to modify supply and capacity on the grid. To avoid the risk of prolonged power outages, it may also intervene in an emergency to reduce demand. This area of operation also includes management of the Dispatching Services Market (DSM), through which the resources for dispatching services are procured.

Infrastructure maintenance

The maintenance of power lines, substations and storage systems is carried out by Terna Rete Italia, which is also responsible for defining the technical criteria and standards for the maintenance and renewal of assets.

As the TSO, Terna is also responsible for managing producers' registers, handling the data on injections and withdrawals for use in determining the related revenues and costs, and for processing statistics on the Italian electricity industry. This entails having access to confidential data regarding operators in the system, especially electricity producers. To protect this data, Terna has adopted the best data protection practices in order to prevent the information it holds from being accessible or disclosed to unentitled third parties.

Regulated revenue

Regulated revenue of €1,967.2 million represents approximately 87% of Terna's total revenue. It is determined on the basis of ARERA resolutions establishing the structure and criteria to be used. Each year, the regulator revises the criteria, if necessary.

THE THREE MAIN TYPES OF ALLOWED COST

Determined on the basis of the Regulated Asset Base (RAB) and the Weighted Average Cost of Capital (WACC). The RAB represents net invested capital for regulatory purposes. It is revalued annually on the basis of data from ISTAT (Italy's Office of National Statistics) on the change in the deflator applied to gross fixed investment and revised on the basis of the performance of investment and disposals. The WACC ⁴ represents the weighted average cost of equity and debt. The methods of determining and revising the WACC are established by the regulator.	To cover the return on capital (RAB)																		
Allowed depreciation (calculated on the basis of an asset's useful life for regulatory purposes) is revalued annually based on the change in the deflator applied to gross fixed investment.	To cover depreciation																		
Allowed costs are determined by the regulator at the beginning of the regulatory period, based on operating costs recognised during the relevant year (which, in the case of the first regulatory sub-period - NPR1 - was 2014) and increased by any remaining portions of additional efficiencies achieved in the previous two regulatory periods. The resulting amount is revalued annually on the basis of inflation and reduced by an efficiency factor designed to ensure that additional efficiencies are, over time, passed back to end users in full.	To cover operating costs																		
As part of its dispatching operations, Terna manages the cost and revenue items relating to the purchase and sale of energy from and to operators in the electricity market. These are the so-called "pass-through" items that do not affect the Terna Group's profitability, as the revenues equal the costs. In 2017, the Terna Group's pass-through revenues and expenses amounted to a total of €5,300 million. For further details, reference should be made to the "Annual Report 2017".	Pass-through items																		
The current regulatory framework provides for incentive schemes based on bonuses and penalties, aimed at promoting improvements in the service, in technical reliability and in economic terms. It is implicit in the incentive schemes that, following achievement of the set objectives, the benefits for end users of the service should be many times the value of the incentive obtained. The bonuses or penalties linked to achievement of the objectives set under the incentive schemes are included within total regulated revenue.	Incentive mechanisms for 2017																		
<table> <tr> <td>(€m)</td><td>2017</td></tr> <tr> <td>RENS bonuses/(penalties)</td><td>7.4</td></tr> <tr> <td>Revenue</td><td>7.4</td></tr> <tr> <td>Mitigation and sharing mechanisms</td><td>10.6</td></tr> <tr> <td>Contributions to the Fund for Exceptional Events</td><td>2.4</td></tr> <tr> <td>Compensation mechanisms for HV users</td><td>0.6</td></tr> <tr> <td>Contingent assets</td><td>(3.1)</td></tr> <tr> <td>Costs</td><td>10.5</td></tr> <tr> <td>Total</td><td>(3.1)</td></tr> </table>	(€m)	2017	RENS bonuses/(penalties)	7.4	Revenue	7.4	Mitigation and sharing mechanisms	10.6	Contributions to the Fund for Exceptional Events	2.4	Compensation mechanisms for HV users	0.6	Contingent assets	(3.1)	Costs	10.5	Total	(3.1)	
(€m)	2017																		
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Costs	10.5																		
Total	(3.1)																		
For further details regarding the main types of allowed cost and charges for transmission and dispatching services, reference should be made to the "Annual Report 2017".																			

⁴ For the period 2016-2018, the real pre-tax WACC for the transmission service is set at 5.3%.

Other activities in Italy

In line with the guidelines in its Strategic Plan, the Group pursues opportunities beyond its core operations, whilst remaining true to its mission (e.g., energy solutions) and if distinctive and capable of adding significant value, as a platform for innovation and sustainability within the process of the TSO's development. Exploitation of these opportunities depends on establishing relations with a new type of stakeholder: the customers of our Non-regulated Activities whose potential, in financial terms, is destined to grow as a driver of the Group's revenue diversification. These Italian activities consist of:

- Services for third parties: Energy Solutions, Telecommunications and Operation & Maintenance (O&M);
- Private interconnector projects with other countries ("Private interconnectors pursuant to Law 99/2009").
- Transformers - Tamini Group

SERVICES FOR THIRD PARTIES

In Italy, during 2017, Terna continued to provide its services to third parties in the areas of **Energy Solutions** (the development of technical solutions and the supply of innovative services), **Telecommunications** (the housing of telecommunications equipment and maintenance services for fibre networks) and **O&M** (operation and maintenance of high-voltage and very high-voltage infrastructure). As regards Engineering services, Terna obtained several EPC (Engineering, Procurement and Construction) contracts: this model involves the design, development and implementation of solutions to meet the growing demand for infrastructure and grid connections. As regards Telecommunications services, Terna has expanded its proprietary fibre network through the targeted laying of new cable. The new network has been exploited via long-term IRU (Indefeasible Right of Use) contracts with major Italian telecommunications operators, including provision of the related maintenance and housing. In addition, Terna has pre-qualified for participation in a number tenders for contracts to build fibre networks and has begun the experimental development of projects aimed at exploiting the pylons in its high-voltage network.

Energy Solutions

The main activities during the year include:

- conclusion of a contract for the construction of a high-performance, gas-fuelled cogeneration plant with an installed capacity of approximately 400 kW;
- start-up of the process of obtaining consents for a photovoltaic generator with the related storage system and advance control system, which will make the island of Giannutri the first Smart Island to be created by Terna;
- participation, with Avvenia, in the tender called by a leading Italian steelworks, with the contract to be awarded by the end of 2018, for the supply and installation, under an EPC (Energy Performance Contract), of a heat recovery generator using steam from walking beam ovens.

Terna's contracts to operate third-party infrastructure include the long-term contract to maintain a submarine cable and contracts to maintain third-party users' substations, power lines and substations used in renewable energy production.

Telecommunications

The acquisition of contracts to supply long-distance fibre infrastructure with Open Fiber, Tim Sparkle, Wind, Retelit and others led to the delivery, in 2017, of over 10,000 km of fibre network and the start-up of work on a further 15,000 km to be delivered in the next three years.

At the end of 2017, a three-year framework agreement was entered into with Infratel for the supply of backhaul networks as part of the National Ultra-Broadband Plan. This will enable Terna to take part in the related tenders, amounting to a total of €150 million, which will be broken down into lots from January 2018. Finally, Terna has begun experimental development of projects aimed at exploiting the pylons in its high-voltage network as smart towers or for wireless transmission in remote area (Fixed Wireless Access).

Plant operation and maintenance for third parties (O&M)

O&M service contracts include a long-term contract to provide maintenance for a submarine cable and maintenance contracts for substations belonging to the end users of third parties, power lines and substations used in renewable production.

PRIVATE INTERCONNECTORS

Since 2009, Italy has implemented the EU requirement to give undertakings other than grid operators the possibility of creating interconnections with other countries, with the aim of promoting the development of a single electricity market. Under Italian law, Terna is responsible for selecting the undertakings concerned, via public tenders.

In July 2017, the Terna Group and the Interconnector Italia Scpa consortium, entered into agreements relating to the construction and operation of the private part of the Italy-France interconnector. The related construction (EPC) and operation and maintenance (O&M) contracts were also entered into with a total value of over €400 million. Further details are provided on page 125.

TRANSFORMERS (TAMINI)

Tamini Trasformatori Srl operates in the electromechanical sector and is a leader in the design, production, commercialisation and repair of power transformers for electricity transmission and distribution grids, of industrial transformers for the steel and metals industry and of special transformers for convertors used in electrochemical and electrolytic production. Through Tamini, the Terna Group has 5 production plants located in Italy at Legnano (MI), Ospitaletto (BS), Valdagno (VI), Novara and Rodengo (BS) and two trading companies in the United States and India.

The Rodengo plant specialises in services, whilst the Novara production plant continues to manufacture coils, operating as a service centre for all the production sites that manufacture for both the Power and Industrial sectors.

Orders for transformers rose 35% in 2017 compared with the previous year, whilst the supply of Phase Shifting Transformers was completed, enabling the group to break in to this sector at European level.

Testing of the first transformer using vegetable oil to be manufactured in Italy was successfully carried out at the Legnano plant.



THE FIRST
TRANSFORMER
USING VEGETABLE
OIL TO BE
MANUFACTURED
IN ITALY

ACQUISITIONS

In February 2018, Terna - via its subsidiary, Terna Plus - completed the acquisition of 70% of a New. Co. to which Avvenia's principal assets are to be transferred. Avvenia is a leader in the energy efficiency sector and over the years has established itself as one of Italy's most important energy service companies (ESCO).

International Activities

In line with the guidelines in the Strategic Plan, development of the Group's International Activities continued. The Group aims to take advantage of opportunities for international expansion by leveraging its core competencies developed in Italy as a TSO, where such competencies are of significant importance in its home country. Overseas investment focuses on countries with stable political and regulatory regimes with a need to develop their electricity infrastructure.

Terna seeks to develop its offering in other countries, with a view to diversification with respect to its Italian businesses. This is done partly in collaboration with other energy companies with a consolidated presence in foreign markets.

International markets offer opportunities in terms of the development of transmission plant, driven by growing demand for electricity (e.g., growth of 2.4% per year through to 2025 in Latin America) and the opening up of markets to foreign operators (e.g., BOOT/BOT in Latin America, merchant in the US).



BRAZIL
CHILE
PERU
URUGUAY

Terna has set itself three strategic priorities with regard to its International Activities:

- To strengthen its EU presence (assessing and monitoring M&A opportunities and merchant interconnector projects);
- To grow its core TSO operations where Terna can play a leading role or with a high technological content;
- To deprioritise low value added activities in favour of advanced, capital light services.

In this context, in September, Terna won a contract in Uruguay to carry out three electricity infrastructure projects: in particular, Terna is to build a 213-km long, 500 kV power line from Melo to Tacuarembó.

Overseas initiatives of interest to the Terna Group are:

- Concessions: this model envisages the acquisition and operation of transmission systems abroad by taking part in international concession awards;
- Technical assistance: this envisages the supply of engineering and regulatory consulting services for third parties operating in the electricity sector, including through participation in public tenders;
- BOOT (Build, Own, Operate, Transfer) and BOT (Build, Own, Transfer): the BOOT model involves the design, construction and operation of transmission plant and its ownership for a defined period of time; at the end of this period, ownership of the asset is transferred to the other party under the terms of the contract; the BOT model only involves design and construction and normally the transfer of ownership of the infrastructure.

ACTIVITIES IN 2017

The commissioned plants (two substations and a 220kV power line) have entered service. Work also continued on other activities in the area, which will be completed in February 2019.

In July 2017, project finance was obtained to fund the project for which Terna was awarded a contract in Uruguay in 2016, regarding the construction of three new electricity infrastructures in the country.

In August 2017, UTE - the state-controlled, vertically integrated company responsible for the generation, transmission, distribution and sale of electricity - obtained environmental clearance for construction of the "Melo - Tacuarembó" line, which is expected to be completed by the end of 2019.

The process of procuring materials for use in the infrastructure and construction engineering is in progress and, in September 2017, civil engineering work began.

Finance and sustainability: the "green loan" for Uruguay

In July 2017, Terna signed a Project Finance agreement worth US\$81 million to fund construction of a 500-kV transmission line to connect the cities of Melo and Tacuarembó in Uruguay. The package has been qualified as a "green loan" by Vigeo Eiris, an agency specialising in the assessment of aspects relating to the sustainability of business strategies and management, due to the fact that the new transmission line will increase the generation and consumption of energy from renewable sources, thereby raising the related contribution to national production.

Chile

Uruguay



In February 2017, the Terna Group, through its subsidiary, Terna Plus, entered into an agreement with Planova, a Brazilian company whose business involves the construction of civil works and infrastructure, regarding the acquisition of two concessions for the construction and operation of a total of approximately 500 km of electricity infrastructure in the South American country.

On 26 June 2017, the transaction closed with receipt of the related construction permits and, from this date, the organisational structure set up to manage the two concessions in situ was implemented.

The two concessions, which have terms of thirty years, will result in construction of 158 km of new lines in the State of Rio Grande do Sul and 350 km of lines in the State of Mato Grosso. Under the agreement, the Terna Group will hold the concession and operate the line, while all engineering, procurement and construction (EPC) activities will be entrusted to Planova, as the "contractor" operating on Terna's behalf.

Brazil

In July 2017, the Terna Group, through its subsidiary, Terna Plus, was awarded a contract in Peru following the call for tenders by Proinversion - a vertically integrated company, controlled by MIEM (the country's Ministry of Energy and Mines), that promotes private investment in Peru. The contract regards the construction, operation and maintenance of new electricity infrastructure for the country. Via the subsidiary, Terna Perú SAC, the Group will engineer and build 132km of new 138kV lines between Aguaytia and Pucallpa and expand two electricity substations, which will host the new connection bays. In September 2017, Terna Perú SAC entered into a contract with MIEM, giving it 36 months from conclusion of the contract to build and prepare the line for operation. It will then operate and maintain the line for a period of 30 years. Engineering work for the infrastructure and the process of obtaining environmental clearance began in October 2017.

Peru

Revenue from other Italian and International Activities

In 2017, other activities (Non-regulated Activities and International Activities) generated 12.5% of the Group's total revenue. This regards €189.1 million from the Non-regulated Activities, including €92.6 million generated by the Tamini Group, and €91.7 million from International Activities.

Strategic Plan 2018-2022

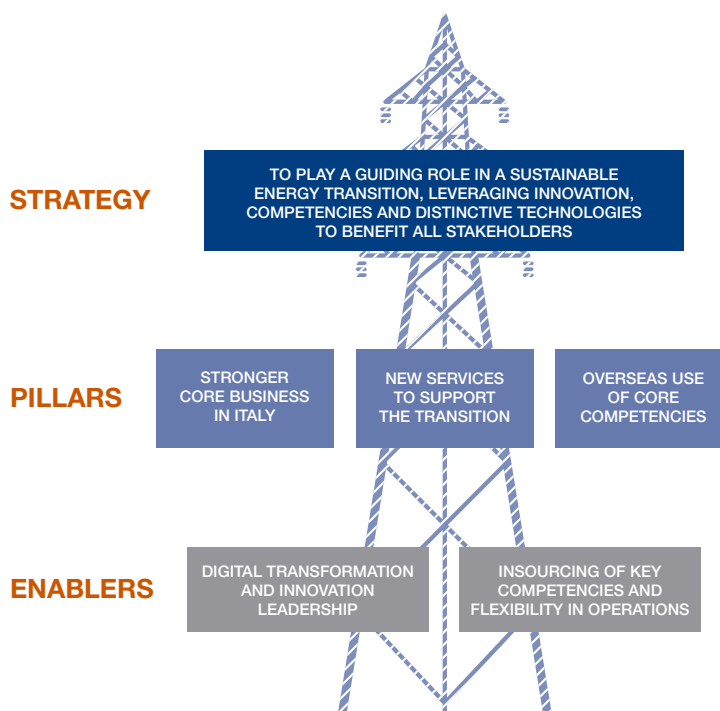
On 22 March 2018, Terna approved the Strategic Plan for the period 2018-2022, setting out the following goals: to play a leading role in the coming sustainable energy transition, by leveraging innovation, skills and distinctive technologies for the benefit of all stakeholders.

The electricity sector is rapidly evolving as a result of the radical transition underway, which aims to achieve challenging objectives linked to sustainability, decarbonisation, competitiveness and security. In particular, the sector is witnessing the strong development of renewables, resulting in measures designed to integrate them within the electricity system. We are also seeing the pursuit of energy security by strengthening interconnections, the development of grid storage and power grid resilience and, finally, greater competitiveness in the market, requiring the management of complex trading relations between TSOs and other parties operating within the system. In this context, the leading European TSOs are redesigning their strategies and increasing investment to meet the requirements of the new system. Their investment plans take into account the varying stages of energy transition in different countries and are strongly impacted by the development of renewables.

Consequently, the following strategic guidelines have been identified for the various areas of the Group:

- **Regulated Activities in Italy:** to strengthen the core business by giving top priority to all activities that enable Italy to tackle its energy challenges in a safe, efficient and sustainable way;
- **Non-regulated Activities:** to launch new services to support the energy transition, taking advantage of opportunities beyond our core activities, to be pursued in line with Terna's mission, and if distinctive and/or of high added value;
- **International Activities:** to leverage the core competencies developed in Italy as a TSO through growth opportunities overseas.

To provide operational support for these initiatives, the Company plans to step up investment in innovation and digital solutions in order to manage the growing complexity of the system. Attention will also be paid to the development and insourcing of strategic skills to cope with projects of growing size and complexity.



The guidelines identified for the Group's various strategic areas have been divided into appropriate priority actions to be carried out over the life of the Plan.

With reference to **Regulated Activities in Italy**, the system needs a new investment drive to respond to the developing needs of the system, with a focus on maximising long-term use and sustainability. The role of proactive system operator in defining the grid's structure should also be strengthened by combining Terna's specialist expertise with the experience gained in the most advanced markets.

Non-regulated Activities should be geared towards supporting the energy transition, especially as an **energy solutions provider**, involving the development of services for companies and taking advantage of value added market opportunities for traditional and renewable energy customers. On the other hand, the telecommunications business will aim to pursue opportunities based around boosting the Group's infrastructure capabilities.

International Activities will focus on the execution of projects in progress, taking advantage of the Group's specialist expertise. Among the priority actions, the main focus will be on selecting international growth opportunities with a high technological content (a key aspect for Terna) and involving potential agreements/partnerships, including the management of assets without the need to tie up large amounts of capital.

Maintenance of a strong capital structure through robust cash generation will also help to support an attractive dividend policy.

MAIN TARGETS

REGULATED ITALY	Net Regulated Capex ₁₈₋₂₂	~ €5.3bn	vs ~ €4.0bn ₁₇₋₂₁
	CAGR RAB* ₁₈₋₂₂	> 3%	up to ~ €17.5bn
NON REGULATED	EBITDA ₁₈₋₂₂	~ €350m	vs ~ €300m ₁₇₋₂₁
	Capex ₁₈₋₂₂	~ €300m	
INTERNATIONAL	EBITDA**	~ €150m	
	Capex*** ₁₈₋₂₂	~ €600m	
EFFICIENCY AND CREATION OF VALUE FOR THE GROUP	Efficiency: CAGR ₁₈₋₂₂ of EBITDA	> 3%	
	Value creation: CAGR ₁₈₋₂₂ of EPS	~ 3%	

* Calendar RAB, including work in progress.

** Includes financial income on Uruguay project.

*** Investment already included in Development, Security and Renewal plans.





02 Responsible business management



Terna's sustainability themes

For Terna, sustainability is a strategic lever and growth factor, contributing to the achievement of its business objectives.

In line with the Group's agenda, the most significant themes in this regard are:

- Terna's role as an enabler of the transition to a decarbonised economy, based on the integration of renewable sources and, more generally, on environmental sustainability through innovation and green investment;
- the central importance of people and their skills, which are often rare or unique in the electricity sector;
- attention to local areas and their stakeholders;
- business integrity.

The strategies and objectives relating to these themes converge in the Group's main action plans, starting with the Strategic Plan (see page 42), the Innovation Plan (see page 132) and the Sustainability Plan, which are highly interconnected.

Terna's sustainability policies and management systems refer to the Code of Ethics⁵, which has been adopted by all Group companies.

In 2009, Terna joined the Global Compact, the multi-stakeholder network promoted by the United Nations to foster compliance with ten principles relating to human rights, employment, the environment and the fight against corruption.

Terna at the Private Sector Forum in New York

Terna's CEO, Luigi Ferraris, took part in the Private Sector Forum, the annual Global Compact event held at the United Nations General Assembly in New York, which is attended by the CEOs of large companies, investors, heads of state and government, United Nations representatives and civil society. In line with the commitments in the 2030 Agenda, the Global Compact invited 300 leaders from around the world to discuss how to mobilise the necessary financial support to achieve the SDGs.

Terna's CEO presented a document to the Global Compact, containing concrete proposals for facilitating the financing of the SDGs, such as inviting the relevant institutions to include environmental and social requirements in public tenders, and investors to stop making a distinction between financial and sustainability analysts.

⁵ The Code of Ethics is published on Terna's website under Corporate governance, in the "Investor Relations" and "Sustainability" sections.



In line with this commitment, Terna took up the challenge posed by the UN's 2030 Agenda, as set out in the 17 SDGs. This has meant incorporating a series of objectives into its strategic planning, involving the achievement of a decarbonised economy through energy transition based on the integration of renewables, and the strengthening of transmission capacity, interconnections with other countries and infrastructure resilience.

SDG 7

SDG 9

SDG 13

In December 2017, Terna, ANBI (the National Association of Consortia engaged in the Protection of Italy's Landscape and Irrigation Water) and Coldiretti signed a memorandum of understanding aimed at creating initiatives of common interest regarding the optimal management of irrigation resources, energy efficiency and nature conservancy.

This partnership envisages a concrete circular economy model based on multipurpose use of water (potable water, irrigation and energy reservoirs) that combines the priority needs of agricultural enterprises with environmental sustainability, adapting existing hydroelectric plants so as to improve their efficiency.

In a second phase, Terna and ANBI will evaluate potential initiatives designed to increase hydroelectric power production, with a view to guaranteeing the energy independence of land reclamation authorities. Coldiretti, in line with its mission to develop more efficient uses of natural resources, combat the effects of climate change and develop multiple uses of water, is committed to verifying that all actions undertaken comply with the principles of environmental sustainability, whilst protecting Italy's rural heritage and the biodiversity that characterises the country's agriculture.

[Terna, ANBI and Coldiretti: circular economy agreement](#)





Sustainability governance

Terna's sustainability themes and policies are managed in accordance with a well-organised governance system that includes:

Audit, Risk, Corporate Governance and Sustainability Committee

"Sustainability" department

Integrated Management System

Balanced scorecard and variable remuneration

Audit, Risk, Corporate Governance and Sustainability Committee

This Committee is composed of independent members of the Board of Directors tasked to support the Board in assessing and making decisions on the Internal Audit and Risk Management System (IARMS). Since January 2016, the Committee's tasks have also included sustainability themes such as policies, objectives, the Sustainability Report and the monitoring of sustainability indicators.

"Sustainability" department

This department, which is part of the External Communications and Sustainability department, in collaboration with all the departments concerned, helps to define and disseminate the Group's sustainability objectives in ethical, social, environmental and governance areas. Preparation of the Sustainability Report is also assisted by the SDM (Sustainability Data Manager), a dedicated non-financial data management software application, which currently gathers over 1,500 indicators corresponding to more than 350,000 pieces of textual information, data, conversion factors and formulae for monitoring Terna's environmental and social performance over a 10-year period.

With regard to the prevention of reputational risk, the department monitors the risks relating to sustainability themes through analysis by the leading rating agencies (for example, RobecoSAM, Vigeo, Eiris), which periodically assess the Group's ESG performance. In 2017, Terna's presence was confirmed in all the leading international sustainability indices (details provided on page 52).

Integrated Management System

The Integrated Management System is the tool which - via certified quality, environmental and safety systems - optimises coordination of all the departments responsible for governing business processes, environmental performance and occupational safety, which over time have been supported by additional certifications and accreditations. It is an important risk management tool because it highlights potential risks in the areas under observation and identifies appropriate mitigation measures.

The Integrated Management System covers all the Italian and international activities of Terna SpA, Terna Plus Srl and Terna Rete Italia SpA. It does not include Tamini Group companies, which also have their own certifications in the same areas, as they are controlled by Terna Plus.

In June 2018, the appointed certification body will carry out the checks for the transition from the current version of ISO 14001:2004 to the new ISO14001:2015.



TERNA GROUP CERTIFICATIONS AND ACCREDITATIONS

TYPE	SCOPE	YEAR OF 1 ST ISSUE	YEAR OF RELEASE	YEAR OF EXPIRY
ISO 9001:2015	Terna Group (*)	2001	2016	2019
ISO 14001:2004	Terna Group (*)	2007	2016	2019
BS OHSAS 18001:2007	Terna Group (*)	2007	2016	2019
UNI CEI EN ISO 50001:2011	Terna Group (*)	2015	2015	2018
ISO 9001:2008	Tamini Group - All production plants	1993	2015	2018
ISO 14001:2004	Tamini Group - Plants at Legnano, Valdagno and TES (Ospitaletto plant)	2015	2017	2018
BS OHSAS 18001:2007	Tamini Group - TES (Ospitaletto plant)	2015	2017	2018
ISO 27001:2013	Terna SpA only for Market Monitoring Code applications	2011	2018	2020
ISO/IEC 17025:2005	Terna Rete Italia for multi-site test laboratories in Viverone (BI), Civitavecchia (RM) and Frattamaggiore (NA)	2014	2017	2022
ISO/IEC 17025:2005	Terna Rete Italia for calibration laboratories in Florence, Turin and Cagliari	2017	2017	2021
Legislative Decree 105/15 requirement (Seveso Directive)	Terna Rete Italia - SANC sites (**)	=	=	=
ISO 37001:2016	Terna Group (*)	2017	2017	2020

(*) Applies to the companies Terna SpA, Terna Plus Srl and Terna Rete Italia S.p.A..

(**) As this regards regulatory compliance, unlike certifications there are no dates of issue and expiry.

The monitoring and oversight of operations is based on a Balanced Scorecard (BSC) system, a dashboard of indicators via which achievement of the objectives - including sustainability objectives - linked to the Strategic Plan is assessed on a quarterly basis.

Key sustainability objectives are among those taken into account when determining the amount of variable pay, above all for the Chief Executive Officer and other senior managers.

Balanced scorecard and variable remuneration



Results

The results achieved by the Terna Group in 2017, and described in this Report, are based on the Strategic Plan guidelines and the long-term planning document, which is approved each year by the Board of Directors and presented to analysts during a specific event. The Strategic Plan also inter-relates with other instruments, such as the Sustainability Plan and the three-year Innovation, Research and Development Plan (page 132) which, with respect to medium- to long-term objectives, are also driven by concerns relating to sustainability.

The following table shows the extent to which the 2017 objectives have been achieved (see page 21 of the 2016 Sustainability Report).

Area of responsibility	2017 objectives	2017 results
Governance and general matters	Implementation of annual stakeholder monitoring.	...
	Preparation of a new Sustainability Plan.	..
	Adoption of the stakeholder engagement standard in grid development activities.	.
	Revision of the materiality matrix.	...
The environment	Keeping SF ₆ leakages below 0.6%.	...
	Life cycle assessment study on DC transformer substations.	..
	Improved energy efficiency: 70% of the main buildings (by volume) in classes A-C by 2020.	...
Social	Continued partnership with the Cariplo Foundation.	...
	At least 50 hours of training per capita per year on average in 2016-2017.	...
	Training in the Code of Ethics, anti-corruption and whistleblowing.	...

Objectives not fully achieved are currently being addressed and have been put forward again for 2018.

In addition to these main achievements, the following should also be noted:

- the drawing up of the "Respect for Human Rights within the Terna Group" guidelines (see page 62);
- the formal adoption of Terna's "Supplier Code of Conduct" (see page 64).

Objectives

The Terna Group's new Sustainability Plan is more closely integrated with the Business Plan, which it supports regarding certain macro objectives relating to the mitigation of ESG risks. The Plan breaks down into four dimensions: integrity-responsibility-transparency; the environment; human resources; and stakeholders.

The following table shows one key Plan objective for each dimension.

LONG-TERM OBJECTIVES

Dimension	Objective / Target
Environmental CO₂ emissions: leakages of SF ₆ , as a percentage of total installed gas capacity.	Leakages of the greenhouse gas SF ₆ represent the principal source of Terna's direct CO ₂ emissions. In 2017, Terna registered a leakage rate of 0.47%, slightly up on the all-time low registered in 2016 (0.39%), but still well below the weighted average for leading European TSOs (0.90% in 2016) and it's the pre-set target (0.60%). The objective is to not exceed 0.47% in the two year period 2018-2019 and 0.45% in the following three years.
Human resources Human capital: digital skills.	Digital skills are an enabler for implementation of the process innovations needed to meet the challenges presented by the energy transition. Developing these skills is one of the priority aims of human capital training and development programmes in the coming years. An initial mapping of skills will enable the Group to identify the excellences to be developed in order, with the support of appropriate management policies and tools, to disseminate and boost digital skills throughout all layers of the organisation. The objective is to upgrade the digital skills of the entire workforce over the life of the Business Plan (by 2022).
Integrity, responsibility, transparency Supply chain: environmental and safety certification requirements for qualified suppliers ("works" contracts).	The objective is to require all qualified suppliers for works contracts to obtain certification by 2020 (e.g. construction, vegetation management). The programme was launched in 2017 - suppliers were previously only required to have an environmental and safety management system in place, even if it wasn't certified - and by the end of the year had covered 2 segments out of 7 (29% of all segments, 11% of the value of contracts in the 7 segments).
Local and national stakeholders Engagement of local communities: public meetings with citizens.	Since 2015, Terna has stepped up its efforts to consult on the location of new electricity infrastructure, engaging with local communities as well as with local authorities. 17 meetings were held in 2017, the same number as held in the two-year period 2015-2016; however, only a number of the meetings were held prior to initiating the process of obtaining the necessary consents. The objective is, by 2022, to fully implement the plan to systematically organise meetings with the public in the initial stages of the process, for all major investment in development of the grid.

Sustainability indices

Terna's commitment to measuring and improving its ESG (Environmental, Social and Governance) performance is reflected positively in the sustainability ratings assigned by specialist agencies, in the Company's inclusion in the leading stock exchange sustainability indices and in the appreciation shown by socially responsible investors. Terna's inclusion in all the leading international stock exchange sustainability indices was confirmed in 2017. In its "Sustainability Yearbook 2018", published in January 2018, RobecoSAM ranked Terna in the Bronze Class.

TERNA'S INCLUSION IN SUSTAINABILITY INDICES (AT 31 DECEMBER 2017)

DOW JONES SUSTAINABILITY INDEX www.robecosam.com	The DJSI indices select the companies with the best sustainability performances from among those with the highest capitalisation (the top 300 out of 2,500 companies around the world for the World Index) based on assessments carried out by the agency, RobecoSAM. This index is deemed to be the most reliable by the "Rate the raters" survey conducted by GlobeSCAN SustainAbility among a group of around 700 qualified sustainability experts representing 70 countries. Terna has been included in the DJSI World Index since 2009.
ECPI www.ecpigroup.com/it	This index was created by ECPI - an Italian agency founded in 1997 which specialises in ratings, sustainability indices and research to incorporate non-financial information into investment processes - based on its own analysis of European companies' sustainability performances. Terna has been included since 2007.
ETHIBEL SUSTAINABILITY INDEX (ESI) www.forumethibel.org	The indices are calculated on the basis of ratings produced by Vigeo, which, as an initial population, include the approximately 10,000 ratings that are contained in the Russell Global Index. Inclusion is subject to the positive opinion of the Ethibel Forum, a panel of independent experts on the various aspects of sustainability. Terna has been included in the ESI since 2009.
EURONEXT VIGEO www.vigeo-eiris.com	Developed by the Vigeo rating agency, these indices are based on a population of companies listed in North American, Asian and European markets and included in the STOXX® 1800 list. Vigeo's ESG indices are drawn up on the basis of a methodology including over 330 indicators and 38 sustainability criteria. Terna has been included in the World 120, Eurozone 120 and Europe 120 lists since 2012, the year in which they were introduced.
FTSE ECPI www.borsaitaliana.it	Introduced in 2010, these are the sole sustainability indices comprising a selection of companies listed only on the Italian Stock Exchange, based on analysis by the company, ECPI. Terna has been included in the FTSE ECPI since 2010.
FTSE4Good www.ftse.com	The FTSE4Good indices group together the best companies in terms of sustainability performance based on analyses carried out by Evalueserve. The index is reviewed twice a year, in March and September. Terna has been in the index (Global and Europe lists) without interruption since 2005.
MSCI GLOBAL SUSTAINABILITY www.msci.com	MSCI has integrated the original KLD indices - among the first to track companies' non-financial performance, and which are still one of the most accredited benchmarks in the United States - with other sustainability indices. Terna's has been continuously included since 2007.
STOXX® ESG www.stoxx.com	Launched in 2011, these indices are based on assessments made by the Sustainalytics rating agency, and select the best shares in terms of ESG performance (around 350) from the 1,800 in the STOXX® Global general index. Admission to the Global ESG Leaders Index, requires inclusion in at least one of the three specialist indices (Global Environmental Leaders, Global Social Leaders and Global Governance Leaders). Terna is the only Italian utility company to be included in all three of them. Terna has been included in the index since 2011.
STOXX® LOW CARBON www.stoxx.com	Launched in February 2016, the STOXX® Low Carbon Indices aim to provide a selection of companies with low CO ₂ emissions. The selection of companies is based on data gathered by the CDP (Carbon Disclosure Project). The components of the indices are selected from the STOXX® Global 1800 list based on their carbon intensity (Scope 1 and Scope 2 of the GHG Protocol), based on the ratio of emissions to revenue.
UNITED NATIONS GLOBAL COMPACT ("GC100") www.unglobalcompact.org	Established in 2013 by the United Nations Global Compact in collaboration with the research company, Sustainalytics, this index encompasses the 100 companies that have distinguished themselves at global level, in terms of both their attention to sustainability issues and their financial performance, and which comply with the ten fundamental United Nations principles regarding human rights, labour, the environment and efforts to combat corruption. Terna has been included in the index since 2013.

Terna has also been selected for inclusion in certain investment registers drawn up on the basis of sustainability criteria, which, particularly when of a public nature, provide a benchmark for investors who focus on ESG performance.





Risk management

The Terna Group's main business is operated as a legal monopoly, subject to the terms of the government concession and the regulations defined by the Regulatory Authority for Energy, Networks and the Environment (ARERA). This means that regulatory risks and risks that may have an impact not so much on Terna, as on the entire electricity system (for example, power outages), are particularly significant. In this regard, risks that may also have long-term effects, such as those deriving from climate change, are relevant to Terna.

Terna has identified the main risks associated with its activities and prepared organisational measures, controls and specific instruments with the aim of reducing them, and keeping any effects within acceptable limits.

From an organisational point of view, the Group is structured in such a way as to guarantee management and supervision of all its operations and the risks associated with them, as well as a clear allocation of roles and responsibilities. In particular, in line with the provisions of the Corporate Governance Code for listed companies, which the Group has voluntarily adopted, the Audit and Risk, Corporate Governance and Sustainability Committee (the "Committee"), consisting of independent directors, supports the Board of Directors in making its assessments and taking decisions relating to the Internal Audit and Risk Management System ("IARMS").

The Committee has a direct relationship with the Chief Risk Officer (CRO), who is appointed by the Director that heads the IARMS, with the task of supporting senior management in applying the risk management guidelines and the policy drawn up by the Board of Directors, and ensuring timely implementation of the activities relating to the definition of risk assessment methods and tools that form part of the Enterprise Risk Management process.

Under the Internal Audit and Risk Management System, the Audit department has the task of verifying that the IARMS is operating smoothly. Audit activities extend to all business processes (including Risk Management), with particular attention paid to the most important processes due to their impact on the Company's value, the degree of risk they pose in respect of achievement of the Company's objectives, or their influence on aspects of broad interest to the Company.

For details of the different types of risk to which the Terna Group is potentially exposed and the related management systems, reference should be made to the relevant section of the Integrated Report.

Only the risks specifically related to aspects of sustainability are described below.





Risks and opportunities

connected with climate change

> 201-2

In assessing the risks and opportunities for Terna deriving from climate change, the role the Company plays as Italy's transmission system operator must be taken into account. In particular, given the European trend towards decarbonisation and large-scale use of renewables, and bearing in mind the support for these trends provided by government policy (including Italy's National Energy Strategy for 2017), high-voltage grids have a greater role than ever before in driving growth in renewable generation capacity.

As a consequence of this role, the increase in investment necessary to enable the energy transition represents a major new opportunity for Terna. For example, the limited ability of the existing grid to absorb rising amounts of production from non-programmable renewable sources (wind, photovoltaic) has created the need to upgrade the grid and, as a result, new investment opportunities for Terna. It should also be borne in mind that the regulatory framework for the electricity system is moving towards an output-based model, linking returns on investment to effective benefit for the system and the population, including in terms of increased penetration of renewable sources and cuts in emissions.

Similarly, the risks to Terna's assets and to the transmission service arising from extreme weather events have repercussions on the end users of the grid. In order to mitigate such risks, Terna - in keeping with its duty to ensure security and continuity of supply - has prepared a Resilience Plan (first edition: 2017, see page 126), in which the necessary measures have been included in the capital expenditure financed through the bills paid by end users.

Overall, therefore, climate change and the consequent trend towards decarbonisation, create more opportunities than risks for Terna, also in terms of the development of its Non-regulated Activities. The following description of the opportunities and risks connected with climate change is presented in accordance with the recommendations for companies published by the Task Force on Climate-related Financial Disclosures.

Opportunities

The opportunities linked to climate change affect Terna's strategy, with potential economic effects in the medium term, regarding both Regulated and Non-regulated Activities in Italy and overseas. Possible sources of opportunity include:

Products and services

As regards the Regulated Activities, both the Development Plan and the Resilience Plan include investments that have assumed greater importance in relation to climate change. In the 2018 Development Plan (page 115), components designed to drive the integration of renewable sources and grid resilience form a significant part of the overall Plan. This approach is in line with a regulatory framework that is moving increasingly towards the use of output-based solutions, which could boost Terna's returns in relation to its ability to generate benefits for the system.

Terna's Non-regulated Activities will, in the future, benefit from new possibilities, relating above all to the identification and development of new energy solution (e.g. DER - distributed energy resources, cogeneration, energy efficiency).

Markets

The scenarios and trends that encourage the development of new opportunities in Italy are of global significance, and therefore also open up new opportunities overseas. See, for example, the power line under construction in Uruguay (page 41). The consistency between Terna's strategy and these trends also enables the Group to potentially access public incentives to support greater penetration of renewable sources.

Risks

Transition risks

Terna is not subject to legal obligations regarding cuts in emissions and registers low greenhouse gas emissions (see page 150). Therefore, no specific risks have been noted with regard to the introduction of a carbon tax or an increase in the carbon price, which would in fact improve the ratio between benefits for the system and Terna's investment costs. Nor would an increase in reporting obligations pose any problems for Terna, which has been providing full disclosure on its emissions for some time. As far as the regulation of service quality is concerned, an incentive-based scheme linked to service continuity is already in place, which may be affected by extreme weather events. The scheme has generated very different outcomes from year to year, ranging from penalties of approximately €15 million to bonuses of around €21 million in the period from 2010 to 2017. Terna's response to this risk is its Resilience Plan.

Political and legal

The decarbonisation process will require major investment in grid infrastructures also to keep pace with the growing use of electricity as energy carrier. This means that there is no risk of the service being replaced with other technologies, although it is without doubt necessary to invest in innovation to meet the challenges posed by the energy transition. In response, Terna has drawn up an Innovation Plan (page 132), identifying the most important current technological trends (above all linked to the digital transformation of the grid) and supporting investment in the related research and development in order to enable delivery of the Strategic Plan.

Technological

No current risks have been noted relating to cost increases deriving from the rise in the price of raw materials due to climate change, which in any case would not to any great extent form part of the risks to which Terna is exposed. The trend in Italy's electricity consumption is uncertain, reflecting a combination of declining demand due to progressive improvements in energy efficiency and an increase in consumption due to the shift to electricity as energy carrier. This reflects the trend towards reduced use of fossil fuels as a primary energy source. However, even if the amount of electricity transported over the transmission grid were to decline, the regulatory approach to both grid assets and operators would normally mitigate volume risk by guaranteeing stable revenues and the recovery of investment costs.

Market

The increased likelihood of critical situations arising due to extreme weather events, and the growing complexity of the electricity system (the phase-out of traditional generation and the growth of distributed generation), requiring constant checks on the level of adequacy, could lead to widespread malfunctions. This has increased Terna's reputational exposure to public authorities and stakeholders in general.

Reputational

Physical risks

The occurrence of extreme weather events poses a particular risk for service continuity, but may also affect grid infrastructure. Terna has responded with its Resilience Plan and Innovation Plan.

Acute

Among the systematic changes relating to climate change, such as rising sea levels and rainfall, only temperature rises directly interfere with grid operation, as higher temperatures limit the possible amounts of electricity transmission.

Chronic



Compliance, integrity

and the prevention of corruption

Legality and honesty are two of the general principles on which Terna's Code of Ethics and the conduct of its business are based.

> 419-1

Compliance with legislation

Compliance with the law is the starting point for any voluntary improvement initiative. A summary of administrative or judicial sanctions and any significant court judgements regarding Terna is provided below. Also taking into account the indicators contained in the GRI Standards, Terna's compliance performance is illustrated below:

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- no significant procedures of an administrative or judicial nature, resulting in final judgements or in fines or court injunctions (e.g. prohibitions), were registered in 2017 or in the previous two years, nor did any of its employees receive criminal convictions (full compliance with regard to both environmental and socio-economic matters).
- in particular, the accounting records for 2017 do not reveal any pecuniary sanctions of an administrative nature, fines or penalties in excess of €10,000 relating to environmental matters.
- there were no legal proceedings pending against Terna in relation to corruption, antitrust or monopoly practices, nor were any court judgements handed down against Terna regarding these matters in 2017 or in the previous two-year period.
- there were no pending criminal proceedings for injuries caused to third parties by any of Terna's assets.
- no accidents affecting contractors' employees whilst carrying out work commissioned by Terna were registered, where such accidents gave rise to final court judgements ordering Terna to pay damages, or resulted in criminal convictions for Terna's employees.
- in 2017, and in the previous two-year period, there is no record of charges brought in relation to harassment or occupational injuries affecting employees or former employees, in which Terna's liability was definitively established.

Prevention of corruption

The values underpinning Terna's fight against corruption are contained in the Code of Ethics and the tenth principle⁶ of the Global Compact.

More generally speaking, since 2013 the robustness of the systems in place at the Company has led to the Parent Company being awarded the highest possible legality rating by the Italian Antitrust Authority. Moreover, Terna has actively participated in initiatives promoted by Transparency International, the world's largest organisation focused on preventing and combating corruption. This has included helping to spread awareness and engaging in communication campaigns, and the adoption of initiatives designed to combat the phenomenon.

Since 2015, Terna has published "Transparent and Open Construction Sites", a web space that can be accessed from any device. Since the beginning of the year, this has handled a total of 367 construction sites, 223 projects, 720 contracts and 658 suppliers (333 contractors and 325 subcontractors).

⁶ "Businesses should work against corruption in all its forms, including extortion and bribery."

In January 2017, Terna was the first Italian company to obtain 37001 certification for its anti-bribery management system, which covers the Parent Company as well as Terna Rete Italia and Terna Plus for all the Italian operations.

First Italian company to obtain 37001 certification for its anti-bribery management system

In November 2017, the Board of Directors approved the Global Compliance Programme (see page 60) and the Anti-corruption Guidelines, which are applicable to all the Group's Italian and overseas companies subject to prior approval from their respective Boards of Directors, in line with international best practices that promote a "top-down" approach. The Guidelines contain standards of conduct that all recipients are required to observe concerning, for example, the provision of gifts and donations and the related records, sponsorship and charitable activities, the prohibition of facilitating payments, political contributions and compliance with the Company's obligations regarding training, information and information flows.

Overall, the Terna Group has adopted three approaches to preventing corruption: its 231 Organisational Model, Fraud Management and Awareness-raising.

In 2016, Terna adopted a Whistleblowing Policy to manage reports, by employees, of violations of the Terna Group's internal control and risk management system. The guidelines set out the organisational arrangements for handling such reports and establishes the various responsibilities at each stage of the process. The policy also covers all aspects of security, above all regarding protection of the anonymity of the whistleblower, but also that of the accused. In addition, in line with best national and international practices and existing legislation, Terna has put in place specific communication channels, including the web portal, "The whistleblowing procedure".

231 Organisational Model

The 231 Organisational Model - which takes its name from Legislative Decree 231 of 8 June 2001 and was adopted by Terna in 2002 - defines rules of conduct and of internal organisation designed to ensure that the Company conducts its business and activities in a fair and transparent manner, with the aim of protecting the Company's position and image and meeting its stakeholders' expectations. In particular, the Model sets out rules to prevent various types of offence from being committed, some related to corruption and some to other concerns such as the environment and human rights.

In its current form, the Model (latest revision: 1 December 2017) breaks down into 11 sections, 1 general and 10 special, subdivided by category of offence. The first section regards the prevention of corruption and is supplemented by compliance rules relating to market abuse.

As provided for in the Model itself, responsibility for ensuring compliance with the Model's provisions, its effectiveness and its revision lies with the Supervisory Board, whose members are appointed by the Board of Directors. Reports of any infringements of the 231 Model may be sent directly to the website at www.terna.it, or the email address OdV_Terna@terna.it, or by ordinary mail.

Training initiatives continued in 2017, as described in the section "Raising staff awareness". Further information regarding Terna's Organisational Model and those of other Group companies may be found in the "Report on Corporate Governance and Ownership Structures".

Global Compliance Program

On 10 November 2017, Terna's Board of Directors approved the Global Compliance Programme (GCP), which aims to monitor the performance of the Group's overseas companies.

The Programme's purpose is to prevent the commission of offences of a criminal nature under foreign law (false accounting, the financing of terrorism, money laundering, copyright violation, offences relating to health and safety in the workplace), and to protect the individual subsidiaries and the holding company from any potential liability for criminal conduct perpetrated by employees or persons acting in their name and/or on their behalf.

The GCP has been drawn up in the light of the principles contained in the most relevant international regulations and of the best practices generally applied in matters relating to the criminal/criminal-like liability of organisations, and contains standards of conduct and control that each employee or person operating in the name of and/or on behalf of the Company must comply with, training and disclosure obligations, and provisions regarding the adoption and revision of procedures.

Fraud management

The Fraud Management team guarantees protection of the Company's assets (tangible and intangible resources, direct and induced benefits) against all illegal acts that may compromise the assets, and protects the Company's reputation and image via fraud prevention and management activities.

In order to identify potential vulnerabilities and eliminate them, Terna uses a method based on systematic analysis of the pre-conditions that may lead to fraudulent events, identifying the critical areas in which such acts are likely to occur, and tracing their causes back to any organisational and operational issues affecting its processes. Alongside this approach, the correct application and revision of existing internal guidelines, procedures and rules is also monitored, with a view to assessing and improving the efficiency of the internal control and risk management system in respect of fraud prevention.

Raising staff awareness

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All new hires attend training courses which, among other things, aim to ensure awareness and dissemination of the rules of conduct and procedures established in order to prevent unlawful behaviour, and to train and inform staff about areas of risk and potential crimes associated with the Company's activities.

In 2017, the long-term Training Plan (2016-2018) regarding matters relating to the 231 Organisational Model and efforts to combat corruption continued. The online campaign for all staff, which ran from the end of 2016 until February 2017, registered a total of 2,102 users over the entire period. Classroom courses were held for departmental managers (118 attendees) and for operating team leaders (235 attendees). Further classroom and online courses are planned for senior managers, middle management, office staff in 2018.





Respect for human rights

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The Terna Group operates mainly in Italy, where the regulatory framework and the level of civil development largely guarantee respect for human rights, freedom of association and collective bargaining, and therefore it is not crucial for the Company to take specific actions on these issues. Despite this, Terna pays constant attention to respect for human rights.

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In 2014 and 2016, the Audit department carried out two surveys, structured on the basis of the recommendations of the United Nations ("Guiding Principles on Business and Human Rights") to gauge employees' perceptions regarding the application of human rights within the Company and with respect to suppliers.

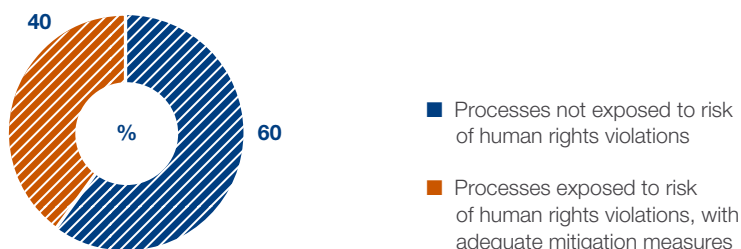
In April 2017, Terna adopted guidelines entitled "Respect for human rights within the Terna Group" in order to implement the recommendations of the guidelines on business and human rights set out in the aforementioned UN Guiding Principles. The guidelines provide for a periodic due diligence process regarding the Group's respect for human rights, taking into account its interaction with all its stakeholders (see the section, "Stakeholder engagement"). Particular attention is paid to vulnerable groups and the human rights most pertinent to Terna's activities, such as labour rights (e.g. discrimination, forced and child labour, freedom of labour union association, health and safety).

The first due diligence assessment, carried out in 2017, included the phases provided for in the guidelines and described in the following table.

RESPECT FOR HUMAN RIGHTS - DUE DILIGENCE OBJECTIVES

- > Identification of the areas of the Group's activities, including relations with suppliers, joint ventures and business partners, that are potentially exposed to the risk of violating stakeholders' human rights.
- > Identification of existing risk mitigation measures in these areas (e.g. certified management systems, guidelines, operating instructions, contract terms, training and awareness-raising activities).
- > Preparation of action plans if such measures are found to be lacking or inadequate.
- > Monitoring of the implementation of action plans.

The first due diligence assessment revealed that approximately 60% of the Group's processes are not exposed to the risk of human rights violations; for the remaining 40%, the existing mitigation measures were found, at first sight, to be adequate, as well as the grievance mechanisms. In the interests of greater security, an additional investigation was provided for in a very few cases, to be followed by an assessment of the need for any improvements. Finally, the risk of violations was also found to be adequately monitored for suppliers, joint ventures and business partners.



In February 2017, the French rating and sustainability studies agency, Vigeo-Eiris, published the results of its survey entitled "The human rights responsibilities of business in a changing world". The survey took in over 3,000 companies from 35 countries and 38 sectors, with Terna ranking 14th overall. It also came first in the group of the top 30 Italian companies worldwide.

14th
PLACE WORLDWIDE
IN THE HUMAN RIGHT
RESPECT RANKINGS

In principle, management responsibility for the Group's human rights rests primarily with the Human Resources and Organization, Procurement and Contracts and Security and Services departments, which ensure respect for human rights and labour protections by contractors and subcontractors. The Audit department is responsible for supervising the correct application of the rules in the Code of Ethics, while the Sustainability department monitors developments in external points of reference (e.g. international conventions).



Supply chain sustainability

Procurement and suppliers

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> 308-2

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> 414-2

As well as providing a service of general importance, Terna's activities help to generate downstream supply chain activity, creating significant economic value and social benefits.

In 2017, total expenditure on the procurement of services, supplies and works amounted to over €656⁷ million, spread across 1,978 suppliers contracted during the year.

The prevalence of national and local suppliers is determined by the specific nature of the business, especially by the need to carry out maintenance operations very swiftly in order to ensure the utmost safety of the system and greater competitiveness in terms of transport costs for heavy and bulky supplies. This also helps to cut the related environmental impacts.



1,978
SUPPLIERS
CONTRACTED
IN 2017

All suppliers are required to contractually commit themselves to comply with the provisions of Terna's Code of Ethics and 231 Model; any misconduct encountered will result in penalties. Terna's tender procedures include several requirements relating to social (human rights, working conditions) and environmental matters which, for some sectors relevant for ESG purposes, must be met from the qualification phase.

Procurement, which regards activities carried out in relation to Terna's core business - so-called "key supplies" -, and which mainly includes supplies of materials and electrical equipment, contracts for the provision of works and services in the electricity transmission, telecommunications and IT sectors, is governed by the new Procurement Code, in force since April 2016. This has introduced aspects relating to sustainability in tenders drawn up in accordance with the most economically advantageous tender criterion.

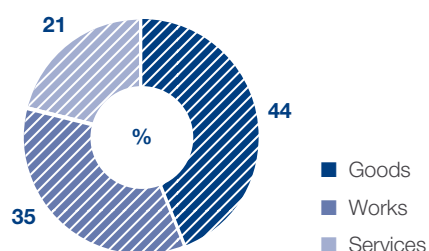
Terna's "Supplier Code of Conduct"

During 2017, Terna formalised its requirement for suppliers to conduct themselves in a lawful and ethical manner, protecting human and labour rights, health and safety, information security and the environment. This has taken the form of a "Supplier Code of Conduct" (downloadable from the website, <http://download.terna.it/terna/0000/0930/50.PDF>).

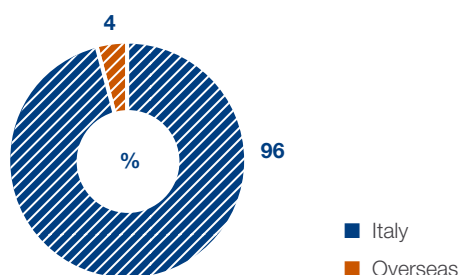
Terna expects all its suppliers to share and comply with these principles, and in turn strive to promote them among their own suppliers and subcontractors, and reserves the right to verify such compliance, with particular attention paid to all the obligations regarding occupational health and safety. Lastly, the "Supplier Code of Conduct" includes the main documentary references contained within Terna's qualification process, as well as tender and contract documentation regarding ethics, human rights and labour protection, health and safety, information security and environmental protections.

⁷ The figure refers to the amount ordered during the year. This means the sum of the amounts allocated for all contracts (works, supplies and services) signed during the year.

PROCUREMENT BY CATEGORY



PROCUREMENT BY ORIGIN



The following table shows the suppliers active during year, broken down by type of environmental and social requirements, according to their characteristics.

SUPPLIERS ACTIVE IN 2017 AND APPLICATION OF ENVIRONMENTAL AND SOCIAL REQUIREMENTS

SUPPLIERS ACTIVE IN 2017				AMOUNT PROCURED FROM SUPPLIERS SUBJECT TO SPECIFIC REQUIREMENTS (% OF RESPECTIVE TOTAL AMOUNT PROCURED)				
	N.	% OF TOTAL	AMOUNT PROCURED (€M)	% OF TOTAL	BASIC REQUIREMENTS ⁽¹⁾	ADDITIONAL SOCIAL AND ENVIRONMENTAL REQUIREMENTS ⁽²⁾	SOCIAL ⁽³⁾ AND ENVIRONMENTAL ⁽⁴⁾ QUALIFICATION REQUIREMENTS ⁽⁵⁾	COUNTRY RISK ASSESSMENT ⁽⁶⁾
Total active suppliers	1,978	100	655.9	100	100	95.8	26.9	100
Critical suppliers	1,736	87.8	628.5	95,8	100	100	28,0	100
Suppliers in sectors relevant for ESG purposes	198	10.0	390.3	59,5	100	100	43,9	100

⁽¹⁾ Compliance with the principles and behaviours provided for in Terna's Code of Ethics and 231 Model.

⁽²⁾ Integrity pact (text verified by Transparency Italy), anti-mafia certification, which checks: the application of collective labour agreements, payment of tax and social security contributions, the absence of environmental offences, the absence of serious breaches of labour safety regulations, regularity of employment of legally protected categories, certificate of medical fitness for specific roles issued by the relevant doctor (for works contracts), and the absence of any impediment to the award of public contracts.

⁽³⁾ OHSAS 18001 certified occupational safety management system or similar (required only from the suppliers of specific product categories at the time of qualification).

⁽⁴⁾ ISO 14001 certified environmental management system or similar (required only from the suppliers of specific product categories at the time of qualification).

⁽⁵⁾ Assessment of the risks of corruption and respect for human rights in connection with a supplier's premises.

The table illustrates the coverage guaranteed by the various initiatives, in terms of percentage of procurement, for significant groups of suppliers active in 2017.

Coverage is 100% or just a little less for the majority of the social and environmental requirements. Regarding the most stringent social and environmental qualification requirements, the coverage is higher for suppliers from sectors that are relevant for ESG purposes. Such suppliers are periodically identified⁸ on the basis of the product categories whose relevance to the business is assessed (the amount supplied, problems for the core business), as well as social aspects (health and safety and working conditions) and environmental aspects (significant environmental impacts in the production chain, relating to use by Terna, at the end of the asset's useful life). Inclusion in this category leads to particular attention being paid during the qualification phase and in the development of technical specifications, as well as a commitment to adopt special precautions regarding sectors not subject to qualification. Finally, additional health and safety measures have been introduced for works contracts (see the section "Guaranteeing safety, the environment and human rights at contractors' construction sites" on page 68). The following table focuses on new suppliers in 2017.

⁸ The matrix for identifying the relevant product sectors for ESG purposes was updated in 2017 on the basis of the latest available purchasing data and certain references made public by reference stakeholders, such as rating agencies.

NEWLY CONTRACTED SUPPLIERS

	2017
% of new suppliers - checked for basic requirements ⁽¹⁾	100
% of new suppliers - checked for additional social and environmental requirements ⁽²⁾	87

⁽¹⁾ Compliance with principles and behaviours provided for by Terna's Code of Ethics and 231 Model.

⁽²⁾ Integrity pact (text verified by Transparency Italy), anti-mafia certification, which checks: application of collective labour agreement, payment of tax and social security contributions, absence of environmental offences, absence of serious breaches of labour safety regulations, regularity of employment of legally protected categories, and absence of impediment for undertaking public contracts.

Procurement portal

The initial encounter between Terna and suppliers (potential or otherwise) takes place at the "Procurement Portal", a dedicated section of the website, www.terna.it, where it is possible to find information about calls for tenders, participate in online tenders and complete the qualification procedure in order to be included in the list of approved suppliers.

In 2017, approximately 1,450 requests for online assistance were received from suppliers, all of which were dealt with within the deadlines set out in the Company's procedures.



With a view to expanding the supplier base, the Procurement and Contracts department carries out scouting activities in the market, including meetings with potential Italian and overseas suppliers. In the case of suppliers who have already been contracted - above all those deemed to be of critical importance to the business⁹ - Terna maintains direct contacts in order to manage and acquire greater knowledge of specific issues during the procurement process. In this regard, meetings are periodically organised with qualified companies or trade associations to notify them of any updates to requirements or key issues relating to the ethical conduct expected of them when doing business with Terna.

Qualification of suppliers

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The majority of the most relevant product groups for the core business are subject to a qualification procedure. This allows the qualified supplier to be included in the list of approved suppliers, having met the regulatory compliance requirements, in line with those set out in the Procurement Code, being in possession of the necessary high-quality technical and organisational expertise and bring financially sound.

In the sectors at greatest risk in terms of sustainability, an adequate level of environmental management and the ability to protect workers' health and safety are also required, both represented by corporate procedures focused on key elements of the international UNI EN ISO14001 and BS OHSAS 18001 standards. 2017 witnessed introduction of the obligation to obtain certification for "Vegetation management", "Pylon painting" and "HV glass insulators".

As far as overseas suppliers are concerned, Terna assesses the country risk, namely the possibility of incurring damages if incidents or events occur that may be linked to the economic, social and political environment of the country in which the supplier normally operates. This risk is, for the time being, very limited, given the prevalence of domestic suppliers. However, it could become more significant in view of the expansion of procurement markets and, more generally, Terna's international growth strategy.

Objective elements are used in the analysis and assessment of the most relevant risk factors, which relate to economic and political governance issues in the various countries, and with respect to

⁹ These are suppliers whose contracts are of high value and who are not replaceable or who provide strategic supplies or works that are specific to the electricity system.

internationally agreed human rights protocols, including the ratification of UN and ILO conventions, together with the assessments made by the main international non-governmental organisations and the leading rating agencies actively concerned with these issues. As these assessments are regularly updated, they enable the Company to constantly monitor developments in the related environment. In addition to these assessments, restrictive measures are also issued by Italian and European authorities, entailing limitations on the free movement of goods (trade embargoes) or rules of conduct in the case of transactions with countries that have preferential tax treatment (tax havens).

Of the total number of qualified suppliers, 82% have or are acquiring BS OHSAS 18001:2007 safety certification, and 85% have or are acquiring ISO 14001:2004 environmental certification.

QUALIFIED COMPANIES

	2017
Number of eligible companies	404
- of which new companies eligible during the year	33
Companies required to have an Environmental and Safety management system	199

Supplier audits

During the three-year qualification period, Terna checks that suppliers meet the qualification requirements, including the various ESG aspects. In 2017, 604 audits were carried out. If conduct no longer meets the requirements for qualification, the supplier may receive a warning or be temporarily suspended from the list; in the most serious cases, offenders will be struck off the list.

CHECKS DURING THE QUALIFICATION PERIOD

	2017	2016	2015
Suppliers struck off the list	0	0	0
Suspensions	0	6	2
Warnings	0	4	8

Terna conducts further checks based on the activities carried out by suppliers and the type of risks assessed as being prevalent in a given sector. These include:

- prior checks for applications regarding the award of consulting, professional and IT services contracts, and for awards to previously qualified suppliers;
- on-site checks of qualified/qualifying suppliers. In 2017, 88% of these checks focused on companies belonging to sectors that are relevant for ESG purposes.

AUDITS

	2017
Qualification checks	604
On-site qualification checks	16
- including relevant ESG sectors	14

Since 2016, Terna has added a List of Suppliers to the Qualification Portal. This integrated environment enables records to be kept and information on selected suppliers in product groups that are not subject to qualification to be screened. This is done with a view to drawing up checklists to identify competitors in the procedures relating to the award of contracts for amounts below EU thresholds.

Equal opportunities in accessing calls for tender

Access to tender procedures is guaranteed for all eligible companies in accordance with the principle of equal opportunity and is governed by the "Procurement Regulations". These Regulations, which have set guidelines for Terna's procurement activities, were drawn up on the basis of the Procurement Code, which in turn implements the relevant EU legislation.

CONTRACTED SUPPLIERS

	2017	2016	2015
Number of contracted suppliers	1,978	1,818	1,857
Contract award procedures adopted (% of amounts awarded)			
EU calls for tender	66	61	75
Non-EU calls for tender	16	22	13
Previously qualified suppliers	12	14	10
On-off contracts ⁽¹⁾	7	3	2

⁽¹⁾ The "One-off contracts" category includes: sponsorship and donations, fees paid to public entities, trade bodies and contracts awarded to previously qualified suppliers by Terna Plus.

Finally, Terna is keen to reach a settlement in the event of litigation with suppliers.

DISPUTES WITH SUPPLIERS

	2017	2016	2015
Pending	23	22	24
In progress	4	0	3
Settled	3	2	2

Guaranteeing safety, the environment, and human rights at contractors' construction sites

The rise in the number of staff employed by contractors and subcontractors in 2017 is linked to the increase in the number of construction sites.

> EU17

EMPLOYEES OF CONTRACTORS AND SUBCONTRACTORS ⁽¹⁾

	2017	2016	2015
Number of days worked	886,240	680,805	550,661
Full-time equivalents (FTEs)	4,028	3,095	2,503

⁽¹⁾ The figures take into account the duration of contracts and the variable nature of the related workforce, and relate to the different types of contract awarded by Terna, ranging from major works to those for the cutting back of vegetation located under power lines. The number of days worked and FTEs are estimated on the basis of the average daily attendances at the largest sites and the value of the works contracted out at smaller sites. Further information about the types of contract used by contractors is not available.

Given the substantial use of external labour at Terna's construction sites, works contracts are subject to stricter rules, not only in terms of qualification but also regarding management, with particular reference to occupational safety, the requirements of which are excluded from any lowest price concerns during the award process.

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During the qualification process Terna requires evidence of documented procedures to protect workers' health and safety; for companies from sectors deemed most significant from an environmental and safety point of view, an in-depth analysis of management practices is required.

Terna requires additional certification from qualified contractors, specifically regarding:

- personnel's knowledge of Italian;
- adequate specific training for all overhead power line site workers on the use of personal protective gear, on the risks set out in the Safety and Coordination Plan (SCP) and in the Operational Safety Plan (OSP), and on the operating procedures and the environmental protection measures set out in the specific operating procedure, "Management of environmental aspects during plant construction", which is appended to each individual contract;
- attendance at training courses, lasting from 24-32 hours for certain specific roles (e.g. workers involved in the assembly and maintenance of overhead power lines, workers cutting back vegetation, site managers, foremen and safety officers);
- appointment of a Prevention and Protection Service Manager (PPSM), a construction-site safety representative, a crisis manager and a deputy, and an appointed doctor;
- a requirement that the contracts entered into with contractors include the need to keep records of any injuries occurring during the year.

The effective implementation of training is verified via the "Qualified Company Personnel" online platform. In order to minimise the risk of violations of human and labour rights to the detriment of contractors' employees, in addition to specific documentation on key contracts, Terna requires a copy of an insurance policy taken out to cover third-party liability and damage to persons and property, including assets owned by the contractor, for the entire duration of the works and for an amount commensurate with the nature of the works. A copy of the contractor's records of social security and pension contribution payments is also required.

In 2017, Terna drew up a preventive safety and environmental protection monitoring system for construction sites, broken down into three levels:

- First level: as per current regulations, responsibility lies with the contractors and subcontractors operating at the construction site;
- Second level: Terna is responsible (primarily through the Engineering department) for monitoring, via spot checks, the work of the Construction Safety Manager and by contractors;
- Third level: Terna is responsible (through the Health, Safety and Environment department), for spot checks designed to monitor all aspects of project management and site inspections.

Regarding the environmental checks provided for in the second level, 14 construction sites were monitored in 2017 in connection with the following aspects:

- Site document management and record keeping
- Waste management
- Excavated soil and rocks
- Site equipment storage management
- Hazardous substances and accidental spills
- Rainwater and supplies
- Dust and sediment emissions
- Noise
- Site-specific characteristics and planning consent requirements

Monitoring did not reveal any significant areas for improvement

The third-level checks related to three construction sites for power lines and substations under the responsibility of contractors, selected on the basis of the duration of the works and the complexity of the activities to be carried out.

Finally, Terna, together with the leading Italian operators of networks and infrastructure, participates in the "Inter-company Health, Safety and Environment Round Table", with the aim of sharing experiences and regulatory interpretations in order to achieve continuous improvements with regard to health, safety and environmental issues.



A person in a dark suit is holding a white brochure with the Terna logo and text. They are also wearing a blue and white staff badge that says 'Terna' and 'STAFF'. The background is blurred, showing what appears to be a modern interior with glass and metal structures.

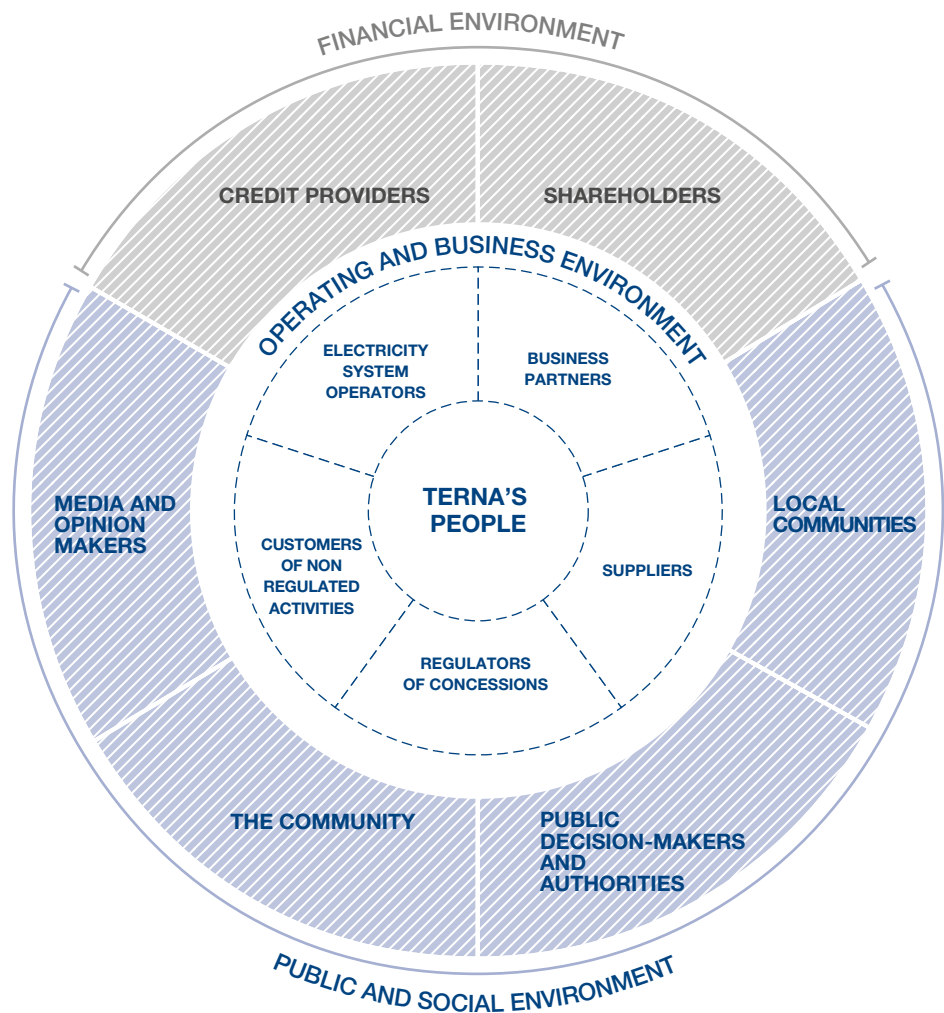
03 Stakeholder engagement



Terna and its stakeholders

The strategic importance of relations based on reciprocal trust between Terna and its stakeholders is reflected in the values set out in the Code of Ethics.

The collection of tools used to best manage this relational capital, avoiding the risk of failing to promptly identify any problems, is described in the guidelines contained in the “Stakeholder engagement model”¹⁰.



¹⁰ The “Stakeholder Engagement Model” was drawn up in 2015 in accordance with the AA1000 Stakeholder Engagement Standard (SES) developed by AccountAbility in the 2011 version, as the latest update of the standard was published in November 2015, when the model had already been adopted.

The model consists of a number of key parts that are periodically revised:

- the stakeholder map;
- the ranking of stakeholders by their importance, reflecting the degree of dependence and influence of each stakeholder with respect to Terna;
- the matrix of engagement techniques that guides Terna's approach to its stakeholder engagement activities;
- the system for monitoring engagement activities, enabling the Company to summarise stakeholders' opinions, their expectations and their level of satisfaction with Terna.

A specific engagement programme is conducted each year to identify the actions to be taken in order to bring the Group's relations into line with best practices and to ensure that the most influential stakeholders are listened to on a regular basis. A number of stakeholder engagement initiatives were carried out in 2017 as part of the second annual survey, focusing, among other things, on the views of customers of the Group's Non-regulated Activities, employees and a number of local communities.

The principal categories of stakeholder shown in the map are described below, together with the relevant stakeholder engagement initiatives undertaken by Terna in 2017.

Communication channels

The management of relations with key stakeholders presupposes the availability of dedicated communication channels to receive requests for information, suggestions, reports and complaints of various kinds.

The most accessible and user-friendly tool is e-mail, using dedicated addresses to deal with specific matters (e.g. info@terna.it, sostenibilita@terna.it, investor.relations@terna.it; azionisti.retail@terna.it etc.).

This is publicised via the website, www.terna.it, and in the case of personnel, also via the intranet. Via a set of questions, the "Contacts" section in the homepage menu guides visitors who wish to contact Terna. This page also contains certified e-mail addresses, for all communications that are subject to this requirement.

For electricity operators and suppliers, Terna has three separate company portals (GAUDI, MyTerna and the Procurement Portal), as well as a dedicated call centre, which may be reached via a [toll-free number \(800-999333\)](tel:800-999333).

From the website's homepage it is also possible to access Terna's social media profiles, which provide a growing opportunity for interaction with the Company. During 2017, the number of messages received in the Facebook page private mailbox folder (photos sent, support requests for CV submissions, reports and suggestions, requests for information and cooperation proposals) grew 11.3%, with a private response rate by Terna of over 80%. Overall, during the three-year period 2015-2017, the total number of messages received by private mail from the Facebook page has risen from 102 in 2015 to 168 in 2017, an increase of 64.7%.

In addition to these tools, dedicated reporting tools and mechanisms are available relating to ethical and environmental matters. These are described below.

Clarifications regarding the Code of Ethics and the reporting of violations

Terna staff who seek clarifications or wish to report an issue may contact the Ethics Committee or the Audit department, which are responsible for gathering any reports of violations of the Code by external stakeholders. Up-to-date contact information (address, e-mail and telephone) may be found on the intranet and the website: comitato.etico@terna.it and audit.codiceetico@terna.it.

The Ethics Committee was established to provide internal and external stakeholders with a specific communication channel for matters dealt with in the Code of Ethics. This Committee, which was reappointed in November 2017, is comprised of five members - appointed by the Chief Executive Officer - who are tasked with replying to requests for clarification regarding the Code of Ethics, receiving and examining reports of any violations and, finally, deciding whether or not to instigate an investigation following a report, and providing an appropriate answer.



2016
GUIDELINES
SETTING OUT THE
"WHISTLEBLOWING
POLICY"

The Audit department, which is Terna's internal audit unit, is responsible for investigating any reports of violations of the Code of Ethics. The reports gathered by the Ethics Committee and the Audit department are published on page 210.

In September 2016, Terna published a set of guidelines for all Group companies, setting out the "whistleblowing" policy for reporting and managing any irregularities that a member of staff, a consultant, external contractor or any other stakeholder (the "whistleblower") may have become aware of. By adopting this policy, Terna complies with the provisions of the Corporate Governance Code for companies listed on the Italian Stock Exchange and the requirements of the National Anti-Corruption Authority and the National Anti-Corruption Plan. This policy strengthens the internal audit tools via which Terna outlines the conduct to be followed in carrying out its business.

Environmental reports and complaints

In line with the ISO 14001 Environmental Management System, Terna monitors and classifies complaints received regarding significant environmental matters.

Any written communication from stakeholders, reporting that an activity carried out by Terna causes or has caused damage, may be submitted at a Group central office or organisational unit, where it will be filed and managed by the relevant business unit.

Complaints received are classified in terms of environmental aspects as defined by environmental analysis: waste, noise, biodiversity, landscape, electrical and magnetic fields, lighting, the management of vegetation and others.

Most of the reports regard power lines and refer to: noise emitted by the lines when in operation, requests to measure electromagnetic fields and the need to cut back vegetation along power line corridors. Terna replies as soon as possible, and in any event within 30 days of the date of receipt of a request, or within 60 days if the scope and complexity of a request is such that it cannot be handled within the first 30 days. In this case, Terna promptly notifies the person making the request of the extension, and explains why it is necessary. Details of the reports received and managed over the last three years are published on page 211.



Networking activities

A further opportunity for engagement and dialogue is provided by Terna's membership of the principal national and international trade associations, as well as of the leading associations connected with sustainability issues.

EUROPEAN ASSOCIATIONS

CCE - Conseil de
Coopération Economique
(Economic Cooperation
Board)

A non-profit advisory board based in Paris and established in 2002. Sponsored by the governments of France, Italy, Portugal and Spain, it aims to put the business world in touch with European policy makers, and contribute to information and dialogue initiatives with European institutions.

CIGRE - Conseil
International des Grands
Réseaux Electriques
(International Council on
Large Electric Systems)

An international non-profit association that conducts research regarding high-voltage grids, with the aim of disseminating and developing technical expertise in the field of power generation and transmission in the 58 member countries. Activities are delegated to technical committees who conduct research into the planning, operation and maintenance of high-voltage power lines. Terna has been appointed as Chair and Vice Chair of the Italian Committee.

EASE - European
Association for Storage
of Energy

An association that promotes the role of storage systems in the electricity sector as a key technology in implementing Europe's energy transition via a stable, flexible, environmentally sustainable and low-cost energy system, by encouraging industrial research and development in the field of storage systems applications, including through the development of a European platform for sharing information about energy storage.

RGI - Renewables
Grid Initiative

An association that works with environmental NGOs and European TSOs to promote sustainable and transparent development of electricity transmission grids, with the aim of facilitating the growth of renewable energy and the energy transition.

ENTSO-E - European
Network of Transmission
System Operators for
Electricity

ENTSO-E is the European Network of Transmission System Operators for Electricity which is involved in the implementation of the EU's Third Energy Package. 43 transmission system operators from 36 European countries participate. In addition to the 28 from the EU, the network also includes operators from Iceland, the Republic of Macedonia, Montenegro, Norway, Serbia, Switzerland and Turkey (the latter has observer member status).

ENTSO-E is based in Brussels and operates as the body responsible for mandatory cooperation at European level among all network operators, in synergy with the European Commission and ACER, the Agency for Cooperation between Energy Regulators. ENTSO-E's main tasks are:

- to draw up European network codes which, through a process of consultation with the relevant stakeholders, are adopted by the European Commission via supranational and binding legislation regarding cross-border issues (EU delegated regulations);
- every two years, to draw up the Ten-Year Network Development Plan (TYNDP) regarding the planning of investment requirements for the development of transmission networks and interconnections in line with national Development Plans;
- to prepare scenario outlooks and adequacy forecasts, research and development plans, and recommendations for the technical coordination of third-country transmission systems with respect to the EU;
- to support the integration of new members of the Association and pursue extension of the European synchronous grid system.

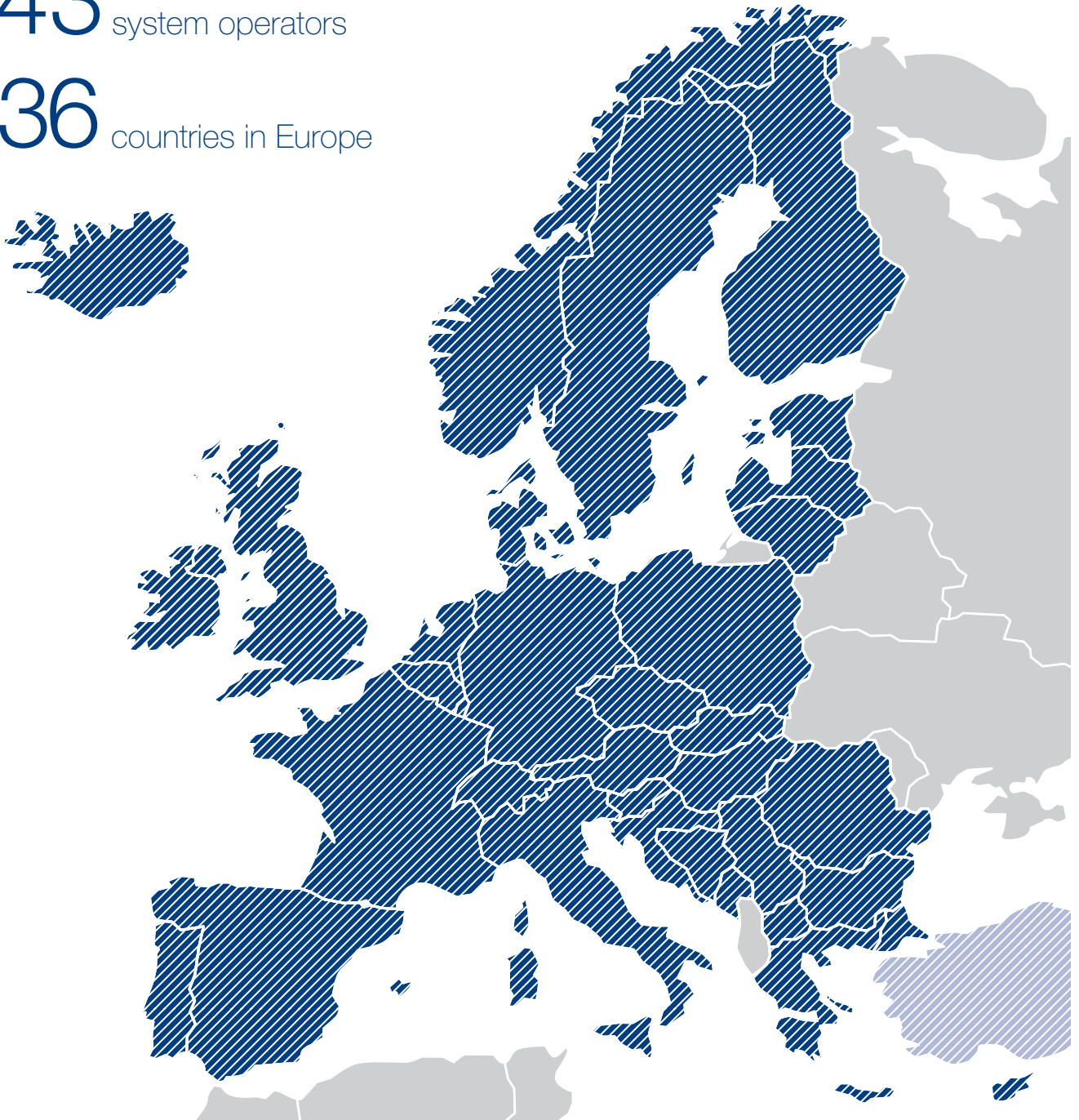
The latest European Development Plan, published in December 2016 (TYNDP 2016), highlights the need to invest €150 billion in the medium and long term in order to implement the infrastructure projects included therein, which are necessary to achieve European energy and interconnection capacity targets. For consumers, this investment would translate into an estimated increase of €1-2 per MWh in their electricity bills.

Terna participates in ENTSO-E's activities, which break down into five overarching areas (the market, system operation, system development, research and development, legal and regulatory), and are coordinated by the Assembly, the Association's decision-making body, and the Board via the employment of over 80 personnel.

ENTSO-E members

43 transmission
system operators

36 countries in Europe



Austria
Belgium
Bosnia and Herzegovina
Bulgaria
Cyprus
Croatia
Denmark
Estonia

Finland
France
Germany
Greece
Ireland
Italy
Latvia
Lithuania

Luxembourg
Malta
Netherlands
Poland
Portugal
United Kingdom
Czech Republic
Romania

Slovakia
Slovenia
Spain
Sweden
Hungary

Iceland
Montenegro
Norway
Republic of Macedonia
Serbia
Switzerland
Turkey (observer)

EUROPEAN INSTITUTIONS

During the year, Terna consolidated its relations with European institutions (above all the European Commission and the European Parliament), and helped to define Italy's position regarding issues of interest to Terna.

The proposals in the “Clean Energy for all Europeans” package, presented by the European Commission on 23 November 2016, include:

- a Directive on the internal electricity market;
- electricity market regulations;
- Regulations amending the Regulations that established the Agency for the Cooperation of Energy Regulators (ACER);
- Regulations regarding Risk Preparedness in the electric power sector which, together with the revision of the Renewable Energy Directive, affect the organisation and functioning of the electricity market.

The process for drawing up a list of Projects of Common Interest (PCI) for the electricity, gas and smart grid sectors is also a priority, in implementation of Regulation (EU) no. 347/2013, with the aim of making Terna's projects eligible for funding under the CEF (Connecting Europe Facility) Programme. On 23 November 2017, the European Commission adopted the third list of European Union Projects of Common Interest, identifying 56 project clusters in the electricity infrastructure sector, with a total of 106 development investments.

The third list of PCIs includes these infrastructure projects:



Italy-France border	Italy-Switzerland border	Italy-Slovenia border	Italy-Montenegro border	Italy-Tunisia border
<p>2.4 Interconnector between Codrongianos (IT), Lucciana (Corsica, FR) and Suvereto (IT) [currently known as “SACO 3”].</p> <p>2.5.1 Interconnector between Grande Ile (FR) and Piosasco (IT) [currently known as “Savoie-Piemont”].</p>	<p>2.15.1 Interconnector between Airolo (CH) and Baggio (IT).</p>	<p>3.21 Interconnector between Salgareda (IT) and Divača - Bericevo region (SI).</p>	<p>3.22.5 Interconnection between Villanova (IT) and Lastva (ME).</p>	<p>3.27 Interconnector between Sicily (IT) and Tunisia node (TU) [currently known as “ELMED”].</p>

NON-EU ASSOCIATIONS

A private United States organisation with offices in New York and Washington, founded in 1921 to address foreign policy challenges with its approximately 5,000 members, including major corporations.

[CFR - Council on Foreign Relations](#)

A bilateral, private, non-profit and non-party organisation founded in 1983 to promote and undertake initiatives to develop closer relations - especially those of an economic nature - between Italy and the USA, and more generally between Europe and America.

[The Council for the United States and Italy](#)

This is an international association that promotes the global interconnection of electricity systems to meet electricity demand in a sustainable way. Terna joined the association in 2017.

[GEIDCO - Global Energy Interconnection Development and Cooperation Organization](#)

An international association bringing together the 19 leading grid operators worldwide in order to share best practices in the management of electricity transmission grids. Terna chairs the "Reliability and security" group, which deals with the resilience of the electricity system.

[GO15 - Reliable and Sustainable Power Grids](#)

This association brings together the TSOs from 18 Mediterranean countries, with the aim of promoting the standardisation of development plans and the coordinated management of grids. The association also works to facilitate the creation of a legislative and regulatory framework designed to drive the development of interconnection projects and promote the exchange of electricity between electricity systems in the Mediterranean area. Terna hosts the association's registered office and operational headquarters in Rome and appoints its Secretary General, as well as chairing Technical Committee 1, which is responsible for planning the Mediterranean electricity grid.

[Med-TSO - Mediterranean Transmission System Operators](#)

The association aims to promote renewable energy and energy efficiency projects in the northern and sub-Saharan Africa, enabling the development of projects in these areas to meet local energy needs.

[RES4MED/RES4AFRICA - Renewable Energy Solutions for the Mediterranean](#)

The association brings together operators from over 90 countries, which participate via their respective national committees. The main associative event is the World Energy Congress, comprising an energy debate at global level, held every three years. Terna is a member of the Italian national committee of the WEC.

[WEC - World Energy Council \(Italian committee\)](#)

In 2017, Terna consolidated its presence in organisations with a broader scope (such as Diplomatia) in order to monitor the socio-political and economic environments in which to develop its business. On a bilateral level, Terna and RTE, the French TSO, implemented the provisions of the Memorandum of Understanding (MoU) signed in 2015, with the aim of strengthening collaboration in certain areas of interest (grid development, Non-regulated Activities, research and technological innovation).

On 2 June 2017, Terna and Rosseti, a power grid operator in Russia, signed a non-binding MoU regarding the sharing of expertise, best practices and cooperation in certain key technological areas of the electricity transmission sector.

ASSOCIATIONS - SUSTAINABILITY

Anima per il sociale nei valori dell'impresa	A non-profit association that brings together managers and companies who share the desire to spread an entrepreneurial culture in their local areas, combining profit with the creation of wellbeing for the community. Terna has been a member of the association since 2010.
CSR Manager Network	A key association for professionals who deal with sustainability and corporate social responsibility issues, including company managers, consultants and researchers. In 2017, Terna supported a study entitled "Governance of sustainability in Italian listed companies".
Fondazione Sodalitas	A major organisation in Italy, the foundation is engaged in disseminating corporate sustainability and promoting dialogue between the world of business and non-profit organisations. Terna is one of its founders.
Fondazione per lo Sviluppo Sostenibile	An organisation whose primary activity is investigating sustainable development issues - from a cultural and technical point of view - via research, seminars and meetings. Terna joined the association in 2011.
GEO - Green Economy Observatory	The Observatory set up by IEFE - Bocconi University which, via research and study, aims to explore key topics for debate in relation to the green economy through dialogue, discussion and collaboration with institutions and businesses.
Global Compact	Terna's membership of the Global Compact involves a presence at both international and local level. In 2018, Terna has chosen to increase its commitment by becoming a "Participant" and contributing to the work of the Action Platform, "Financial innovation for the SDGs". In Italy, Terna has had a place on the Italian network's Steering Committee since 2011. Terna contributed to the organisation's activities in 2017, primarily as a promoter and founder of the Global Compact Network Italy Foundation and as a member of the Steering Committee.
IIRC - International Integrated Reporting Council	An international organisation that in December 2013 published the first framework for the integration of financial, environmental, social and governance information in a single report. Terna has been associated with it since 2011 and, after participating in the Pilot Programme during the three-year period 2011-2013, joined the Business Network which involves companies and organisations worldwide in sharing experiences and best practices.
Kyoto Club	A non-profit organisation made up of companies, bodies, associations and local government authorities that are committed to achieving the targets for reducing greenhouse gas emissions set by the Kyoto Protocol and to promoting awareness-raising, information and training initiatives in the fields of energy efficiency, use of renewables, and sustainable mobility
LBG - London Benchmarking Group - Corporate Citizenship	An international benchmarking organisation engaged in measuring the contributions and impacts of corporate community investment. Terna uses its model to monitor and maximise the benefits of its community expenditure (see page 96).
Transparency International Italia	The Italian branch of the international organisation whose aim is to combat corruption.





Operating and business environment

People within the organisation

It is the internal stakeholders who make up the Company that enable us to carry out our activities through the work they do. As engagement tools, the Company uses direct or sample surveys, internal communication initiatives and focus groups on specific topics.

During the year, the 2017 Engagement Survey, an internal climate survey involving the entire workforce, was conducted. The response rate was 80%. The survey measured the level of engagement among Terna's workforce, based on three components: rational (an understanding of the Company's objectives and strategies), emotional (a sense of belonging and of pride) and motivational (a willingness and desire to contribute). The emotional component scored highly, with a positive perception of the Group's social and environmental responsibility and its respect for ethical principles, its commitment to occupational health and safety, the quality and adequacy of its training programmes, above all for new recruits, and the fairness and competitiveness of pay with respect to other companies. The results for the rational and motivational components revealed that there is room for improvement regarding communication of the Company's objectives and strategies, the spirit of cooperation, the resource management.

Overall, Terna's engagement score (81%) is broadly in line with the average across other companies in Italy who use this form of survey.

The results were presented in 2018 during a series of specific meetings at all the Company's offices. Definition of the related priorities and a targeted action plan is in progress, with the involvement of 60 representatives from all areas of the Company.

Matters relating to management policies and health and safety protection are dealt with in the section, "People", on page 164.

Internal communication

This is a vital channel for fostering the spread of corporate culture and its development, encouraging team work, and achieving ever greater integration between central and regional areas and among the various teams via the comprehensive sharing of information.

The main tools are publications and events. The new intranet, which has been completely redesigned in terms of technology, content organisation and opportunities for participation, has been online since December 2017.

PUBLICATIONS

Type	Circulation / no. of news items
Terna News (in-house newsletter - paper format)	20,000 copies (4,000 copies, 5 issues/year).
"Internamente" (company intranet) / Important news	222 news items published.
"Internamente" (company intranet) / News about Terna	154 news items published.
Regional Statistics 2017	100 copies.
Daily Report Between the Lines/ Monthly Report On the Electricity System	Daily/monthly report.
Compliance newsletter	Monthly newsletter.



EVENTS

Type	Target
The Terna Achievement Award (Premio Terna al Valore)	Colleagues who have distinguished themselves for their courage, commitment, competence and sense of responsibility.
Office openings	Colleagues working at the new offices.
Ternathlon, Energylandia, Open2family	Colleagues and their families.
Charity events (timed to coincide with Easter and Christmas)	Colleagues interested in supporting non-profit organisations operating in their local area.
End-of-year greetings from senior and middle management	All members of staff connected via streaming on the intranet.



Industrial relations¹¹

This stakeholder category also includes representatives of employees' interests. All Terna employees are covered by the collective labour agreement adopted by companies in the electricity industry¹². In 2017, the unionisation rate of Terna's workforce was 49.9%, with membership concentrated among the leading trade unions.

Relations between Terna and the trade unions are regulated, at Group level, by the "Industrial relations system protocol", which sets out the terms of bargaining, dialogue, consultation and prior and/or periodic reporting. In line with current regulations, relations between the trade unions and the entire Group's workforce are facilitated via provision of dedicated space and noticeboards at each workplace.

The involvement of trade union organisations in the event of organisational changes, which is one of the central pillars of industrial relations, is governed by legislation, industry contracts and company agreements. In accordance with trade union agreements in force at Terna, in the event of significant organisational changes, preliminary discussions are held with the trade unions. In the three-year period 2015-2017, negotiations with the trade unions led to the signature of 52 statements of agreement.

> 402-1

Regulation of industrial action in the electricity service sector

In the event of industrial action, the essential services needed to guarantee continuity of service are regulated by the National Labour Union Agreement signed in February 2013. As far as Terna is concerned, some shift workers who work in dispatching (real-time monitoring of the national electricity system; the remote operation of transmission plant; checks on production plans and the procurement of production resources; the monitoring, coordination and operation of IT systems; ancillary services and plant used in dispatching) and staff from the Security Operations Centre are prohibited from taking part in industrial action.

Staff on call, whilst entitled to suspend their normal duties during a strike, are obliged to ensure that they are contactable, even during the hours scheduled for the strike.

Electricity system operators

Together with Terna, these stakeholders make up the electricity supply chain, operating as producers, distributors and wholesalers. They engage in multiple relations with Terna, which are highly regulated and characterised by reciprocal impact and influence. These stakeholders also have the potential to influence regulatory authorities and public decision makers.

In addition to its corporate channels, Terna has developed the My Terna portals (a platform that manages the dispatching users with whom Terna has entered into a contract, supported by a dedicated call centre) and GAUDÌ, the management system for the Consolidated Power Generation Plant Register at national level.

Consultation Committee

The Committee is a technical body, chaired by a Terna representative. It is the permanent forum for consultation with operators from the electricity sector, in which the various categories of users (distributors, producers from conventional and renewable sources, large industrial customers, wholesalers and consumers) are represented, and includes the participation of ARERA and MED as observers.

¹¹ The data reported in this section does not include Tamini Trasformatori Srl.

¹² All Tamini Group employees are covered by the collective labour agreement adopted in the engineering industry.

In 2017, the Committee was involved in the consultation process regarding the update and revision of the Grid Code, with reference to dispatching rules and certain technical annexes.

The Committee was also updated when the 2017 Development Plan was drawn up, and with regard to the system scenarios underlying the 2018 Development Plan. Discussions with the Committee regarding the Development Plan are published on Terna's website. The Consultation Committee met twice in 2017.

The GAUDI portal

The GAUDI' platform, which may be accessed by producers, distributors, dispatching users, authorities and Italy's Energy Services Company (GSE), was created by Terna¹³ to manage the Consolidated Power Generation Plant Register at national level.

The Register records all the generation plants and the individual units that comprise them, of any size or source (conventional, renewable, cogeneration), via a unique national code. It also enables monitoring of the status of each plant - from authorisation to connection, and the market qualification process - as well as all the changes to the plant and to commercial aspects that occur during a plant's operation.

In 2017, the platform implemented important changes following an update of the regulatory framework, in particular regarding calculation of the total rated output relating to distributed generation and storage¹⁴, the plant qualification process¹⁵ and interoperability with GSE¹⁶.

All developments were preceded by meetings with the stakeholders concerned, especially around 50 people including distributors and representatives of GSE, with which a working group is still up and running.

Business partners with electricity service operators

In providing the public services operated by the Company under concession, Terna comes into contact with various categories of stakeholder, especially with dispatching users (producers, wholesalers or end customers) with regard to the provision of dispatching services, and with distribution companies connected to the transmission grid, to which it supplies the power needed to meet end customers' consumption needs.

As part of dispatching activities, Terna guarantees that a balance is maintained at all times between demand for and the supply of electricity. To this end, as the sole counterparty, the Company procures the resources needed to meet requirements and to guarantee a reserve margin on the Dispatching Services Market (DSM) managed by GME, the Italian Energy Markets Operator.

In 2017, transactions in the Dispatching Services Market (DSM) amounted to approximately €1.7 billion.

Also for dispatching services purposes, Terna checks the consistency between the final programmes of operators (producers and consumers) with the amounts that have actually been withdrawn from/ input into the grid: any deviations represent so-called "imbalances", the value of which entails invoicing the related energy imbalance prices to the parties responsible for the costs generated for the system as a result of their conduct.

¹³ In implementation of ARERA Resolution ARG/elt 124/10.

¹⁴ Standards CEI 0-16 and CEI 0-21 have been adopted.

¹⁵ The MED Decree on micro cogeneration, published in the Official Gazette on 28 March 2017 and expiring on 23 September 2017, has been implemented.

¹⁶ In implementation of Resolution 128/2017/R/eel.

Other categories of stakeholder with whom Terna has business relations include interruptible users, namely customers who are willing to have their electricity supply suspended, and applicants who have requested connection of their plants to the NTG (producers and consumers).

Participants in the interruptibility service and immediate load reduction numbered 288 in 2017, accounting for 3,592 MW of power. The related annual cost amounts to approximately €0.4 billion.

> EU3

ELECTRICITY SECTOR OPERATORS IN RELATIONS WITH TERNA - NUMBER OF CUSTOMERS

CUSTOMERS	2017	2016	2015
Interruptible users	288	286	275
Distributors directly connected with the NTG	27	25	25
Supply-side dispatching service users (producers and traders)	135	135	120
Demand-side dispatching service users (traders and end users, including the Single Buyer)*	186	182	185

* The figure refers to the total number of customers with dispatching contracts. Therefore, the figures for 2015, which only showed the number of counterparties charged for imbalances, have been updated.

Relations with consumer associations

Efforts to create and manage consensus at local level continued via the “Terna Information Campaign - Consumer Associations” with Codes, Lega Consumatori, Unc, MDC, Assoutenti, Adoc, and Movimento Consumatori. The initiative is aimed at keeping local communities informed about the construction of planned infrastructure, in order to raise awareness about its usefulness and benefits. The project is focused on the Campania region in relation to the Montecorvino-Benevento project, including one-to-one meetings and initiatives involving the relevant stakeholders.

OTHER STAKEHOLDERS - ACTIVITIES IN 2017

Regulators of services operated under concession	<p>These are the national and EU institutions and public bodies that by law are granted regulatory and supervisory powers over Terna, in its capacity as the operator of the electricity transmission grid and of dispatching activities.</p> <p>While carrying out its activities and in strict compliance with its respective roles, Terna maintains ongoing relations with these bodies, both with regard to compliance with its obligations under the current legislative and regulatory framework, and in order to make a positive contribution towards development of the framework. It also provides advice and technical support to both national and EU bodies.</p>
Customers of the Non-regulated Activities and business partners	<p>In the interests of stakeholder engagement, since 2016, Terna has organised an annual event dedicated to Energy Solutions, the Group's non-regulated business offering. The 2017 event was attended by around 30 loyal and potential customers who were able to learn more about Terna's role as an Energy Solutions Provider in the new energy scenario. During the event, all the guests are given a questionnaire aimed at assessing their knowledge of the Company and its offerings, the extent to which the services offered correspond to their real needs, their level of satisfaction with and overall opinion of Terna's efforts regarding such key issues as integrity in running the business, the level of quality aimed at, attention paid to the environment, strategic positioning, propensity for innovation, occupational safety and dialogue with local communities. The survey showed that 50% of the respondents who completed the questionnaire has a highly positive opinion of Terna, whilst the remaining 50% have a positive opinion; all respondents thought that Terna plays a major role in technological innovation, whilst 71% thought it was a global leader regarding issues relating to electricity transmission and conducted its business with integrity, transparency and fairness.</p>
Suppliers	See “Supply chain sustainability” on page 64.





Financial environment

Shareholders

The Annual General Meeting of 27 April 2017 was attended by 1,284 shareholders (of which 9 in person and 1,275 by proxy), holding a total of 1,279,363,203 shares, equal to 63.650164% of the share capital, all of which bearing voting rights.

Twelve requests for information were received by e-mail from non-institutional shareholders (12 in 2016 and 7 in 2015), regarding information on the dividend policy, the share price performance, information on the dates and availability of Terna's corporate documents and/or documents relating to General Meetings and/or other information material on the Company.

The Sustainability department maintains ongoing relations with sustainability rating agencies and, in collaboration with Investor Relations, with analysts and fund managers, to whom it provides the necessary information for assessment of the Company's ESG performance.

Investor Relations conducts an annual survey of financial analysts.

Share price performance

Terna has been listed on Borsa Italiana's screen-based trading system since 23 June 2004.

From the listing date to the end of 2017, the share price has risen 185% (a capital gain), providing a Total Shareholder Return (TSR¹⁷) of 514%, ahead of both the Italian market (FTSE Mib +28%) and the relevant European sector index (DJ Stoxx Utilities), which is up 147%.

At the end of 2017, Terna's share price was up 11.3% at €4.84 per share, outperforming the relevant sector index (DJ Stoxx Utilities), which gained 5.5%.

On 14 November, the share price reached an all-time high of €5.305 per share.

The daily average volume traded during the year amounted to approximately 6 million shares, down from 2016 (approximately 7 million shares).

+11.3%

At the end of 2017
Terna's share price
was up to €4.84
per share

¹⁷ Total Shareholder Return (TSR): total return on an equity investment, calculated as the sum of:
I. the capital gain: the change in the share price (difference between the price at the end and at the beginning of the relevant period) as a percentage of the price at the beginning of the period;

II. reinvested dividends: the ratio between dividends per share paid out during the period and the share price at the beginning of the period. Dividends are assumed to have been reinvested in the shares.

PERFORMANCE OF TERNA'S SHARE PRICE - Price (2017)



Source: Bloomberg

Terna has adopted a dividend policy that envisages twice yearly distributions. The interim dividend for 2017 was 7.43 euro cents (paid on 21 November 2017), while the final dividend to be proposed by the Board of Directors at the Annual General Meeting of 4 May 2018 is 14.57 euro cents. Further information on the share price performance and the dividend history may be found at: www.terna.it.

OTHER STAKEHOLDERS - ACTIVITIES IN 2017

Around 100 meetings per year.

On the occasion of the analyst presentations, Terna meets S&P's, Fitch and Moody's, the rating agencies that assess its creditworthiness.

Credit providers



Public and social environment

Media and opinion makers

These stakeholders have a role as mediators between Terna and other stakeholders. This category includes national and international media outlets, national and international opinion leaders, web users, universities and other scientific and research organisations, study groups and national and international influencers.

The media directly influence public opinion in general, regulatory authorities and public decision makers. They can have a direct impact on Terna's reputation or an indirect effect on its operating and business environment and on political decisions regarding energy.

All communication activities have been developed in such a way as to make coordination between the various departments and the integration of the various tools and activities even more effective, in order to obtain ever more widespread and consistent coverage across all media. The Group's communication generated coverage via the release of 1,626 significant items, partly thanks to the publication of 91 press releases, as well as 164 local memos and position statements (up 108% compared with 2016). 415 significant articles were published in the national press and 300 in the local press, while 653 articles were posted on leading websites (up 27% compared with 2016) and 258 items were broadcast on leading TV and radio channels (up 38% compared with 2016). 33 of Terna's senior executives and 22 managers were interviewed. Overall, including traditional (newspapers, periodicals, radio and TV) and online media, Terna released a total of 19,481 items (up 3% compared with 2016). In terms of media relations, over 1,000 direct contacts were made with the editorial staff of the various traditional and web-based media outlets.

CONTENT GENERATION AND MEDIA COVERAGE

	2017	2016	2015
Press releases	91	116	82
Local memos	164	79	200
Published articles	1,626	522	n/a
Total items (traditional and web-based media)	19,481	17,000	22,000

WWW.TERNA.IT WEBSITE - WEBRANKING ITALY RANKING*

	2017	2016	2015
Ranking	5	10	10

* Compiled by Lundquist, in collaboration with the Swedish company, Comprendi, this is the most important survey for assessing the transparency of the digital channels of leading listed Italian companies.



With a score of 85 out of 100, Terna is in the Top 10 (sixth) of Webranking Europe 500 by Comprend 2017, the leading survey for assessing the transparency of the digital channels of leading listed European companies, and in the Top 5 in Italy. Thanks to an increase of 18.8 points compared with 2016, Terna is the best improver out of 500 companies assessed by the Swedish agency, Comprend, which specialises in digital corporate communication. Terna was also third in the special sustainability rankings.

Webranking Europe 500:
Terna in Top 10 and best improver in rankings

SOCIAL NETWORKS

	2017	2016	2015
Facebook			
Fans	9,209	7,238	5,210
Views	3,674,105	3,886,230	2,136,591
Interactions	42,870	41,981	33,585
Twitter			
Followers	3,838	3,020	1,927
Views	290,611	179,164	128,300
Interactions	4,930	1,205	1,090
LinkedIn			
Followers	31,990	25,400	20,329
Views	1,764,035	1,418,631	n/a
Interactions	18,925	12,881	n/a

The results of the Ipsos IN-PRESS survey, a qualitative and quantitative study on the effectiveness of the communication strategies of major Italian companies and their media relations, were published in 2017. The survey was conducted via interviews with journalists from 60 newspapers (national and local), 20 press agencies, 4 news broadcasters and 8 communication firms. Terna ranked first among infrastructure companies and third among energy companies.

During the construction of the “Sorgente - Rizziconi” connector between Sicily and Calabria, Terna trialled the use of radar to monitor passing birds over a three-year period. This activity was aimed at assessing the potential risk of migrating birds colliding with the new power line. During the three-year monitoring period, Terna identified the passage of over 100,000 birds without detecting any collisions, and also gathered previously unknown information, regarding, for example, the behaviour of birds in the event of fog or poor visibility, and their ability to change their flight course in order to take advantage of updraft currents. With a view to establishing strong and potentially useful partnerships with the scientific community and other companies that manage power lines, wind farms, airports and similar facilities, Terna has made all the data collected available on its website (<http://www.terna.it/it-it/sostenibilit /lucisubirdwatchingemigrazioni247.aspx>).

“Open data”:
a shared value initiative

Local communities

From the initial planning phase of grid development initiatives, Terna reaches out to local communities in the areas where they will be implemented, involving local authorities (regional and local authorities, park authorities, etc.). For several years, the Company has also reached out to citizens via public meetings called “Terna incontra”.

Terna voluntarily consults on the need for grid development with local authorities and listens to stakeholders’ opinions in order to promote the best location for new infrastructure, identifying optimal corridors based on the classification of land according to so-called “ERPA criteria” (Exclusion, Repulsion, Problems and Attraction), and with the support of GIS (Geographic Information System) technology, which includes all information relating to different types of land use and the related protection constraints (regional, naturalistic, cultural, landscape, etc.). During 2017, Terna held a total of 303 meetings with local authorities, involving around 260 bodies.

Terna also held 13 “Terna incontra” events (in Auronzo di Cadore, Cortina D’Ampezzo, Vaiano, Formazza, Domodossola, Comignago, Avigliana, Val di Susa and Chiomonte, Volpago, and Scorzè), attended by around 343 local residents.

Effectiveness of “Terna incontra” meetings: survey for 2017

During the “Terna incontra” meetings at Auronzo di Cadore, Cortina, Scorzè and Volpago, local residents who participated in the events were asked for their opinion via a questionnaire.

Six areas were surveyed: familiarity with Terna, information on the project, eventual areas for improvement, usefulness of the meeting, the need for further information and a final opinion.

Overall, 88% of respondents (40 people in total) said that they were familiar with Terna and 66% had taken part in the “Terna incontra” events because they had little information on Terna’s investment plans, above all with regard to the environmental impact (65%), the visual impact (50%) and the reasons for the infrastructure (25%). The meetings were deemed (very / extremely) useful by 71% of the participants, which was reflected in a change of opinion about the project, with respondents becoming more favourable in 61% of cases.

> EU22

Landowners affected by NTG development

The construction of new power lines involves the use of between approximately 30 and 250 square metres of land - usually agricultural - for each pylon.

Although Terna is legally authorised to use an expropriation procedure¹⁸ to obtain the use of land, Terna prefers solutions based on mutual consent, involving payment of one-off compensation for easement on private property. Attempts to reach a consensual solution do not always succeed, making enforcement measures necessary.

> 413-2

POWER LINE EASEMENTS

LANDOWNERS AFFECTED BY THE CONSTRUCTION OF NEW POWER LINES (N)	2017	2016	2015
Total easements	1,817	7,857	10,962
- of which consensual	1,069	5,886	10,836
- of which enforced	748	1,971	126

When building a substation that occupies much more land, Terna usually purchases the necessary land.

¹⁸ Law 1775 of 1933; Presidential Decree 327/2001 “Consolidated Law on Expropriations”.

During 2017, in line with the very high number of kilometres of line demolished as a result of rationalisation initiatives, 115 plots of land were returned to their owners.

Dialogue with local communities: the most difficult cases

Reaching a consensual solution entails lengthy and difficult mediation procedures. Outcomes are usually positive, but during the process local opposition may persist. In these cases, Terna is willing to examine the situation and seek alternative solutions - even ones that are technically more complex than those originally identified - provided that they are compatible with the general interest of maintaining the safety, efficiency and cost-effectiveness of the electricity service.

In 2017, such cases included:

<p>The consent process for the project was launched in 2012. Several committees were set up from the outset. In response, Terna scheduled various open meetings ("Terna incontra") with local residents, including, for example, those held in February and March 2017 in Val d' Ossola and Comignago. In 2016, following submission of various requests for additions to be made to the project, technical meetings involving participatory design were held with municipalities in the Piedmont Region. After agreements were reached with these bodies, updated documentation was sent to the Ministry of the Environment and of the Protection of Land and Sea in December 2016. In 2017, meetings continued with authorities, the Ministry of Cultural Heritage and Activities and the Piedmont and Lombardy regional authorities, aimed at reaching a solution with the broadest possible consensus. To this end, Terna requested and obtained suspension of the authorisation procedure until May 2018.</p>	<p>Italy - Switzerland interconnector</p>
<p>This project received the necessary consents in 2011 and work began in 2013. In 2016 "Terna incontra" events were organised in the municipality of Trana with the residents of Val Sangone, in April 2017 in the municipality of Avigliana, and in June 2017 in the municipalities of Susa and Chiomonte. In 2017, expropriation of all the plots of land needed for the cable route was completed and, in August 2017, the construction site for the section linking Bussoleno to Salbertrand was opened without any protest incidents, partly thanks to collaboration from the Prefecture of Turin.</p>	<p>Italy - France interconnector</p>
<p>In January 2014, an authorisation procedure was launched regarding construction of a new electricity substation and a new line, and the demolition of other obsolete lines. Although the project was initially coordinated with the municipalities involved, they subsequently rejected it as a result of protests by local residents. Terna then prepared four alternative solutions and presented them to local residents (at a "Terna incontra" event held in January 2016 in Nozzano Castello LU). Dialogue with the authorities involved continued during 2016. In April 2017, Terna requested suspension of the authorisation procedure for six months in order to produce the documentation required by the EIA (Environmental Impact Assessment) Technical Committee, which must express its opinion on the alternative solutions proposed.</p>	<p>Restructuring of the 380 and 132 kV grid in the Lucca area</p>
<p>In 2011, the Ministry for Economic Development authorised works regarding the new 380 kV Dolo-Camin power line. In 2013, the Council of State annulled the environmental clearance granted by the Ministry of the Environment and of the Protection of Land and Sea in 2010 and the subsequent consent to construction and operation granted by decree in 2011, thereby suspending construction activities. In 2016, Terna re-submitted the authorisation application for the 380 kV Venice - Padua upgrade project, excluding the works already authorised, and the procedure was launched in January 2017. This immediately met strong opposition from the municipalities, especially Dolo, Saonara and Vigonovo, all of which unanimously demanded an underground line, rather than the overhead design solution envisaged. For the time being, Terna has requested suspension of the authorisation procedure so that the Company may carry out further investigations regarding the project design, in order to optimise the environmental and land use compatibility of the works in the Moranzani Valley.</p>	<p>Upgrade of the 380 kV grid between Venice and Padua (380 kV "Dolo - Camin" power line)</p>

Dialogue with local communities: the most difficult cases *(continued)***Upgrade in the Mid Piave Valley**

The authorisation procedure for this project was launched in 2011 and it is currently at the Environmental Impact Assessment (EIA) phase. Some municipalities, including Belluno and Soverzene, have opposed the identified route and, in response, Terna proposed a project alternative in August 2015.

Dialogue with local authorities and local communities continued in 2016, thanks to the organisation of four meetings with local residents. Following differences of opinion between the Ministry of the Environment and of the Protection of Land and Sea, which was in favour, and the Ministry of Cultural Heritage and Activities and Tourism, which was not, the two ministries have continued to disagree. As a result, the issue was brought before the Italian Cabinet in order to find a solution. At a Cabinet meeting held in January 2018, ministers decided to give the go-ahead for the project.

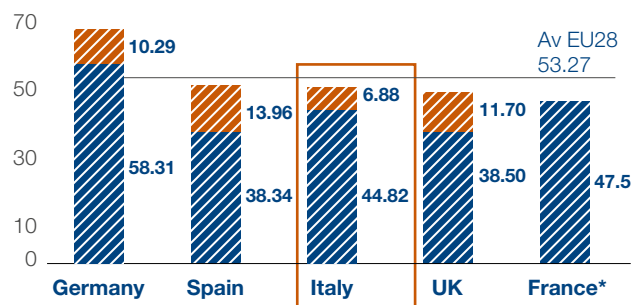
Montesano sulla Marcellana electricity substation

These works were authorised in 2010 by the Campania Regional Authority. Initially to be carried out by the company, ESSEBIESSE POWER, responsibility was subsequently transferred to Terna. In 2011, immediately after the works had begun, the municipality of Montesano sulla Marcellana ordered their suspension and initiated legal action. Since 2015, when the process of obtaining the necessary consents for the new substation (more compact than the previous one) designed by Terna, the local committee has organised several demonstrations. In addition, questions were put in Parliament and strong opposition manifested by the mayor of the municipality of Marcellana, Campania Regional Authority, private citizens and the mountain community, including the expression of opposing opinions, as well as comments and requests for supplementary information. All the alternative proposals presented by Terna were deemed unacceptable by the local authorities and residents. In the light of recent requests from the mayor of Montesano, Terna is evaluating a new project with additional improvements.

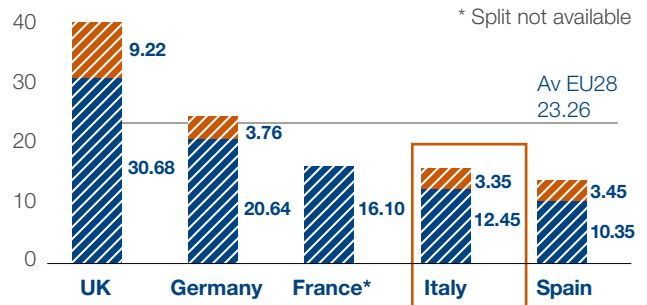
380 kV Volpago substation

This is the new Volpago substation project, presented in November 2017, regarding which meetings with the municipalities of Volpago and Scorzè were held in December 2017. A number of committees are already active in the region. These are expected to oppose the project because the areas affected by the works include the same municipalities that were involved in the "Cross-Veneto" project (see page 58 of the 2011 Sustainability Report), which they strongly opposed. Moreover, some municipalities are engaged in the construction of the "Pedemontana Veneta" expressway (especially Volpago del Montello, where the substation is located), a project that is having a major impact on an area already heavily involved in mining activities (quarries).

NETWORK COST (€Mwh) HOUSEHOLDS



NETWORK COST (€Mwh) BUSINESSES



■ Transmission
■ Distribution
* Split not available

The community

The concept of the community covers current and future end users of the electricity service and the response to their expectations of the electricity service in keeping with the commitments given in the related concession arrangement.

Transmission costs in end users' bills

On the basis of data published by ARERA, the estimated portion of a typical electricity bill for domestic use covering the cost of the transmission service¹⁹ is approximately 3.5%²⁰.

A survey conducted by the European Commission, based on data for 2015²¹, shows that, in both the household and industrial segments, the so-called "network costs"²² incurred by Italian consumers are below the European average. In particular, regarding the transmission segment only, Italian costs are lower than those in some of the most representative countries from the sample analysed, as shown in the graphs below.

Economic impact on the community

By developing the electricity network, Terna provides a strategic service that contributes towards Italy's economic growth.

< 203-2

The development of interconnections between grids in neighbouring countries facilitates the importation of electricity at competitive prices compared with domestic production, enables access to additional reserve capacity, and ensures greater energy market competition. Reducing grid congestion improves the ability of power generation resources to meet demand and enables the use of more competitive plants, with positive effects on competition in the power generation market and on final prices.

In accordance with the legislative and regulatory framework, all Terna's grid development investments are assessed from a technical and economic point of view by comparing the estimated cost of implementing a project with the related benefits, in terms of reductions in overall system costs, in order to maximise the cost/benefit ratio. Consequently, on average, every euro of investment Terna makes generates multiple savings for grid users, which are ultimately passed on to the end consumer. It is therefore significant that 2017 saw strong growth in Terna's capital expenditure, most of which was earmarked for grid development.

¹⁹ A household with 3 kW of connection capacity and annual consumption of 2,700 kWh.

²⁰ Terna, based on ARERA data for the first quarter of 2018.

²¹ Eurostat and European Commission data for 2015, "Energy prices and costs in Europe"
http://ec.europa.eu/energy/sites/ener/files/documents/com_2016_769.en_.pdf

²² "Network costs" include transmission and distribution costs, losses, metering and system costs.



The Terna Group's total investment in 2017 amounted to €1,033.9 million, an increase of 21% compared with the €854.3 million of the previous year and ahead of target. Investment incentives amount to €120.0 million, compared with €72.7 million in the previous year. Investment in non-regulated assets, amounting to €63.1 million, primarily regards the private part of the Italy-France interconnector.

The European Commission has also awarded Terna a grant to fund construction of the "Sorgente - Rizziconi" connection. This cannot exceed 21.79% of the allowed costs and, in any event, will not exceed €110,000,000. During 2017, the Parent Company collected the balance due, amounting to €76,996,616.

> 201-4

GOVERNMENT GRANTS	2017	2016	2015
Grants related to assets received from the Public Sector (*)	6,699,644	134,139	1,753,945
MED-funded projects (*)	11,311,452	-	-
EU-funded projects (*)	76,996,616	33,000,000	-

(*) These grants are deducted directly from the carrying amount of the related assets.

Community initiatives

> 203-1

Terna's contribution to Italy's civic growth goes beyond its role as an infrastructure operator, as expressed through the Company's support for social, cultural and environmental initiatives.

Terna's corporate giving activities primarily consist of financial support for projects with social goals and - preferably - the Company's own organisation of initiatives to benefit the community. In addition, assets no longer of use in operations are donated free of charge, and Terna's employees provide support by spending their working hours on various initiatives, especially paid hours for voluntary work or hours spent on social projects organised directly by Terna, as was the case in 2017 with the second edition of the NEXT ENERGY programme. All external requests are managed in line with the Group's corporate giving policy and assessed by a special committee comprising the heads of Corporate Affairs, External Communication and Sustainability and Human Resources and Organisation. In any event, in line with Terna's Code of Ethics, donations are never made to political parties or their representatives.

> 415-1

Terna is a member of the London Benchmarking Group (LBG) and has adopted its model - developing its own customised version - for the definition, classification and accounting of companies' charitable initiatives. The model is geared towards accounting for what companies do via initiatives that generate actual external benefits. Such initiatives may include cash contributions (donations, portions of sponsorships that generate an actual benefit and membership of associations that promote sustainability), in-kind contributions (the donation of assets at the end of their useful lives), or be in the form of working hours. In some cases, the valuation of contributions thus requires the use of non-accounting criteria and is therefore influenced by interpretative factors. Moreover, it has the advantage of consistently linking the costs and benefits of social initiatives, thus enabling strategic planning and effective management of the related activities.

Indeed, an important part of the model regards the measurement of benefits, with the aim of assessing the effective impact on the end beneficiaries. In the most important projects, Terna appoints specialist external providers to assess the impact.

The community initiatives implemented by Terna in 2017, classified in accordance with the LBG model, are broken down in the following table.

COMMUNITY INITIATIVES (€)	2017	2016	2015
Total value of contributions (excluding internal operating costs)	1,817,996	1,189,259	957,720
By type of contributions			
- In cash	1,625,685	867,167	873,124
- In kind (the donation of assets)	28,031	43,140	9,471
- Working hours	164,280	278,952	75,125
By type of initiative (*)			
- Donations	330,000	241,917	370,687
- Investment in the community	931,433	519,042	233,396
- Commercial initiatives	556,562	428,300	353,637
By purpose			
- Education and youth	1,067,497	355,829	165,024
- Healthcare	62,900	0	0
- Economic development	84,580	107,267	204,138
- The environment	130,721	130,500	74,000
- Art and culture	226,740	432,300	361,489
- Social well-being	42,000	38,600	40,000
- Emergency aid	100,210	77,463	5,682
- Other	103,347	47,300	107,387

(*) **Donations:** sporadic contributions, typically in response to requests for funds from charitable organisations deemed to be of merit.

Investment in the community: expenditure on initiatives coordinated/organised by the Company in accordance with a medium- to long-term programme, often in partnership with non-profit organisations.

Commercial initiatives: marketing initiatives with beneficial effects (only the portion of expenditure that constitutes a charitable contribution is accounted for).

To coincide with the change in the Group's senior management, in 2017 the Company embarked on a review of its priorities with regard to the use of Terna's resources to fund community initiatives.

The most significant areas, with regard to the business and stakeholders' expectations, are youth employment - in the form of education and training and by promoting innovation projects - and the development of local initiatives. A third issue, which is currently of minor importance, but has potential linked to the growth of the Group's International Activities, is access to energy. These themes are in line with the **SDGs - 4 ("Quality education"), 9 ("Industry, innovation and infrastructure"), 11 ("Sustainable cities and communities") and 7 ("Affordable and clean energy")**.

Initiatives in 2017 focused partly on Goal 4 (59% of the total contributions shown in the table).

For the purposes of full disclosure, it should also be noted that, in 2017, expenditure accounted for as donations and sponsorships amounted to €218,500 and €1,033,100, respectively.



NEXT ENERGY, Terna's initiative regarding youth employment and entrepreneurship

In partnership with the Cariplo Foundation, Terna has created NEXT ENERGY, an initiative designed to nurture young talents and support the expansion of innovative projects in areas relating to development of the electricity system.

In its first edition (2016-2017), this initiative, which is highly geared towards innovation, developed along two separate paths, the first for young engineering graduates preferably with an electrical specialisation (the "Call for Talents"), and the second for a team of young researchers or new start-ups with a business idea to be developed (the "Call for Ideas").

New graduates were offered six-month paid internships (October 2016-March 2017) within departments at Terna with responsibility for innovation, while via its technical partner PoliHub (the Polytechnic University of Milan's start-up acceleration unit), the Cariplo Foundation managed the 10 selected teams' incubation and acceleration experience, also for a six-month period.

In April 2017, at the end of the acceleration phase, the Jury assessed the teams' progress and awarded the best three a voucher to spend on additional services, worth €50,000, €30,000 and €20,000, respectively. These teams, which have been joined by an additional team, are collaborating with Terna and Terna Plus on the development of a prototype of their products.

In September 2017, the second edition of NEXT ENERGY was launched. The main changes include assignment of responsibility for the "Call for Ideas" initiative to the Cariplo Factory, the Cariplo Foundation's new initiative for open innovation projects, using a network of incubators and accelerators, and the introduction of a third call (the "Call for Growth"), reserved for more mature start-ups with a customer base. This call is aimed at identifying up to a maximum of five start-ups that are ready to collaborate with Terna.

The second edition of NEXT ENERGY entered its operational phase in January 2018, and will end by May, with the award ceremony for the best young start-up selected by the "Call for Ideas", which will receive a voucher worth €50,000 to spend on additional acceleration services.

"Transmitting knowledge", Terna's work experience scheme

Facilitating young people's transition from school to work via a constructive exchange with the world of companies and with their knowledge networks is the objective of the Good School legislation (Law 107/15). Terna has taken this as inspiration for its work experience scheme, carried out in collaboration with the ELIS Consortium.

The first edition of the scheme, which coincided with the 2016-2017 school year, involved 12 vocational training institutes (electrical engineering students) from all over Italy, with a total of more than 240 students who attended a "Supplementary Course on the Electricity System and Green Jobs", a 50-hour training course co-designed by Terna trainers and experts, to enhance professional and behavioural skills (soft skills). The scheme's second module, held during the holiday period, was a two-week summer camp (88 hours) that was attended by a selection of students from each school.

The initiative is being repeated in the 2017-2018 school year and has attracted an even greater number of schools and students. This second edition involves involving 13 vocational training institutes around the country and approximately 600 fourth- and fifth-year students. The new version of the project has been enriched with the organisation of meetings at schools, with the aim of presenting the Company to the school as a whole and students' families.

Support for environmental causes has not been included in this table as it is usually linked to the construction of new lines and has therefore been classified under environmental expenditure (see "Environmental costs" on page 160).

OTHER STAKEHOLDERS - ACTIVITIES IN 2017

These public institutions are responsible for regulation, supervision and authorisation of a general nature, and in particular regarding the construction of infrastructure. They exert an influence over Terna and engage with the Company in the performance of their institutional roles.

Since 2016, Terna has been on the Transparency Register, established by the MED to guarantee transparency and the traceability of meetings with the Ministry's top officials.

In 2017, in addition to ordinary communication initiatives and institutional relations, Terna attended the following hearings:

- on 27 February 2017, at the Senate's Standing Committee on Industry, in connection with the matter allocated no. 911, Terna gave evidence relating to the performance of leading companies that are directly or indirectly owned by the state, with particular reference to the Committee's areas of interest, regarding aspects relating to both industrial sector and competition;
- on 7 December 2017, Terna gave evidence to Emilia Romagna's Legislative Assembly, with regard to the repercussions for public utilities of the weather events occurring in November 2017.

Moreover, Terna also contributed to the process of adopting the National Energy Strategy, which describes energy, environmental and sustainable development policy objectives up to 2030.

Public decision makers
and regulators



Value added²⁴

> 201-1

Value added measures the value created by an enterprise, but also by an entire economy, over a certain period, usually a year.

In corporate accounting terms, value added is calculated by subtracting the costs of purchasing the intermediate goods and services used in operations from the value of production (revenue attributable to the goods and services produced during the year).

These costs do not include personnel expenses, which instead form part of the value added by the enterprise to the intermediate goods and services as a result of its operations. The difference between revenue generated by the sale of the final product and the cost of the raw materials (and the related support services) is the value added, which, in addition to personnel expenses, also includes any profit and the share of income used to pay the interest on any debt and income taxes.

MEASUREMENT AND REDISTRIBUTION OF VALUE ADDED ^(*)

	Unit	2017	2016	2015	CHANGE 17-16	CHANGE% 17-16
A - Remuneration of employees	€	322,058,429	327,152,165	303,071,673	-5,093,736	-2
B - Payments to the government	€	301,533,096	320,643,092	309,537,047	-19,109,996	-6
C - Payments to credit providers	€	97,746,883	105,508,004	179,544,713	-7,761,121	-7
D - Payments to providers of risk capital ^(**)	€	442,198,240	414,058,352	401,998,400	28,139,888	7
E - Retained by the Company	€	252,011,601	213,870,808	193,314,279	38,140,793	18
TOTAL NET VALUE ADDED	€	1,415,548,249	1,381,232,421	1,387,466,112	34,315,828	2

^(*) Amounts relating to the creation and distribution of value added have been taken from the consolidated financial statements prepared in accordance with IFRS/IAS. In particular, the Terna Group has used IFRS/IAS since 2005.

^(**) Payments to providers of risk capital in 2017 regard the interim dividend paid in November 2017 (€149.3 million) and the final dividend proposed to shareholders by the Board of Directors at the General Meeting held on 22 March 2018 (€292.9 million).

²⁴ This section, including the table, includes amounts for Terna Crna Gora and the Tamini Group.

Taxes paid overseas

With regard to taxes paid overseas by the Group's subsidiaries in 2017, the following should be noted:

- **Terna:** with reference to the activities relating to the Italy-Greece interconnector²⁵, income taxes totalling €2,183,516 were paid in Greece.
- **Terna Crna Gora:** carried out capital expenditure in Montenegro in 2017, amounting to €55,143,258, regarding design, supply and works, in line with the provisions of the procurement contracts relating to implementation of the project. The laying and protection of the pole 1 submarine cable was completed in 2017, as was installation of the sea electrodes in Montenegrin waters. 90% of the terrestrial cables have been laid and the structural works on the substation's main pole 1 and pole 2 buildings have been completed. In terms of operating results for 2017, the company did not register any revenue and reported a loss of €610,760. Consequently, no income taxes were payable to the government of Montenegro. With regard to other taxes and charges, in 2017 the company paid property taxes totalling €29,778 (of which €26,201 was paid to the Municipality of Kotor relating to plots of land it owns, and the remainder to the Municipality of Podgorica in relation to the building used as the company's headquarters).
- **Tamini Group:** €4,613 was paid, primarily including taxes on services and withholding taxes.
- **Terna Chile:** the Group's Chilean subsidiary paid income tax amounting to 338,449,394 Chilean pesos, value added tax of 67,504,094 Chilean pesos, and municipal taxes of 3,819,146 Chilean pesos.
- **Brazil:** as part of Terna Plus Srl's acquisition of the two Brazilian companies, Aletheia Consultoria e Assessoria Empresarial Ltda and Egecon Consultoria e Assessoria Empresarial Ltda, and the subsequent capital increases relating to them, financial transaction tax of €290,810 was paid in Brazil.

²⁵ Terna's presence in Greece consists of a series of plants and infrastructure assets that provide the DC interconnection between the Italian and Greek electricity systems (the section of submarine cable in Greek territorial waters, as well as the terrestrial connection from the terminal for the Greek cable to the Arachtos substation, which is also owned by Terna). As there is a production facility in Greece, a permanent company (or branch) has been established in that country.



Investigations, litigation and sanctions

Investigations by ARERA

The following measures were taken by the Authority in 2017:

Resolution 674/2017/ E/eel “Urgent rulings regarding potential problems in the wholesale electricity market deriving from the preventive seizure of the Brindisi Cerano power plant. Formal notice to a market operator and initiation of a fact-finding investigation”

With this resolution, the regulator launched a fact-finding investigation aimed at:

- verifying and investigating the critical issues regarding the wholesale electricity market arising from the preventive seizure of the Brindisi Cerano power plant;
- considering the possible adoption of measures to safeguard the security of the system, as well as measures to ensure effective competition and the proper functioning of the market, including by countering any situations in which significant market power is exercised.

Prescriptive measures regarding non-diligent planning strategies in relation to the dispatching service

In 2017, the regulator issued prescriptive measures referring to dispatching users who have been reported to the regulator for non-diligent planning strategies in the wholesale energy and dispatching services markets.

These measures order dispatching users to repay to Terna - with a view to reimbursing consumers as a whole - amounts corresponding to undue profits made as a result of non-diligent planning strategies.

With reference to previous years, the following cases are still pending:

- Resolution 450/2013/E/eel of 11 October 2013 - Ruling on electricity price trends in the Sicily area, during the period of maintenance of the Sicily - Mainland interconnector - October 2013.
- Resolution 256/2014/E/com of 6 June 2014 - Launch of a fact-finding investigation regarding investment by regulated companies.

Litigation

> 307-1

> 419-1

The main commitments and risks not disclosed in the financial statements at and for the year ended 31 December 2017, relating to the Parent Company, Terna, its subsidiary, Terna Rete Italia SpA, and Tamini Group companies, are described below. There are no significant commitments or risks for the other subsidiaries at that date.

Environmental and urban planning litigation

Part of environmental litigation deriving from the construction and operation of Terna's power plants, consists of legal actions taken against the alleged negative effects of electric and magnetic fields generated by power lines. In general, this litigation necessarily involves the Parent Company, which owns the infrastructure in question. Moreover, it cannot be ruled out that the parties concerned may also initiate legal proceedings against the subsidiary, Terna Rete Italia SpA, as the electromagnetism generated by power lines relates not only to ownership of the plant, but also to its operation and the quantity and quality of electricity it transports.

Regarding this matter, it should be noted that the issue of the Cabinet Office Decree of 8 July 2003 - which specifically set the values of the three parameters (exposure limits, safety thresholds and quality targets) provided for in Framework Law 36 of 22 February 2001, which electricity infrastructure must comply with - led to a significant reduction in any such litigation.

Other environmental and urban planning disputes, which do not relate to electromagnetic fields, are also pending with regard to Terna SpA. These disputes are connected with the operation of certain Terna-owned plant, which in the event of an unfavourable outcome could also generate immediate effects for Terna Rete Italia SpA (to date unforeseeable and therefore not included in "Provisions for litigation and sundry risks"), both as the entity appointed by Terna SpA to build the related infrastructure and as the entity responsible for its operation. In particular, charges may arise for Terna Rete Italia SpA connected with changes to the infrastructure involved in such disputes and its temporary unavailability. However, after examination of the disputes in question by Terna SpA and external counsel appointed by the Company, it appears that the possibility of any negative outcomes is remote.

Litigation regarding the legitimacy of construction permits and plant operations

Another aspect of litigation connected with the plant owned by the Parent Company derives from legal actions brought before the competent administrative courts, aimed at obtaining the annulment of decisions granting consent for the construction and operation of infrastructure.

Litigation relating to activities carried out under concession

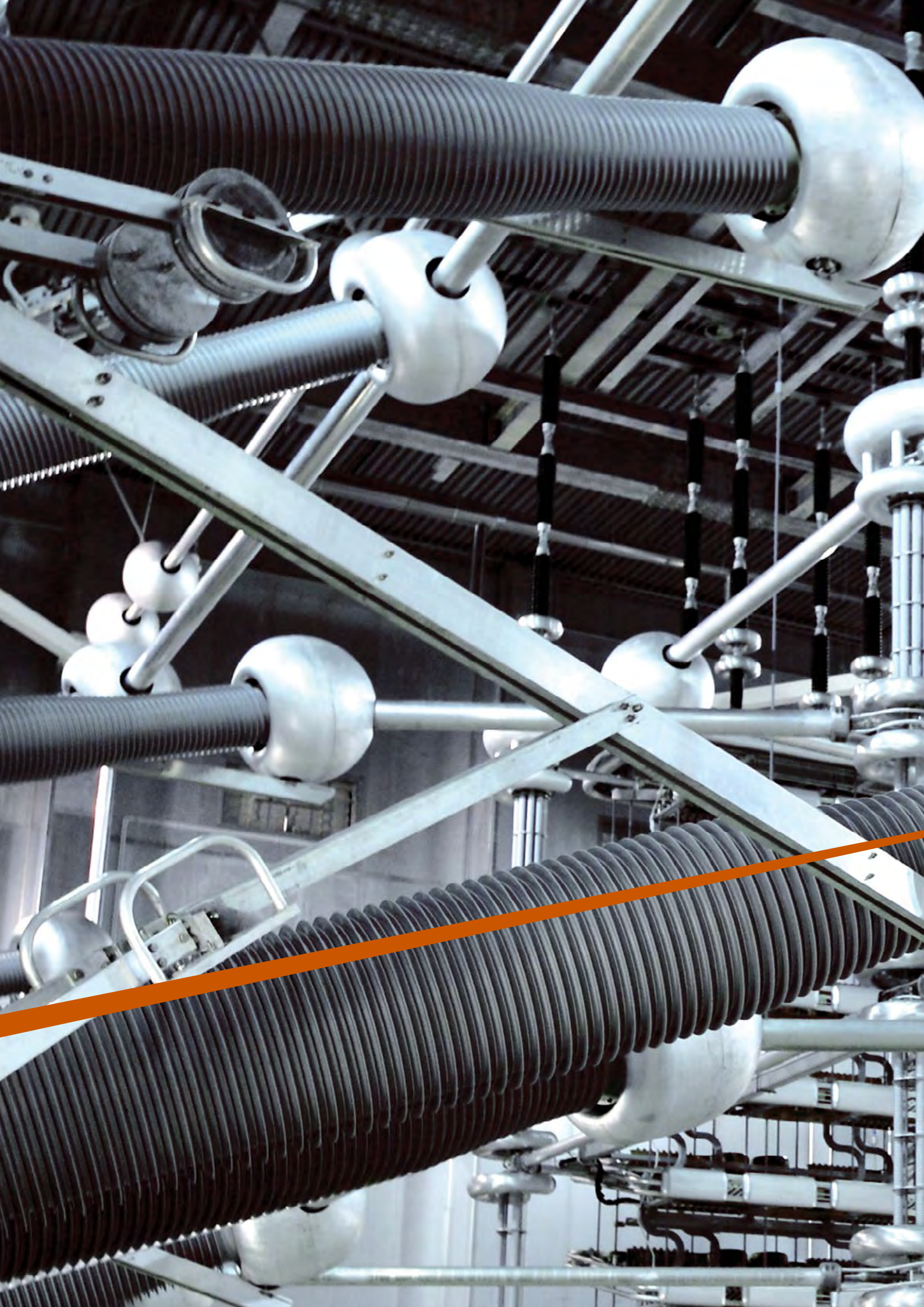
As the operator of transmission and dispatching activities since 1 November 2005, the Parent Company has been a party in a number of court cases, most of which have contested determinations adopted by ARERA (Italy's Regulatory Authority for Energy, Networks and the Environment), and/or the Ministry for Economic Development, and/or Terna, in relation to these activities. In cases in which the plaintiffs have, in addition to inherent defects in the contested determinations, alleged violation of the regulations laid down by the aforementioned authorities, or in cases in which the determination has had an impact on Terna, the Company has also taken action to defend its interests through the legal system. Within the scope of such litigation - even though some cases have been concluded, at first and/or second instance, with the annulment of ARERA's resolutions and, when applicable, of the consequent determinations adopted by Terna - any negative outcomes for the Company itself may be deemed unlikely, as these disputes normally relate to pass-through items.

Litigation regarding supply contractse

This litigation only refers to Tamini Group companies and relates to supply contracts entered into between Tamini Group companies and its customers, regarding the supply of transformers and/or the related components.

It also concerns certain claims for damages brought against companies, regarding alleged damage caused by machinery and/or components supplied by them.

With regard to these judgements, it is impossible to exclude, in absolute terms, any unfavourable outcomes. Where such outcomes are deemed likely, specific provision is made to the provisions for risks and charges. Further details on the various categories of litigation are provided in the "Key indicator tables" on page 211.





04

The electricity service
and innovation



Key performance indicators

ASA

(Average Service Availability)

99.99%

This figure, close to 100% as in previous years, is a mere tenth of a percentage point below the maximum possible, confirming the high quality of Terna's services.

Italy's demand

32%

covered by renewable electric sources

Principal new lines entering service

- Udine West-Redipuglia
- Capri-Mainland





Continuity and quality of service

> EU28

> EU29

Each segment of the electricity system - generation, transmission and distribution - plays a role in ensuring the availability of electricity in Italy, guaranteeing adequate quality standards and keeping the number of outages below pre-set thresholds.

Terna is responsible for service continuity on the transmission grid²⁶, which is monitored through various indicators, a number defined by ARERA²⁷.

The RENS and ASA indicators are the most significant, as they record the frequency and impact of events on the electricity network and linked to faults or external factors, such as weather events.

INDICATOR	WHAT IT MEASURES	HOW IT IS CALCULATED
ENSR*	Energy not supplied following events affecting the relevant grid**	The sum of the energy not supplied to users connected to the NTG (following events affecting the relevant grid, as defined in the ARERA regulations governing quality of service).
ASA***	Availability of the service provided by the NTG	Based on the ratio of the sum of energy not supplied to users connected to the NTG (ENS) and energy fed into the grid.

* Regulated Energy Not Supplied.

** The "relevant grid" refers to all the high-voltage and very high-voltage network.

*** Average Service Availability.

The RENS indicator is also important due to the impact it has on regulated revenue. Indeed, ARERA²⁸ has regulated the quality of service Terna provides via a bonus/penalty mechanism based on this indicator.

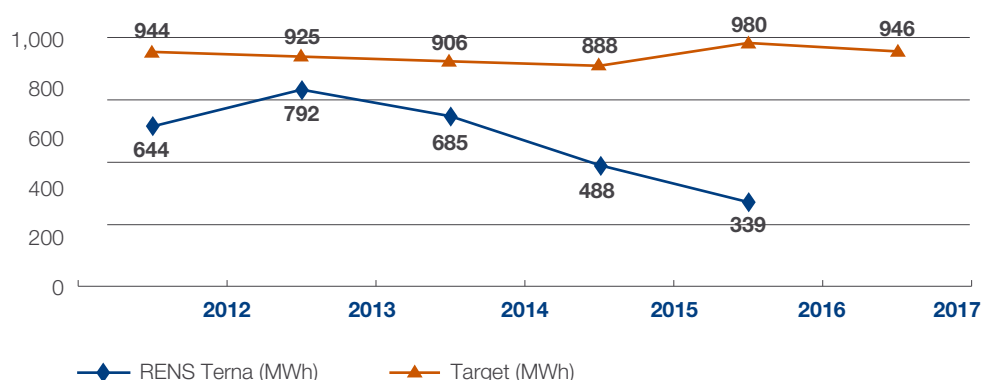
As regards the ASA indicator, the operating performance shows that ASA has remained stable at a high level over the years (the higher the indicator, the better the performance). This indicator shows that the energy not supplied following a fault on the owned grid represents a minimal part of the total quantity of energy supplied to users of the grid.

²⁶ The portions of the NTG monitored are the ones owned by Terna SpA and, since 2012, also by the subsidiary, Terna Rete Italia Srl.

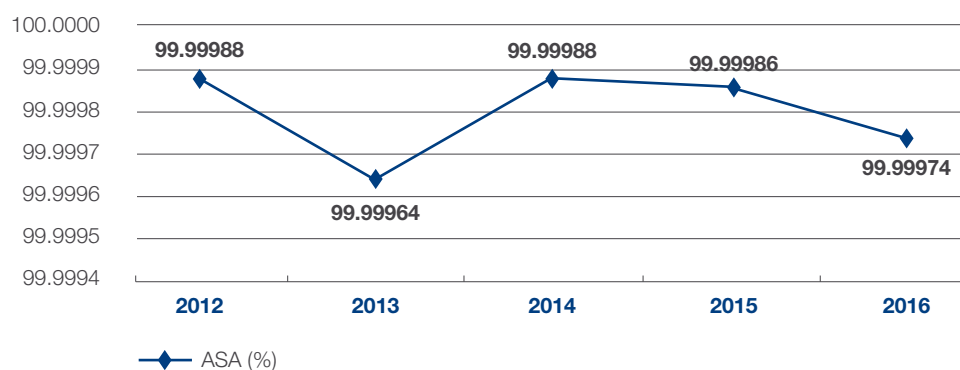
²⁷ Resolution 250/04.

²⁸ Resolution ARG/elt 197/11. This regulates the quality of the service provided by Terna via a bonus/penalty mechanism applicable to the regulatory period 2012-2015 and relating to the Regulated Energy Not Supplied (RENS) indicator attributed separately to the grid owned by Terna SpA and to the one owned by the subsidiary, Terna Rete Italia Srl. Since 2016, the quality of the service provided by Terna has been regulated by Resolution 653/15/R/EEL, the latter applicable to the 2016-2023 regulatory period, which takes into account only one indicator, NTG RENS, including the grid owned by Terna SpA and its subsidiary, Terna Rete Italia Srl. Resolution 38/2016/R/eel recently clarified that the portion of the network acquired from the FSI Group is excluded from the bonus/penalty mechanism regarding energy not supplied.

RENS INDICATOR^{29 30}



ASA INDICATOR³¹



²⁹For the RENS indicator, the targets for 2012-2015 have been set as an average of the RENS 2008-2011 indicator, referred to in ARERA Resolution ARG/elt 197/11, with a 2% improvement in performance required for each year compared with the previous one. The target for 2016-2023 has been set as an average of the 2012-2015 RENS indicator, referred to in ARERA Resolution 653/15/R/eel, with a 3.5% improvement in performance required for each year compared with the previous one.

³⁰At the time of publication of this report, the RENS indicator for 2017 is not available, pending finalisation of the related amount by ARERA.

³¹The ASA indicator refers to the observation period 2012-2015. The values for 2017 have not yet been finalised and approved by ARERA. The positive trend of recent years has continued.



The energy sector

At international level, guidelines for development of the energy sector are provided in the United Nations Sustainable Development Goals (SDGs), which - in keeping with the decisions set out in the COP 21 - set out a path for creating an energy system based around renewable sources by 2030. In the meantime, the European Union's Clean Energy Package, which is in the process of being approved, will lead to major changes in the rules and policies applied to the sector, ranging from the electricity markets to the energy efficiency of buildings. In line with these guidelines, the Italian government approved the country's National Energy Strategy (*Strategia Elettrica Nazionale* or "SEN") at the end of 2017. This is a key policy document, forming the basis for plans to develop the Italian Energy System of the future.

One of the objectives of the NES is to boost the share of total consumption generated by renewable energy sources from 17.5% to 28% by 2030. The electricity sector has been set even more challenging goals, with the aim of increasing the share of total electricity consumption represented by renewables from 33.5% in 2015 to 55% in 2030, whilst measures designed to promote security of supply for energy, above all electricity, are dependent on the introduction of the Capacity Market, which is due to be launched in 2018.

In 2017, renewable sources (including hydroelectric and biomass) accounted for 36.3% of Italy's production (32% of demand).

ELECTRICITY DEMAND IN ITALY (GWH)	2017*	2016**	2015	Δ% 2017-2016
Net domestic production	285,118	279,703	272,428	1.9
From overseas suppliers (imports)	42,892	43,181	50,848	-0.7
Sold to overseas customers (exports)	-5,132	-6,154	-4,470	-16.6
For use in pumping***	-2,441	-2,441	-1,909	-1.1
Total demand in Italy	320,437	314,261	316,897	2.0

* Provisional data.

** Final data. The figures published in the 2016 Sustainability Report were still provisional.

*** Electricity used for pumping water, for sole subsequent use in electricity production.

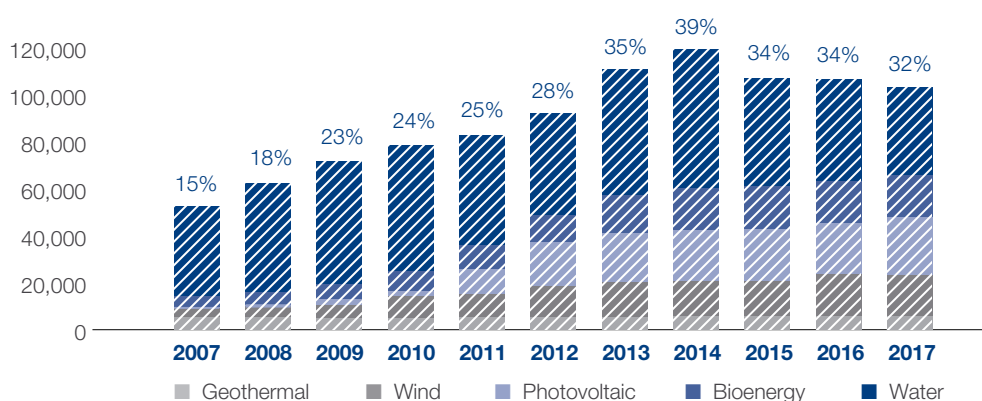
ELECTRICITY PRODUCTION IN ITALY (GWH)	2017*	2016**	2015	Δ% 2017-2016
Net hydroelectric production	37,530	43,785	46,450	-14.3
Net thermal production	181,732	172,815	164,932	5.2
Renewable production	65,856	63,103	61,046	4.4
Total net production	285,118	279,703	272,428	1.9

* Provisional data.

** Final data. The data published in the 2016 Sustainability Report were still provisional.

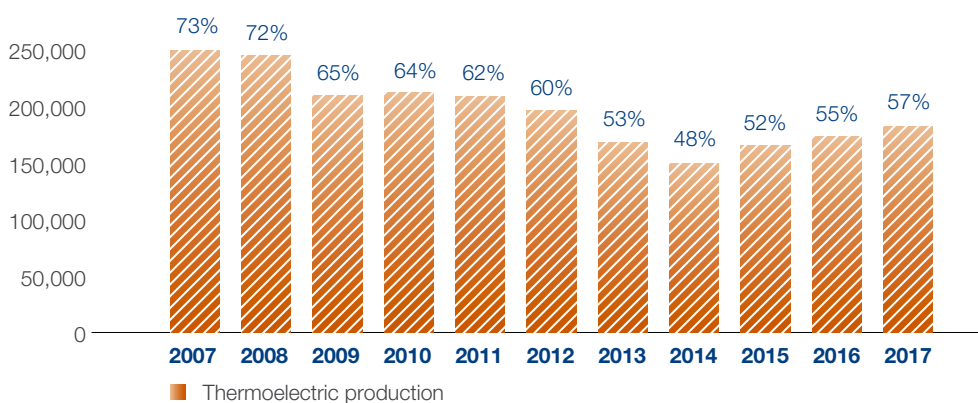


PERFORMANCE OF PRODUCTION SOURCES IN TERMS OF DEMAND ³²



The reduction in the share of demand met by renewable production since 2015 is due to a fall in hydroelectric production.

In the same period, growth in non-programmable renewable sources continues.



³² The percentages shown in the two graphs compared refer to the share of demand met by renewable sources (left-hand graph) and thermal sources (right-hand graph).



Investment and innovation for the SDGs

Terna's main activity coincides with its obligations under the concession and translates into a constant commitment to ensuring a secure, high-quality and affordable electricity service for the whole of Italy, via management and development of the transmission grid.

In the current phase of transition towards a decarbonised economic system, in addition to its traditional tasks, the Company is also responsible for promoting the integration of renewables as far as possible. This is achieved by directly connecting them to the grid or through grid upgrades, and by improving grid management capabilities when using non-programmable renewable sources to meet high demand. Increased use of renewables and development of the electricity grid go hand in hand. Indeed, the latter is an essential enabling factor for the former.

Terna's activities are, therefore, an integral part of the form of sustainable development set out in the United Nations Sustainable Development Goals.

As mentioned in the section "Terna and the SDGs", this section describes Terna's key activities, highlighting their direct links with some of the SDGs, especially Goal 7 ("Affordable and clean energy"), Goal 9 ("Industry, innovation and infrastructure") and Goal 13 ("Climate action").

For the specific implementation of its contribution to the achievement of these SDGs, Terna relies on four main instruments:

- investment in development of the transmission grid (the Development Plan) and its resilience;
- investment in the security and resilience of the service (the Security Plan and the Resilience Plan);
- plant maintenance;
- innovation, aimed at supporting the transition to renewables and promoting energy efficiency.

BENCHMARK SDGs FOR TERNA

TARGET	TERNA'S ACTIONS	SDG
<p>7.1 - By 2030, ensure universal access to affordable, reliable and modern energy services.</p> <p>7.2 - By 2030, increase substantially the share of renewable energy in the global energy mix.</p> <p>7.a - By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology.</p>	<p>7.1 - Focus on innovation to increase energy efficiency and contribute towards decarbonisation of the economy (see page 132); Carry out the investment provided for in the Development Plan (see page 115); Seek new non-regulated business opportunities (see page 38).</p> <p>7.2 - Carry out the investment provided for in the Development Plan (see page 115).</p> <p>7.a - Play an active role in policy coordination at international level (ENTSO-E, see page 76) and develop overseas operations (see page 39).</p>	
<p>9.1 - Develop quality, reliable, sustainable and resilient infrastructure, including regional and trans-border infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all.</p> <p>9.a - Facilitate sustainable and resilient infrastructure development in developing countries through enhanced financial, technological and technical support to African countries, least developed countries, landlocked developing countries and small island developing States.</p>	<p>9.1 - Carry out the investment provided for in the Development Plan (see page 115) and implement the Resilience Plan (see page 126); Construct cross-border interconnections (see page 122).</p> <p>9.a - Develop overseas operations (see page 39).</p>	
<p>13.1 - Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.</p>	<p>13.1 - Implement the Resilience Plan; Research and Development; Innovation. Focus on innovation to increase the resilience of the NTG (see page 126).</p>	



Grid development



Each year, Terna prepares a National Transmission Grid (NTG) Development Plan, which sets out the grid development initiatives envisaged over the next ten years, as well as the state of progress of the development works planned in previous years.

By analysing electricity flows through the grid and developing supply and demand projections, Terna is able to identify areas of the grid requiring attention. As a result, it is able to plan the new projects needed to ensure that the system is adequate over the short, medium and long term, in relation to demand, security of supply, quality, continuity and the cost-effectiveness of the service.

The Plan contains all the investments that Terna is committed to carrying out in order to guarantee the efficiency of the grid, the security of supply and of the service. At the same time, it represents the community's need for a secure, efficient electricity service and Terna's commitment to meet that need. Given that these objectives are of general interest, all investment in development of the grid is subject to a prior cost-benefit analysis, comparing the related expenditure with the resulting benefits, expressed in monetary terms. The cost-benefit analysis largely applies the criteria and methods applied by ENTSO-E, examining contrasting scenario and indicators of the environmental and social benefits. Medium- to long-term development scenarios have been drawn up in line with these guidelines. A positive cost-benefit ratio is a necessary condition of the investment's inclusion in the Development Plan.

The Development Plan is assessed and approved by the Ministry for Economic Development, following the outcome of the public consultation³² organised by ARERA, and is submitted for evaluation by the grid users' Consultation Committee.

The Plan is also subjected to a Strategic Environmental Assessment (SEA)³³ process by the Ministry of the Environment and of the Protection of Land and Sea in agreement with the Ministry of Cultural Heritage, with a view to incorporating environmental considerations when preparing the plan, thereby ensuring its environmental sustainability.

2018 Development Plan

The Development Plan is fully in keeping with changes in the electricity sector at Italian and European level, reflecting the impact of the drive for decarbonisation. This is reflected in the National Energy Strategy for 2017 (SEN 2017), adopted on 10 November 2017 by ministerial decree issued by the Ministry for Economic Development and the Ministry of the Environment and of the Protection of Land and Sea. This contains the Italian government's ten-year plan designed to manage and support change in the energy system.

SDG 7

Terna's network planning is in line with the growth targets for renewable energy production set out in the NES and with a number of guiding principles.

³² Pursuant to art. 36.13 of Legislative Decree 93/11.

³³ Or, if necessary, to the procedures for verification of eligibility for the SEA procedure pursuant to Legislative Decree 1 of 24 January 2012.

The Development Plan is based on the following drivers:

- **decarbonisation:** the electricity system's transition to complete decarbonisation requires use of all the tools necessary in order to fully integrate renewable production plants in order to reduce emissions, guaranteeing the system's security
- **market efficiency:** the structure and mix of Europe's generation mix in general and of Italian generation in particular are undergoing a radical transformation, just as transmission lines are being developed in keeping with new European directives regarding Market Design. The adoption of new mechanisms at national level (in particular, the Capacity Market and the reform of the dispatching services market) will have a major impact on development of the electricity system
- **security of supply:** the third driver for the Plan aims to ensure the security of the national electricity system and, at the same time, create an increasingly resilient system, capable of handling critical events external to the system itself.

The 2018 Development Plan entails investment of approximately €12 billion, which will enable the Company to achieve the following electricity system efficiencies and benefits:

1,600 million kWh a year	Over 5,000 MW	Up to around 6,000 MW	Around 5,500 MW
In reduced energy losses	In reduced congestion	In increased interconnection capacity with other countries	In increased capacity provided by renewable sources

Reduction of CO₂ emissions in the electricity system

SDG 7

SDG 13

Construction of the new power lines and substations provided for in the Development Plan generates positive effects not only regarding the security of supply and the final cost of electricity, but also in terms of a reduction in the emissions produced by the electricity system. The effects, which will be achieved on completion of the Plan, derive from a reduction in energy losses through the grid, improvements to the production mix and interconnections with other countries, as well as the connection of plants that use renewables.

The overall reduction in CO₂ emissions could add up to approximately 16 million tonnes per year.

Reduction in grid losses

Grid losses depend, among other things, on the length of the section of the transmission grid over which the electricity has to travel. In the simplest possible terms, the further away the point of consumption (withdrawal from the NTG) is from the point of production (injection into the NTG), the greater the losses for the same amount of consumption. In addition, over an equal distance, the losses are greater on a lower voltage line. Development works that improve the grid bring the points of withdrawal and consumption closer together: if all else is equal, grid losses are consequently reduced. A similar result is achieved by upgrading a section of the grid, for example, when a 400 kV line replaces a 150 kV line along the same route. The entry into service of the main development works provided for in the 2018 Development Plan will lead to an estimated reduction in energy losses through the grid of approximately 1,600 GWh a year. If such a loss reduction were to equate to a decrease in production from fossil fuel sources, this would amount to a reduction in CO₂ emissions of approximately 90,000 tonnes per year.

One of the primary aims of developing the electricity transmission grid is to overcome transport limitations between “electricity zones”. The existence of these limitations imposes certain restrictions on being able to use the most efficient generating units for production, namely those that are less polluting in terms of CO₂ emissions, while at the same time, for grid security reasons, necessitating production by obsolete power plants. The initiatives provided for in the Development Plan, together with the expansion of interconnections with other countries, would enable a more efficient production mix, with a greater share of production from higher yielding plants. The same amount of final consumption would thus be achieved with less fuel: the benefits would add up to a reduction in CO₂ emissions of up to 8,530,000 tonnes per year.

Improvement in the production mix and interconnections with other countries

The main contribution to the reduction of CO₂ emissions derives from the connection of renewable energy plants, which is among the initiatives considered in the 2018 Development Plan. Production of energy from renewable sources has grown rapidly in potential in recent years. In particular, wind and photovoltaic generation plants have witnessed a considerable increase, especially in Italy's southern and island regions.

Connection of renewable energy plants

One of Terna's main tasks is to plan upgrades of the NTG in order to promote the production of electricity from renewable sources, seeking to overcome any grid and operational constraints that may affect the injection of such energy into the grid, which benefits from priority dispatching rights. The development solutions planned in response to these critical issues include interventions to upgrade sections of the primary grid, which indirectly reduces the limits on production from non-programmable renewable sources (NPRS), and interventions designed to upgrade local sub-transmission grids into which the energy produced from NPRS is directly injected (see page 120). In addition to these interventions, collection stations have been planned for NPRS on the primary 400 kV grid, which will limit the number of new 150 kV power lines to be built with respect to the number that would otherwise be required. Overall, the works envisaged in Terna's 2018 Development Plan will release power from renewable resources amounting to approximately 5,500 MW, thereby obtaining a reduction in CO₂ emissions of 7.080.000 tonnes a year.

Cuts in CO₂ emissions in 2017

In 2017, the benefits in terms of reductions in CO₂ emissions were mainly due to the installation of new “zero emission” production plants.

The provisional figures for installed capacity from renewable sources in 2017 are shown below.

ENERGY SOURCE	INSTALLED CAPACITY - MW
Wind	~9,734
Photovoltaic	~19,602
Total	29,336

Provisional data from Terna

These provisional figures show that in 2017 gross production from wind and photovoltaic sources increased by approximately 3,023 GWh, up 8% compared with 2016; this corresponds to a reduction of approximately 1.68 million tonnes of CO₂³⁴.

³⁴ Considered as a conversion coefficient of 0.557 tCO₂/MWh, assuming that the new installed renewable energy capacity replaces an equivalent thermoelectric capacity.

Principal development activities in progress

Each year, grid development activities take the form of numerous interventions at various stages of completion.

CONSTRUCTION WORK CARRIED OUT AND EXPECTED BENEFITS

380 kV "Udine West - Redipuglia" power line			
The 380 kV Udine West-Redipuglia power line, included in the Grid Development Plan and authorised by the MED on 14 February 2017 with Decree EL-146 bis, became operational on 29 September 2017.			
Benefits	For the electricity system	For the country as a whole	For local communities
	This infrastructure represents a strategic project for northern and eastern Italy, upgrading the Friuli electricity system, which is currently not well meshed. It also offers benefits in terms of reducing the risk of Energy Not Supplied, has improved the quality of the electricity service offered to local businesses and households, and improved the security of cross-border interconnections with eastern Europe.	The new infrastructure is expected to result in savings of between €110 and €150 million a year for the Italian electricity system.	In terms of the environment, the infrastructure will make it possible to retire around 100 km of lines, thanks to a rationalisation plan involving 220 kV and 132 kV lines. It will also result in a reduction in CO ₂ emissions of between 750 and 890 thousand tonnes per year.
"Capri - Mainland" connection			
The submarine cable linking the island of Capri with the Italian mainland became operational on 27 June 2017. This project is included in the Grid Development Plan and was authorised by the MED on 26 May 2010 with Decree EL-210.			
Benefits	For the electricity system	For the country as a whole	For local communities
	This infrastructure represents a strategic project for the island of Capri, with electricity currently supplied by aged oil-fired thermoelectric plants that are not always able to meet peak demand on the island.	The new infrastructure is expected to result in savings of €17 million a year for the Italian electricity system.	In terms of the environment, the connection consists entirely of invisible submarine or underground cable and a compact substation, thus reducing the footprint. The new connection has reduced the risk of outages, above all at times of peak demand (during the summer season).

PRINCIPAL WORKS IN PROGRESS

On 10 April 2017, Terna received the necessary consents to build the new 380 kV Deliceto-Bisaccia power line.			380/150 kV substations and the related connections to the high-voltage network to collect renewable energy: reinforcement of the very high-voltage and high-voltage network in the area between Foggia and Benevento
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For the electricity system	For the country as a whole	For local communities	Benefits
The 380 kV "Bisaccia - Deliceto" line will increase interconnection capacity between the Southern and South central section, facilitating integration with renewable production plants and security of supply.	This will result in significant benefits in terms of an increase in Social Economic Welfare, and the full use of wind resources, as well as improving security of supply.	As regards the environment, the infrastructure has been designed pursuing the aim of maximising its integration into the surrounding area.	

Work on construction of the 132 kV power lines between the "Sacca Serenella Primary Substation - Cavallino Primary Substation" and the "Fusina 2 - Sacca Fisola Primary Substation" in cable continued in 2017. The project is included in the Grid Development Plan approved by the MED. 75% of the Sacca Serenella-Cavallino terrestrial cable has been laid (out of 4 km), whilst 94% of the submarine cable has been laid (out of approximately 10 km). Drilling to create the Cavallino landing point was also completed and the other main works are in progress. The infrastructure is needed to provide greater margins of security and ensure reliable power supplies for the Venetian lagoon.			Venice lagoon cables - Power lines linking the "Sacca Serenella Primary Substation - Cavallino Primary Substation" and "Fusina 2 - Sacca Fisola Primary Substation"
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For the electricity system	For the country as a whole	For local communities	Benefits
This infrastructure will improve operational security and increase the reliability of the grid that serves the city of Venice, whilst also overcoming the current structural antenna that powers the Cavallino primary substation and simultaneously increasing connections with the portion of the grid associated with the 380/132 kV Salgareda substation.	The new infrastructure is expected to result in savings of between €9 and €18 million a year for the Italian electricity system.	In terms of the environment, the infrastructure will make it possible to retire around 7 km of 132 kV lines.	

Connecting new plants

Terna has an obligation to connect all potential users requesting connection to the grid³⁵, identifying connection solutions in terms of criteria that guarantee the continuity and safe operation of the grid to which an applicant's new plant will be connected.

In particular, Terna is responsible for high and very high voltage connections to the NTG of plants with a capacity of 10 MW or more.

The technical, procedural and financial terms and conditions regarding provision of the connection service to the NTG are governed by the relevant determinations issued by ARERA. The related resolutions are implemented in the Grid Code, which describes transparent and non-discriminatory rules for granting access to the grid and the technical regulations.

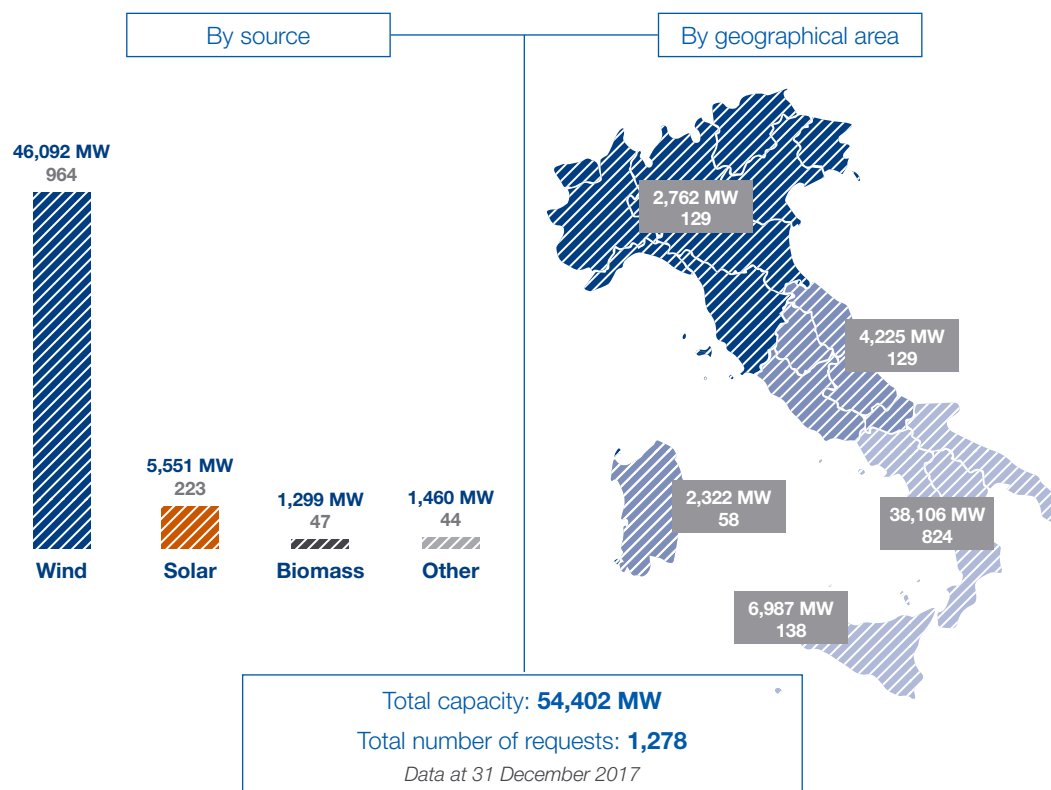
At any one time, Terna handles over 2,000 applications for connection to the grid, amounting to more than 100 GW of capacity.

These procedures include those for which applicants, having filed an application to Terna, fulfil the obligations of the Grid Code during the various phases of the connection process and in agreement with Terna.

The number of requests for connection has remained almost constant over the last three years. A total of 1,278 procedures, relating to the connection of plants using renewable energy sources (RES) to the NTG and representing total capacity of 54,402 MW, are currently active.

The chart below, in which the above procedures are broken down by source and geographical distribution, shows:

- the pre-eminence of wind power among the renewable sources connected to the NTG, compared with the steady decline in the number of applications for photovoltaic sources
- that the greatest number of applications for RES generation plants are from southern Italy and the island regions, where conditions are more favourable in terms of the availability of primary sources.



³⁵ Legislative Decree 79 of 16 March 1999 - art. 3, paragraph 1: "The Operator has the obligation to connect all those making such a request to the National Transmission Grid, without compromising continuity of service and provided the technical rules as per paragraph 6 of this article, and the technical and financial terms and conditions for access and interconnection established by ARERA, are complied with".

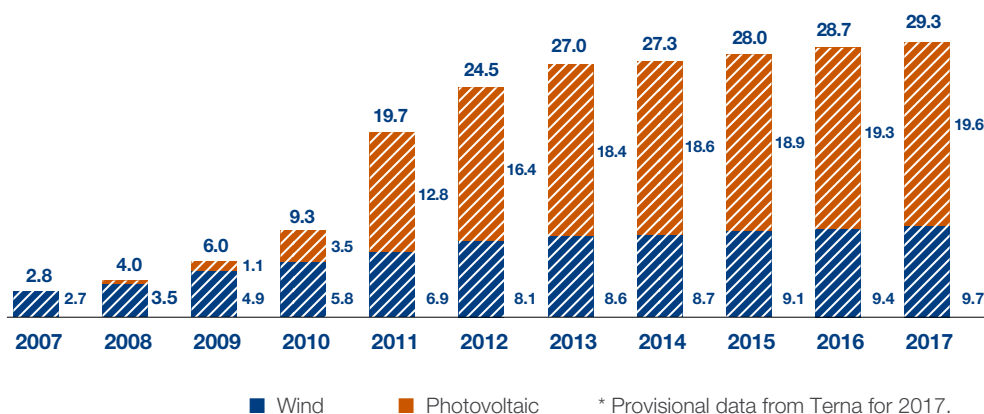


In 2017, with respect to renewable generation plants connected to the NTG, it should be noted that:

- 14 plants, with a total capacity of 314 MW, entered service;
- application of the minimum technical specifications was requested in 41 cases, following the receipt of authorisation from the competent authorities, corresponding to total capacity of 945 MW;
- 38 connection contracts were signed (with total capacity of 682 MW), regulating relations between Terna and the applicant in respect of the connection service.

The auction procedures envisaged by the Ministerial Decree of 23 June 2016 were completed, with the allocation of feed-in premiums for approximately 870 MW of capacity. Feed-in premiums for 800 MW of this capacity were allocated to new qualifying onshore wind farms. These farms are due to play an important role after they enter service, expected to take place over the next two years, taking into account the time-scale laid down by the Ministerial Decree of 23 June 2016.

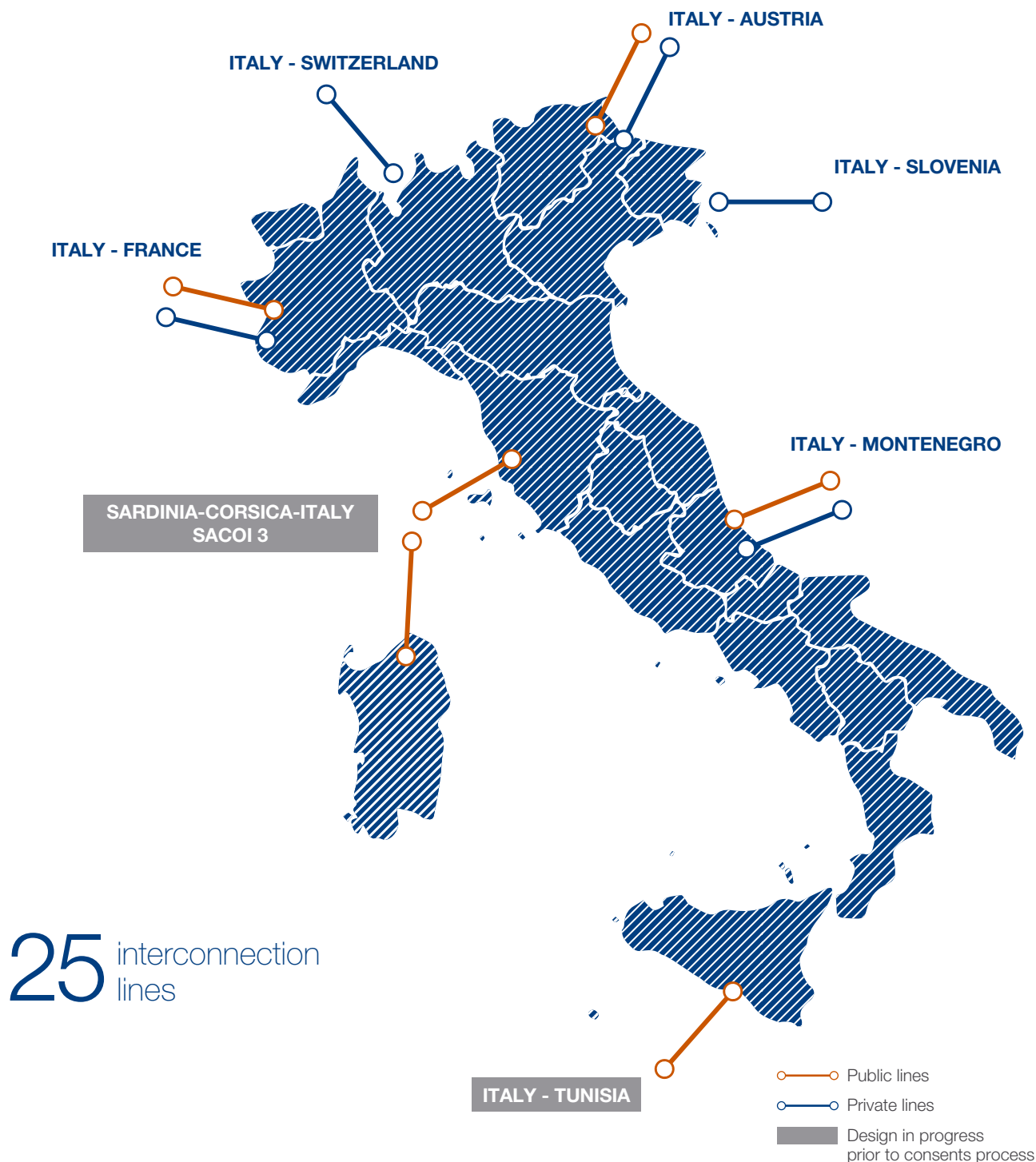
INSTALLED PHOTOVOLTAIC AND WIND CAPACITY - DECEMBER 2017* (GW)



Overseas interconnections

Its geographical position makes Italy a natural hub in the Mediterranean area and it can count on an electricity border made up of 25 interconnectors³⁶, in addition to new lines under construction.

This development work aims to increase interconnection capacity (Net Transfer Capacity - NTC) on the electricity borders with foreign countries, enabling a reduction in energy procurement costs and the integration of markets, with the possibility of having more resources for use in managing the Italian and European electricity system.



³⁶ These include 3 merchant lines, or lines not owned by Terna, and the Italy-Malta connection owned by Enemalta.

PRINCIPAL INTERCONNECTIONS IN PROGRESS

The new Italy - France interconnector is a project unique in the world in terms of the engineering, technological and environmental solutions used: 190 km of line connecting the substations of Piossasco (Italy) and Grand'Île (France) through 25 municipalities in the province of Turin, consisting entirely of direct current underground cable.

The power line will be the longest underground line in the world and will have a very low impact on the environment and the local area, thanks to the latest in design techniques. On 25 October 2017, the Ministry of Infrastructure and Transport approved the agreement granting Terna the right to carry out the project and to cross the relevant section of the A32 motorway operated by Società Italiana per il traforo autostradale del Frejus (SITAF). In August 2017, work began on works in the municipalities of Bussoleno, Susa and Exilles and, in November 2017, work began on the A32 operated by SITAF.

[“Italy-France” interconnector](#)

For the electricity system

Completion of the new interconnector will bring benefits for the electricity markets of Italy and France. The increase in energy exchanges will result in a reduction in congestion between the two countries and the possibility of more efficient use of renewable sources. This therefore also makes the interconnector a Project of Community Interest (PCI). In November 2017, it was included in the third PCI list, published by the European Commission in accordance with EU Regulation 347/2013.

For the country as a whole

The infrastructure will increase social and economic welfare at European level, reducing the price differential between Italy and France. Additionally, based on the content of the 2016 TYNDP, the interconnector will increase production from renewables in Italy and improve energy efficiency at European level.

For local communities

The use of underground cable technology guarantees lower environmental and visual impacts, thereby preserving the Alpine landscape in both France and Italy. The creation of the new infrastructure in the same location as road infrastructure, such as the Fréjus safety tunnel, offers another strategic advantage in terms of social/environmental issues.

Benefits

<p>"Italy-Montenegro" interconnector</p>	<p>The interconnector between Italy and Montenegro is a strategic project at European level, marking a major opportunity for the Italian electricity system as part of efforts to develop the interconnection between Italy and the Balkans. The project involves construction of a direct current connection, part in submarine cable and part in terrestrial cable, between the substations of Villanova (IT) and Lastva (ME) and covering a distance of approximately 445 km. Construction, which is currently in progress, will involve the use of engineering and technical solutions capable of minimising the environmental impact. In April 2017, laying and protection of the first pole of the submarine cable between Italy (Pescara) and Montenegro (Kotor), which began in October 2016, was completed. Installation of the second pole has been postponed and is subject to a financial feasibility assessment. Laying of the terrestrial cables and construction of the converters in both Italy and Montenegro is in progress.</p>		
<p>Benefits</p>	<p>For the electricity system</p> <p>The work, which when completed at the end of 2019 will increase interconnection capacity, has been included among the Projects of Common Interest (PCI) by the European Commission, which co-financed the feasibility studies in connection with the programme to support the Trans-European Network (TEN) priority electrical infrastructure. In November 2017, it was included in the third PCI list, published by the European Commission in accordance with EU Regulation 347/2013.</p>	<p>For the country as a whole</p> <p>The infrastructure is a key step for the European Energy Union and crucial for integrating the entire Balkan area into Europe, via Italy.</p>	<p>For local communities</p> <p>The project involves the creation of direct current infrastructure with capacity of approximately 1200 MW, extending a total of 445 km between Villanova (Pescara) and Kotor. There is minimal environmental impact, as it involves the use of cables placed 1200 metres beneath the Adriatic sea and buried for the remaining terrestrial portion.</p>
<p>"Italy-Austria" interconnector</p>	<p>The high-voltage interconnector between Prati di Vizze (IT) and Steinach (AT), planned to be operational in 2019, will take advantage of the existing Prati di Vizze - Brennero power line. Preparations to create the new 132/110 kV electricity substation in Brennero and the related lines are currently in progress.</p>		
<p>Benefits</p>	<p>For the electricity system</p> <p>The line will significantly increase electricity interconnection capacity between Italy and Austria, supporting market integration, the use of renewable sources and security of supply.</p>	<p>For the country as a whole</p> <p>It will provide significant benefits in terms of increased social economic welfare, helping to reduce price differentials between Italy and Austria, and ensuring full use of hydroelectric resources, whilst also improving the security of electricity supply. The use of existing infrastructure will minimise the environmental impact of the works.</p>	<p>For local communities</p> <p>To allow imported power transported along the future Prati di Vizze - Steinach interconnector to be securely added to the grid, the mesh of the local 132 kV grid will be strengthened and transport limitations will be removed as appropriate. These actions will enable optimal use and further development of production capacity from renewable sources, which will serve the relevant portion of the local grid.</p>

Private interconnectors

Terna carried out the following activities relating to private interconnector projects in 2017, within the scope of Law 99/2009 ("Provisions for the development and internationalisation of companies, including with regard to energy").

In August 2017, work began on works in the municipalities of Bussoleno, Susa and Exilles.

[Private "Italy-France" interconnector](#)

In April 2017, laying and protection of the submarine cable, which began in October 2016, was completed. Laying of the terrestrial cables and construction of the converters is in progress.

[Private "Italy-Montenegro" interconnector](#)

In December 2017, Terna and the Austrian TSO, APG, sign a Cooperation Agreement. This agreement envisages that the two TSOs will coordinate their activities through to construction of the infrastructure.

[Private "Italy-Slovenia" interconnector](#)



Security and resilience of the electricity system

The Electricity System Security Plan, prepared annually by Terna and approved by the Ministry for Economic Development, is a four-year programme that sets out initiatives to prevent and reduce the consequences of malfunctions on the electricity grid.

In 2017, investment carried out for projects provided for in the Plan totalled approximately €63 million. The fifteenth edition of the Security Plan for the period 2018-2021 provides for total investment of €611 million.

The Plan breaks down into eight grid operation areas, regarding the planning, supervision, regulation and protection, restart and monitoring of the electricity system, as well as an area dedicated to safe and optimal management of renewable energy sources.

The Plan also defines initiatives to protect the physical integrity of the grid, including surveillance and protection activities regarding the most critical electricity substations and actions to protect the IT security of infrastructure against attempts at forced entry, unauthorised access and possible cyber-attacks.

These areas of intervention are confirmed in the 2018 Security Plan, in which the activities carried out in 2017 and those planned for the 2018-2021 period are described. The 2018 Plan confirms the requirements that have arisen in previous years, including:

- the installation of reactive power compensation equipment in order to manage the system safely;
- the installation of devices to ensure the safety of the electricity system in the case of weather-related events (snow, ice, salt water pollution), and adoption of technological solutions to prevent the occurrence of such events and to speed up the restoration of service in line with resilience requirements;
- upgrade of the telecommunications infrastructure in order to reach substations using fibre as a carrier, thus enabling safe operation of the national transmission grid within the scenario promoted by the 2017 National Energy Strategy. To this end, an action plan has been defined to enable Terna-owned plants to be connected - with a high level of performance and reliability - to services such as remote control, remote operation, remote protection and monitoring.

Resilience Plan

In accordance with MED directives³⁷, the Plan contains a specific section on the "Work plan for increasing grid resilience nationwide" (the Resilience Plan), especially in relation to the measures to be implemented in areas affected by wet snow. This section includes:

- a list of grid development, expansion and upgrade initiatives designed to increase the grid's mesh (included in the Development Plan)
- a list of extraordinary maintenance/repair works (including scheduled interventions after an accurate assessment of the state of power lines)
- a list of mitigation initiatives.

³⁷ Communication of 3 August 2017.

Information and cyber security

The cyber risk scenario is increasingly complex and intricate. In addition to the traditional threats that affect every ICT project, the number of threats relating to the current digital transformation process at highly innovative companies has risen sharply.

Moreover, the approach of important EU regulatory deadlines (GDPR regulation and the NIS directive) means companies are having to rethink some of their information and cyber security processes, in order to ensure full compliance.

For some time, Terna has used an Information Security Governance Model, based on policies and procedures combined with a coordinated Information Risk Management ("IRM") operating programme. This is coordinated by the Group's CISO (Chief Information Security Officer).

The Model takes into account all the risk factors (organisational, technical and technological, physical, environmental and cyber, etc.) to which the Group's ICT ecosystem is exposed, including compliance with data protection legislation and efforts to combat cyber-crime, with the aim of countering their impact (disruption to computer networks or services critical to the operation of the electricity system and/or resulting in potential damage to the NTG; loss of confidentiality; and the theft or alteration of sensitive, strategic and confidential data held by Terna relating to the electricity market and/or third parties).

Finally, via the operational safeguards put in place by the Security and Service department's cyber security unit, Terna promptly identifies and contains security incidents, thereby minimising information loss and facilitating restoration of the services involved.

ACTIVITIES IN 2017

An extensive awareness-raising campaign on cyber security issues, aimed at senior managers, middle managers and roles with particular responsibilities, as well as newly recruited staff, was completed. Terna also took part in a specialised ENTSO-E training programme (red team versus blue team type) for staff from the Security and Service department's cyber security unit.

During the year, the scope of integration of the Enterprise Risk Management platform was extended, with the acquisition of more than 70 security plans for ICT systems. The integration will be completed with the acquisition and integrated management of additional security plans, until the ICT area is fully covered.

A new unit has been set up within the Security and Service department, involving the creation of a Computer Emergency Readiness Team (CERT) focused on security monitoring and response, information sharing, and threat intelligence processes, in line with the NIS Directive, and the launch of a project to develop and consolidate incident handling processes with the adoption of a governance and management solution for operating activities. A Cyber Security Engineering Centre has also been created to adopt cyber defence measures and to support Security by Design activities. In accordance with information security protections, these new departments complement and integrate with the Cyber Security Assessment and Privacy and Data Protection Compliance departments.

Cyber security training

Strengthening of the Information Security Framework

Creation of a Cyber Security Operations and Data Protection Centre

ACTIVITIES IN 2017 (continued)

GDPR assessment and recovery plan preparation

An assessment was completed relating to identification of Terna's organisational, procedural and technological gaps regarding the GDPR regulation requirements. As a result, the main areas for improvement were defined, including their prioritisation within a roadmap aimed at achieving full compliance.

Adoption of the IEC 62351 standard for the Control and Remote Operations System

During the year, a project was launched that will lead to adoption of the IEC 62351 standard, regarding secure protocols for the authentication and encryption of communications in industrial automation systems.

Identity and Access Management (IAM)

The Identity and Access Management (IAM) process regarding the management of access authorisations to critical IT resources has been strengthened. This has involved the implementation of first use case monitoring (identity governance) in order to extend visibility (and governance), including applications that currently do not use centralised authentication mechanisms.

Monitoring and Anti-Cyber capability

During the year, the extension and update of security monitoring services for systems and networks of platforms incorporated within Information Security and Event Management (ISEM) system continued. With regard to the detection of cyber threats, trials of technological solutions such as machine learning and artificial intelligence based on non-formal logic was particularly noteworthy. This includes continuous analysis of Indicators of Compromise (IOC) reports, especially those deriving from public bodies (e.g. the Italian Computer Emergency Response Team, the National Anti-Cyber Crime Centre for the Protection of Critical Infrastructure, etc.), as well as the start-up of implementation of an advanced anti-malware solution on an initial set of workstations, involving monitoring, analysis and continuous recording of all executable and non-executable file activities, regardless of whether they are already known to be malware. In addition, infrastructure has also been implemented to protect Terna's grid from denial of service (DOS) attacks, and the plan regarding the logical segregation of networks has continued.

> 418-1

As in previous years, no complaints have been received regarding data protection violations, or improper use or unauthorised processing of personal data entrusted to Group companies, neither via the dedicated mailbox (privacy@terna.it) nor through other reporting or communication channels.

Infrastructure maintenance



Maintenance of electricity grid infrastructure is essential in order to guarantee quality of service and is based on a predictive approach, with the aim of ensuring that grid reliability meets the very highest standards.

The tools used to support maintenance activities are subject to continuous innovation, as regards identification of the most suitable interventions (MBI-Monitoring and Business Intelligence, a tool used to support decision-making), the scheduling and execution of operations (WFM - Work Force Management) and the adoption of modern aerial inspection techniques for the electricity grid.

Implementation of the plan to progressively assume responsibility for operation and maintenance (O&M) of the electricity substations owned by Rete Srl (following acquisition of RFI's assets) proceeded in 2017. By the end of the year, responsibility for 172 of the 354 substations acquired had been transferred.

- 26,000 checks on substations of various voltage levels.
- visual inspections of 85,500 km of power line, of which around 40,500 km using helicopters (visual + infra-red) with an average total frequency of around 1.2 inspections a year for each transmission line.
- a further 41,800 km of power line underwent instrumental controls, both from the ground (including with the use of the LLW or live-line working technique), and from the air using helicopters to operate flights that use laser scanning surveys to identify any obstructions, particularly trees.

Infrastructure
monitoring
and control

Repairs are carried out when signs of deterioration are identified as a result of the monitoring process or by on-line sensors. These indications and any problems identified are processed by the expert system used to support decision-making (MBI- Monitoring and Business Intelligence). This system draws up the maintenance plan on the basis of engineering models developed by the Asset Management department.

Routine
maintenance

During 2017, vegetation was cut back on around 21,300 km of power line; vegetation has to be cut back to ensure the correct and safe operation of the lines.

Vegetation
management

< 304-2

Approximately 1,600 checks and 600 line maintenance interventions using live-line working were carried out. These activities, performed with the line in operation, increase the availability of the infrastructure and help to improve the quality and continuity of service.

Live-line working

Renewal work (the replacement of components and entire systems) was carried out in 2017 in order to prolong the useful lives of power lines and substations. Work was carried out on over 1,000 km of lines.

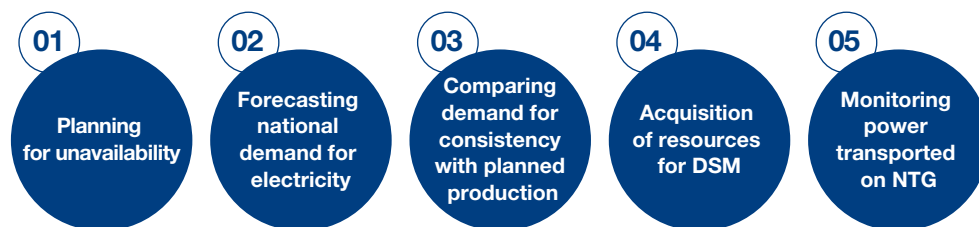
Extraordinary
maintenance



Dispatching of electricity

“Dispatching” is the set of activities necessary to ensure that there is a balance between supply and demand in the country’s electricity system.

The high degree of complexity and coordination necessary to guarantee the correct operation of the system require the presence of a central coordinator, the provider of the dispatching service. This coordinator has control over a high number of both supply-side and demand-side players, and in the last few years also over production from non-programmable renewable sources.



Dispatching includes planning for the unavailability of the grid and of production plants over different time-scales, forecasting national demand for electricity, comparing demand for consistency with planned production in the free energy market (the Power Exchange and over-the-counter contracts), the acquisition of resources for dispatching and monitoring power transported for all the power lines that make up the grid.

This area of operation also includes management of the Dispatching Services Market (DSM), through which the resources for dispatching services are procured.

In particular, “real-time” control of the National Electricity System is ensured by the National Control Centre, the nerve centre for Italy’s National Electricity System, which coordinates the other centres around the country, monitors the system and dispatches electricity. The Centre intervenes, by issuing instructions to producers and Remote Centres, in order to modify supply and capacity on the grid. To avoid the risk of prolonged power outages, it may also intervene in an emergency to reduce demand.

The Group’s dispatching activities are managed by the subsidiary, Terna Rete Italia SpA, operating through the “National Dispatching” department and the Dispatching units at Area Offices.

KEY EVENTS IN 2017

The Italian Power Exchange, set up in 2004, is the place where supply (the electricity generated by producers) meets demand, under an energy market-based supply regime, broken down into: the Day Ahead Market, the Intraday Market and the Dispatching Services Market (DSM). Terna is responsible for the dispatching of electricity in Italy, overseeing the security of the electricity system at the lowest possible cost through procurement on the Dispatching Services Market.

The Energy Markets Operator (GME) organises and manages the Day Ahead Auction Market and the Intraday Market, in which producers and purchasers “adjust” Day Ahead Market programmes.

GME and Terna have assessed the potential for introducing new intraday market sessions. From 1 February 2017, two new intraday market sessions were introduced under the responsibility of GME, alongside two new dispatching market sessions, for which Terna is responsible, with a market session every 4 hours, providing operators with greater flexibility, in line with the target European model and the aim of integrating renewable sources.

These changes have made Terna's procurement more flexible and, at the same time, enabled electricity producers who participate in the electricity market to optimise the resources supplied, with benefits for both producers and the system.

The new Electricity Market

On 29 November, the “Crisis Communication Tool” (CCT) was successfully launched. This is a tool for communication between ENTSO-E and TSOs with the aim of supporting the latter in the external communication of major critical events with an impact on the European interconnector network.

Crisis Communication Tool

Black start simulations are needed to check that the electricity system is working properly and to improve its efficiency by ensuring a rapid reboot of the system in the event of a blackout. In 2017, a number of blackouts were simulated, followed by the related black starts. In particular, an innovative anti-blackout simulation was successfully conducted in partnership with France, involving over 1,400 km of power lines from France to Puglia, passing through 6 Italian regions (Piedmont, Liguria, Tuscany, Lazio, Campania and Puglia).

Black start simulations

With a view to ensuring ever greater flexibility in the management of our assets, a new Dynamic Thermal Rating (DTR) application has been developed by the National Dispatching department and the North-eastern Office. This contains a system for monitoring weather conditions and temperatures. By exploiting the cooler climate in the north east of Italy, above all during the winter, when loads are highest, the DTR is able to increase load capacity so as to meet demand in the short term.

Dynamic Thermal Rating at altitude



Innovation

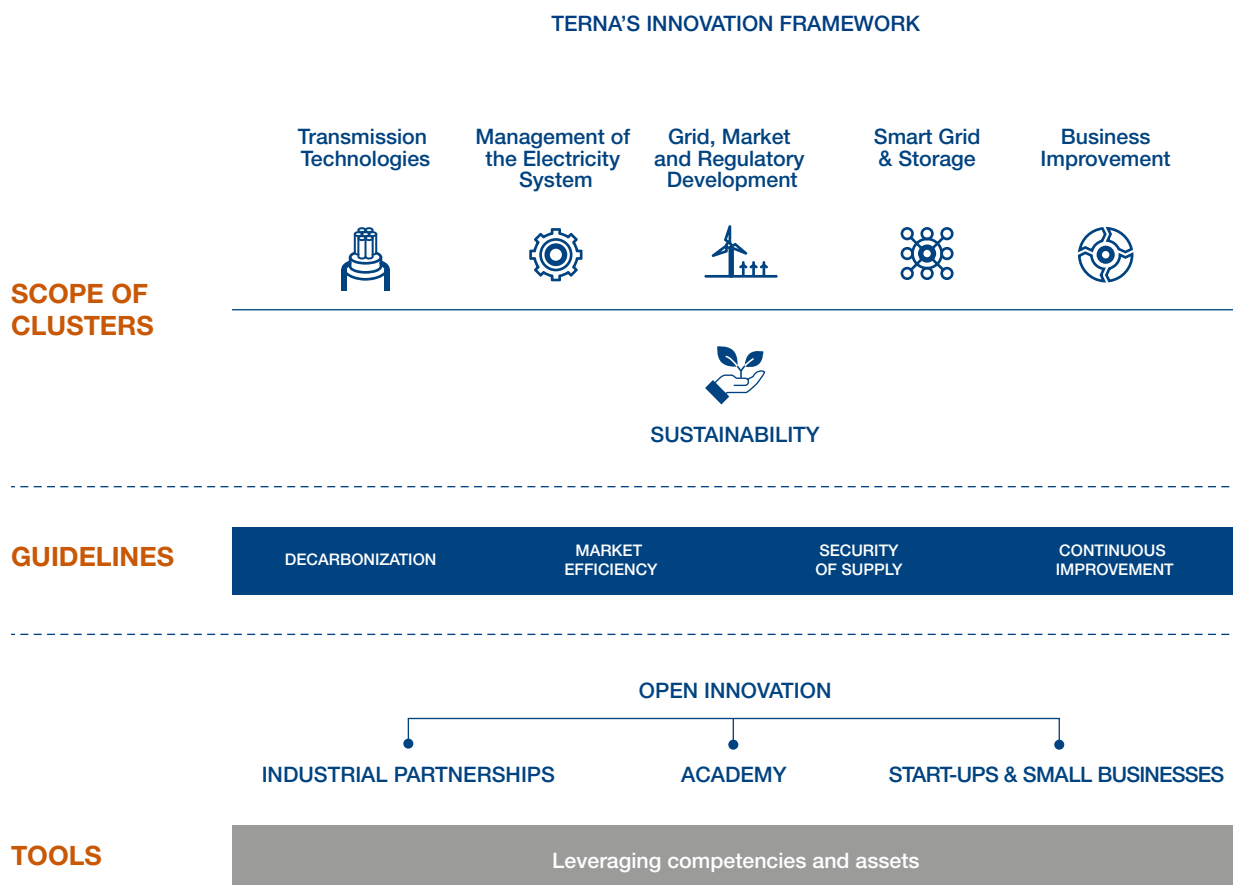
At a time of transformation and innovation, value added activities are central to the creation of long-term value, not only for Terna, but for the country's entire electricity system.

The current energy transition process requires a new systemic and organic approach to innovation, based around a strategic acceleration of a portfolio of effective Research, Development and Innovation initiatives in keeping with the Group's strategies.

Terna decided to further speed up innovation in 2017, adopting a centralised, coordinated vision in order to encourage an ongoing exchange of ideas and needs. The aim is thus to create an effective innovation ecosystem within the Company, capable of enabling the transition to a new TSO 2.0 model. This requires a new approach to managing the electricity system, which is increasingly intelligent and flexible both at the level of the grid, thanks to the use of efficient and innovative technologies (smart grids, storage, distributed generation, intelligent demand management, etc.), and in terms of the market. This will entail an unprecedented revolution that will rapidly result in the integration of distributed generation resources, storage and market demand for services, and the Europe-wide integration of national markets. Moreover, in the medium term, it will be necessary to ensure the progressive integratability and interoperability of electricity grids and other networks (transport, gas, water, etc.), in order to make the Italian and European economies stronger and more eco-sustainable.

The steps taken in this regard include implementation of an Open Innovation process within the Company and the creation of a structured **Innovation Plan**. Today's form of innovation calls for an approach capable of opening up new possibilities for development and cooperation with the outside world and the creation of dynamic interactions, including close attention to start-ups, which offer Terna the chance to invest in technological initiatives capable of creating more value for the Company and for Italy's electricity and energy system.

The Innovation Plan, on the other hand, organises the new initiatives in a consistent manner, whether they are generated internally or as a result of the Open Innovation process. Initiatives are classified within a framework consisting of 6 key clusters (Transmission Technologies, Management of the Electricity System, Network, Market and Regulatory Development, Smart Grids and Storage, Business Improvement & Security, Sustainability), accompanied by the categorisation of projects depending on whether their focus is on core activities, now looked at with new expectations and approaches, or on highly innovative sectors.



SCOPE OF THE CLUSTERS IN THE INNOVATION PLAN

Cluster	Description
Transmission technologies	This brings together cutting-edge initiatives and solutions for the operation and construction of transmission plant.
Management of the Electricity System	This covers technologies capable of improving control and management of the National Transmission Grid, providing high standards of security and reliability.
Grid, Market and Regulatory Development	This includes grid development initiatives, the definition of new market models, the analysis of regulatory and geoclimatic trends at national and international level.
Smart Grids & Storage	This includes the development of new business models for large-scale storage, innovative projects based on smart grids and new research into innovative network services.
Business Improvement	This includes all the initiatives aimed at improving management of the Company's internal business and operational processes.
Sustainability	This includes all the projects aimed at promoting a more sensitive approach to environmental issues. It is an integral part of the corporate mission and is relevant to all the other clusters.

The main strategic project streams relating to Transmission Operator (TO) and System Operator (SO) activities were also identified, as well as the enabling factors and functional tools needed to guarantee the innovation necessary to achieve the Group's medium- and long-term objectives.

Specifically, R&D and Innovation activities regarding TO activities are guided by the Development Plan. In this regard, priorities are focused on HVDC issues, cable laying technologies, the optimisation of overhead lines and asset management technologies. The focus in relation to SO activities is on enabling the market participation of distributed generation resources and demand for electric power and storage, with the aim of encouraging the penetration and integration of non-programmable renewable sources within the National Electricity and Energy System.

The priority innovation project streams in this sector, therefore, relate to the flexibility of the Electricity System (e.g. vehicle-to-grid projects, demand-side response, etc.) and the secure management of the Electricity System (e.g. R&D activities regarding the resilience of the Electricity System, pilot projects on improved observability of distributed resources, etc.).

Digital transformation is the main enabling tool for innovation and, in general, the current energy transition, to be implemented via projects in the following areas: connectivity (e.g. IoT technologies for asset management and dynamic network management), synchronous data management (e.g. advanced forecasting technologies for data management and electricity market processes), asynchronous data management (e.g. big data technologies and machine learning for use in data analytics and the exploitation of historical data).

- **Systems and processes to support the enhancement of assets and internal expertise:** this includes tools for enhancing intellectual capital and sharing corporate know-how, as well as portfolio management tools.
- **Operational tools:** as part of research, development and innovation activities, in agreement with the Purchasing and Procurement and Legal and Corporate Affairs departments, an innovative closed contract format has been drawn up and adopted, whereby contracts are directly awarded for research and development services with a supply option, in accordance with the specific provisions of the Procurement Code (art. 158)³⁸.
- **Open innovation:** this encourages openness towards new areas for development within and beyond the Company, through dynamic interactions with universities and research centres, partnerships with peers and large industrial players, as well as access to start-ups and small and medium-sized enterprises.
- **Access to incentive and soft financing mechanisms:** this promotes access to incentives (e.g. tax relief for companies investing in research and development and patent box schemes) and specific funding programmes for both international and national R&D projects.

OPEN INNOVATION IN THE INNOVATION PLAN

Description	Sector
The signature of agreements and partnerships with energy businesses who are not competitors (TSOs, DSOs, utilities, etc.). Membership of and active participation in leading associations and international bodies involved in the electricity sector and innovation. <i>Examples: RTE, ENI, RFI, ENTSO-E, EASE</i>	Peers, energy sector and infrastructure
Collaborations to promote and coordinate studies and research with national universities and research centres of excellence in areas of strategic interest, in order to contribute to the preparation of expert researchers in this field and to promote and encourage initiatives aimed at teaching and training in the energy sector. <i>Examples: RSE, Ensiel</i>	Universities and research centres
The signature of agreements and partnerships with suppliers or companies who may be competitors, regarding areas of common interest in the electricity sector or applications aimed at ensuring greater sustainability, cost-effectiveness and security in the management of grids. <i>Examples: Tesla Motors</i>	Large companies and industries
The scouting of start-ups and mature enterprises in order to grasp opportunities for the development of specific initiatives of interest to Terna and/or business partnerships. <i>Examples: the "Next Energy" programme</i>	Start-ups, SMEs and venture capital

The main innovation, research and development initiatives undertaken in 2017 are summarised in the following pages.

³⁸ In accordance with the Procurement Code, explicit provision has been made for the possible use of a closed contract, with the direct award of a contract if Terna is in possession of the results of the research and development activities covered by the contract. This regards both intellectual property and the ownership of any products/supplies/prototypes developed within the scope of the contract.

MAIN INITIATIVES

Project or programme

Description

NEXT ENERGY programme and the start-up ecosystem

In September, a call for tenders was launched for the second edition of NEXT ENERGY, which envisages the introduction of another call (Call for Growth), in addition to the already well established Call for Talents and Call for Ideas. This additional call, held in synergy with Cariplo Factory's growITup platform, is aimed at start-ups able to offer services and products that are more technologically mature than those in the Call for Ideas offering. These start-ups will gain access to a process concerning the definition of a pilot and testing project designed to respond to specific issues and requirements for Terna's business.

Terna also took part in the Open Italy programme promoted by the ELIS consortium during the six-month term of ANAS's presidency, in order to identify start-ups in Italy with whom to develop businesses of potential interest. After the selection process, from January 2018, Terna will collaborate with a start-up from the cyber security sector that creates innovative security systems for the protection of highly problematic sites using big data management technologies.

Academy

In 2017, Terna joined the research programme launched in October 2016 by the Precourt Institute of Energy at Stanford University (one of the 30 research centres at this Californian university, which is a point of reference for engineering). The programme, called Bits & Watts as a reminder of the strong correlation between electricity grids and digital transformation, aims to identify solutions to facilitate and accelerate the current transition in the electricity sector, by combining university and industry expertise to develop innovative projects and solutions. The advantages of the project include targeted high level education and training programmes that provide for participation in multidisciplinary team activities, and the opportunity for some Terna personnel to be visiting scholars at Stanford University and participate in the conduct of specific research programmes.

Following the memorandum of understanding signed with Ensiel (a consortium set up by the main Italian universities operating in the power systems sector) and the adoption of the innovative contractual format with the direct award of contracts for research and development services, in 2017, Terna launched 11 projects involving 14 Italian universities from among those most active in the electricity and energy systems sector.

As part of the partnership agreement signed with the **Polytechnic University of Turin** on 21 February 2017, Terna promoted the launch of two scholarships aimed at supporting two three-year electrical engineering PhDs on the following subjects: vehicle-to-grid as a resource for grid services, and innovative analysis tools and methods for electricity transmission systems.

"Storage" workshop

A workshop entitled "The role of storage in grid management. Terna's experience: innovation for the electricity system" was held at the Polytechnic University of Milan in September. The main aim of the event, organised by Terna, was to report on the initial results of Terna's pilot storage projects on Italy's two largest islands and in the south of the country. The event, which included presentations made by representatives from the Ministry for Economic Development, ARERA (Italy's Regulatory Authority for Energy, Networks and the Environment) and CA-ISO (California's independent system operator) and was attended by firms operating in the sector, market participants and university professors and students, was also an opportunity to take a closer look at the wider issue of the current process of energy transition and the role that storage can play in this process.

Description

With a view to accelerating the strategic initiatives linked to Terna's new Innovation Plan, actions have been launched to monitor internal needs and to scout for external opportunities, regarding both partnership networks and financing instruments. A first important outcome is the approval, notified by the European Commission in August, of the **OSMOSE** Horizon 2020 project and, at national level, the approval of the **National Energy Technological Cluster** proposal and the two associated initial projects.

Overall, the **OSMOSE - Optimal System-Mix of Flexibility Solutions for European Electricity** project aims to identify and demonstrate the technical feasibility of an "optimal" mix of flexibility solutions to maximise the technical and financial efficiency of the European electricity system, thus guaranteeing its security and reliability. The project involves a broad consortium of 33 partners from 8 different EU countries with the company, RTE, as the lead partner. Terna's role is to lead WP5 (one of the 4 demonstrators of actual grid situations) called "Multiple services provided by grid devices, large demand-response and RES generation coordinated in a smart management system". The main aim is to develop a new "Energy Management System" capable of providing greater flexibility in managing the electricity system. This will involve the combined use of various innovative technologies, such as dynamic thermal rating, power flow control devices, new forecasting models and demand-side response resources.

The Italian partners in the OSMOSE project, coordinated by Terna, are RSE, Ensiel, IBM, ABB, Enel Green Power, Edison and Engineering (as well as Dolomiti Energia and the Bruno Kessler Foundation, who are working on another working package in the same project).

The Energy Cluster, with Enea as lead partner and Terna as leader of one of the two projects, is part of the network of 12 national technological clusters, which act as resource catalysts to meet local and market needs, thus coordinating and strengthening the link between the research and corporate worlds. The objective of the project led by Terna, called Living Grid, is to both analyse a local grid to test the flexibility services offering for TSOs and DSOs and to study and validate new solutions aimed at improving integration between TSOs and DSOs.

Project or programme

[Origination and R&D projects](#)





05 The environment



Key performance indicators

Land use

98.3 km

of lines demolished

Over 1,000 kilometres of lines have been removed since 2010.

Carbon intensity

66.0 tonnes of CO₂

per €m

In line with the last two years.

Reuse/recycling of waste

87%

Recovery of machinery and packaging exceeds 95%.

CO₂ emissions

0.47%

SF₆ leakage rate

Leakages of the greenhouse gas, SF₆, as a percentage of total installed gas capacity. This gas represents the principal source of Terna's direct CO₂ emissions.



Terna's commitment to the environment



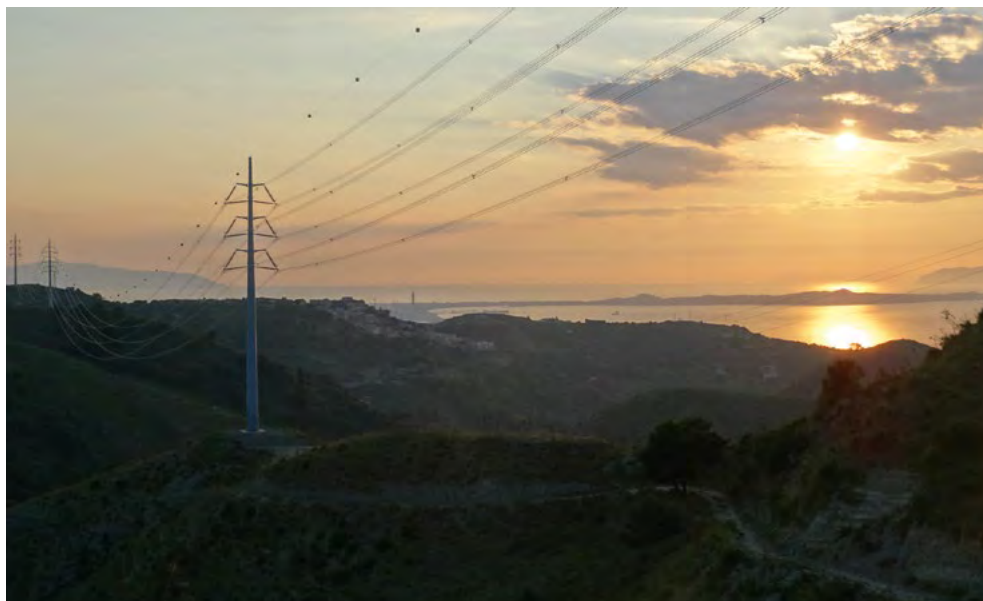
In terms of environmental impacts, Terna's most significant activities regard not so much the use of natural resources or the emission of pollutants, but rather the physical presence of power lines and power stations and their interaction with the surrounding natural and man-made environment.

Therefore, the most significant environmental aspects of Terna's activities, in addition to the occupancy of land, are the visual impact on the landscape, electric and magnetic fields, and the effect of power lines on biodiversity, especially birdlife.

Greenhouse gas emissions and hazardous waste, however, are relevant within the context of operations. Terna has adopted an Environmental Policy that sets out its commitment to containing and reducing its environmental impact, which in some cases goes beyond legal requirements, when this does not compromise the protection of other general interests provided for under the concession.

Full implementation of this Policy entails incorporation of the indications in the Company's Integrated Management System (see page 48) - which also covers efforts to reduce greenhouse gas emissions, the implementation of energy efficiency measures (page. 154) and the adoption of measures designed to protect birdlife (page. 145).

Terna extends the issue of environmental protection to its supply chain (page 64) and, through voluntary and preventive local-level coordination, also to local stakeholders directly affected by NTG development initiatives (page 92). In organisational terms, these matters are managed by several departments with responsibility for specific aspects.





Management of environmental impacts

in the development of the electricity grid

> 413-2

Power lines and local communities

The transmission grid has effects on the environment, primarily in terms of the visual impact on the landscape produced by the physical presence of power lines and electricity substations. Measures to reduce the impact of existing power lines on the environment mainly fall into two categories:

Rationalisation

Complex initiatives involving several components of the grid, replacing certain components with others of a superior type, thereby eliminating parts of the grid that are of little use following the installation of new infrastructure or adding new elements of the grid to avoid the upgrade of power lines that have reached saturation point.

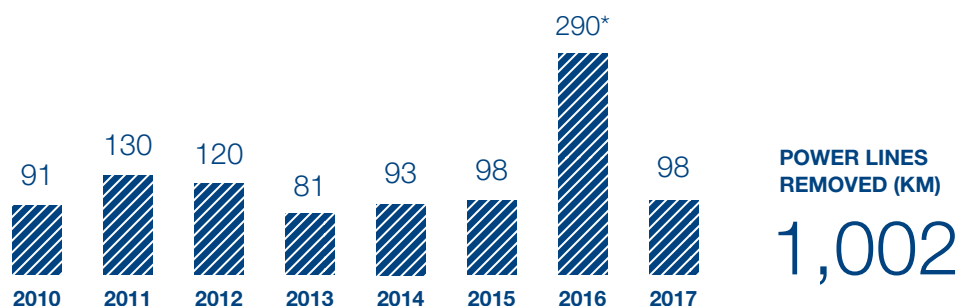
Reclassification

This involves the conversion of existing power lines to a higher voltage through the installation of new conductors and pylons to replace existing ones, which may be larger in size and therefore take up more space. Compared to the construction of a new line, this type of intervention usually has the advantage of using existing infrastructure corridors, thus avoiding the occupation of new areas of land.

Given the importance of the visual impact on the landscape, the physical removal of existing lines is one of the most important positive effects Terna's activities have on the environment, also in terms of land use.

In 2017, 98 km of lines were demolished, while in the period 2010-2017, a total of 1,002 km of lines were demolished.

Demolition is defined as the physical removal of overhead lines (or their replacement with underground cable) and does not include declassified or upgraded lines.



(*) The figure for 2016 is exceptional due to the demolition of over 200 km of obsolete power lines in Valtellina, which had been in preparation in previous years. After adjusting for this removal, demolitions amounted to approximately 80 km, in line with previous years (approximately 100 km per year).

Terna adopts an environmental sustainability approach in all the phases preceding the entry into service of grid development projects. In particular:

Terna's planning uses assessments based on digital thematic maps, mostly deriving from official sources (regional authorities, water concession authorities, monitoring agencies), which are organised in a large and constantly updated database. Since 2002, Terna has voluntarily brought forward dialogue with local communities during this phase. Dialogue with local authorities, the Strategic Environmental Assessment (SEA) procedure in the Development Plan and public initiatives that address citizens of local communities directly affected by the presence of new infrastructure, all contribute to the design of initiatives to mitigate environmental impact (see also page 92).

Planning and consultation

Choosing the route is the most delicate phase of the design process, as it determines the environmental impact of the entire development project.

Design

For this reason, notwithstanding the need to identify a route that allows regular operation and maintenance of the power line, Terna looks for design solutions that minimise land use, interference with areas of environmental, natural, landscape and archaeological value, as well as urbanised or built-up areas, and the related easements. Terna's design process includes the study of construction plans aimed at using existing roads or tracks to minimise the opening up of new access routes, especially in wooded or protected areas, and the assessment of problems relating to vegetation management, by adopting methodologies and tools to minimise the impact on biodiversity, such as optimising the height of pylons and their location.

The drawing up of the Environmental Impact Study provides detailed information on the various components that help the designers to turn the blueprint into an optimised project.

Great attention is paid to minimising the visual impact. If this cannot be mitigated by means of precise and appropriate choices of location and/or by taking advantage of morphological features, the following actions may be taken:

Choice of pylons with reduced visual impact

In recent years, Terna has expanded the range of available pylons that may be used, with the introduction of new single-pole pylons with a low environmental impact (with an overall surface area of 10 square metres compared to 150 square metres for traditional pad/pyramid type pylons) and the design by internationally renowned architects of pylons that are more integrated into the landscape.

NUMBER OF PYLONS INSTALLED AT 31 DECEMBER 2017

TYPE OF PYLON	LINE	TOTAL
Single pole	Chignolo Po - Maleo	88
	Trino - Lacchiarella	201
	Foggia - Benevento (Section I)	40
	Laino - Rizziconi	8
	S. Fiorano - Robbia	5
	Udine West-Redipuglia	131
	Minor 150kV and 132 kV lines	156
"Germoglio" and "Foster"	Trino - Lacchiarella	6
	S. Barbara - Tavarnuzze - Casellina	9

Use of underground cables

It eliminates or reduces the typical visual impact of overhead lines, perceived as negative especially in built-up areas. Underground cables, although appreciated and requested by local authorities, pose technical and financial problems. Underground lines are less reliable than overhead power lines over time and require much longer repair times in the event of a malfunction. For this reason, they often do not guarantee adequate safety of the electricity system and continuity of service. Underground cables also have a greater impact during the construction phase - for example, in terms of road works - and higher construction costs. Finally, it should be noted that the burial of cables weakens the electric but not the magnetic field.

Execution

> EU13

Terna manages the impact of its construction sites on the environment via the operating manual, “The management of environmental aspects during infrastructure construction”, in line with the Group’s Environmental Policy and existing regulations.

This operating manual introduces the role of the environmental contact, a person tasked with monitoring the environmental requirements contained in the EIA Decrees and in the opinions of authorities with responsibility for the environmental, as well as compliance with legal obligations, also with reference to the activities carried out by contractors. The environmental contact also monitors the indicators set out in ISO 14001 certification, relating to complaints/reports, environmental accidents, waste, and the consumption of energy and natural resources.

Special attention is paid to the identification of areas and access roads to sites which, if compatible with technical and design requirements, are located in areas of reduced natural importance. On completion of the construction work, Terna restores the areas concerned to their original state. If these areas regard natural or semi-natural habitats, in addition to the normal restoration works, specific interventions are implemented, based on natural engineering techniques, such as re-naturalisation, aimed at creating environments suitable for species or plant and/or animal communities (habitat reconstruction); native live plants, which do not require irrigation or special fertilisation; materials, even if only inert; infrastructure; and other measures designed to provide favourable living conditions for animal species (<https://www.aipin.it/>).

Terna’s environmental policies, which are also applied at construction sites, have been drawn up in accordance with the applicable environmental laws and the ISO 14001 standard. These include such aspects as prevention of groundwater contamination and limitation of damage to vegetation, the management of accidents, the minimisation of atmospheric and noise pollution, the use of vehicles, and the proper management of waste and excavated earth (see also page 68). These aspects have been enhanced on a voluntary basis with additional precautionary principles. Internal audit campaigns regarding construction sites enable any deviations from the Company’s environmental policies to be identified (page 69).

Requirements

Requirements, usually of a technical and/or environmental nature, are specified by the authorising body and are - together with national, regional and local regulations - binding on the proposer for the purposes of the executive design and execution of the works.

In most cases, they emphasise or better define the mitigation measures proposed in the environmental impact study or impose new ones on the advice of specialist bodies (supervisory bodies, water concession authorities, park authorities, etc.). Once these mitigation measures have been implemented, they have the effect of further reducing the impacts estimated in the study (the “Monitoring Plan”), which is applied to every Terna project undergoing an EIA. The requirements may also relate to offsetting. If the competent authority deems a residual impact to be insufficiently mitigated, it takes into account an intervention in an area away from the infrastructure, which has the effect of balancing the impact. This, for example, may be the reconstruction of a habitat for vegetation.

Mitigation and offsetting

> 304-3

In compliance with requirements received during the consent process, or voluntarily, Terna adopts mitigation measures to reduce the impact and improve the integration of electricity infrastructure within local areas.

Specifically, the Company creates camouflage systems for its electricity substations; redevelops cultural assets, and in its design process gives priority to line locations that take advantage of natural morphological features; and makes use of natural engineering techniques for post-demolition restoration, habitat reconstruction and the stabilisation of slopes and embankments.

In 2017, two redevelopment and vegetation rehabilitation initiatives were carried out in areas affected by the construction of electricity infrastructure and five interventions were planned. These will be carried out using natural engineering techniques. In 2018, an electricity substation camouflaging project, which was designed in previous years, is being carried out.

Monitoring and supervision of electromagnetic fields

Protection of the population from exposure to electromagnetic fields is precisely defined by law (the Cabinet Office Decree of 8 July 2003). This legislation provides for:

- **exposure limits:** in the event of exposure to electric and magnetic fields generated by power lines at a frequency of 50 Hz, the limit is 100 microteslas for magnetic induction and 5 kV/m for the electric field, considered as effective values;
- **safety thresholds:** as a precautionary measure to protect against possible long-term effects, which may be connected with exposure to magnetic fields generated at the network frequency (50 Hz), in children's play areas, residential areas, schools and places where people spend not less than four hours a day, a threshold of 10 microteslas has been set for magnetic induction, based on the average of measurements taken over 24 hours under normal operating conditions;
- **quality targets:** in the design of new power lines at the above-mentioned sensitive locations, and in the design of new settlements and new areas close to lines and electricity installations already present in the vicinity, in order to gradually minimise exposure to electrical and magnetic fields generated by power lines operating at a frequency of 50 Hz, a quality target of 3 microteslas has been set for magnetic induction, based on the average of measurements taken over 24 hours under normal operating conditions.

The values of the three parameters, and especially the threshold value (10 microteslas) and the quality target (3 microteslas), show that Italian legislation has adopted the prudential approach described in art. 15 of the Rio Principles. These parameters are among the strictest at European level. Terna's compliance with the law in its activities implies that it has adopted the same principle.

Terna carries out inspections on its own lines to ensure compliance with the limits laid down by the regulations in force, and seeks innovative technological solutions in order to mitigate the impact of magnetic fields. If any complaints or requests are received from competent administrative bodies and authorities, the Company provides the necessary data to assess the actual exposure to electric and magnetic fields generated by its infrastructure.

Finally, with a view to providing accurate information on the subject that is easy to understand, Terna has prepared an in-depth study on electromagnetic fields (EMF) which may be found in the "Sustainability" section of the Company's website www.terna.it.

Safeguarding biodiversity

The impact of Terna's grid on biodiversity may take different forms.

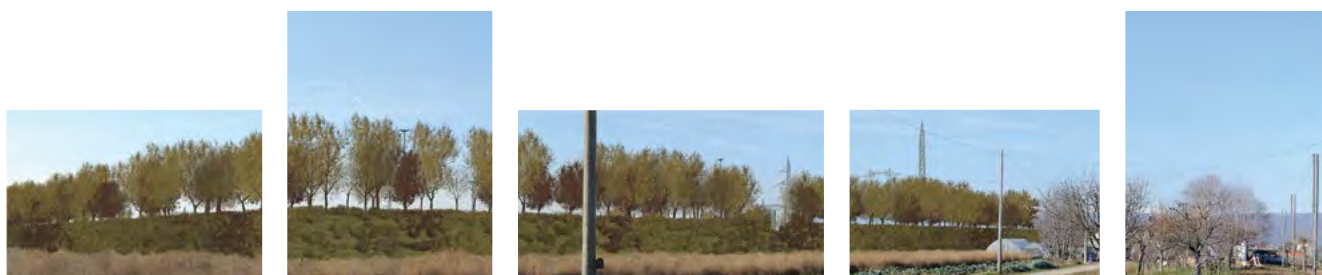
During the grid construction phase, the impact on biodiversity is linked to construction site activities (e.g. the opening up access routes to build pylons, soil excavation and the removal of residual materials), and is temporary and reversible.

< EU13

< 304-2

One operational, the potential impacts of existing lines on biodiversity are twofold. On the one hand, the route of the line may be a factor in increasing biodiversity and protecting certain species as pylons, with their bases, make it impossible for land to be used for intensive agriculture and constitute "islands" where biodiversity can flourish. On the other hand, the presence of lines has potentially negative effects on biodiversity, in particular on birds and protected areas or areas of natural interest.

The main tool for identifying critical line sections is a fully comprehensive land use database, containing data provided by regional authorities and ministries. This GIS (Geographic Information System) enables integrated analysis of all the layers of information on the various types of land use and protections (local, natural, cultural, landscape, etc.). Using this tool, Terna has compiled an inventory of the lines that may interfere with protected or highly biodiverse areas, as shown in the following table.



> 304-1

LINES IN PROTECTED AREAS³⁸

	Unit	2017	2016	2015
Lines impacting on protected areas	km	6,024	5,512	5,541
Lines with an impact as a percentage of total lines operated by Terna	%	10	10	10

On this basis, potential threats from the risk of collision for bird species included in the IUCN Red List have been assessed.

> 304-1

Electricity power lines and birdlife

The presence of power lines may have negative effects on birdlife. While the risk of electrocution regards LV and MV lines and therefore does not concern Terna's infrastructure, HV lines are associated with the risk of collision.

In order to minimise this risk, special devices called deterrents have been installed along sections of line with frequent bird traffic, which, with their visual impact and the noise they generate when blown by the wind, make the power lines easier to see for birds in flight.

BIRD DETERRENTS ON THE NTG

	Unit	2017	2016	2015
Lines involved	no.	66	57	53
Length of lines involved	km	266.4	212	205
Total deterrents installed	no.	14,728	14,472	13,866

Over the years, Terna has promoted research and scientific studies to further investigate this issue and identify increasingly effective solutions. The first Italian study dedicated to collisions, based on the results of an agreement between Terna and LIPU (the Italian League for the Protection of Birds), highlights a low risk of collision (see, for example, the 2010 Sustainability Report, page 116 "Terna-LIPU agreement: a study of the interaction between birdlife and the National Transmission Grid").

In order to support scientific research and the re-naturalisation of local areas, in collaboration with environmental associations, Terna carries out targeted projects.

Over recent years, Terna has implemented the following projects.

³⁸ To calculate the percentage of lines impacting on protected areas, the Company has used "ATLARETE" data, which may contain differences compared with the data presented in the tables showing indicators of the number of lines. In particular, the data in the table do not include the assets purchased from RFI-Rete Ferroviaria Italiana.

PROJECTS

In 2017, Terna, in collaboration with CESI, launched a project to analyse the characteristics and efficiency of the leading devices used on the basis of available data, as well as any application problems encountered, in order to identify the tools that are more effective, easier to install and longer lasting.

Radar monitoring of the passage of migratory birds along the "Sorgente-Rizziconi" power line (last year), and assessment of the effectiveness of deterrents via surveys of the areas around power lines, continued.

Trials of AVIMON, the device that records bird strikes against ground wires on power lines, were completed on the "Villanova-Gissi" power line without registering any collision. New trials were launched on the "Redipuglia-Planais" power line where it crosses the Isonzo river.

[Collision risk prevention tools](#)

Terna has carried out a study aimed at identifying the protected species included in the IUCN Red List that are potentially impacted by its infrastructure.

The IUCN Red List is the largest existing international database on the conservation status of thousands of plant and animal species, which are catalogued according to their risk of extinction. In its analysis, Terna specifically considered the presence of bird species on the IUCN Red List and at Natura 2000³⁹ sites, namely in protected areas with a high level of biodiversity (approximately 3,000 SPAs and SCIs).

The study selected the Natura 2000 areas affected by Terna power lines, then verified which protected species - among those included on the Red List and classified as Vulnerable, Endangered, Critically Endangered and Regionally Extinct - had chosen them as their habitat⁴⁰. These species are conservation priorities as without specific measures to neutralise the threats they face, and in some cases to increase their populations, their extinction is a real prospect. The analysis showed that Terna's electricity infrastructure could interfere with the habitats of eight species. After checking scientific publications and via targeted consultations, no specific critical issues emerged regarding bird species except for a potential risk of collision for the "king of quails", a species present in the Alpine area between Friuli-Venezia Giulia and Lombardy.

[Identification and monitoring of bird species on the IUCN Red List](#)

< 304-4

³⁹ Natura 2000 is the main instrument of the European Union's biodiversity conservation policy. This ecological network which covers the entire territory of the European Union, was set up under the Habitats Directive (Council Directive 92/43/EEC) to ensure the long-term maintenance of natural habitats and of endangered or rare species of flora and fauna at EU level. The Natura 2000 network consists of Sites of Community Importance (SCIs), identified by Member States in accordance with the Habitats Directive, which are subsequently designated as Special Areas of Conservation (SACs), and also includes Special Protection Areas (SPAs) established under Directive 2009/147/EC "Birds" regarding the conservation of wild birds.

⁴⁰ There are 11 risk categories, ranging from Extinct (EX), applied to species for which there is a definite certainty that the last individual has died, to the Least Concern (LC) category, used for species that are not at risk of extinction in the short or medium term. The Extinct and Least Concern categories include categories under threat, which identify species at increasing risk of extinction in the short or medium term: Vulnerable (VU), Endangered (EN), Critically Endangered (CE) and Regionally Extinct (RE).

Alternative uses for
electricity power lines

Terna, in partnership with environmental organisations, has for some years been working on projects that aim to develop alternative uses for power lines. The most important, carried out in collaboration with *Ornis italica*, is the “**Nests among the pylons**” project. This involves the installation of nest boxes, followed by annual surveys of the species that occupy the nests and the results of the breeding season. The project regards many species, including: the kestrel, peregrine falcon, scops owl, cuckoo, common roller, bat and stork. Launched in 2015, the GIS census (location via geographical coordinates) of the nests installed is still in progress, which to date has registered 384 nests.

GEOREFERENCED NESTS AT 31 DECEMBER 2017

LOCATION	NESTS		SPECIES CONCERNED ⁴¹
	NUMBER OF NESTS	OF WHICH IN PROTECTED AREAS	
Abruzzo	30	0	Kestrel
Calabria	30	23	Kestrel
Campania	1	0	
Emilia-Romagna	95	31	Kestrel; scops owl; cuckoo; common roller
Lazio	47	14	Kestrel; scops owl; common roller
Lombardy	15	0	
Piedmont	54	25	Common roller
Puglia	72	0	
Sicily	30	10	
Trentino Alto Adige	8	0	
Veneto	1	1	
OVERALL TOTAL	384	104	

As part of the contract regarding new nest box installations, in addition to the supply of boxes, Terna has also contracted out monitoring of occupation of the new boxes.

MONITORING OF NEST OCCUPATION AT 31 DECEMBER 2017

LOCATION	MONITORED	OCCUPIED
Abruzzo	30	12
Calabria	30	21
Piedmont	20	6
Sicily	30	12

The **Birdcam project** completes this type of initiative, providing for the installation of cameras on the artificial nests to follow the birds' breeding period online on the www.birdcam.it website and on Terna's website.

Avian Team

In 2017, Terna set up a group of operational experts (currently 17) to systematically control and manage initiatives and activities regarding the interaction of birds and bats with Terna's power lines and substations. The Team's objectives are to resolve - with respect for birdlife - problems arising from line operations due to causes attributable to birds, to develop solutions in line with national and international regulatory frameworks, to improve relations with environmental associations, and to disseminate information on Terna's actions regarding biodiversity. The activities of the Avian Team were presented during the 19th Italian Ornithological Conference (Turin, 27 September - 1 October).

⁴¹ The relevant species are identified by the type of nest box installed and by subsequent monitoring. However, the possibility that nests may be used by another unrecorded species cannot be excluded.

Climate change and energy efficiency



At international level, convergence on the action to be taken to combat climate change was best reflected in the agreement signed at the United Nations Climate Conference (COP 21) in Paris in December 2015.

The guidelines in Terna's Strategic Plan are consistent with these positions and with the objective of facilitating the transition to the production of energy from renewable sources and, more generally, the decarbonisation of production processes.

Climate change entails both risks and opportunities for Terna's business (see page 56), in terms of Regulated and Non-regulated Activities. In particular, with regard to the former, investment in grid development meets the need to facilitate the energy transition by strengthening transmission capacity and interconnections with other countries, while research and innovation are aimed at identifying smart and sustainable solutions to be offered to the customers of the non-regulated business.

Terna is a European leader in the field of battery storage, which could specifically encourage the use of renewable energy sources and, at the same time, solve grid control problems caused by sudden reduction of renewable production. In partnership with Italian State Railways, Terna is also developing production plants that use renewables.

With regard to the reduction of CO₂ emissions into the atmosphere by the electricity system as a whole, Terna's main contribution is to carry out the investment provided for in the NTG Development Plan.

Energy consumption

The transmission of electricity only requires direct energy consumption for certain support activities, including:

- fuel for the Company's operational vehicles, cars and helicopters used for line inspections, fault repair and other line and substation maintenance activities (see page 129);
- fuel oil for emergency generators that only come into operation in the event of a power failure. It is estimated that, nationwide, generators were used for a total of 6,485 hours (consumption equal to 0.3 GJ per hour);
- fuel oil and natural gas for office heating.

Indirect energy consumption coincides with the electricity used for the operation of substations and operating equipment (approximately 80% of the total) and for office and laboratory use. The figure relating to office consumption is 119,598 GJ which, compared to the total number of Terna employees (less blue-collar workers), corresponds to per capita consumption of 47.8 GJ, down compared with 2016 (53.5 GJ).

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DIRECT AND INDIRECT ENERGY CONSUMPTION BY PRIMARY SOURCE

GIGAJOULES ⁽¹⁾	2017	2016	2015
<i>Direct consumption in GJ</i>			
Petrol for motor vehicles ⁽²⁾	576.8	544.8	455.0
Diesel for motor vehicles ⁽²⁾	84,704.5	77,430.6	80,513.6
Jet fuel for helicopters	8,193.5	7,030.5	7,134.4
Natural gas for heating	7,489.9	8,184.0	10,022.3
Fuel oil for generators and heating	8,394.2	9,250.1	10,454.5
Total direct consumption	109,358.8	102,439.9	108,579.8
<i>Indirect consumption in GJ</i>			
Electricity to power substations and office ⁽³⁾	703,737.8	702,286.9	687,968.2

⁽¹⁾ Direct consumption data in tonnes and thousands of m³ are shown in detail in the "Key indicator tables". To convert the volumes of primary resources into gigajoules, the parameters set out in the Global Reporting Initiative (GRI) protocols were used.

⁽²⁾ Only the consumption of operating vehicles is taken into account and not the cars used by managers.

⁽³⁾ Allocation for the purposes of the production mix was based on the December 2017 issue of the "Monthly Report on the Electricity System", available on the website at www.terna.it.

The increase in direct consumption is attributable to the rise in the amount of fuel (up 9%) used by the Company's operational vehicles to monitor the infrastructure and lines managed (see the section on "Infrastructure maintenance" on page 129). This increase is due to the rise in the number of substations and in the number of kilometres of line to be monitored.

Direct and indirect CO₂ emissions

> 305-2

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Direct greenhouse gas emissions connected with Terna's activities derive mainly from SF₆ gas leaks (89% of total direct emissions in 2017), which are up on the previous year. Maintenance has already been scheduled at various sites where the highest leaks were recorded. Indirect emissions decreased by 3%, reflecting a different conversion factor compared to the previous year. It should be borne in mind that, for technical reasons, Terna's energy consumption is not attributable to a supply contract. This makes it impossible to reduce indirect emissions by selecting supplies from renewable sources, and accounts for the need to use an average conversion factor for Italian electricity production.

TOTAL DIRECT AND INDIRECT GREENHOUSE GAS EMISSIONS

TONNES OF CO ₂ EQUIVALENT ⁽¹⁾	2017	2016	2015
<i>Direct emissions</i>			
Leakages of SF ₆	67,371.4	54,101.9	58,478.3
Leakages of refrigerant gases (R22, R407C, R410A)	489.4	478.5	488.3
Petrol for motor vehicles	39.9	37.7	31.5
Diesel for motor vehicles	6,269.0	5,730.6	5,958.8
Jet fuel for helicopters	582.2	499.5	506.9
Natural gas for heating	419.9	458.8	561.9
Fuel oil for heating and generators	621.3	684.6	773.7
Total direct emissions	75,792.9	61,991.7	66,799.4
<i>Indirect emissions</i>			
Electricity ⁽²⁾	72,489.3	74,715.5	70,325.6

⁽¹⁾ This year, the conversion of direct energy consumption and leakages of SF₆ (sulphur hexafluoride) and refrigerant gases into equivalent CO₂ emissions has been carried out using the parameters indicated in the IPCC Fifth Assessment Report (AR5) and the Greenhouse Gas Protocol (GHG) Initiative.

⁽²⁾ The conversion of indirect electricity consumption is carried out taking into account the share of total Italian electricity production represented by thermoelectric production in 2017. Allocation for the purposes of the production mix was based on the December 2017 issue of the "Monthly Report on the Electricity System", available on the website at www.terna.it.

The increase in SF₆ leakages is reflected in the rise in the figure for carbon intensity, namely the ratio between direct and indirect CO₂ equivalent emissions and revenue, which nevertheless stands at the same level as 2016.

CARBON INTENSITY

TONNES OF CO ₂ EQUIVALENT / REVENUE (€M)	2017	2016	2015
Total emissions (direct and indirect)	148,282.2	136,707.2	137,125.1
Ratio of total emissions to revenue	66.0	65.0	65.9

Focus

CO₂ emissions: comparative data

The data used in the comparison of CO₂ emissions consists of data for direct and indirect emission (Scope 1 and 2).


The unit of measurement used for the comparison is CO₂ equivalent expressed in thousands of tonnes, where CO₂ equivalent is the total contribution of climate-changing gases to the greenhouse effect.

The analysis was carried out by comparing Terna's emissions figure with three peer groups: FTSE-MIB listed companies, electric utilities included in the Dow Jones Sustainability World Index, and TSOs.

In the absence of standardisation factors applicable to all sectors, it was deemed worthwhile - despite the lack of comparability - to present the data on CO₂ emissions in absolute terms. These data, with orders of magnitude that differ greatly from one case to another, at least provide an indication of the significance of greenhouse gas emissions - and therefore of the materiality of their reduction and mitigation in terms of sustainability - in the various sectors and companies.

In 2017, CO₂ emissions attributable to Terna's activities amounted to 148.3 thousand tonnes. In 2016, however, the year for which comparison is available, emissions amounted to 136.7 thousand tonnes of CO₂.

In comparison with all three peer groups, Terna is significantly below the average for 2016. This figure confirms the trend in the previous three years.

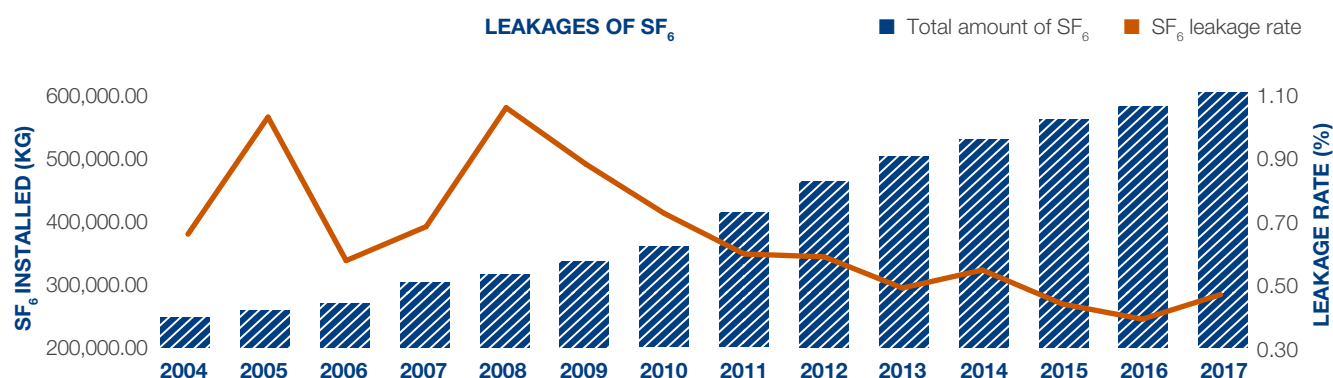

148.3
THOUSAND
TONNES
IN 2017

CO ₂ EMISSIONS (000'S OF TONNES) - 2016	TSO	FTSE-MIB	DJSI-ELECTRIC UTILITIES
Available data	12	28	8
Average	28.826	6.404	24.266
Max	216.000	107.320	107.320
Min	12,4	1,2	33,2
Terna		136,7	



Further details on how the benchmarking of "CO₂ emissions" is conducted may be found in the "Sustainability" section of the Company's website at www.terna.it.

Terna focuses its attention on a number of voluntary action programmes aimed at reducing its main sources of greenhouse gas emissions, which primarily regard curbing the SF₆ leakage rate, the energy efficiency of buildings and energy saving at electricity substations.



> 305-1

SDG 12

SDG 13

SF₆ leakage and containment measures

SF₆ (sulphur hexafluoride) gas is used as insulation in certain electrical equipment (circuit breakers, current transformers and armoured equipment). Part of the gas in the equipment leaks into the atmosphere due to defective seals, when faults occur, and also sometimes during the repressurising process. SF₆ has a very powerful greenhouse effect, which is 23,500 times greater than CO₂: leakage into the atmosphere of 1 kg of SF₆ is equivalent to 23.5 tonnes of CO₂.

SF₆ leakage is the main source of Terna's direct greenhouse gas emissions

SF₆ leakage is the main source of Terna's direct greenhouse gas emissions. The amount of SF₆ present in the Group's infrastructure has risen steadily (up 101% in ten years). This trend, which is common to many transmission operators, is linked to the better insulating performance of this gas and the smaller footprint of substations built with equipment containing SF₆ in comparison with more traditional solutions.

In the four-year period 2009-2012, Terna implemented a campaign to install new, more leak-proof equipment, with an estimated reduction in the leakage rate regarding total equipment installed - after exceptional faults - of approximately 0.10% over the five years after the installation campaign. Based on this estimate, the leakage rate was expected to be around 0.60%, given that the average rate for the period 2007-2008 was 0.70%, after exceptional faults.

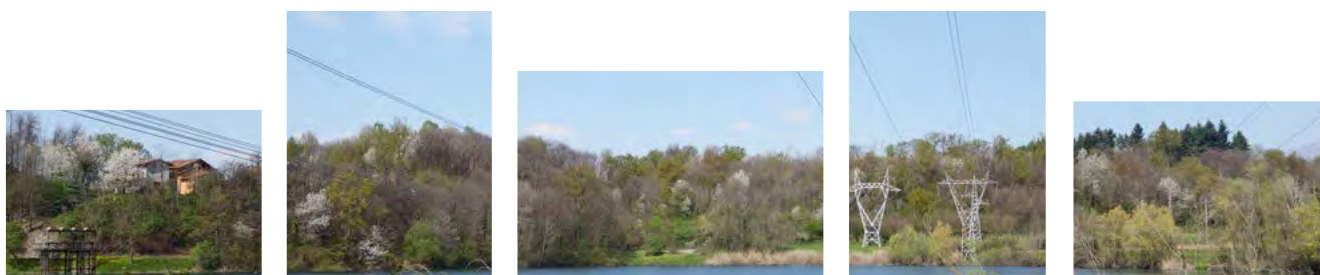
The leakage rate, which is the most significant indicator of the reduction measures adopted, actually decreased after 2012 and in 2017 stood at 0.47%. The rate, whilst up on the previous year (2016: 0.39%) is in line with the average over the last five years and above the target.

In the light of the actual performance recorded, the previous target has been reformulated as follows:

METRIC	BASELINE	TARGET	REFERENCE YEAR
SF ₆ leakage rate	0.47% (average for five-year period 2013-2017)	0.45% (after any significant events)	2022

The new target breaks down into two sub-periods:

- In the first two years, the target (0.47%) is to maintain the average result over the last five years. This maintenance target should be qualified, bearing in mind:
 1. the already substantial decrease registered over the last five years;
 2. the average leakage rate at the main European TSOs (0.82% in the three-year period 2014-2016; 0.9% in 2016, the latest available figure).
- In the second part of the Plan (the three-year period 2020-2022), the target becomes even more challenging (0.45%), thanks to the expected effect of the additional containment measures implemented in the first two years.



In 2017, despite the absence of significant events, an increase in leaks in absolute terms was recorded.

Routine and extraordinary maintenance has already enabled the causes to be dealt with. Work is planned on some equipment and will also involve suppliers in the resolution of problems.

Focus

SF₆ leakage: comparative data

SF₆ gas is used by electricity transmission companies because of its excellent electrical insulation properties. The specific nature of the use of SF₆ gas limits comparison to the peer group of other TSOs only.

The indicator compared is the leakage rate with respect to the total amount of gas installed in substation equipment.

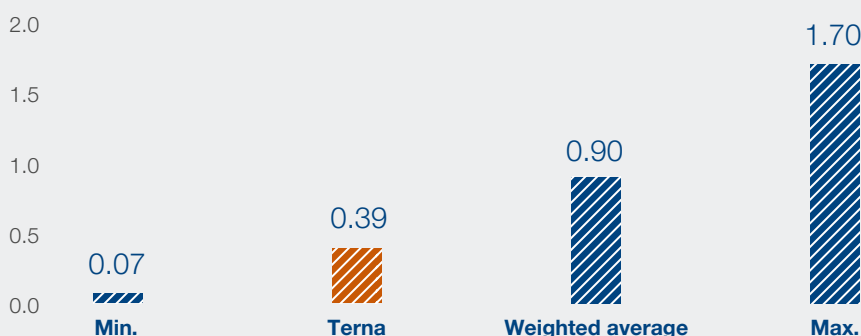
In 2017, Terna registered a leakage rate of 0.47%.

In 2016, the year to which the comparison refers, SF₆ leakage stood at 0.39%.

In comparison with the other transmission operators, in 2016 Terna reported a percentage of SF₆ leakage below the peer group average, regarding both the arithmetic mean (0.56%) and, more significantly, the weighted average (0.90%), calculated as the ratio between the sum of the leaks and the sum of the amounts installed by the TSOs as a whole.



% SF₆ LEAKAGE RATE - 2016



Further details on how the benchmarking of "SF₆ leakage" is conducted may be found in the "Sustainability" section of the Company's website at www.terna.it.

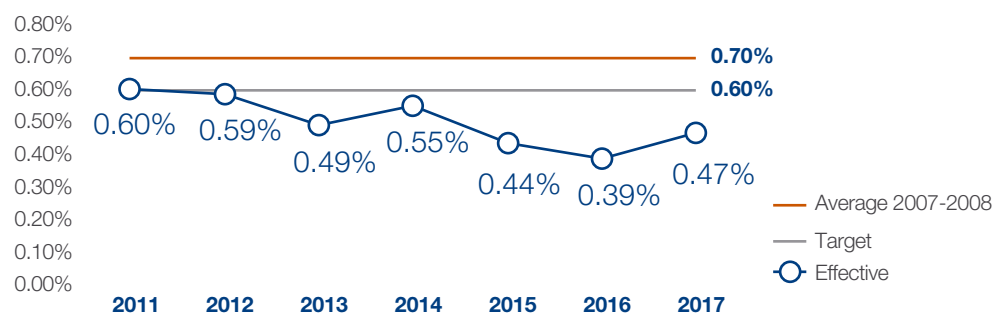
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CO₂ emissions avoided through the containment of SF₆ leakage

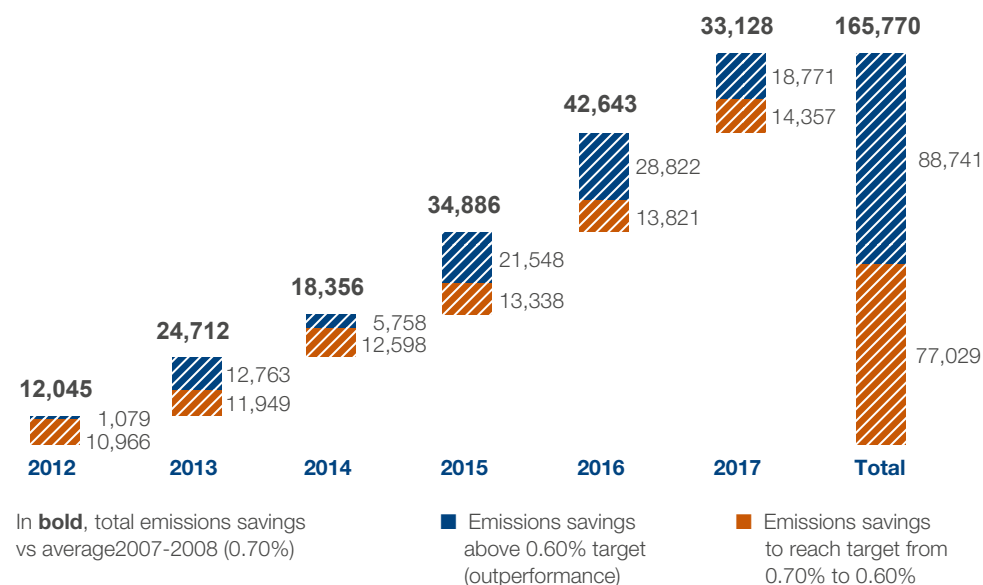
In the last six years, Terna has managed to keep the percentage of SF₆ leakage below the pre-set target of 0.60%, thereby avoiding 88,741 tonnes of CO₂ emissions.

Compared to the average of 0.70% recorded in 2007-2008, the saving was 165,770 tonnes of CO₂, an amount comparable to Terna's total annual direct and indirect CO₂ emissions.

SF₆ LEAKAGE RATE TREND (%)



DIRECT CO₂ EMISSIONS AVOIDED VS 0.70 (AVERAGE FOR 2007-2008) AND TARGET OF 0.60%



Energy efficiency initiatives

Energy Management System

In line with its energy efficiency objectives, since 2015 the Terna Group has been certified in accordance with the UNI CEI EN ISO 50001:2011 standard and is committed to constantly improving its Energy Management System.

In 2017, sensors were installed at 80% of Terna's main sites to measure energy consumption in real time. The analysis, which was carried out using time bands and the entire calendar year, has highlighted numerous peculiarities regarding electricity use and will enable improvement targets for all the sites monitored to be defined in 2018.

In 2017, a pilot project regarding the online monitoring of the electricity consumed by transformer substations was also launched, and in 2018 a representative sample of substations, broken down by type of activity, will be involved nationwide. More than 20 meters will be installed in each station to accurately monitor the electrical energy used.

Energy efficiency in substations and offices

At Terna, the development of energy efficiency programmes relating to the use of electricity in substations and offices is experimental, as the Company's electricity consumption falls within the category of "own transmission uses" which, according to the industry's regulator, are not to be included in operating costs.

In offices, the main sources of energy consumption relate to lighting, air-conditioning, heating and the use of computers and printers.

A number of Terna's offices have either been refurbished or are newly built under a long-term programme, which aims to upgrade the energy efficiency class of buildings owned by the Group, thereby combining civil engineering works with improved energy performance. With specific reference to Terna's main offices, the aim is to upgrade 70% of the buildings, measured in terms of total volume, to qualify for the highest energy efficiency classes (A-B-C).

In 2017, the site of the Parma Infrastructure Unit was renovated. This initiative will lead to a reduction in annual CO₂ emissions of around 12 tonnes.

Initiatives launched in recent years to reduce energy consumption, of which the benefits are measurable, include:

CO₂ CONSUMPTION REDUCTION INITIATIVES

During 2017, Terna implemented four projects to improve the efficiency of air conditioning systems at the Infrastructure Units in Suvereto (GR), Bologna, Florence and the Rome Operating Area, which will lead to a reduction of approximately 63 tonnes in annual CO ₂ emissions.	Improving the efficiency of air conditioning systems
In 2017, Terna implemented two projects to improve the efficiency of lighting systems at the Suvereto (GR) and Central and Southern Lazio (RM) Infrastructure Units, which will reduce annual CO ₂ emissions by around 167 tonnes.	Improving the efficiency of lighting systems
Since 2014, three energy efficiency initiatives have been launched, leading to a reduction of around 270 tonnes of CO ₂ at 31 December 2017 (equal to 75 tonnes of CO ₂ in 2017).	Summary of previous years' initiatives
For 2018, six energy efficiency initiatives have been planned with an estimated annual reduction of 60 tonnes of CO ₂ .	Forecast for initiatives in 2018
In 2017, Terna implemented two projects regarding the self-production of electricity from renewables for the Turin Botticelli office and the Camin (PD) Infrastructure Unit, which will result in a reduction in annual CO ₂ emissions.	Self-production of electricity from renewable sources

Vehicle fleet

The Company's operational vehicles are used nationwide to carry out power line inspections and, in general, to visit infrastructure and construction sites.

Terna's vehicle fleet consists of four helicopters, purchased in 2015, for carrying out scheduled and random inspections of power lines, and a fleet of cars that was renewed in 2017, of which 92% are equipped with Euro 6 and Euro 5 engines (for further information on vehicles and the related impact of the fleet, see the relevant table in the "Key Indicator tables" on page 216).

Other indirect CO₂ emissions

> 305-3

SDG 13

In addition to emissions relating to electricity consumption, Terna's most significant indirect emissions are connected to grid losses. The indicators relating to emissions produced as a result of air travel by staff are shown on page 216.

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Grid losses

Grid losses are defined as the difference between energy injected by producers (including imported energy) and final consumption; the relevant losses for Terna are those associated with the transmission grid. The figures shown in the following table are based on direct measurement of the energy injected and withdrawn from the transmission system (using around 7,500 measurement devices), to which corrective technical coefficients are applied in cases where the measurement point does not coincide with the boundaries of the transmission system.

Responsibility for measurement of the energy injected into the grid lies with Terna, while for the energy withdrawn, in accordance with specific agreements, Terna may carry out remote readings for which, however, the distribution companies remain responsible. This entails a margin of uncertainty regarding the accuracy of the readings made, which, however, tends to decrease over the years as a result of cross-checks and the gradual elimination of discrepancies with distributors' data.

In order to reduce the margin of uncertainty and the risk of interpreting the effect of measurement errors and the related corrections as actual trends, it was decided to use the arithmetic moving average of losses with a three-year window as annual data, starting from 2012 (three-year period 2013-2015 for 2015; three-year period 2014-2016 for 2016; three-year period 2015-2017 for 2017).

GRID LOSSES

	2017		2016		2015	
	% compared with energy demand	GWH	% compared with energy demand	GWH	% compared with energy demand	GWH
VHV and HV grid	1.4	4,583	1.5	4,525	1.5	4,622

Terna can only determine the extent of the losses, which are not completely under its control. Dispatching operations, which are needed to guarantee a constant balance between injections and withdrawals and to prevent the occurrence of grid security problems and disruptions, are carried out in accordance with regulatory criteria within the production set-up created by the energy market, and cannot be influenced by Terna with the aim of minimising losses.

Grid development activities, given the same structure of production, would lead to greater efficiency and thus a reduction in losses. However, the actual impact of development initiatives on losses is unpredictable and not under the control of the transmission operator, as it depends on concomitant changes in production capacity and electricity supply and demand at local level.

CO₂ emissions associated with grid losses amounted to 1,699,607 tonnes in 2017 (1,733,251 tonnes in 2016 and 1,700,916 tonnes in 2015). The trend differs from the one regarding losses measured in GWh, due to changes in the conversion factor used to convert energy into CO₂ equivalent emissions (see note on page 150), which in turn is affected by changes in the production mix among Italian power generators.





Use of resources and waste management

The development and maintenance of the NTG requires a substantial amount of capital goods, such as power lines (pylons, conductors, insulators), transformer substations (transformers, circuit breakers, other equipment) and control systems.

It should be noted, however, that water is not part of the production cycle for electricity transmission and dispatching. Normally, the water used - for hygiene purposes, office cleaning and cooling systems - derives from connections to water systems for civil use (water consumption is shown in the Key Indicators Table on page 217).

The production and direct management of waste primarily regards the maintenance of electricity infrastructure.

Resources

> 301-1

Terna does not use raw materials, but does purchase finished products (electrical equipment, conductors, tools and other components). An estimate of the materials contained in the main products purchased is shown in the table below. Amounts have been estimated taking into account the average material content of the various products purchased in the years referred to.

MAIN MATERIALS PROVIDED BY SUPPLIERS (in tonnes)	2017	2016	2015
Porcelain	303	193	336
Polymers	171	93	102
Copper	1,870	461	1,380
Aluminium	3,963	2,858	5,077
Steel	6,933	13,253	13,275
Glass	1,466	859	1,474
Dielectric oil	812	227	682
SF ₆	9	34	31

In particular, the amounts shown in the table reflect the increase in the purchase of equipment used in operating electricity substations: autotransformers, current and voltage transformers, circuit breakers and disconnectors.

The table does not include the main materials relating to certain new types of machinery purchased for the first time in 2017 (e.g. autotransformers using vegetable oils): the amount of these materials contained in the new machinery is currently being estimated.

Waste

> 306-2

At the end of their normal lifecycle, the materials used in electricity infrastructure are recovered for reuse in operations. Only a residual portion is sent to landfill and has an impact on the environment. The percentage of waste recovered amounted to 87% in 2017 (93% in 2016 and 92% in 2015). The effective amount recovered depends on the materials contained in the waste: some of them are easy to separate out and thus reuse (for example, the iron parts of pylons); in other cases, instead, it is not possible or it is too costly to separate the various parts, above all when dealing with the most obsolete equipment.

For this reason, annual changes in the amount of waste generated and the percentage of waste recycled should not be interpreted as indicating a trend.

WASTE BY TYPE ⁽¹⁾ IN TONNES	2017	2016	2015
Waste produced ⁽¹⁾	4,801.5	4,941.6	5,112.1
of which hazardous	2,250.6	1,842.5	2,906.7
of which non-hazardous	2,550.8	3,099.1	2,205.4
Waste sent for recovery	4,188.1	4,581.4	4,680.2
of which hazardous	1,832.1	1,560.6	2,643.1
of which non-hazardous ⁽²⁾	2,356.0	3,020.8	2,037.1
Waste sent for disposal ⁽³⁾	315.6	351.6	427.3
of which hazardous	171.4	275.6	259.7
of which non-hazardous	144.2	76.0	167.6

⁽¹⁾ Only special waste produced during production processes is included, not waste produced by services (urban waste). Effluents and waste from septic tanks, produced by substations not connected to the sewer network, are not included; the quantity for effluents and waste from septic tanks was 617 tonnes in 2017, 789 tonnes in 2016 and 680 tonnes in 2015.

⁽²⁾ This comprises uncontaminated metal waste deriving from the decommissioning of transformers, electrical equipment and machinery (e.g. generators), with an average recovery rate of 100%.

⁽³⁾ Waste sent for disposal may differ from the mere disparity between waste generated and recovered due to temporary waste storage. Specifically regarding 2017, the production of 240 tonnes of waste relating to the "machinery, equipment, pylons, conductors and cables" category - in line with Legislative Decree 152/2006 - is currently stored in an Infrastructure Unit's temporary storage facility.

The main special hazardous waste generated by Terna's operating activities consists of:

This derives from the decommissioning of transformers, electrical equipment and machinery no longer in use and is contaminated by hazardous substances; they have an average recovery rate - after treatment by third parties - of over 95%.	Metal waste
In the event of a blackout, batteries enable emergency generators to be switched on in order to keep the energy transformation and transportation service up and running during emergencies; they have a recovery rate of 100%.	Batteries (lead and nickel)
These are used for insulating transformers replaced after periodic checks carried out for maintenance purposes. They constitute hazardous waste and have a recovery rate of 85%.	Dielectric oils

The waste sent for disposal consists mainly of materials deriving from plant maintenance and cleaning activities (sludge, oily emulsions and rags containing solvent oils) and insulating materials containing asbestos, for which no form of recovery is envisaged.

In 2017, as in the previous two-year period, no significant spills of polluting liquids were reported.

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Environmental costs

Terna's commitment to the environment is reflected in the costs incurred for environmental reasons, in terms of both capital expenditure and operating costs. Separate representation of environmental costs is based on the definitions set out below, through aggregating information derived from the Company's general and management accounting. These definitions and the methodology described below are taken from the Terna Group's operating guidelines.

Accounting methodology

The identification of environmental costs is based primarily on available definitions, primarily those of ISTAT (Italy's Office for National Statistics), Eurostat and GRI, as well as the European Commission Recommendation on the recognition, measurement and disclosure of environmental data in annual accounts and annual reports (Recommendation 2001/453/EC). According to this Recommendation, the term "environmental expenditure" includes the cost of initiatives undertaken by a company, directly or via third parties, in order to prevent, reduce or repair damage to the environment caused by its operating activities.

Secondly, the relevant definitions have been cross-referenced with the environmental aspects assessed as being significant (e.g. substation noise, electromagnetic fields, etc.) within the Company's ISO 14001 certified Environmental Management System, in order to identify Terna's environmentally relevant operating and capital expenditure activities within the main business processes.

Many of Terna's activities described in this Report entail environmental expenditure. However, certain limitations have been introduced in determining the scope of reporting:

- the exclusion of integrated costs, namely those related to activities that have no exclusively environmental purpose (e.g. the use of pylons with innovative characteristics, also in terms of how well they blend into their surroundings) due to the subjective nature of accounting for environmental components only;
- the exclusion of additional costs linked to the consideration of environmental constraints and demands when planning and designing new lines (re-routings and sections of cable laid underground).

Additional conditions were also imposed if costs were significant, consistent with annual accounting requirements (a clear distinction between operating and capital expenditure costs) and directly measurable on the basis of the Company's existing accounting system.

The latter condition meets the need to minimise the use of estimates based on non-accounting procedures.



Capital expenditure and operating costs

The table below provides the best possible view of Terna's capital investment and operating costs in relation to the environment.

It should be noted that these costs exclude expenses relating to internal resources, and only take into account the cost of external supplies. An exception is the item "Environmental activities - Existing plant", which does include the cost of internal personnel.

Based on the methodology adopted and the footnotes to the table, it should be noted that the environmental costs shown represent a subset of the total environmental costs actually incurred, as defined above.

ENVIRONMENTAL COSTS - CAPITAL EXPENDITURE AND OPERATING COSTS

(€m)	2017	2016	2015
Capital expenditure			
Environmental offsets ⁽¹⁾	7.9	14.7	1.2
Environmental impact studies ⁽²⁾	4.2	2.4	5.0
Environmental activities - new plant ⁽³⁾	4.8	4.3	5.8
Environmental activities - existing plant ⁽⁴⁾	3.6	7.5	7.1
Demolitions ⁽⁵⁾	0.8	0.9	1.2
Total capital expenditure	21.2	29.8	20.3
Costs			
Cost of environmental activities ⁽⁶⁾	24.1	19.1	19.4
Total operating costs	24.1	19.1	19.4

(1) **Environmental offsets:** These are amounts allocated to offset the works provided for in the Grid Development Plan, as identified by specific agreements signed with local authorities.

(2) **Environmental impact studies:** These relate to plants provided for in the Grid Development Plan that are under construction or awaiting the necessary consents from the competent authorities.

(3) **Environmental activities - new plant:** The amount shown is an estimated figure. Based on an analysis of certain large investment projects, it has been found that at least 1% of total project costs correspond to environmental items, usually deriving from regulatory requirements (for example, tree screens, noise barriers, the installation of bird deterrents, environmental monitoring, the testing of excavated soil and rocks). Therefore, a value of 1% of the capital expenditure cost for projects with similar characteristics has been taken into account.

(4) **Demolitions:** This is the cost of the final decommissioning of power lines as part of rationalisation programmes.

(5) **Cost of environmental activities:** This regards vegetation management, grass cutting, waste management and demolition/decommissioning activities, which represent small amounts and are not included under investment. These cost items, which are directly identifiable within the management accounts, do not cover all environmental operating costs, but do comprise the majority of such costs.





06 People



Key performance indicators



Training

50 hours per capita

The number of per capita hours of training provided is well above the average for FTSE MIB companies (25.8 in 2016, based on the latest available data).

Injury rate

0.81

The injury rate is down 19% on 2016.

Turnover among under 30s

1.0%

Turnover among under 30s is down 49% on 2016.

Terna's commitment to our people



The Company's human resources are, at the same time, a vital element in the business and people whose aspirations should be nurtured and rights respected.

Terna's commitment to its staff is characterised by:

- **attention to safety and accident prevention** (pages 173-174);
- **investment in training** to ensure the development of the Company and its employees (page 168);
- the creation of management and development systems designed to improve performance and develop individual skills (page 170);
- **remuneration and welfare policies** that aim to align individual performance with business objectives and provide employees with financial security (pages 171-172);
- **listening to employees** by using ways to gauge their opinions (page 82);
- a complex system of **industrial relations based on engagement with the trade unions** (page 84).

Staff policies are drawn up and implemented by the Human Resources and Organisation department, whilst occupational health and safety matters are the responsibility of the Security and Services department. Both departments are part of the Parent Company's Corporate Affairs department.

Overview of our workforce

The Group employs a total of 3,897 people (up 28 compared with 2016). This figure includes 368 Tamini Group personnel and 21 people employed under local contracts by overseas subsidiaries (9 at Terna Crna Gora, 9 in Brazil and 3 in Peru).

The tables below present Group data on a like-for-like basis compared with 2016, and therefore excluding the Tamini Group and the overseas subsidiaries. The tables show a total of 3,508 personnel for 2017.

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COMPOSITION OF THE WORKFORCE BY CATEGORY	2017	2016	2015
Total employees	3,508	3,468	3,333
Senior managers	61	64	63
Middle managers	550	549	498
Office staff	1,873	1,830	1,813
Blue-collar workers	1,024	1,025	959

The total turnover rate (5.9%), which is up compared with 2016, includes the effect of generational turnover, with 85% of the total due to retirements.

The incidence of summary dismissals is very low (0.49%), in line with previous years (0.60% in 2016 and 0.35% in 2015).

In 2017, Terna used 51 agency workers (54 in 2016 and 37 in 2015), employed by agencies that supply Terna with labour.

WORKFORCE TRENDS	2017	2016	2015
Total employees	3,508	3,468	3,333
Employees recruited during the year	243	186	369
Employees leaving during the year	203	51	473
Turnover rate (%) ⁽¹⁾	5.9	1.5	13.8
Turnover rate (%) - under 30s ⁽¹⁾	1.0	1.9	1.1

⁽¹⁾ The turnover rate shows the ratio of employees leaving the Company to the number of employees at 31 December of the previous year.

COMPOSITION OF THE WORKFORCE	2017	2016	2015
Totale dipendenti	3,508	3,468	3,333
By type of contract			
- permanent	3,508 ⁽¹⁾	3,466	3,331
- fixed-term		2	2
By gender			
- men	3,076	3,062	2,942
- women	432	406	391
Average age of employees (years)			
Average age	42.6	43.5	43.5

⁽¹⁾ Permanent contracts also include 134 apprenticeships.

Generational turnover entails a steady increase in the educational level of the Company's workforce. In 2017, 93.5% of the workforce had a university degree or a high-school diploma. The average length of service is 16.4 years.

Generational turnover

Terna dedicates a host of initiatives to generational turnover which, since 2015, have been stepped up considerably due to a voluntary early retirement scheme.

The most important initiatives include the transmission of knowledge and experience, often one-of-a-kind, via internal tutoring as part of training programmes and on-the-job experience.

The table below provides an overview of the potential numbers of outgoing staff during the periods 2018-2022 and 2018-2027:

> EU15

306 staff employed at 31 December 2017 potentially leaving during the period **2018-2022** (8.72% of the total workforce at 31 December 2017) of which:

• Senior managers	2
• Middle managers	54
• Office staff	160
• Blue-collar workers	90

699 staff employed at 31 December 2017 potentially leaving during the period **2018-2027** (19.93% of the total workforce at 31 December 2017) of which:

• Senior managers	18
• Middle managers	145
• Office staff	339
• Blue-collar workers	197

IMPACT OF GENERATIONAL TURNOVER IN THE FIVE-YEAR PERIOD 2013-2017

INDICATOR	Unit	2017	2013
Average age	y	42.6	46.2
Average length of service	y	16.4	20.8
Percentage composition by age: >50	%	36.6	46.9

Focus

STAFF TURNOVER: COMPARATIVE DATA

By staff turnover, Terna means the ratio of employees leaving the Company during the year to the number of employees at 31 December of the previous year.

As the staff turnover rate is an indirect indicator of the corporate climate that affects all sectors, data for transmission companies (the TSO group) and large Italian listed companies (FTSE-MIB) were examined, as well as data for electric utilities included in the World Index of the Dow Jones Sustainability Index.

In 2017, Terna registered a turnover rate of 5.9%. In 2016, the last year for which comparative data are available, Terna's turnover rate stood at 1.5%.

Examination of the average rates recorded by the peer groups reveals that Terna's turnover rate, in 2016, was well below the average for all the groups considered, and even registered the lowest figure in the Dow Jones-Electric Utilities benchmark.

The figures for the five-year period 2012-2016 show that Terna had an average rate of **4.4%**, thus below the five-year average for the peers groups used as benchmarks (TSOs: 4.9%, FTSE-MIB 8.3%; it is not possible to make a comparison with the DJSI peer group as the sample has changed over the reference period). Finally, the five-year average for Terna is 1.9%, after excluding the impact of the Company's early retirement scheme.



TURNOVER RATE (%) - 2016	TSO	FTSE-MIB	DJSI-ELECTRIC UTILITIES
Available data	16	28	8
Average	4.8	9.8	6.3
Max.	11.2	32.9	10.4
Min.	1.0	1.0	1.5
Terna		1.5	



Further details on how the benchmarking of staff turnover is conducted may be found in the "Sustainability" section of the Company's website at www.terna.it.



The HR process

Recruitment and selection

The staff recruited on the external labour market are university graduates – especially engineers – and graduates from technical colleges, most of whom have specialised in electrical engineering. Once hired, new recruits acquire the specific knowledge and skills they need via dedicated training courses.

The preferred channel for collecting candidates' applications is the "Work with us" section of the Company's website.

The staff recruitment and selection process is managed by the Human Resources and Organisation department, which also manages relations with schools, universities and job centres in order to support the process of recruiting new staff and to sustain a virtuous circle of sharing between the Company and the outside world. In this regard, the Company has entered into partnership agreements with major Italian universities and business schools, and funded the creation of specialist master's courses.

Specifically, in 2017, Terna's activities may be summed up in these figures: support was provided for 6 master's courses; 107 teaching hours were provided to staff on external courses; 640 students were given tours of the Company's infrastructure; and 33 apprenticeships, internships and project work initiatives were initiated.

Training

> 404-1

Training is continuously provided at Terna throughout employees' working lives. The aim is to create value for people by increasing and diversifying their skills (employability), and to create value for the Company by developing human capital in line with its mission and business strategy.

The Grid Experience Campus is the name that brings together all the different kinds of training, which is provided in accordance with a training model based on the transfer of specialist know-how by the most experienced staff (faculty) and on external contributions (universities and business schools), in order to guarantee a variety of incentives. In 2017:

- 178,856 hours of training were provided, of which 60% led by internal trainers;
- all members of staff attended at least one training course;
- 50 hours of training were provided per capita.

Details of the related training indicators are provided in an annex on page 222.



Focus

STAFF TRAINING: COMPARATIVE DATA

Comparison of staff training performance is based on the per capita hours of training provided by companies.

As per capita training does not depend on the size of a company or the sector in which companies operate, data from companies in all the three peer groups were examined. In 2017, Terna provided 50 hours of training for each employee.

In 2016 (the year for which comparative data are available), Terna provided an average of 61 hours of training per employee, ranking above the average figure for all three groups: TSOs, electric utilities in the Dow Jones Sustainability Index, and FTSE-MIB companies. For the last group, the Terna figure is the highest one. Moreover, examination of the five-year period 2012-2016 reveals that Terna provided an average of over 47 hours of training per capita each year, compared to the 30 hours of the FTSE-MIB group, confirming the Company's continuous investment in activities that can generate high value added in the long term. It should be noted that the Terna figure does not include on-the-job training.



HOURS OF TRAINING PER CAPITA - 2016	TSO	FTSE-MIB	DJSI-ELECTRIC UTILITIES
Available data	12	33	8
Media	49	26	46
Max.	89	61	82
Min.	17	4	20
Terna		61	



Further details on how the benchmarking of staff training is conducted may be found in the "Sustainability" section of the Company's website at www.terna.it.



Development

In support of human resources development policies, Terna uses the Professional System as a basic architecture to manage roles, skills and development paths within the organisation, enhancing competencies and crafts (“professional families”) identified on the basis of core business and corporate processes.

In 2017, human capital development initiatives included a potential assessment process involving approximately 330 staff from across all departments. The design of a new Performance Management System was also launched, with the aim, among other things, of defining and communicating objectives, outcomes and expected organisational behaviours, as well as promoting a culture of appraisal and feedback as a way for managers to develop and coach members of their teams.

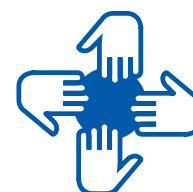
The new Performance Management System will be implemented during 2018 on a pilot sample of the workforce and then gradually extended across the various categories of personnel.

In January 2018, Terna and Luiss signed a partnership agreement that will see the business and academic worlds combine to offer talented young people the very highest standards of training, and enable them to develop the expertise and skills they need in today's labour market, whilst also contributing to the country's growth.

In order to support achievement of its strategic objectives and performance, Terna has introduced variable incentive schemes differentiated by type of role, and taking into account the time frames for achievement of the results on which the remuneration is based. These include:

- A Long-Term Incentive (LTI) plan, linked to long-term corporate objectives, including sustainability, for managers who perform key roles in attainment of the Company's strategic objectives
- MBO (Management By Objectives) for management, linking the amount of individual bonuses to:
 - the extent to which quantitative objectives are achieved, both at Company and individual level, some of which coincide with the Sustainability Plan or, in any case, relate to Terna's social and environmental commitments (e.g. the occupational safety indicator);
 - the qualitative assessment of performance, based on management behaviours described in the “Leadership Model”.

With a view to driving productivity, Terna has also signed an agreement with the trade unions that has introduced a performance bonus awarded to administrative and blue-collar workers, which, as well as the overall performance of the Company, also takes into account specific objectives relating to the work carried out by employees.



Company welfare

Pay and conditions for Terna's staff (remuneration, working hours, holidays and other aspects of employment) are, as in other large companies in the electricity sector, substantially better than the Italian average.

Benefits are provided for all employees, including those on part-time contracts and apprenticeships:

- supplementary healthcare;
- supplementary pension schemes (voluntary);
- insurance for non-occupational accidents;
- recreational associations;
- maternity leave that goes beyond legal requirements;
- soft loans for first-time homebuyers and to meet needs arising from serious family situations;
- canteen or food vouchers.

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Terna's employees (excluding senior managers, who can participate in a different fund) are automatically enrolled into the Supplementary Healthcare Fund for Enel Group Employees (FISDE).

Medical care for illnesses is partly covered by FISDE, for members (enrolled employees) as well as for their dependants.

BENEFICIARIES	INFORMATION AND RISK PREVENTION	TREATMENT
Employees	yes	yes
Employees' dependants	no	yes

Terna offers its staff defined contribution supplementary pensions on a voluntary basis. Senior managers can join the Fondenel pension fund (<http://fondenel.previnet.it>). Other employees (blue-collar workers, office staff, middle managers) can join the Fopen pension fund (www.fondopensioneopen.it).

In addition to pension plans, the employees of Italian companies are also entitled to other defined benefits. In particular, during their working lives, all employees are contractually entitled to receive a "loyalty bonus" on reaching their 25th and 35th year of employment at the Company. On terminating their employment, they receive benefits due to all employees (termination benefits, or TFR), while senior managers recruited or appointed before 28 February 1999 receive payment in lieu of notice, and other employees (blue-collar workers, office staff, middle managers) employed before 24 July 2001 receive additional months' pay.

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Further information on the composition and nature of and movements in termination benefits (TFR) and other provisions for staff is provided in the Annual Report.

Company welfare agreement for 2017

In October 2017, Terna signed an agreement with the trade unions that introduces a new welfare package. Specifically, up to a maximum amount of €3,000, an employee may choose to benefit from a performance-linked cash bonus, or use the bonus to benefit from one or more of the goods and services provided free of charge by the Company. For 2017, the agreement provides for an extra 12% on top of the bonus should an employee voluntarily decide to convert the cash into goods or services.

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Care for children and other family members

Italian law regulates maternity leave and parental leave, and provides general coverage. In comparison, Terna offers more favourable conditions, in application of the National Collective Labour Contract for the industry and company agreements. The most important measures include:

- five months' paid maternity leave, provided to a mother before and after the birth. Terna guarantees full pay compared with the 80% provided for by law;
- an additional six months of maternity leave may be taken on 30% pay. Terna raises this amount to 45% and 40%, respectively, in the first and then in the second and third months of this period. Paternity leave may also be taken, up to a maximum of eleven months of leave based on the period taken by both parents. If not used in the first six years of a child's life, the leave may be taken later up until the age of twelve, but in the form of unpaid leave;
- unpaid leave, with no restrictions on use, in the event of the illness of children under the age of 3;
- three days per month, or two hours a day, of paid leave to look after children or other family members with serious disabilities;
- special leave for two years in the event of a child or other close relation having a serious disability;
- paid leave for working fathers, with up to 5 days paid by the Company as well as 2 days paid by the state (INPS).

An agreement was signed in 2017, providing for additional measures to improve the work-life balance, with an initial trial of smart working due to begin by July 2018, and support for parenthood.

Employees who have recently become fathers will be granted five days' leave, in addition to the number of days provided for by law, and parents will be granted half a day's leave to accompany their children on their first day of school (first year).

The table below shows the number of employees who have taken at least 29 days' parental leave.

	2017	2016	2015
Total	26	19	23
- women	25	18	19
- men	1	1	4

It should be noted that an employee, after having used parental leave between 2016 and 2017, resigned during 2017.

Health, safety

and correct working practices



Working safely, without putting their health at risk, is a fundamental right of employees, and Terna invests a great deal in order to guarantee this right for its people.

A safety culture is present across the Company, so that the supply chain actors who play a decisive role in operations may also be involved in the process of ensuring constant attention and improvement. This applies more generally to respect for human and workers' rights: the Company undertakes to ensure that such rights are also guaranteed by contractors.

The National Collective Labour Contract also provides for the establishment of a bilateral body - at electricity sector level - regarding "Health and safety and the environment", tasked with making proposals relating to the monitoring and coordination of training on environmental and safety issues.

< 403-4

The involvement of employees in matters relating to health and safety and the environment is currently regulated by law and collective bargaining, which provide for the election by all employees of Staff Representatives for Safety and the Environment, who thus represent 100% of the workforce.

< 403-1

Protecting employees' safety

Terna's commitment to safety must be seen in the context of existing statutory requirements. Italian safety legislation (Legislative Decree 81/2008 "Consolidated law on the protection of health and safety in the workplace") is one of the most stringent among any such laws in Europe and requires companies to carry out an analytical assessment of the risks to employees' health and safety. At Terna, special attention is paid to analysing the risks deriving from interference caused by works being carried out by contractors and subcontractors, covering all the activities involved in work at a construction site. Terna's approach to occupational safety hinges on a system of tools that are applied to all corporate processes, including:

The importance of protecting people from physical harm is enshrined in Terna's Code of Ethics. The occupational safety policy sets out its guidelines with an explicit commitment to promoting accident prevention for all employees, including those employed by contractors.

[Clear safety policy guidelines](#)

This system, which covers 100% of the Company's activities and is incorporated within the quality and environment system, is based on accurate risk assessment, with a particular focus on activities entailing electrical risk (Provisions for the Prevention of Electrical Risk).

[BS OHSAS 18001:2007 certified management system](#)



Organisational unit responsible for safety

This unit, consisting of a central team and local managers in area offices and at construction sites, carries out inspections of workplaces and construction sites and also constantly analyses and monitors the risks arising from the Company's activities.

Supervisory activities

The correct and complete application of the procedures is subject to inspections by Prevention and Protection Service managers, internal compliance checks for all Terna Group companies, and the external audits required for certification. Elected staff representatives are also present who are responsible for verifying the application of standards (staff health and safety representatives). As regards activities carried out by contractors, Terna conducts inspections of its own construction sites in order to verify the correct application of accident prevention regulations by the responsible health and safety officers and contractors.

"Safety" section of the Document Centre on the Company's Intranet

An archive of health and safety legislation (national, regional and technical regulations issued by the competent bodies) is available on the Company's intranet.

Information and training activities

All staff have access to key information regarding health and safety and innovations through various channels, including the Company's intranet and information meetings. In 2017, around 43,658 hours of training were dedicated to health and safety issues, of which over 60% was aimed at blue-collar workers (additional data about training may be found on page 222). The equipment at the Viverone Training Centre (BI) enables training to be carried out on safe working practices when climbing pylons (via the use of life-size pylons), and regarding live-line working in a controlled environment. In 2017, in collaboration with the Sant'Anna School of Advanced Studies in Pisa, a project called "HSE Lab" was launched with the aim of developing in-company knowledge of innovative approaches and tools to improve management and organisational skills in dealing with HSE issues.

Occupational safety performance targets

The system of indicators includes the "occupational safety indicator", comprising the injury rate and the lost day rate, to which the variable remuneration of personnel in the departments concerned is linked.

Applied research

A specific organisational unit within the Engineering department tests safety materials and devices, assessing their reliability via strength tests under extreme conditions (see also page 134).

Occupational injuries

In 2017, as in previous years, no fatal workplace accidents were registered among Group employees, while only one serious injury was reported, with an initial prognosis of more than 30 days. Moreover, with regard to serious or fatal accidents occurring in years prior to the reporting period, there are no cases in which the Company's liability has been definitively established. The total number of injuries amounts to 24. Both the injury rate and the lost day rate registered reductions compared with the previous two years. The absentee rate confirms the downward trend (further details regarding health and safety data and injury rates by gender are provide in "Key indicator tables" on page 225).

< 403-2

OCCUPATION INJURIES SUFFERED BY TERNA EMPLOYEES GRI-ILO DEFINITIONS (*)	2017	2016	2015
Injury rate	0.81	1.00	0.84
Lost day rate ⁽¹⁾	27.62	31.28	36.13
Absentee rate ⁽²⁾	6,239.9	6,831.4	7,186.1
Occupational diseases rate ⁽³⁾	0	0	0
Number of injuries	24	28	24
- of which serious	1	0	0
- of which fatal	0	0	0

(*) As required by GRI protocols, the definitions adopted are those provided for by the International Labour Organization (ILO). To aid comparison with other sources, the following notes show the figures for the same indicators calculated using alternative formulae. It was not deemed necessary to further break down the data by region, because Terna only operates in Italy.

Injury rate. The number of injuries registered and reported to the competent social security office, divided by the number of hours worked during the year, multiplied by 200,000 (corresponding to 50 working weeks x 40 hours x 100 employees). To aid comparison with other sources, this indicator has also been calculated using a multiplication factor of 1,000,000 instead of 200,000 (thereby resulting in an injury rate 5 times the ILO injury rate). Based on this method of calculation, the injury rate is **3.9 in 2017, 5.0 in 2016 and 4.2 in 2015**.

Lost day rate. The ratio of days lost due to injury to the number of hours worked during the year, multiplied by 200,000. The days lost are calendar days and are counted from the day on which the injury occurs. To aid comparison with other sources, this indicator has also been calculated using a multiplication factor of 1,000. Based on this method of calculation, the lost day rate is **0.14 in 2017, 0.16 in 2016 and 0.2 in 2015**.

Absentee rate. The number of days of absence due to illness, strikes and injuries out of the number of days worked in the same period, multiplied by 200,000. To aid comparison with other sources, this indicator has also been calculated as a percentage of days worked. Based on this method of calculation, the absentee rate is **3.1 in 2017, 3.4 in 2016 and 3.6 in 2015**.

Occupational diseases rate. The total number of cases of occupational disease divided by the number of hours worked during the year, multiplied by 200,000.

(1) Calculation of the lost day rate took into account days of absence due to injuries occurring in 2016 and any cases of absence due to injuries occurring in previous years, accounting for days of absence on an accruals basis.

(2) The causes of absence taken into account do not include maternity leave, marriage leave, study leave, trade union activities, other forms of paid leave and suspensions.

(3) As in previous years, there were no cases of occupational disease among Terna's employees in 2016. Terna's operations do not entail the types of work, as defined by law, associated with the potential occurrence of occupational diseases. Terna's occupational disease rate therefore remains at zero.

OCCUPATION INJURIES SUFFERED BY CONTRACTORS AND SUB-CONTRACTORS - GRI-ILO DEFINITIONS	2017	2016	2015
Occupational injuries suffered by contractors' employees	9	8	9
- of which serious	1	0	1
- of which fatal	0	0	
Injury rate ⁽¹⁾	0.27	0.31	0.43

⁽¹⁾ The number of injuries entailing at least one day's absence from work, divided by the number of hours worked during the year, multiplied by 200,000 (corresponding to 50 working weeks x 40 hours x 100 employees). To aid comparison with other sources, this indicator has also been calculated using a multiplication factor of 1,000,000 instead of 200,000 (thereby resulting in an injury rate 5 times the ILO injury rate). Based on this method of calculation, the injury rate is **1.3 in 2017, 1.5 in 2016 and 2.2 in 2015**.

In addition to the information provided in the table, for the sake of completeness it should be noted that, in 2017, a contractor's employee was taken ill. The resulting fatality, even though occurring during working hours, was due to natural rather than occupational safety causes. Checks carried out also confirmed that the construction site was managed in full compliance with health and safety regulations.

Contractors' health and safety protection measures are described in the section "Sustainability in the supply chain" on page 68.

Diversity and equal opportunities



Terna uses staff selection, development and compensation systems that recognise and reward merit. All forms of discrimination, starting with the selection and recruitment process, are explicitly prohibited by the Group's Code of Ethics and Guidelines (e.g. its Human Rights Policy).

The vast majority of employees are men, due to a traditional shortage of female labour in the more technical professions. However, the presence of women is increasing, partly reflecting general labour market trends, which show that female participation is on the rise.

The percentage of women in the total workforce in Italy was 9.0% at the end of 2005 (the year in which Terna became an independent company). This figure has grown steadily since then, registering 12.3% at the end of 2017. 24.1% of hires, not taking into account blue-collar workers, were women (20.2% in 2016).

The main indicators chosen by Terna to monitor the equal treatment of men and women show that the management and development systems adopted do not disadvantage women. In particular, it should be noted that, in 2017, the proportion of women managers in relation to the total number of managers (17.5%) was once again higher than the proportion of women in relation to the total number of employees, without taking into account blue-collar workers (17.4%). Remuneration data by gender also show moderate pay gaps between office staff and middle managers, with wider gaps for senior managers, although the number of people considered is smaller and the pay gaps are consequently more influenced by few incoming and outgoing staff.

< 405-1

< 405-2

EQUAL OPPORTUNITIES FOR MEN AND WOMEN	2017	2016	2015
Pay gap between men and women in % ⁽¹⁾			
Senior managers	79.4	70.6	73.5
Middle managers	96.6	96.4	96.9
Office staff	97.3	97.7	97.0
Pay gap between men and women in % ⁽²⁾			
Senior managers	72.1	67.3	67.5
Middle managers	99.0	98.3	100.1
Office staff	94.0	93.9	93.9

⁽¹⁾ The figure is based on the annual basic pay of women in the different categories as a percentage of the annual basic pay of men in the same categories. The figure has not been calculated for blue-collar workers as there are no women in this category.

⁽²⁾ The figure is based on the total annual pay of women in the different categories as a percentage of the total annual pay of men in the same categories. In addition to basic pay, total pay also includes productivity bonuses, various forms of incentive and the value of benefits received during the year.

Almost all employees are Italian citizens (only 14 employees have foreign citizenship).

< 202-2

At 31 December 2017, 144 people from legally protected categories (138 in 2016 and 131 in 2015) were employed, in line with the regulations applicable to Terna. Additional indicators regarding equal opportunities may be found in the "Key indicator tables" (page 224).



Additional GRI indicators

The following tables summarise and supplement the indicators presented in this section, taking into account the details required by GRI standards 102-8, 401-1, 404-1 and 405-1.

> 405-1

COMPOSITION OF THE BOARD OF DIRECTORS*	Unit	2017	2016	2015
Men	%	55.6	77.8	77.8
Women	%	44.4	22.2	22.2
Under the age of 30	%	-	-	-
Between the ages of 30 and 50	%	22.2	44.4	77.8
Over the age of 50	%	77.8	55.6	22.2

^(*) Further details of Terna SpA's corporate governance are provided in the "Report on Corporate Governance and Ownership Structures", published on the website www.terna.it.

> 401-1

WORKFORCE TRENDS	Unit	2017	2016	2015
Total employees	no.	3,508	3,468	3,333
Employees recruited during the year	no.	243	186	369
- men	no.	202	166	341
- women	no.	41	20	28
- below the age of 30	no.	168	125	276
- between the ages of 30 and 50	no.	64	60	87
- over the age of 50	no.	11	1	6
<i>Rate of recruitment ⁽¹⁾</i>				
Total	%	7.0	5.6	10.7
- men	%	5.8	5.0	9.9
- women	%	1.2	0.6	0.8
- below the age of 30	%	4.8	3.8	8.0
- between the ages of 30 and 50	%	1.8	1.8	2.5
- over the age of 50	%	0.3	0.0	0.2
Employees leaving during the year	no.	203	51	473
- men	no.	187	45	441
- women	no.	16	6	32
- below the age of 30	no.	6	11	4
- between the ages of 30 and 50	no.	14	11	18
- over the age of 50	no.	183	29	451
<i>Turnover rate ⁽²⁾</i>				
Total	%	5.9	1.5	13.8
- men	%	5.4	1.4	12.8
- women	%	0.5	0.2	0.9
- below the age of 30	%	0.2	0.3	0.1
- between the ages of 30 and 50	%	0.4	0.3	0.5
- over the age of 50	%	5.3	0.9	13.1

⁽¹⁾ The rate of recruitment shows the ratio of employees joining the Company to the number of employees at 31 December of the previous year.

⁽²⁾ The turnover rate shows the ratio of employees leaving the Company to the number of employees at 31 December of the previous year.

COMPOSITION OF THE WORKFORCE	Unit	2017	2016	2015
Total employees	no.	3,508	3,468	3,333
By type of contract				
- permanent	no.	3,508	3,466	3,331
- of whom men	no.	3,076	3,061	2,940
- of whom women	no.	432	405	391
- fixed-term	no.	0	2	2
- of whom men	no.	0	1	2
- of whom women	no.	0	1	0
By type of employment				
- full-time	no.	3,478	3,440	3,303
- of whom men	no.	3,065	3,056	2,936
- of whom women	no.	413	384	367
- part-time	no.	30	28	30
- of whom men	no.	11	6	6
- of whom women	no.	19	22	24
By age				
- below the age of 30	no.	706	622	586
- between the ages of 30 and 50	no.	1,553	1,539	1,412
- over the age of 50	no.	1,249	1,307	1,335

< 405-1

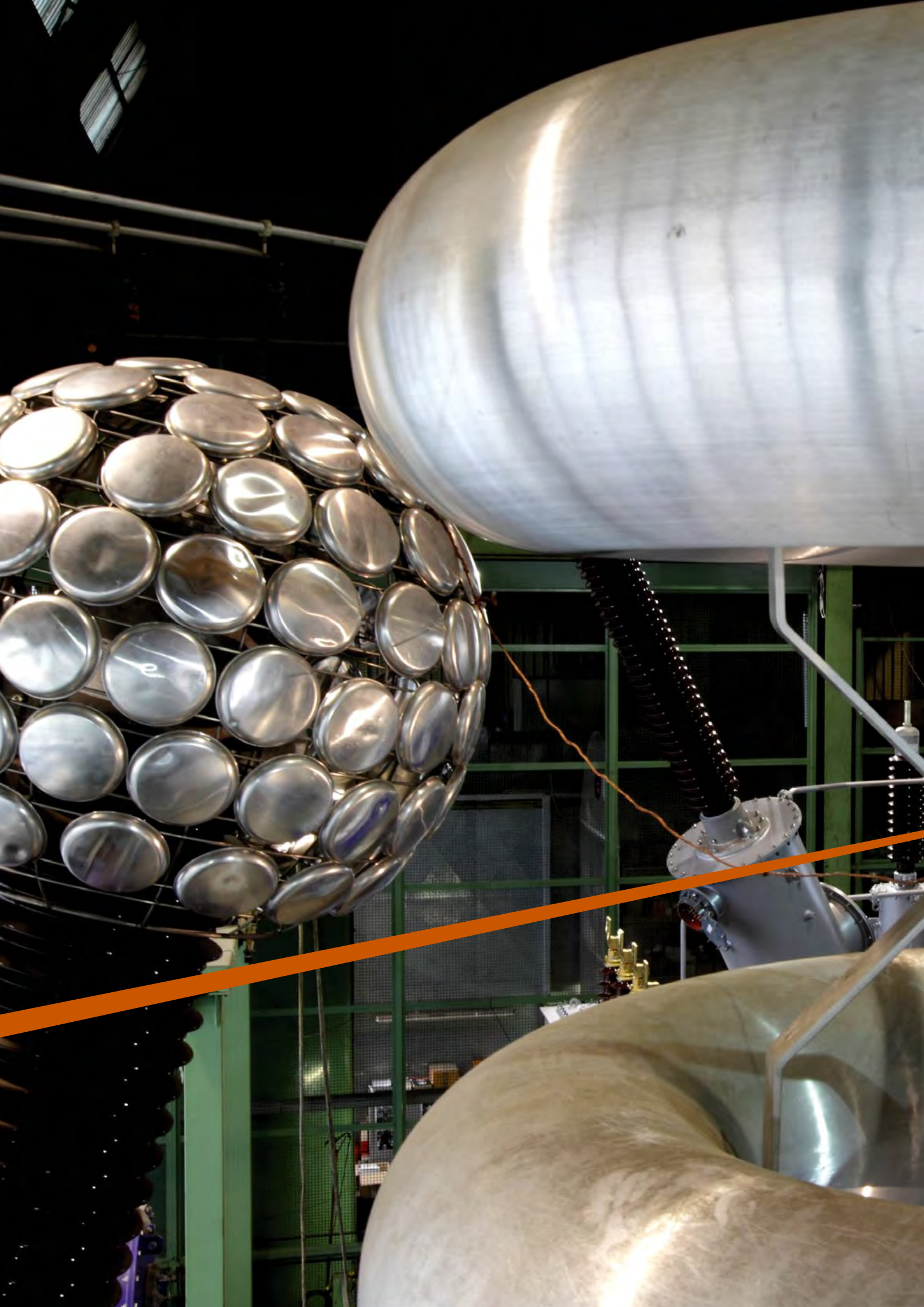
TRAINING	Unit	2017	2016	2015
Average hours of training	hrs	202	166	341
- per employee ⁽¹⁾	hrs	50	61	56
By category ⁽²⁾				
- senior managers	hrs	17	31	20
- middle managers	hrs	36	49	30
- office staff	hrs	43	48	49
- blue-collar workers	hrs	73	90	87
By gender ⁽³⁾				
- men	hrs	50	61	53
- women	hrs	32	31	26

< 404-1

⁽¹⁾ Ratio of total hours of training to the average number of employees.

⁽²⁾ Ratio of total hours of training by category to the average number of employees by category.

⁽³⁾ Ratio of total hours of training by gender to the total number of employees during the year (including those working for the Company for less than a year) by gender.



The background of the slide is a photograph of a large industrial machine, possibly a metalworking or manufacturing equipment. It features a large, curved, metallic surface in the foreground, with various mechanical components, pipes, and structural elements visible in the background. The lighting is bright, creating strong reflections on the metallic surfaces. A semi-transparent white banner is overlaid on the right side of the image, containing the text.

07 Focus on the Tamini Group



The Tamini Group

The Tamini Group - acquired on 20 May 2014 by the subsidiary, Terna Plus - is responsible for the production and marketing of industrial and power transformers via six production plants located in Italy in Legnano (MI), Melegnano (MI), Novara, Valdagno (VI), Ospitaletto (BS) and Rodengo BZ.

The Rodengo plant specialises in services, whilst the Novara production plant continues to manufacture coils, operating as a service centre for all the production sites that manufacture for both the Power and Industrial sectors.

Orders for transformers rose 35% in 2017 compared with the previous year, whilst the supply of Phase Shifting Transformers was completed, enabling the group to break in to this sector at European level.

Testing of the first transformer using vegetable oil to be manufactured in Italy was successfully carried out at the Legnano plant.

A summary of the Group's main environmental and social indicators for 2017 is provided below.

TAMINI GROUP CERTIFICATIONS AND ACCREDITATIONS

TYPE	SCOPE	YEAR OF 1 ST ISSUE	YEAR OF RELEASE	YEAR OF EXPIRY
ISO 9001:2008	Tamini Group - All production facilities	1993	2015	2018
ISO 14001:2004	Tamini Group - Plants in Legnano, Valdagno and TES (Ospitaletto plant)	2015	2017	2018
BS OHSAS 18001:2007	Tamini Group - TES (Ospitaletto plant)	2015	2017	2018

Key environmental data

CONSUMPTION	Unit	2017
Electricity	GWh	4.4
Natural gas	000's of m ³	970
Water	cubic metres	19,903

DIRECT AND INDIRECT ENERGY CONSUMPTION - GIGAJOULE ⁽¹⁾	2017
<i>Direct consumption in GJ</i>	
Natural gas for heating	388
<i>Indirect consumption in GJ</i>	
Electricity	15,735

TOTAL DIRECT AND INDIRECT GREENHOUSE GAS EMISSIONS - TONNES OF CO ₂ EQUIVALENT ⁽¹⁾	2017
<i>Direct emissions</i>	
Natural gas for heating	22
<i>Indirect emissions</i>	
Electricity ⁽²⁾	1,621

⁽¹⁾ To convert consumption into CO₂ equivalent emissions, the parameters set out in the IPCC Fifth Assessment Report (AR5) and Greenhouse Gas Protocol (GHG) Initiative were used.

⁽²⁾ The conversion of indirect electricity consumption is carried out taking into account the share of total Italian electricity production represented by thermoelectric production in 2017. Allocation for the purposes of the production mix was based on the December 2017 issue of the "Monthly Report on the Electricity System", available on the website at www.terna.it.

WASTE BY TYPE (IN TONNES)	2017
Waste produced ⁽¹⁾	1,151.4
of which hazardous	278.4
of which non-hazardous	873.1
Waste sent for recovery	773.6
of which hazardous	-
of which non-hazardous	773.6
Waste sent for disposal	377.8
of which hazardous	278.4
of which non-hazardous	99.4

⁽¹⁾ Only special waste produced during production processes is included, not waste produced by services (urban waste).

Key social data

COMPOSITION OF THE WORKFORCE AT 31 DECEMBER	2017
Total	368
Senior managers	10
Middle managers	17
Office staff	129
Blue-collar workers	212

WORKFORCE TRENDS	2017
Total employees	368
Employees recruited during the year	5
Employees leaving during the year	33
Turnover rate (%) ⁽¹⁾	8

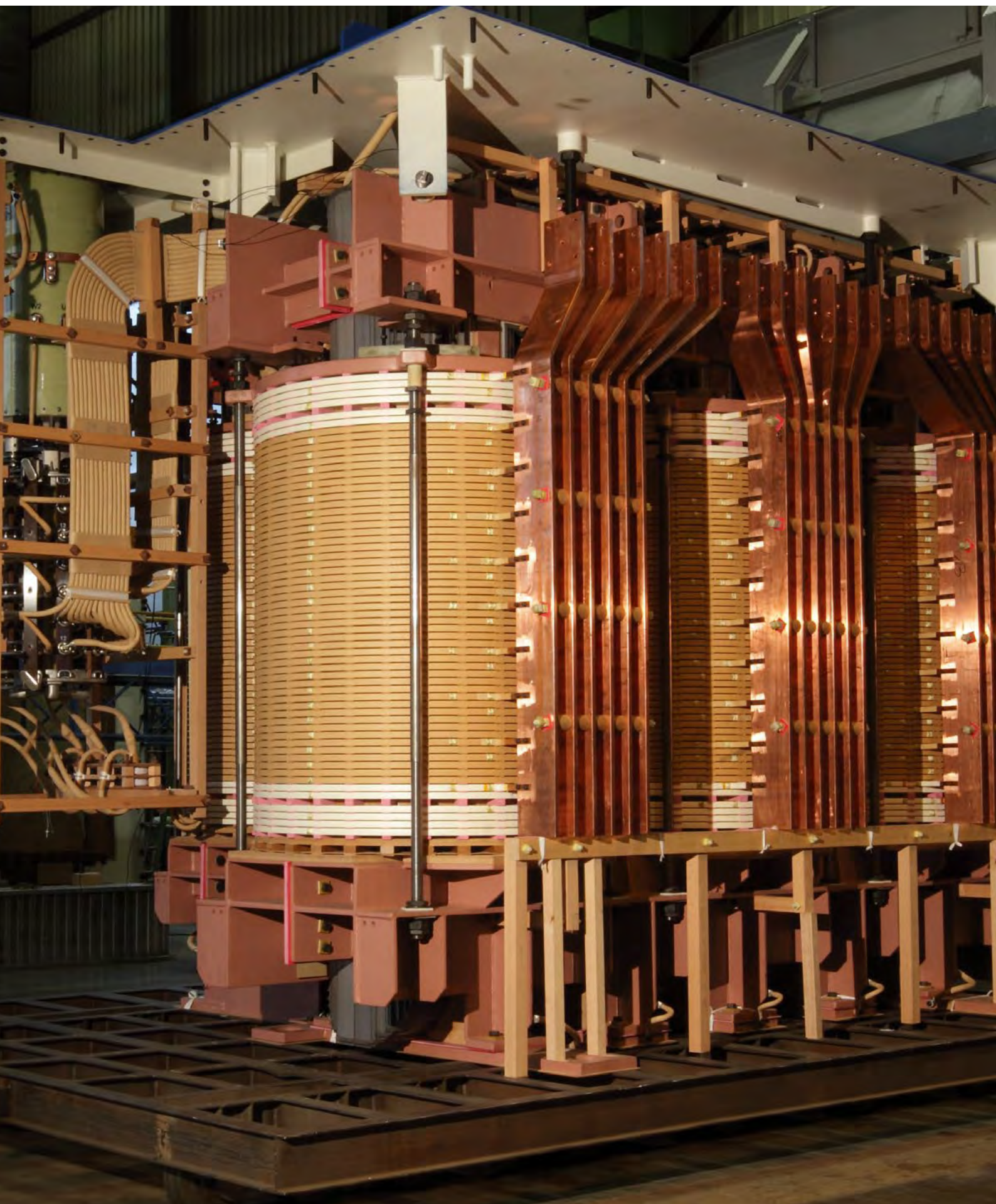
⁽¹⁾ The turnover rate shows the ratio of employees leaving the Company to the number of employees at 31 December of the previous year.

PERSONNEL DEVELOPMENT	2017
Hours of training provided	4,452
Percentage of employees undergoing performance appraisal	71

OCCUPATION INJURIES SUFFERED BY EMPLOYEES - GRI-ILO DEFINITIONS	Unit	2017
Injury rate ⁽¹⁾		4.8
Lost day rate ⁽²⁾		101.5
Injuries	no.	16
of which fatal	no.	0

⁽¹⁾ The number of injuries resulting in the loss of at least one day divided by the number of hours worked during the year, multiplied by 200,000 (corresponding to 50 working weeks x 40 hours x 100 employees). To aid comparison with other sources, this indicator has also been calculated using a multiplication factor of 1,000,000 instead of 200,000 (thereby resulting in an injury rate 5 times the ILO injury rate). Based on this method of calculation, the injury rate is **24.0 in 2017**.

⁽²⁾ The ratio of days lost due to injury to the number of hours worked during the year, multiplied by 200,000. The days lost are calendar days and are counted from the day on which the injury occurs. To aid comparison with other sources, this indicator has also been calculated using a multiplication factor of 1,000. Based on this method of calculation, the lost day rate is **0.51 in 2017**.







08

GRI
Content Index



GRI-Standards Content Index

The GRI content index is a table showing the pages in the document in which the information relating to each disclosure requirement can be found.

The page references refer to the disclosures required by the GRI standards. In certain cases, reference is also made to the key indicator tables provided in the annex and which, whilst not falling within the scope of the “Non-financial Statement”, enable the reader to obtain a more detailed view of the data presented in the document.

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GRI Topic Specific Standards

GRI 200: ECONOMIC TOPICS

CODE	ASPECT / DISCLOSURE	PAGE	LIMITATION AND NOTES
ECONOMIC PERFORMANCE			
201-1	Direct economic value generated and distributed.	100, 207, 212	<i>A description of how Terna determines value added and its distribution is provided on page 100.</i>
201-2	Financial implications and other risks and opportunities due to climate change.	56	
201-3	Coverage of the organisation's defined benefit plan obligations.	171	
201-4	Financial assistance received from government.	96	
INDIRECT ECONOMIC IMPACTS			
203-1	Infrastructure investments and services supported.	96	
203-2	Significant indirect economic impacts.	95	
PROCUREMENT PRACTICES			
204-1	Proportion of spending on local suppliers.	64, 208	
ANTI-CORRUPTION			
205-1	Proportion of business units assessed for risks related to corruption and risks identified.	58-60	<i>In 2017, 90% of business processes were analyzed. Details are provided on page 58.</i>
205-2	Communication and training about anti-corruption policies and procedures.	60, 222	<i>All employees receive training in the Code of Ethics and the 231 Organisational Model. Details for 2017 are provided on page 60. Details regarding suppliers are provided on page 64.</i>
205-3	Confirmed incidents of corruption and actions taken.	58	
ANTI-COMPETITIVE BEHAVIOUR			
206-1	Total legal actions for anti-competitive behaviour, antitrust and monopoly practices and related judgements.	58	

GRI 300: ENVIRONMENTAL TOPICS

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MATERIALS			
301-1	Materials used by weight or volume.	158, 217	
ENERGY			
302-1	Energy consumption within the organization.	149, 216	
302-3	Energy intensity.	149	
BIODIVERSITY			
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.	146, 219	<i>The number of kilometres of line impacting on protected areas is shown on page 146, together with details of the principal measures adopted to mitigate the related impact.</i>
304-2	Description of significant impacts of activities, products, and services on biodiversity.	129, 145	
304-3	Habitats protected or restored.	144	<i>Descriptions of a number of redevelopment and rehabilitation initiatives are provided on page 144.</i>
304-4	Total number of IUCN red list species and national conservation list species with habitats in areas affected by operations, by level of extinction risk.	147	
EMISSIONS			
305-1	Direct greenhouse gas emissions by weight (scope I).	150, 152, 215	
305-2	Indirect greenhouse gas emissions by weight (scope II).	150, 215	
305-3	Other indirect greenhouse gas emissions (scope III).	156, 216	
305-4	Carbon intensity.	151, 215	
305-5	Initiatives to reduce greenhouse gas emissions and results achieved.	150	
EFFLUENTS AND WASTE			
306-2	Total weight of waste by type and disposal method.	158, 218	
306-3	Total number and volume of significant spills.	159	
ENVIRONMENTAL COMPLIANCE			
307-1	Significant fines and non-monetary sanctions for non-compliance with environmental laws and/or regulations.	58	
SUPPLIER ENVIRONMENTAL ASSESSMENT			
308-1	Percentage of new suppliers that were screened using environmental criteria.	64	
308-2	Significant negative environmental impacts identified in the supply chain and actions taken.	64	

GRI 400: SOCIAL TOPICS

CODE	ASPECT / DISCLOSURE	PAGE	LIMITATION AND NOTES
EMPLOYMENT			
401-1	Total number and rates of new employee hires and employee turnover.	165, 178, 220, 223	
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees.	171	
401-3	Parental leave.	172	
LABOUR/MANAGEMENT RELATIONS			
402-1	Minimum notice periods regarding operational changes including whether these are specified in collective agreements.	84	
OCCUPATIONAL HEALTH AND SAFETY			
403-1	Percentage of total workforce represented in health and safety committees.	173	
403-2	Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities.	175, 225	
403-4	Health and safety topics covered in formal agreements with trade unions.	173	
TRAINING AND EDUCATION			
404-1	Average hours of training per year per employee.	168, 179, 222	
DIVERSITY AND EQUAL OPPORTUNITIES			
405-1	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity.	165, 177, 178-179 207, 220, 224	
405-2	Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation.	177, 224	
NON-DISCRIMINATION			
406-1	Total incidents of discrimination and actions taken.	58, 62	<i>There were no violations of the Code of Ethics.</i>
FREEDOM OF ASSOCIATION AND COLLECTIVE BARGAINING			
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk and actions taken.	66	
HUMAN RIGHTS ASSESSMENT			
412-1	Operations that have been subject to human rights reviews or impact assessments.	62	
412-2	Total hours of employee training on human rights policies or procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.	222	
412-3	Total number and percentage of significant investment agreements and contracts that include human rights clauses.	62	<i>All suppliers are required to give a contractual undertaking to comply with Terna's Code of Ethics. See page 64.</i>
LOCAL COMMUNITIES			
413-1	Percentage of operations with implemented local community engagement, impact assessments, and development programs.	92	<i>The qualitative description is available on page 92.</i>
413-2	Operations with significant actual and potential negative impacts on local communities.	92, 142	
SUPPLIER SOCIAL ASSESSMENT			
414-1	New suppliers that were screened using social criteria.	64	
414-2	Significant negative social impacts identified in the supply chain and actions taken.	64	
POLITICAL DONATIONS			
415-1	Total financial donations and benefits to parties, politicians and institutions by country and recipient/beneficiary.	96	
CUSTOMER PRIVACY			
418-1	Total number of complaints regarding breaches of customer privacy and losses of customer data.	128	
SOCIOECONOMIC COMPLIANCE			
419-1	Non-compliance with laws and regulations in the social and economic area.	58	

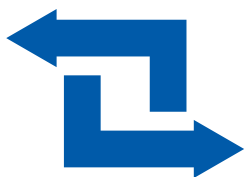
LIST OF MATERIAL PERFORMANCE INDICATORS REQUIRED TO MEET SECTOR DISCLOSURE REQUIREMENTS FOR THE ELECTRIC UTILITIES SECTOR (EUSS)

CODE	ASPECT / DISCLOSURE	PAGE	LIMITATION AND NOTES
ORGANISATIONAL PROFILE			
EU3	Number of residential, commercial and industrial customers.	86, 208	
EU4	Length of above and underground transmission and distribution lines by voltage.	213	
SYSTEM EFFICIENCY			
EU12	Transmission and distribution losses as a percentage of total energy.	156	
BIODIVERSITY			
EU13	Biodiversity of offset habitats compared to the biodiversity of the affected areas	144, 145	
EMPLOYMENT			
EU15	Percentage of employees eligible to retire in the next 5 and 10 years broken down by job category and by region.	166	
EU17	Days worked by contractor and subcontractor employees involved in construction, operation & maintenance activities.	68, 221	
EU18	Percentage of contractor and subcontractor employees that have undergone.	68	
LOCAL COMMUNITIES			
EU22	Number of people physically or economically displaced due to new or expanded generation plants or transmission lines and compensation.	92	
CUSTOMER HEALTH AND SAFETY (COMMUNITIES)			
EU25	Number of injuries and fatalities to the public involving company assets, including legal judgments, settlements and pending legal cases of diseases.	58	There were 11 accidents in 2017 (4 in 2016 and 10 in 2015). Legal proceedings are described on page 58.
ACCESS			
EU28	Power outage frequency.	108, 214	
EU29	Average power outage duration.	108, 214	

List of other GRI performance indicators published

In line with previous years, the Group has opted to publish certain indicators despite the fact that they are judged to fall below the materiality threshold (see the specific section on materiality on page 13).

CODE	INDICATOR	PAGE
202-2	Proportion of senior management hired from the local community.	177
303-1	Total water withdrawal by source.	158, 217
408-1	Operations and suppliers identified as having significant risk for incidents of child labour.	62, 66
409-1	Operations and suppliers identified as having significant risk for incidents of forced or compulsory labour.	66



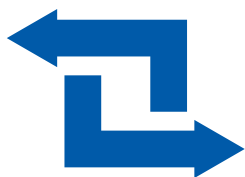
Links between

the GRI indicators and the Global Compact principles

This table shows the links between the GRI-G4 performance indicators applicable to Terna and each of the ten Global Compact Principles, with the aim of helping interested stakeholders find the relevant information to enable them to assess Terna's implementation of the principles.

AREA	GLOBAL COMPACT PRINCIPLES	GRI TOPICS AND DISCLOSURES	PAGE OF THE REPORT
Human rights	Principle 1 Businesses should support and respect the protection of internationally proclaimed human rights .	Human rights	
		"Investment" Aspect	412-3 62
		"Assessment" Aspect	412-1 62
		Society	
		"Local Communities" Aspect	413-1 92 413-2 92, 142
	Principle 2 Businesses should make sure that they are not complicit in human rights abuses .	Human rights	
		"Investment" Aspect	412-3 62
		"Supplier Human Rights Assessment" Aspect	414-1 64 414-2 64
	Principle 3 Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining .	Human rights	
		"Investment" Aspect	412-3 62
		"Supplier Human Rights Assessment" Aspect	414-1 64 414-2 64 407-1 66
		Labour	
		"Labour/Management Relations" Aspect	402-1 84
Labour	Principle 4 Businesses should eliminate all forms of forced and compulsory labour .	Human rights	
		"Force or Compulsory Labour" Aspect	409-1 66
	Principle 5 Businesses should effectively abolish child labour .	Human rights	
		"Child Labour" Aspect	408-1 62, 66
	Principle 6 Businesses should eliminate all forms of discrimination in respect of employment and occupation.	Economy	
		"Market Presence" Aspect	202-2 177
		Correct labour practices	
		"Employment" Aspect	401-1 165, 178, 220
		"Training" Aspect	404-1 168, 179, 222
		"Equal Opportunities" Aspect	405-1 165, 177, 178-179 207, 220, 224
		"Equal Remuneration for Men and Women" Aspect	405-2 177, 224
		Human rights	
		"Non-Discrimination" Aspect	406-1 58, 62

AREA	GLOBAL COMPACT PRINCIPLES	GRI TOPICS AND DISCLOSURES	PAGE OF THE REPORT
Environment	Principle 7 Businesses should support a precautionary approach to environmental challenges.	Environment	
		"Materials" Aspect	301-1 158, 217
		"Water" Aspect	303-1 158, 217
		"Emissions" Aspect	305-1 150, 152, 215
			305-2 150, 215
			305-3 156, 216
	Principle 8 Businesses should undertake initiatives to promote greater environmental responsibility.	Environment	
		"Materials" Aspect	301-1 158, 217
		"Water" Aspect	303-1 158, 217
			304-1 146, 219
		"Biodiversity" Aspect	304-2 129, 145
			304-3 144
			304-4 147
		"Effluents and Waste" Aspect	306-2 158, 218
			306-3 159
		"Compliance" Aspect	307-1 58
		"Supplier Environmental Assessment" Aspect	308-1 64
			308-2 64
	Principle 9 Businesses should encourage the development and diffusion of environmentally friendly technologies.	Environment	
		"Energy" Aspect	302-3 149
		"Emissions" Aspect	305-4 151, 215
			305-5 150
Combating corruption	Principle 10 Businesses should work against corruption in all its forms , including extortion and bribery.	Society	
		"Anti-Corruption" Aspect	205-2 60, 222
			205-3 58
		"Public Policy" Aspect	415-1 96



Links between

the GRI indicators and the Sustainable Development Goals



GOAL 1 - No poverty

End poverty in all its forms everywhere.

Topic	GRI Standard Disclosure	Page
Access to the land	413-2	92, 142
Availability of products and services for those on low incomes	419-1	58
Economic development in areas of high poverty	203-2	95
Electricity access	EU28	108, 214
	EU29	108, 214



GOAL 2 - Zero hunger

End hunger, achieve food security and improved nutrition and promote sustainable agriculture.

Topic	GRI Standard Disclosure	Page
Access to the land	413-2	92, 142
Changing the productivity of organizations, sectors, or the whole economy	203-2	95
Infrastructure investment	201-1	100, 207, 212
	203-1	96
Physical and economic displacement	EU22	92



GOAL 3 - Good health and wellbeing

Ensure healthy lives and promote well-being for all at all ages.

Topic	GRI Standard Disclosure	Page
Access to medicines	203-2	95
Air quality	305-1	150, 152, 215
	305-2	150, 215
	305-3	156, 216
Occupational health and safety	403-2	175, 225
Spills	306-3	159



GOAL 4 - Quality education

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

Topic	GRI Standard Disclosure	Page
Employee training and education	404-1	168, 179, 222



GOAL 5 - Gender equality

Achieve gender equality and empower all women and girls.

Topic	GRI Standard Disclosure	Page
Equal remuneration for women and men	405-2	177, 224
Gender equality	401-1	165, 178-179, 220
	405-1	165, 177, 178-179, 207, 220, 224
Infrastructure investment	201-1	96, 207, 212
	203-1	92, 96
Non-discrimination	406-1	58, 62



GOAL 6 - Clean water and sanitation

Ensure availability and sustainable management of water and sanitation for all.

Topic	GRI Standard Disclosure	Page
Spills	306-3	159
Sustainable water withdrawals	303-1	158, 217
Waste	306-2	158, 218
Water-related ecosystems and biodiversity	304-1	146, 219
	304-2	129, 145
	304-3	144, 145
	304-4	147
	306-3	159
	EU13	144, 145



GOAL 7 - Affordable and clean energy

Ensure access to affordable, reliable, sustainable and modern energy for all.

Topic	GRI Standard Disclosure	Page
Electricity access	EU28	108, 214
	EU29	108, 214
Energy efficiency	302-3	149
	EU12	156
Infrastructure investment	201-1	100, 207, 212
	203-1	96



GOAL 8 - Decent work and economic growth

Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.

Topic	GRI Standard Disclosure	Page
Abolition of child labour	408-1	62, 66
Availability of a skilled workforce	EU15	166
Changing the productivity of organizations, sectors, or the whole economy	203-2	95
Diversity and equal opportunity	405-1	165, 177, 178-179 207, 220, 224
Earnings, wages and benefits	401-2	171
Economic performance	201-1	100, 207, 212
Elimination of forced or compulsory labour	409-1	66
Employee training and education	404-1	168, 179, 222
Employment	401-1	165, 179, 220
Energy efficiency	302-3	149
	EU12	156
Equal remuneration for women and men	405-2	177, 224
Freedom of association and collective bargaining	407-1	66
Indirect impact on job creation	203-2	95
Jobs supported in the supply chain	203-2	95
Labour practices in the supply chain	414-1	64
	414-2	64
Labour/management relations	402-1	84
Materials efficiency	301-1	158, 217
Non-discrimination	406-1	58, 62
Occupational health and safety	403-1	173
	403-2	175, 225
	403-4	173
Youth employment	401-1	165, 179, 220



GOAL 9 - Industry, innovation and infrastructure

Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.

Topic	GRI Standard Disclosure	Page
Infrastructure investment	201-1	100, 207, 212
	203-1	96
Research and development	201-1	100, 207, 212



GOAL 10 - Reduced inequalities

Reduce inequality within and among countries.

Topic	GRI Standard Disclosure	Page
Economic development in areas of high poverty	203-1	96
	203-2	95
Equal remuneration for women and men	405-2	177, 224
Foreign direct investment	203-2	95



GOAL 11 - Sustainable cities and communities

Make cities and human settlements inclusive, safe, resilient and sustainable.

Topic	GRI Standard Disclosure	Page
Infrastructure investment	201-1	100, 207, 212
	203-1	96



GOAL 12 - Responsible consumption and production

Ensure sustainable consumption and production patterns.

Topic	GRI Standard Disclosure	Page
Air quality	305-1	150, 152, 215
	305-2	150, 215
	305-3	156, 216
Energy efficiency	302-3	149
	EU12	156
Materials efficiency/recycling	301-1	158, 217
Procurement practices	204-1	64, 208
Spills	306-3	159
Waste	306-2	158, 218



GOAL 13 - Climate action

Take urgent action to combat climate change and its impacts.

Topic	GRI Standard Disclosure	Page
Energy efficiency	302-3	149
	EU12	156
GHG emissions	305-1	150, 152, 215
	305-2	150, 215
	305-3	156, 216
	305-4	151, 215
	305-5	150
Risks and opportunities due to climate change	201-2	56



GOAL 14 - Life below water

Conserve and sustainably use the oceans, seas and marine resources.

Topic	GRI Standard Disclosure	Page
Marine biodiversity	304-1	146, 219
	304-2	129, 145
	304-3	144
	304-4	147
	EU13	144, 145
Ocean acidification	305-1	150, 152, 215
	305-2	150, 215
	305-3	156, 216
	305-4	151, 215
	305-5	150
	EU12	156
Spills	306-3	159



GOAL 15 - Life on land

Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

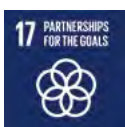
Topic	GRI Standard Disclosure	Page
Forest degradation	305-1	150, 152, 215
	305-2	150, 215
	305-3	156, 216
	305-4	151, 215
	305-5	150
Mountain ecosystems	304-1	146, 219
	304-2	129, 145
	304-3	144, 145
	304-4	147
	EU13	144, 145
Natural habitat degradation	304-1	146, 219
	304-2	129, 145
	304-3	144, 145
	304-4	147
	EU13	144, 145
Spills	306-3	159
Terrestrial and inland freshwater ecosystems	304-1	146, 219
	304-2	129, 145
	304-3	144, 145
	304-4	147
	EU13	144, 145



GOAL 16 - Peace, justice and strong institutions

Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.

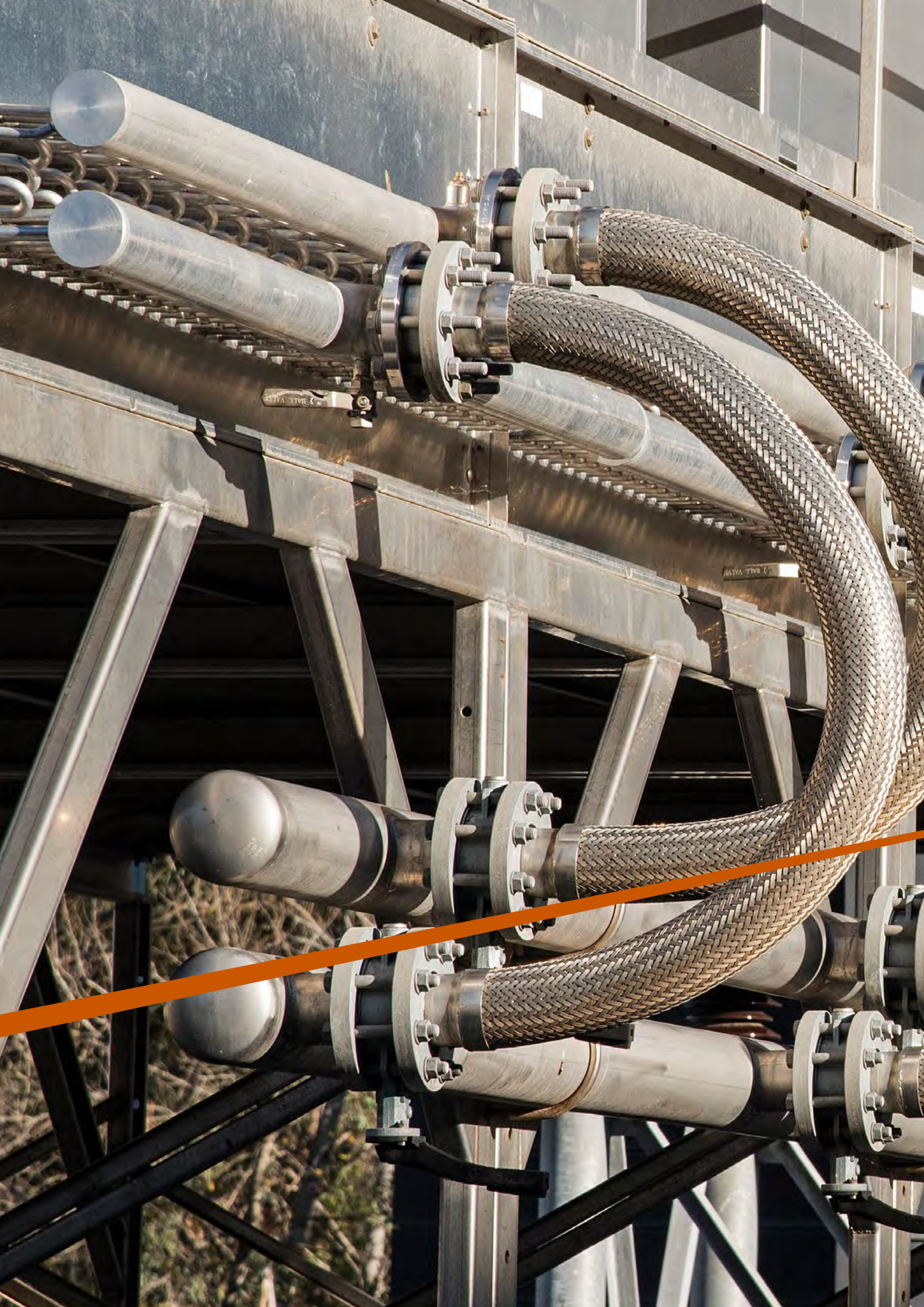
Topic	GRI Standard Disclosure	Page
Abolition of child labour	408-1	62, 66
Anti-corruption	205-2	60, 222
	205-3	58
Compliance with laws and regulations	307-1	58
	206-1	58
	419-1	58
Non-discrimination	406-1	58, 62
Protection of privacy	418-1	128
	419-1	58



GOAL 17 - Partnerships for the goals

Strengthen the means of implementation and revitalize the global partnership for sustainable development.

Topic	GRI Standard Disclosure	Page
Foreign direct investment	203-2	95



The background of the page is a photograph of an industrial facility. In the foreground, several thick, braided metal hoses are coiled and connected to various pipes and valves. The hoses have a woven, metallic texture. In the background, there are metal structures, possibly part of a conveyor system or a large machine, and some electrical equipment with insulators and wires. The overall scene is brightly lit, suggesting an outdoor or well-lit industrial environment.

09 Report

Report

of the independent auditor on the consolidated non-financial statement pursuant to article 3, paragraph 10, of Legislative Decree 254/2016 and article 5 of Consob Regulation 20267

Independent auditor's report on the consolidated non-financial statement

pursuant to article 3, paragraph 10, of Legislative Decree 254/2016 and article 5 of CONSOB Regulation 20267

To the board of directors of Terna SpA

Pursuant to article 3, paragraph 10, of Legislative Decree 254 of 30 December 2016 (the Decree) and article 5 of CONSOB Regulation 20267, we have performed a limited assurance engagement on the consolidated non-financial statement of Terna SpA and its subsidiaries (the Terna group) for the year ended 31 December 2017 prepared in accordance with article 4 of the Decree and approved by the board of directors convened on 21 March 2018 (the NFS).

Responsibility of the directors and of the board of statutory auditors for the NFS

Directors are responsible for the preparation of the NFS in accordance with article 3 and 4 of the Decree and with the Global Reporting Initiative Sustainability Reporting Standards defined in 2016 by the GRI - Global Reporting Initiative (GRI Standards). Directors are responsible, in the terms prescribed by law, for such internal control as management determines is necessary to enable the preparation of the NFS that is free from material misstatement, whether due to fraud or error.

Directors are responsible for identifying the content of the NFS, within the matters mentioned in article 3, paragraph 1, of the Decree, considering the activities and characteristics of the group and to the extent necessary to ensure an understanding of the group's activities, its performance, its results and related impacts.

Directors are responsible for defining the business and organisational model of the group and, with reference to the matters identified and reported in the NFS, for the policies adopted by the group and for the identification and management of risks generated and/or faced by the group.

The board of statutory auditors is responsible for overseeing, in the terms prescribed by law, compliance with the Decree.

Auditor's Independence and Quality Control

We are independent in accordance with the principles of ethics and independence set out in the Code of Ethics for Professional Accountants published by the International Ethics Standards Board for Accountants, which are based on the fundamental principles of integrity, objectivity, competence and professional diligence, confidentiality and professional behaviour. Our audit firm adopts International Standard on Quality Control 1 (ISQC Italy 1) and, accordingly, maintains an overall quality control system which includes processes and procedures for compliance with ethical and professional principles and with applicable laws and regulations.

PricewaterhouseCoopers SpA

Sede legale e amministrativa: Milano 20149 Via Monte Rosa 91 Tel. 0277851 Fax 027785240 Cap. Soc. Euro 6.890.000,00 i.v., C.F. e P.IVA e Reg. Imp. Milano 12979880155 Iscritta al n° 119644 del Registro dei Revisori Legali - Altri Uffici: **Ancona** 60131 Via Sandro Totti 1 Tel. 0712132311 - **Bari** 70122 Via Abate Gimma 72 Tel. 0805640211 - **Bologna** 40126 Via Angelo Finelli 8 Tel. 0516186211 - **Brescia** 25123 Via Borgo Pietro Wuhner 23 Tel. 0303697501 - **Catania** 95129 Corso Italia 302 Tel. 0957532311 - **Firenze** 50121 Viale Gramsci 15 Tel. 0552482811 - **Genova** 16121 Piazza Piccapietra 9 Tel. 01029041 - **Napoli** 80121 Via dei Mille 16 Tel. 08136181 - **Padova** 35138 Via Vicenza 4 Tel. 049873481 - **Palermo** 90141 Via Marchese Ugo 60 Tel. 091349737 - **Parma** 43121 Viale Tanara 20/A Tel. 0521275911 - **Pescara** 65127 Piazza Ettore Troilo 8 Tel. 0854545711 - **Roma** 00154 Largo Fochetti 29 Tel. 06570251 - **Torino** 10122 Corso Palestro 10 Tel. 011556771 - **Trento** 38122 Viale della Costituzione 33 Tel. 0461237004 - **Treviso** 31100 Viale Felissent 90 Tel. 0422696911 - **Trieste** 34125 Via Cesare Battisti 18 Tel. 0403480781 - **Udine** 33100 Via Poscolle 43 Tel. 043225789 - **Varese** 21100 Via Albuzzi 43 Tel. 0332285039 - **Verona** 37135 Via Francia 21/C Tel. 0458263001 - **Vicenza** 36100 Piazza Pontelandolfo 9 Tel. 0444393311

Auditor's responsibilities

We are responsible for expressing a conclusion, on the basis of the work performed, regarding the compliance of the NFS with the Decree and with the GRI Standards. We conducted our engagement in accordance with International Standard on Assurance Engagements 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 (IAASB) for limited assurance engagements. The standard requires that we plan and apply procedures in order to obtain limited assurance that the NFS is free of material misstatement. The procedures performed in a limited assurance engagement are less in scope than those performed in a reasonable assurance engagement in accordance with ISAE 3000 Revised and, therefore, do not provide us with a sufficient level of assurance that we have become aware of all significant facts and circumstances that might be identified in a reasonable assurance engagement.

The procedures performed on the NFS were based on our professional judgement and consisted of interviews, primarily of company personnel responsible for the preparation of the information presented in the NFS, analyses of documents, recalculations and other procedures designed to obtain evidence considered useful.

In particular, we performed the following procedures:

1. analysis of the relevant matters reported in the NFS relating to the activities and characteristics of the company, in order to assess the reasonableness of the selection process used, in accordance with article 3 of the Decree and the with the reporting standard adopted;
2. analysis and assessment of the criteria used to identify the consolidation area, in order to assess their compliance with the Decree;
3. comparison of the financial information reported in the NFS with the information reported in the group's consolidated financial statements;
4. understanding of the following matters:
 - business and organisational model of the group, with reference to the management of the matters specified by article 3 of the Decree;
 - policies adopted by the group with reference to the matters specified in article 3 of the Decree, actual results and related key performance indicators;
 - main risks, generated or faced by the group, with reference to the matters specified in article 3 of the Decree;with reference to those matters, we compared the information obtained with the information presented in the NFS and carried out the procedures described under point 5 below;
5. understanding of the processes underlying the preparation, collection and management of the significant qualitative and quantitative information included in the NFS.

In particular, we held meetings and interviews with the management of Terna SpA and with the personnel of Terna Rete Italia SpA, and we performed limited analysis of supporting evidence, to gather information about the processes and procedures for the collection, consolidation, processing and submission of the non-financial information to the personnel responsible for the preparation of the NFS.

Moreover, for material information, considering the activities and characteristics of the group:

- at a group level,
 - a) with reference to the qualitative information included in the NFS, and in particular to the business model, the policies adopted and the main risks, we carried out interviews and obtained supporting documentation to verify their consistency with available evidence;
 - b) with reference to quantitative information, we performed analytical procedures and limited tests, in order to assess, on a sample basis, the accuracy of consolidation of the information;
- for the site Direzione Territoriale Centro-Sud – Area Operativa Trasmissione Napoli (Terna Rete Italia SpA), which was selected on the basis of its activities, its contribution to the performance indicators at a consolidated level and its location, we carried out site visits during which we met local management and gathered supporting documentation regarding the correct application of the procedures and calculation methods used for the key performance indicators.

Conclusions

Based on the work performed, nothing has come to our attention that causes us to believe that the NFS of Terna group as of 31 December 2017 has not been prepared, in all material respects, in compliance with articles 3 and 4 of the Decree and with the GRI Standards.

Other aspects

With respect to the year ended 31 December 2016, Terna group prepared a Sustainability Report whose information has been included, for comparative purposes, in the NFS. The Sustainability Report was subject to voluntary limited assurance procedures in accordance with ISAE 3000 Revised by PricewaterhouseCoopers Advisory SpA that expressed an unqualified conclusion.

Rome, 9 April 2018

PricewaterhouseCoopers SpA

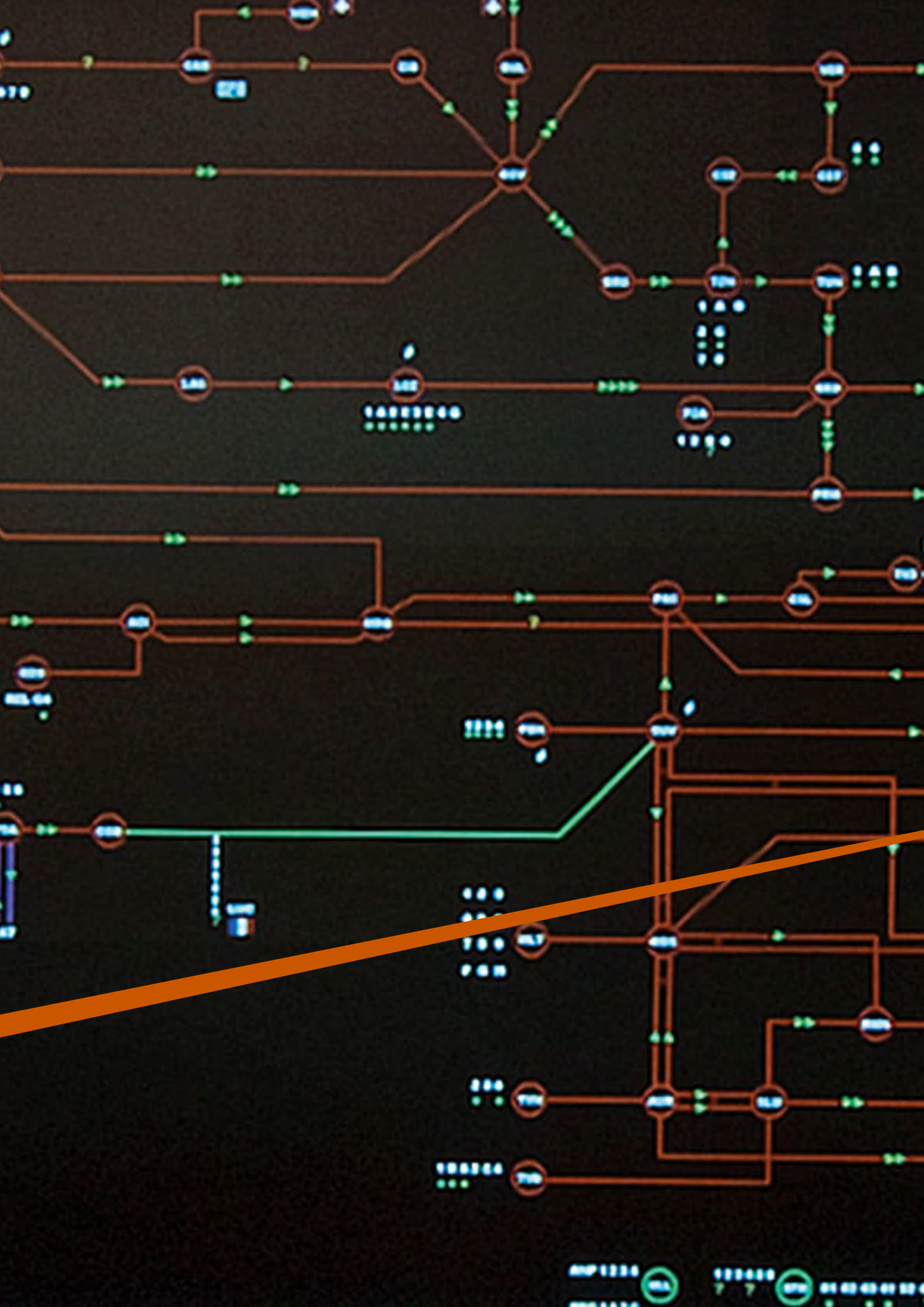
Signed by

Paolo Caccini
(Partner)

Signed by

Paolo Bersani
(Partner)

This report has been translated from the original version which was issued in Italian language, solely for the convenience of international readers.



10

Annex



Key indicator tables

The following tables present the indicators provided for in the Global Reporting Initiative standards, together with other indicators that Terna believes it is important to publish to illustrate its performance. Certain data already included in the body of the Report are shown for the sake of completeness.

For each indicator, the tables show:

- the unit of measurement;
- the data for 2017, 2016 and 2015;
- if material, the absolute change between 2017 and 2016;
- if material, the percentage change between 2017 and 2016. This change may not match the change calculated on the basis of the figures in the table which, in general, have been rounded to one decimal place.

In general, the figures have been calculated at 31 December and refer to the full year in the case of flow indicators.

To facilitate the reader, definitions of the units of measurement used to report the indicators are defined below. Reference should also be made to the table of acronyms provided after the indicators.

KEY TO UNITS OF MEASUREMENT

#	category
%	percentage
€	Euro
€000	thousands of euros
€m	millions of euros
GJ	Gigajoule
GWh/year	Gigawatt hours per year
GWh	Gigawatt hour
hrs	hours
kg	kilogrammes
km	kilometres
min.	minutes
MW	Megawatt
no.	number
tonnes	tonnes
CO ₂ in tonnes	carbon dioxide in tonnes
yrs	years

Profile of Terna

Corporate governance ⁽¹⁾

COMPOSITION OF THE BOARD OF DIRECTORS

< 405-1

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Men	%	55.6	77.8	77.8	-22.2	-29
Women	%	44.4	22.2	22.2	22.2	100
Under the age of 30	%	-	-	-	-	-
Between the ages of 30 and 50	%	22.2	44.4	77.8	-22.2	-50
Over the age of 50	%	77.8	55.6	22.2	22.2	40

⁽¹⁾ Further details of Terna SpA's corporate governance are provided in the "Report on Corporate Governance and Ownership Structures", published on the website www.terna.it.

Economic performance

GROUP FINANCIAL HIGHLIGHTS ⁽¹⁾

< 201-1

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Revenue	€m	2,248.0	2,103.2	2,082.1	144.8	6.9
EBITDA	€m	1,603.9	1,544.7	1,539.2	59.2	3.8
EBIT	€m	1,077.4	1,036.0	1,022.4	41.4	4.0
EBT	€m	988.6	933.2	881.3	55.4	5.9
Net profit	€m	688.3	633.1	595.5	55.2	8.7

⁽¹⁾ The above amounts have been taken from the Group's reclassified income statement for 2017.

Stakeholder relations

People within the organisation

EMPLOYEE TRADE UNION MEMBERSHIP

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Rate of trade union membership	%	49.9	50.2	49.6	-0.3	0.7

TRADE UNION AGREEMENTS

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Agreements signed during the year	no.	14	27	11	-13	-48.1

Electric utilities

> EU3

CUSTOMER ACCOUNTS REGULATED MARKET

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Interruptible users	no.	288	286	275	2	0.7
Distributors directly connected with the NTG	no.	27	25	25	2	8.0
Supply-side dispatching service users (producers and traders)	no.	140	135	120	5	3.7
Demand-side dispatching service users (traders and end users, including the Single Buyer)	no.	186	182	185	4	2.2

Suppliers

> 204-1

NUMBER OF SUPPLIERS AND QUALIFICATION

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Number of suppliers						
Number of contracted suppliers	no.	1,978	1,818	1,857	160	9
Procurement of materials and services						
Goods	€m	292	277	600	14	5
Works	€m	228	106	168	122	115
Services	€m	136	147	126	-11	-7
Supplier origin ⁽¹⁾						
Italian suppliers	%	96.3	95.4	78.5	1	1
Overseas suppliers	%	3.7	4.6	21.5	-1	-20
Award procedures ⁽²⁾						
European tenders	%	65.5	60.9	75.3	5	8
Non-European tenders	%	15.6	21.7	13.0	-6	-28
Fixed	%	12.1	14.2	10.0	-2	-15
One-off contracts ⁽³⁾	%	6.9	3.2	1.7	4	111
Qualification						
Companies on list of approved suppliers	no.	404	392	403	12	3
Qualified categories	no.	45	44	44	1	2
Number of audits	no.	604	743	768	-139	-19

⁽¹⁾ Data referred to the amount ordered during the year.

⁽²⁾ Based on the percentage of the value of contract awards.

⁽³⁾ The "One-off contracts" category primarily includes: sponsorship and donations, fees paid to public entities and trade bodies.

Shareholders

COMPOSITION OF SHAREHOLDER BASE

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
CDP Reti SpA ⁽¹⁾	%	29.85	29.85	29.85	-	-
Other institutional + retail investors	%	70.15	70.15	70.15	-	-
- of which significant institutional investors ⁽²⁾	%	5.12	5.12	2.01	-	-

⁽¹⁾ A subsidiary of Cassa Depositi e Prestiti SpA.

⁽²⁾ Shareholders who, based on the available information and notifications received from the CONSOB, own interests in Terna SpA that are above the notifiable threshold established by CONSOB Resolution n° 11971/99.

SOCIALLY RESPONSIBLE INVESTMENTS ⁽¹⁾

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Share capital held by identifiable institutional investors owned by SRIs	%	11	10	10	1,3	12,8

⁽¹⁾ In addition to more traditional criteria, these investments are also based on an approach that takes into account ESG (Environmental, Social, Governance) aspects. Further details of SRIs are provided on page 32 in the section of this Report entitled "Profile of Terna".

SHARE PERFORMANCE

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Share price performance	%	11.3	-8.5	26.5	19.8	232.9
Terna in stock market indexes						
FTSE MIB	%	1.9	2.1	2.1	-0.2	-7.6

SHAREHOLDER RETURN

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Total Shareholder Return (TSR)						
- since the IPO	%	513.9	429.5	453.3	84.4	19.7
- since the beginning of the year	%	15.9	-4.3	32.5	20.2	469.8

INVESTOR RELATIONS

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Meetings/conference calls with investors ("buy-side")	no.	301	345	258	-44	-12.8
Meetings/conference calls with financial analysts ("sell-side")	no.	218	195	230	23	11.8
Meetings with specific investors and/or with space given to CSR issues	no.	20	16	16	4	25.0
Information requests from retail investors ⁽¹⁾	no.	12	12	7	-	-

⁽¹⁾ The figure includes requests received via e-mail.

Credit providers

DEBT

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Financial debt ⁽¹⁾	€m	7,796	7,976	8,003	-180	-2
Equity ⁽²⁾	€m	3,829	3,555	3,346	274	8
Debt to Equity	%	203.6	224.4	239.2	-	-

⁽¹⁾ For the comparative purposes, certain amounts in the financial statements for the year ended 31 December 2016 have been restated without, however, adjusting the value of equity at 31 December 2016.

⁽²⁾ The figures for equity at 31 December 2017, 2016 and 2015 include non-controlling interests in the Tamini Group and the subsidiary, Terna Interconnector.

LOANS FROM THE EUROPEAN INVESTMENT BANK (EIB)

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Outstanding debt on EIB loans	€m	1,727	1,612	1,725	115	7.1

Reports and complaints

IMPLEMENTATION OF THE CODE OF ETHICS

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Total reports received ⁽¹⁾	no.	1	2	2	-	-
<i>Areas of operation for which reports received ⁽²⁾</i>						
- Treatment of employees	no.	-	1	1	-	-
- Supplier management	no.	1	1	1	-	-
- Environment and Safety	no.	-	-	1	-	-
- Corruption/ Corporate loyalty	no.	-	-	-	-	-
- Terna's Compliance /Other	no.	-	1	-	-	-
<i>Outcome of reports</i>						
- Without grounds	no.	1	2	2	-	-
- Action taken ⁽³⁾	no.	-	-	-	-	-
- Under investigation	no.	-	-	-	-	-

⁽¹⁾ The report received in 2017 was sent to the Ethics Committee. Of the 2 reports in 2016, 1 was received by the Audit department and 1 by the Ethics Committee; reports in 2015 were received by the Ethics Committee.

⁽²⁾ Each report or infringement may relate to any number of areas of operation.

⁽³⁾ Action may take the form of a sanction and/or another form - such as, for example, the revision of procedures, internal controls, etc. - with the aim of avoiding a repetition of the event giving rise to the report.

ENVIRONMENTAL COMPLAINTS

	Unit	2017		2016		2015		CHANGE 17-16	% CHANGE 17-16
		Received	Dealt with	Received	Dealt with	Received	Dealt with	Received	Dealt with
Total complaints received	no.	25	20	34	29	19	16	-9	-26
Environmental aspect of complaints received									
- Waste	no.	1	1	1	1	0	0	-	-
- Noise	no.	13	9	14	11	9	7	-1	-7
- Biodiversity	no.	-	-	-	-	-	-	-	-
- Landscape	no.	-	-	2	1	-	-	-	-
- Electrical and magnetic fields	no.	4	3	8	7	3	2	-4	-50
- Lighting	no.	-	-	-	-	-	-	-	-
- Vegetation management	no.	3	3	6	6	5	5	-3	-50
- Other	no.	4	4	3	3	2	2	-1	-33

Litigation

ENVIRONMENTAL LITIGATION

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Pending	no.	96	96	107	-	-
In progress	no.	8	6	5	2	33.3
Settled	no.	8	17	15	-9	-52.9

SUPPLIER LITIGATION

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Pending	no.	23	22	24	1	4.5
In progress	no.	4	0	3	4	-
Settled	no.	3	2	2	1	50.0

CUSTOMER LITIGATION

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Pending	no.	15	17	16	-2	-11.8
In progress	no.	1	1	2	-	-
Settled	no.	3	0	0	3	-

LITIGATION WITH EMPLOYEES

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Pending	no.	10	12	3	-2	-16.7
In progress	no.	5	11	3	-6	-54.5
Settled	no.	7	2	6	5	250

Value added ⁽¹⁾

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MEASUREMENT AND REDISTRIBUTION OF VALUE ADDED ⁽²⁾

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
A – Remuneration of employees	€	322,058,429	327,152,165	303,071,673	-5,093,736	-2
B – Payments to the government	€	301,533,096	320,643,092	309,537,047	-19,109,996	-6
C – Payments to credit providers	€	97,746,883	105,508,004	179,544,713	-7,761,121	-7
D – Payments to providers of risk capital ⁽³⁾	€	442,198,240	414,058,352	401,998,400	28,139,888	7
E – Retained by the Company	€	252,011,601	213,870,808	193,314,279	38,140,793	18
TOTAL NET VALUE ADDED	€	1,415,548,249	1,381,232,421	1,387,466,112	34,315,828	2

⁽¹⁾ Value added measure the value created by an enterprise, but also by an entire economy, over a certain period, usually a year. In corporate accounting terms, value added is calculated by subtracting the costs of purchasing the intermediate goods and services used in operations from the value of production (revenue attributable to the goods and services produced during the year). These costs do not include personnel expenses, which instead form part of the value added by the enterprise to the intermediate goods and services as a result of its operations. The difference between revenue generated by the sale of the final product and the cost of the raw materials (and the related support services) is the value added, which, in addition to personnel expenses, also includes any profit and the share of income used to pay the interest on debt and income tax.

⁽²⁾ Amounts relating to the creation and distribution of value added have been taken from the consolidated financial statements prepared in accordance with IFRS/IAS. In particular, the Terna Group has used IFRS/IAS since 2005.

⁽³⁾ Payments to providers of risk capital in 2017 regard the interim dividend paid in November 2017 (€149.3 million) and the final dividend proposed to shareholders by the Board of Directors at the General Meeting held on 22 March 2018 (€292.9 million).

Electricity service

Grid

ELECTRICITY SUBSTATIONS

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	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
380 kV						
Substations	no.	164	161	159	3	1.9
Power transformed	MVA	114,008	110,708	109,508	3,300	3.0
220 kV						
Substations	no.	150	150	150	-	-
Power transformed	MVA	31,317	30,837	30,692	480	1.6
Lower voltages (≤ 150 kV)						
Substations	no.	557	544	541	13	2.4
Power transformed	MVA	3,890	3,911	3,815	-21	-0.5
Total						
Substations	no.	871	855	850	16	1.9
Power transformed	MVA	149,215	145,456	144,015	3,759	2.6

POWER LINES

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
380 kV						
Length of circuits	km	12,413	12,314	12,118	99	0.8
Length of lines	km	11,300	11,238	11,105	62	0.6
220 kV						
Length of circuits	km	11,667	11,698	11,721	-31	-0.3
Length of lines	km	9,338	9,363	9,482	-25	-0.3
Lower voltages (≤ 150 kV)						
Length of circuits	km	48,801	48,832	48,760	-31	-0.1
Length of lines	km	45,724	45,765	45,685	-41	-0.1
Total						
Length of circuits						
	km	72,881	72,844	72,599	37	0.1
underground cables	km	1,852	1,804	1,736	48	2.7
submarine cables	km	1,463	1,422	1,348	41	2.9
200, 400 and 500 kV direct current	km	2,077	2,066	2,066	11	0.5
Length of lines						
	km	66,362	66,366	66,272	-4	0
underground cables	km	1,852	1,804	1,736	48	2.7
submarine cables	km	1,463	1,422	1,348	41	2.9
200, 400 and 500 kV direct current	km	1,757	1,746	1,746	11	0.6

Quality of service

GRID EFFICIENCY

	Unit	2017	2016 ⁽¹⁾	2015	CHANGE 17-16	% CHANGE 17-16
Power supplied	GWh/yr	320,437	314,261	316,897	6,176	2

⁽¹⁾ The figure for 2016 has been recalculated with the final data for that year and is, therefore, different from the figure shown in the 2016 Sustainability Report. The figure for power supplied in 2017 is provisional.

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TECHNICAL QUALITY

SERVICE CONTINUITY INDICATORS	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
ASA (Average Service Availability) ⁽¹⁾	%	n/a	99.99974	99.99986	n/a	n/a
SAIFI + MAIFI (System Average Interruption Frequency Index) Terna ⁽²⁾	no.	n/a	0,22	0.24	n/a	n/a
SAIFI + MAIFI (System Average Interruption Frequency Index) Terna Rete Italia ⁽²⁾	no.	n/a	n/a ⁽⁵⁾	0.18	n/a	n/a
AIT (Average Interruption Time) Terna ⁽³⁾	min.	n/a	1.41	0.52	n/a	n/a
AIT (Average Interruption Time) Terna Rete Italia ⁽³⁾	min.	n/a	n/a ⁽⁵⁾	0.24	n/a	n/a
RENS (Regulated Energy Not Supplied) Terna ⁽⁴⁾	MWh	n/a	339	488	n/a	n/a
RENS (Regulated Energy Not Supplied) Terna Rete Italia ⁽⁴⁾	MWh	n/a	n/a ⁽⁵⁾	545	n/a	n/a

⁽¹⁾ ASA measures the availability of the NTG. It is calculated as the ratio of the sum of energy not supplied to users connected to the NTG (ENS) and the energy fed into the grid. At the date of preparation of this document, the figures for 2017 are not yet final and have not been approved by the regulator (ARERA).

⁽²⁾ The number of short and long outages. It is calculated as the ratio of the number of users connected directly to the NTG involved in the outages and the number of users of the NTG. At the date of preparation of this Report, the figures for 2017 are not yet available.

⁽³⁾ The average duration of electricity system (NTG) outages in a year. It is calculated as the ratio of the energy not supplied in a certain period (ENS) and the average power absorbed by the electricity system in the period in question. The figures for 2017 are not yet available at the time of publication of this Report.

⁽⁴⁾ The indicator also includes energy not supplied to directly connected users due to events on other grids not forming part of the NTG and a share of the energy not supplied due to events of force majeure or major incidents (a "major incident" is any outage where the energy not supplied exceeds 250 MWh). The share included in the RENS indicator is a percentage that declines as the amount of energy not supplied in the individual major increases. The lower the indicator, the better the service performance. The final figure for RENS for 2017, to be provided by the regulator (ARERA), is not yet available at the time of publication.

⁽⁵⁾ Since 2016, Terna's figures for SAIFI+MAIFI, AIT and RENS include the grid owned by Terna SpA and by the subsidiary, Terna Rete Italia Srl.

Environment

Quantities and emissions

QUANTITIES AND EMISSIONS OF SF₆

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Quantity of SF ₆	kg	610,939.6	588,113.3	567,563.0	22,826.3	3.9
- in operating equipment	kg	565,664.1	543,780.8	518,474.4	21,883.3	4.0
- in cylinders	kg	45,275.5	44,332.5	49,088.6	943.0	2.1
SF ₆ leakage rate	%	0.47	0.39	0.44	0.08	19.9
SF ₆ greenhouse gas emissions	kg	2,866.9	2,302.2	2,488.4	564.7	24.5

TOTAL DIRECT AND INDIRECT GREENHOUSE GAS EMISSIONS ⁽¹⁾

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Leakages of SF ₆	CO ₂ in tonnes	67,371.4	54,101.9	58,478.3	13,269.5	24.5
Leakages of refrigerant gases (R22, R407C, R410A)	CO ₂ in tonnes	489.4	478.5	488.3	10.9	2.3
Petrol for motor vehicles	CO ₂ in tonnes	39.9	37.7	31.5	2.2	5.8
Diesel for motor vehicles	CO ₂ in tonnes	6,269.0	5,730.6	5,958.8	538.4	9.4
Jet fuel for helicopters	CO ₃ in tonnes	582.2	499.5	506.9	82.7	16.6
Natural gas for heating	CO ₂ in tonnes	419.9	458.8	561.9	-38.9	-8.5
Fuel oil for heating and generators	CO ₂ in tonnes	621.3	684.6	773.7	-63.3	-9.2
Total direct emissions	CO₂ in tonnes	75,792.9	61,991.7	66,799.4	13,801.2	22.3
<i>Indirect CO₂ emissions in tonnes</i>						
Electricity	CO ₂ in tonnes	72,489.3	74,715.5	70,325.6	-2,226.2	-3.0

⁽¹⁾ The conversion of direct energy consumption and leakages of SF₆ (sulphur hexafluoride) and refrigerant gases into CO₂ equivalent emissions has been carried out using the parameters indicated in the IPCC Fifth Assessment Report (AR5) and the Greenhouse Gas Protocol (GHG) Initiative. The conversion of indirect electricity consumption is carried out taking into account the share of total Italian electricity production represented by thermoelectric production in 2017. Allocation for the purposes of the production mix was based on the December 2017 issue of the "Monthly Report on the Electricity System", available on the website at www.terna.it.

CARBON INTENSITY

TONNES OF EQUIVALENT CO ₂ / REVENUE	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Ratio of total emissions (direct and indirect) to revenue	CO ₂ in tonnes / (€m)	66.0	65.0	65.9	1.0	1.5

REFRIGERANT GASES - QUANTITIES AND EMISSIONS

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Quantity of R22	kg	59	73	250	-14	-19.2
Leakages of R22	kg	0	0	0	-	-
Quantity of R407C	kg	2,770	2,846	2,677	-76	-2.7
Leakages of R407C	kg	174	205	187	-31	-15.0
Quantity of R410A	kg	8,613	7,870	7,848	743	9.4
Leakages of R410A	kg	107	76	96	31	41.4
Quantity of other refrigerant gases	kg	1,715	1,688	896	27	1.6

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INDIRECT CO₂ EMISSIONS FOR AIR TRAVEL BY EMPLOYEES ⁽¹⁾

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Total emissions	CO ₂ in tonnes	2,699	1,379	1,297	1,320	96

⁽¹⁾ The conversion factors indicated in the Greenhouse Gas Protocol Initiative were used to quantify the CO₂ resulting from air travel by employees. The increase in 2017 is primarily linked to intercontinental flights and relates to the expansion of operations in South America.

QUANTITIES AND EMISSIONS FOR MOTOR VEHICLES ⁽¹⁾

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Total motor vehicles	no.	1,344	1,323	1,514	21	2
Nitrogen oxide (NOx) emissions ⁽²⁾	kg	7,631	8,260	8,980	-629	-8

⁽¹⁾ The table shows the vehicles in Terna's fleet that, in the period in question, were refuelled on at least one occasion, based on claims for fuel expenses. Consumption data for fleet vehicles is shown in the following tables.

⁽²⁾ The figure is calculated on the basis of the data provided by motor manufacturers and included in registration certificates, as well as on estimates of the mileage covered by the vehicles. The figure shown in the table for 2017 refers to 85.3% of the Company's operating vehicles (85.4% in 2016 and 68.2% in 2015).

Consumption

> 302-1

DIRECT AND INDIRECT ENERGY CONSUMPTION BY PRIMARY SOURCE

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Petrol for motor vehicles ^{(1) (2)}	tonnes	13	12	10	1	6
Diesel for motor vehicles ⁽¹⁾	tonnes	1,955	1,787	1,858	168	9
Jet fuel for helicopters	tonnes	184	158	160	26	17
Natural gas for heating	000's of m ³	187	205	257	-17	-9
Fuel oil for generators and heating	tonnes	194	213	241	-20	-9
Electricity	GWh	195.5	195.1	191.1	0.4	0.2

⁽¹⁾ Only the consumption of operating vehicles is taken into account.

⁽²⁾ The increase in petrol consumption is due to greater use of hybrid vehicles.

DIRECT AND INDIRECT ENERGY CONSUMPTION BY PRIMARY SOURCE - GIGAJOULES

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Petrol for motor vehicles ⁽¹⁾	GJ	577	545	455	32	6
Diesel for motor vehicles ⁽¹⁾	GJ	84,705	77,431	80,514	7,274	9
Jet fuel for helicopters	GJ	8,194	7,031	7,134	1,163	17
Natural gas for heating	GJ	7,490	8,184	10,022	-694	-8
Fuel oil for generators and heating	GJ	8,394	9,250	10,455	-856	-9
Total direct consumption	GJ	109,359	102,440	108,580	6,919	7
Electricity to power substations and offices ⁽²⁾	GJ	703,738	702,287	687,968	1,451	0.2

⁽¹⁾ Only the consumption of operating vehicles is taken into account.

⁽²⁾ Allocation for the purposes of the production mix was based on the December 2017 issue of the "Monthly Report on the Electricity System", available on the website at www.terna.it.

WATER CONSUMPTION

< 303-1

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Water withdrawal by source	m³	171,074	162,272	171,264	8,345	5

PAPER CONSUMPTION

< 301-1

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Certified paper (100% recycled)	tonnes	50	60	63	-10	-17

MAIN MATERIALS PROVIDED BY SUPPLIERS

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	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Porcelain	tonnes	303	193	336	110	57
Polymers	tonnes	171	93	102	78	84
Copper	tonnes	1,870	461	1,380	1,409	306
Aluminium	tonnes	3,963	2,858	5,077	1,105	39
Steel	tonnes	6,933	13,253	13,275	-6,320	-48
Glass	tonnes	1,466	859	1,474	607	71
Dielectric oil	tonnes	812	227	682	585	258
SF ₆	tonnes	9	34	31	-25	-74

CONCENTRATION OF PCBs

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
PCB > 500 ppm	tonnes	0	0	0	-	-
50 ppm < PCB < 500 ppm	tonnes	0.05	0.18	0.46	-0.14	-75

Waste

> 306-2

WASTE MANAGEMENT ⁽¹⁾

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Waste produced	tonnes	4,801.5	4,941.6	5,112.1	-140.1	-2.8
Waste recovered	tonnes	4,188.1	4,581.4	4,680.2	-393.3	-8.6
<i>Non-hazardous special waste</i>						
<i>Machinery, equipment, pylons, conductors and cables</i>						
- quantity produced	tonnes	1,818.6	2,526.8	1,338.8	-708.2	-28.0
- quantity sent for recovery	tonnes	1,764.9	2,509.6	1,348.6	-744.8	-29.7
<i>Packaging</i>						
- quantity produced	tonnes	356.4	317.7	248.2	38.7	12.2
- quantity sent for recovery	tonnes	354.3	321.2	239.6	33.1	10.3
<i>Other</i>						
- quantity produced	tonnes	375.8	254.6	618.3	121.2	47.6
- quantity sent for recovery	tonnes	236.9	190.0	449.0	46.9	24.7
Total non-hazardous special waste						
- quantity produced	tonnes	2,550.8	3,099.1	2,205.4	-548.3	-17.7
- quantity sent for recovery	tonnes	2,356.0	3,020.8	2,037.1	-664.8	-22.0
<i>Hazardous special waste</i>						
<i>Machinery, equipment, pylons, conductors and cables</i>						
- quantity produced	tonnes	1,608.6	1,044.4	1,956.9	564.2	54.0
- quantity sent for recovery	tonnes	1,351.2	1,028.4	1,932.8	322.7	31.4
<i>Oils</i>						
- quantity produced	tonnes	534.4	558.3	716.6	-23.9	-4.3
- quantity sent for recovery	tonnes	396.3	474.5	617.0	-78.2	-16.5
<i>Lead batteries</i>						
- quantity produced	tonnes	36.8	28.6	47.3	8.2	28.8
- quantity sent for recovery	tonnes	36.8	28.6	47.3	8.2	28.8
<i>Waste consisting of materials containing asbestos</i>						
- quantity produced	tonnes	0.0	0.0	0.0	0.0	-
<i>Other</i>						
- quantity produced	tonnes	70.9	211.2	183.7	-140.4	-66.4
- quantity sent for recovery	tonnes	47.8	29.1	45.9	18.7	64.2
Total hazardous special waste						
- quantity produced	tonnes	2,250.6	1,842.5	2,906.7	408.1	22.2
- quantity sent for recovery	tonnes	1,832.1	1,560.7	2,643.1	271.5	17.4

⁽¹⁾ Only special waste produced during production processes is included, not waste produced by services (urban waste). Effluents and waste from septic tanks, produced by substations not connected to the sewer network, are not included; the quantity for effluents and waste from septic tanks was 617 tonnes in 2017, 789 tonnes in 2016 and 680 tonnes in 2015. Waste sent for disposal may differ from the mere disparity between waste generated and recovered due to temporary waste storage. Specifically regarding 2017, the production of 240 tonnes of waste relating to the "machinery, equipment, pylons, conductors and cables" category - in line with Legislative Decree 152/2006 - is currently stored in an Infrastructure Unit's temporary storage facility.

Biodiversity

BIRD DETERRENTS ON THE NTG

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Lines involved	km	266	212	205	54	25
Total deterrents installed	no.	14,728	14,472	13,866	256	2

POWER LINES IN PROTECTED AREAS ⁽¹⁾

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	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Lines impacting on protected areas	km	6,024	5,512	5,541	512	9
Lines with an impact as a percentage of total lines operated by Terna	%	10	10	10	-	-

⁽¹⁾ To calculate the percentage of lines impacting on protected areas, the Company has used "ATLARETE" data, which may contain immaterial differences compared with the data presented in the tables showing indicators of the number of lines. In particular, the data in the table do not include the assets purchased from RFI-Rete Ferroviaria Italiana.

Environmental costs

CAPITAL INVESTMENT AND OPERATING COSTS ⁽¹⁾

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
CAPITAL INVESTMENT						
Environmental offsets	€m	8	15	1	-7	-47
Environmental impact studies	€m	4	2	5	2	110
Environmental activities - new plant	€m	5	4	6	1	20
Environmental activities - existing plant	€m	4	8	7	-4	-55
Demolitions	€m	1	1	1	0	-20
Total capital investment	€m	21	30	20	-9	-29
COSTS						
Cost of environmental activities	€m	24	19	19	5	27
Total operating costs	€m	24	19	19	5	27

⁽¹⁾ Details of the accounting method used are provided on page 161.

People

Size and composition of the workforce

> 401-1

WORKFORCE TRENDS

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Total employees	no.	3,508	3,468	3,333	40	1.2
Employees recruited during the year	no.	243	186	369	57	30.6
Employees leaving during the year	no.	203	51	473	152	298.0
- men	no.	187	45	441	142	315.6
- women	no.	16	6	32	10	166.7
- below the age of 30	no.	6	11	4	-5	-45.5
- between the ages of 30 and 50	no.	14	11	18	3	27.3
- over the age of 50	no.	183	29	451	154	531.0
<i>Turnover rate ⁽¹⁾</i>						
Total	%	5.9	1.5	13.8	4.3	282.5
- men	%	5.4	1.4	12.8	4.0	299.4
- women	%	0.5	0.2	0.9	0.3	156.3
- below the age of 30	%	0.2	0.3	0.1	-0.2	-47.6
- between the ages of 30 and 50	%	0.4	0.3	0.5	0.1	22.3
- over the age of 50	%	5.3	0.9	13.1	4.4	506.5

⁽¹⁾ The turnover rate shows the ratio of employees leaving the Company to the number of employees at 31 December of the previous year.

> 405-1

COMPOSITION OF THE WORKFORCE

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Total employees	no.	3,508	3,468	3,333	40	1.2
By type of contract						
- permanent	no.	3,508	3,466	3,331	42	1.2
- fixed-term	no.	0	2	2	-2	-100.0
By type of employment						
- full-time	no.	3,478	3,440	3,303	38	1.1
- part-time	no.	30	28	30	2	7.1
By gender						
- men	no.	3,076	3,062	2,942	14	0.5
- women	no.	432	406	391	26	6.4
By age						
- below the age of 30	no.	706	622	586	84	13.5
- between the ages of 30 and 50	no.	1,553	1,539	1,412	14	0.9
- over the age of 50	no.	1,249	1,307	1,335	-58	-4.4
<i>Average age of employees and years of service</i>						
Average age	yrs	42.58	43.5	43.5	-0.9	-2.1
Average years of service ⁽¹⁾	yrs	16.4	17.5	17.6	-1.13	-6.4

⁽¹⁾ In the case of employees joining Terna as a result of the acquisition of a business unit, the average for years of service takes into account previous employment.

COMPOSITION OF THE WORKFORCE BY CATEGORY

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Total	no.	3,508	3,468	3,333	40.0	1.2
Senior managers	no.	61	64	63	-3.0	-4.7
Middle managers	no.	550	549	498	1.0	0.2
Office staff	no.	1,873	1,830	1,813	43.0	2.3
Blue-collar workers	no.	1,024	1,025	959	-1.0	-0.1

COMPOSITION OF THE WORKFORCE BY TYPE OF QUALIFICATION

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
University degree	%	28.6	26.1	25.9	2.5	9.5
High-school diploma	%	53.1	52.3	53.4	0.7	1.4
Vocational qualification	%	11.9	13.4	12.0	-1.5	-11.3
Elementary/Middle school	%	6.5	8.2	8.7	-1.7	-20.7

FLEXIBLE EMPLOYMENT CONTRACTS AND TERMS

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Incidence of fixed-term contracts	%	0	0.1	0.1	-0.1	-100
Interns and apprentices working at Terna	no.	33	33	16	0	-
Incidence of part-time contracts	%	0.9	0.8	0.9	0.1	6.2
Incidence of overtime	%	8.8	8.1	7.98	0.7	9.1

EMPLOYEES OF CONTRACTORS AND SUBCONTRACTORS ⁽¹⁾

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Days worked	no.	886,240	680,805	550,661	205,435	30.2
Full-time equivalents (FTEs)	no.	4,028	3,095	2,503	933	30.2

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⁽¹⁾ The figures take into account the duration of contracts and the variable nature of the related workforce, and relate to the different types of contract awarded by Terna, ranging from major works to those for the cutting back of vegetation located under power lines. The number of days worked and FTEs are estimated on the basis of the average daily attendances at the largest sites and the value of the works contracted out at smaller sites. Further information about the types of contract used by contractors is not available.

Personnel development

> 404-1

> 205-2

> 412-2

TRAINING

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Average hours of training						
- per employee ⁽¹⁾	hrs	50	61	56	-11	-18.0
By category ⁽²⁾						
- senior managers	hrs	17	31	20	-14	-45.2
- middle managers	hrs	36	49	30	-13	-26.5
- office staff	hrs	43	48	49	-5	-10.4
- blue-collar workers	hrs	73	90	87	-17	-18.9
By gender ⁽³⁾						
- men	hrs	50	61	53	-11	-18
- women	hrs	32	31	26	1	3.2
Proportion of employees involved ⁽⁴⁾	%	100	99	97	1	1.0
<i>Hours provided</i>						
Total	hrs	178,856	203,066	190,807	- 24,210	- 12
- hours led by internal trainers	hrs	106,900	132,126	133,042	- 25,226	- 19
<i>Hours of training by type of course</i>						
- education	hrs	9,273	5,214	3,429	-5,214	-100
- context and Business Model	hrs	41,588	42,150	47,055	-42,150	-100
- training	hrs	127,995	155,703	140,323	-27,708	-18
Participants in courses on 231 Model	no.	2,102	423	128	1,679	397
Participants in courses on sustainability	no.	502	1,702	748	-1,199	- 71

⁽¹⁾ Ratio of total hours of training to the average number of employees.

⁽²⁾ Ratio of total hours of training by category to the average number of employees by category.

⁽³⁾ Ratio of total hours of training by gender to the total number of employees during the year (including those working for the Company for less than a year) by gender.

⁽⁴⁾ Percentage of employees who have attended at least one training course during the year.

REMUNERATION

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Average cost per employee ⁽¹⁾	€	79,733	78,271	80,116	1,462	1.9
Senior managers included in Long-Term Incentive (LTI) plan	no.	51	50	44	1	2.0
Variable pay as a percentage of fixed pay ⁽²⁾	%	11	12	10	-1	-7.2
MBO	no.	212	210	184	2	1.0

⁽¹⁾ The term "employee" refers to each employee of the Company including senior managers.

⁽²⁾ The amounts regard the incentives paid to all employees, including senior managers, and exclude fringe benefits.

ORGANISATIONAL CLIMATE

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Total summary dismissals	no.	17	20	12	-3	-15
Absences per employee ⁽¹⁾	hrs	47.5	52.1	55.0	-4.5	-9
Absentee rate ⁽²⁾	%	6,239.9	6,831.4	7,186.1	-591.5	-9

⁽¹⁾ This refers to non-contractual forms of absence (illness, injury, leave, strikes, unpaid leave) during the year.

⁽²⁾ This refers to the number of days of absence due to illness, strikes and injury out of the number of days worked during the same period, multiplied by 200,000. To aid comparison with other sources, this indicator has also been calculated as a percentage of days worked. Under this method of calculation, the absentee rate is **3.1 in 2017, 3.4 in 2016 and 3.6 in 2015**. The causes of absence taken into account do not include maternity leave, marriage leave, study leave, trade union activities, other forms of paid leave and suspensions.

AVERAGE YEARS OF SERVICE OF EMPLOYEES LEAVING THE COMPANY ⁽¹⁾

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Total leavers	yrs	32.5	23.1	36.6	9.4	41
Men	yrs	34.1	24.5	36.9	9.6	39
Women	yrs	21.1	12.3	31.9	8.8	71
Below the age of 30	yrs	0.5	0.9	2	-0.4	-44
Between the ages of 30 and 50	yrs	5.8	4.7	8.7	1.1	23
Over the age of 50	yrs	36.2	38.4	38	-2.2	-6

⁽¹⁾ In the case of employees joining Terna as a result of the acquisition of a business unit, the average for years of service takes into account previous employment.

Equal opportunities

> 405-1

> 405-2

EQUAL OPPORTUNITIES FOR MEN AND WOMEN

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Women out of total employees						
- women out of total	%	12.3	11.7	11.7	0.6	5.2
- women out of total, net of blue-collar workers	%	17.4	16.6	16.5	0.8	4.6
- women in senior management roles out of total senior managers	%	16.4	15.6	15.9	0.8	4.9
- women in senior and middle management roles out of total senior and middle managers	%	17.5	17.3	18.2	0.2	1.2
% growth in employment						
- annual change: women	%	6.2	3.6	-1.0	2.6	72.0
- annual change: men	%	0.5	4.1	-3.3	-3.6	-88.1
Leavers ⁽¹⁾						
- women leaving the Company	%	3.9	1.5	8.1	2.4	156.8
- men leaving the Company	%	6.1	1.5	14.5	4.6	299.3
Hires ⁽¹⁾						
- women joining the Company	%	10.1	5.1	7.1	5.0	97.4
- men joining the Company	%	6.6	5.6	11.2	1.0	16.9
Management positions						
- senior female managers out of total women	%	2.3	2.5	2.6	-0.2	-6.0
- senior male managers out of total men (excluding blue-collar workers)	%	2.5	2.7	2.7	-0.2	-6.2
Promotions ⁽²⁾						
- promotions to middle management as % of previous category - women	%	0.0	0.7	0.0	-0.7	-100.0
- promotions to middle management as % of previous category - men	%	1.2	3.2	0.0	-2.0	-62.6
Pay gap between women and men ⁽³⁾						
- senior managers	%	79.4	70.6	73.5	8.9	12.5
- middle managers	%	96.6	96.4	96.9	0.2	0.2
- office staff	%	97.3	97.7	97.0	-0.4	-0.4
% pay gap between women and men ⁽⁴⁾						
- senior managers	%	72.1	67.3	67.5	4.8	7.1
- middle managers	%	99.0	98.3	100.1	0.8	0.8
- office staff	%	94.0	94	94	0.1	0.1

⁽¹⁾ The percentage of leavers (hires) for women and men shows the ratio of employees by gender leaving (hired by) the Company during the period to the total number of employees by gender at 31 December of the previous year.

⁽²⁾ The figure is based on the ratio of promotions to middle manager during the year to the number of personnel categorised as office staff in the previous year, calculated by category (men/women). Promotions of blue-collar workers to an office staff or of middle managers to senior management are not taken into account as the numbers are immaterial on an annual basis.

⁽³⁾ The figure is based on the annual basic pay of women in the different categories as a percentage of the annual basic pay of men in the same categories. The figure has not been calculated for blue-collar workers as there are no women in this category.

⁽⁴⁾ The figure is based on the total annual pay of women in the different categories as a percentage of the total annual pay of men in the same categories. In addition to basic pay, total pay also includes productivity bonuses, various forms of incentive and the value of benefits received during the year.

Health and safety

OCCUPATION INJURIES SUFFERED BY EMPLOYEES - GRI-ILO DEFINITIONS

< 403-2

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Injury rate ⁽¹⁾		0.81	1.00	0.84	-0.2	-18.9
Lost day rate ⁽²⁾		27.62	31.28	36.13	-3.7	-11.7
Occupational disease rate ⁽³⁾		0	0	0	-	-
Number of injuries	no.	24	28	24	-4.0	-14.3
- of which serious	no.	1	0	0	1.0	-
- of which fatal	no.	0	0	0	0.0	-

⁽¹⁾ The number of injuries resulting in the loss of at least one day divided by the number of hours worked during the year, multiplied by 200,000 (corresponding to 50 working weeks x 40 hours x 100 employees). To aid comparison with other sources, this indicator has also been calculated using a multiplication factor of 1,000,000 instead of 200,000 (thereby resulting in an injury rate 5 times the ILO injury rate). Based on this method of calculation, the injury rate is **4.0 in 2017, 5.0 in 2016 and 4.2 in 2015**.

⁽²⁾ The ratio of days lost due to injury to the number of hours worked during the year, multiplied by 200,000. The days lost are calendar days and are counted from the day on which the injury occurs. To aid comparison with other sources, this indicator has also been calculated using a multiplication factor of 1,000. Based on this method of calculation, the occupational disease rate is **0.1 in 2017, 0.2 in 2016 and 0.2 in 2015**. Calculation of the lost day rate took into account days of absence due to injuries occurring in 2016 and any cases of absence due to injuries occurring in previous years, accounting for days of absence on an accruals basis.

⁽³⁾ The total number of cases of occupational disease divided by the number of hours worked during the year, multiplied by 200,000. As in previous years, there were no cases of occupational disease among Terna's employees in 2016. Terna's operations do not entail the types of work, as defined by law, associated with the potential occurrence of occupational diseases. Terna's occupational disease rate therefore remains at zero.

OCCUPATION INJURIES SUFFERED BY EMPLOYEES - BY GENDER

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Number of injuries	no.	24	28	24	-4	-14.3
- of whom men	no.	23	27	24	-4	-14.8
- of whom women	no.	1	1	0	0	-
Injury rate - male employees		0.87	1.07	0.94	-0.2	-18.7
Injury rate - female employees		0.32	0.35	0	-0.03	-7.3
Lost day rate - male employees		26.05	31.15	40.23	-5.1	-16.4
Lost day rate - female employees		40.99	32.81	0	8.18	24.9

INSPECTIONS AND INVESTIGATIONS

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Periodic health inspections	no.	2,968	2,882	2,692	86	3.0
Medical examinations by appointed doctor	no.	255	248	278	7	2.8
Inspections and checks ⁽¹⁾	no.	66	72	104	-6	-8.3

⁽¹⁾ Checks conducted by personnel responsible for Prevention and Protection and by managers responsible for Transmission Operations.

HOURS OF OCCUPATIONAL HEALTH AND SAFETY TRAINING

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Total	hrs	43,658	48,692	73,613	- 5,035	-10
Senior managers	hrs	-	70	202	-70	-100
Middle managers	hrs	2,156	2,046	3,623	110	5
Office staff	hrs	14,737	15,251	25,100	-515	-3
Blue-collar workers	hrs	26,765	31,325	44,688	-4,560	-15

OCCUPATION INJURIES SUFFERED BY EMPLOYEES OF CONTRACTORS AND SUBCONTRACTORS

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Occupational injuries suffered by contractors' employees	no.	9	8	9	1	12.5
- of which serious	no.	1	0	1	1	-
- of which fatal	no.	1	0	0	1	-
Injury rate ⁽¹⁾		0.27	0.31	0.43	-0.04	-13.6

⁽¹⁾ The number of injuries resulting in the loss of at least one day divided by the number of hours worked during the year, multiplied by 200,000 (corresponding to 50 working weeks x 40 hours x 100 employees). To aid comparison with other sources, this indicator has also been calculated using a multiplication factor of 1,000,000 instead of 200,000 (thereby resulting in an injury rate 5 times the ILO injury rate). Based on this method of calculation, the injury rate is 1.3 in 2017, 1.5 in 2016 and 2.2 in 2015.

Tamini Group

This Report also includes certain data relating to the Tamini Group, acquired by the subsidiary, Terna Plus, on 20 May 2014.

Environmental performance

CONSUMPTION

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Electricity	GWh	4.4	5.2	5.8	-0.8	-16
Natural gas	000's of m ³	970	1,001	1,148	-31	-3
Water	m ³	19,903	30,259	39,051	-10,356	-34

WASTE

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Total special waste produced	tonnes	1,151	1,666	1,349	-515	-31
- of which hazardous special waste	tonnes	278	381	152	-103	-27
- of which non-hazardous special waste	tonnes	873	1,285	1,197	-412	-32

Social performance

COMPOSITION OF THE WORKFORCE AT 31 DECEMBER

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Total	no.	368	396	431	-28	-7
Senior managers	no.	10	12	13	-2	-17
Middle managers	no.	17	18	16	-1	-6
Office staff	no.	129	143	155	-14	-10
Blue-collar workers	no.	212	223	247	-11	-5

OCCUPATION INJURIES SUFFERED BY EMPLOYEES - GRI-ILO DEFINITIONS

	Unit	2017	2016	2015	CHANGE 17-16	% CHANGE 17-16
Injury rate ⁽¹⁾		4.8	3.9	4.5	0.9	23
Lost day rate ⁽²⁾		101.5	106.6	116.7	-5.1	-5
Injuries	no.	16	17	17	-1	-6
- of which fatal	no.	0	0	0	-	-

⁽¹⁾ The number of injuries resulting in the loss of at least one day divided by the number of hours worked during the year, multiplied by 200,000 (corresponding to 50 working weeks x 40 hours x 100 employees). To aid comparison with other sources, this indicator has also been calculated using a multiplication factor of 1,000,000 instead of 200,000 (thereby resulting in an injury rate 5 times the ILO injury rate). Based on this method of calculation, the injury rate is **24.0 in 2017, 19.52 in 2016 and 22.49 in 2015**.

⁽²⁾ The ratio of days lost due to injury to the number of hours worked during the year, multiplied by 200,000. The days lost are calendar days and are counted from the day on which the injury occurs. To aid comparison with other sources, this indicator has also been calculated using a multiplication factor of 1,000. Based on this method of calculation, the occupational disease rate is **0.51 in 2017, 0.53 in 2016 and 0.58 in 2015**.



The reporting process 2017



The Reporting process

2017

The purpose of the reports is to provide Terna's internal and external stakeholders with **an understanding and overview of the Company and its businesses and operations.**

They are the end result of a series of **deliberate choices in terms of transparency, communication, accuracy, completeness and the linking of disclosures**, and mark the culmination of a sequence of complex processes involving a large number of people from across the Company.

TIMELINE

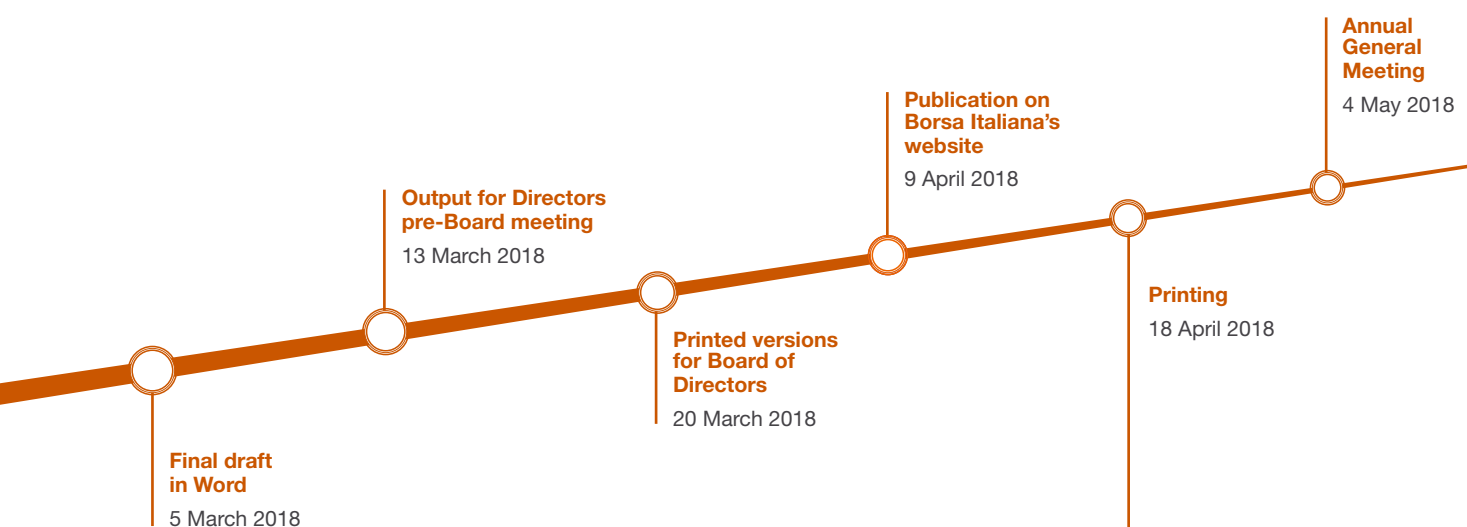
The **most important change this year regards inclusion of the Non-Financial Statement in the Sustainability Report**, in accordance with the requirements of Legislative Decree 254/2016. The aim of the Statement is to ensure an understanding of the Company's activities, performance, results and impact in terms of environmental, social, and personnel-related matters, respect for human rights, and the fight against active and passive corruption.

Planning process begins
16 November 2017

Internal kick-off meeting
14 December 2017

Production of first mock-up
Annual Report
9 January 2018

Sustainability Report and Non-Financial Statement:
9 January 2018



OUR REPORTS



Annual Report
Integrated Report



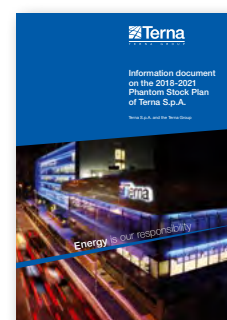
Sustainability Report
Non-Financial Statement



Report on Corporate
Governance
and Ownership
Structures



Annual
Remuneration
Report



Information document
on the 2018-2021
Phantom Stock Plan
of Terna S.p.A.



Terna is a member of LifeGate's Zero Impact® project.
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and safeguard forests in Italy and developing countries.

www.impacttozero.it

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