INTEGRATED REPORT

Security

Maintaining electricity system security above all implies the need to ensure the continuing **stability of the electricity grid**, preparing the system to withstand changes to operating conditions as a result of unexpected disruption.
After a storm, however, grid conditions, in terms of frequency and voltage, do not naturally return to the required state.
To restore the grid to normal operation and enable it to cope with further disruption, **it is necessary to take a series of actions, some of them automatic and others not**.

Security | Adequacy | Quality of service | Resilience | Efficiency

1

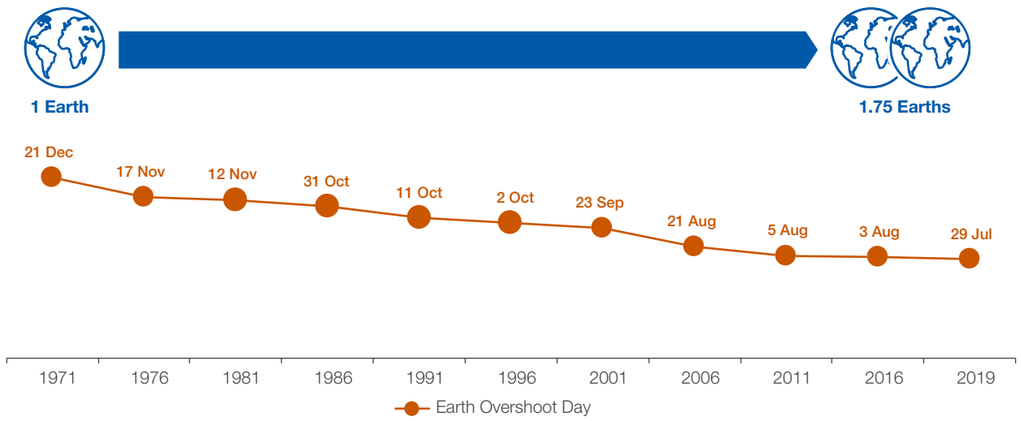
At the centre of the energy transition

Overview of the electricity system

A necessary change

The energy model on which the planet's development has depended in recent years is no longer sustainable. This has led to the need for **a global commitment to a progressive and as rapid as possible decarbonisation** by improving efficiency across all forms of energy. The exponential increase in primary energy consumption over the last century, linked to population growth and economic development, has been driven by the use of fossil fuels, which continue to represent the world's main source of energy.

Consumption of resources now outstrips the ability of nature and the Earth's ecosystems to produce what we need. The Global Footprint Network, an international research organisation that monitors humanity's ecological footprint, calculates the date on which we exhaust nature's budget for the year (Earth Overshoot Day), marking the day of the year when our consumption of the Earth's resources exceeds what the planet's ecosystems are able to regenerate that same year. In 2019, this date was 29 July. In other words, mankind is using natural resources at a rate that is 1.75 times the speed with which ecosystems can regenerate what we use. This is the same as saying that we use 1.75 planet Earths every year.



Energy production from fossil fuels is one of the main sources of manmade greenhouse gas emissions (including CO_2), recognised as having a significant impact on the environment and the climate, including the rise in average global temperatures and the increased intensity of natural catastrophes. The temperature rise caused by human activity is already estimated to be around 1°C, with a trend increase of 0.2°C every ten years.

The frequency and intensity of extreme natural events, allied with growing alarm among the international scientific community, have led to **increased public awareness** of the issues. This has helped to encourage the signature of international agreements and the development of policies and concrete measures designed to combat climate change.

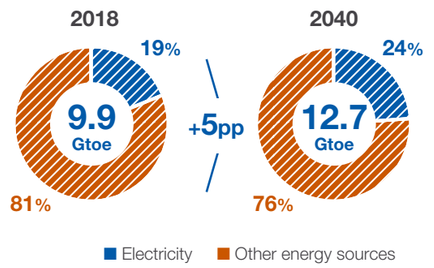
The proposed Integrated National Plan for Energy and Climate (PNIEC), a document valid for the period 2021-2030 and submitted by the Ministry for Economic Development (the "MED") to the European Commission on 8 January 2019, sets out the objectives, strategies and measures to which Italy is committed in order to achieve the European targets for 2030.

TARGETS SET IN THE PROPOSED PNIEC
(The Integrated National Plan for Energy and Climate)

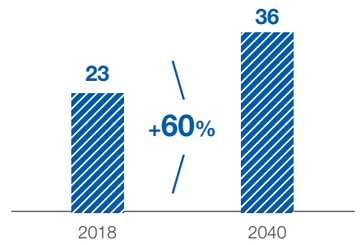
-33%	-43%	30%	10%	2025
greenhouse gas emissions compared with 2005 levels	primary energy consumption compared with the trend scenario	penetration of renewables as a proportion of gross final energy consumption	interconnection target	phase-out of coal

The trend towards electrification and increased use of renewables have been present for some years in many OECD countries. In Italy, electrification now accounts for 19% of final energy consumption compared with 17% in 1990, whilst energy produced from renewable sources represented 35% of total electricity consumed in 2019, broadly in line with the figure for 2018.

ELECTRICITY AS A SHARE OF FINAL ENERGY CONSUMPTION



GLOBAL ELECTRICITY DEMAND
Thousand Twh



In the coming years, accelerated investment in grids will be the main enabler of the energy transition and Terna will play a key role in this process.

Electricity demand trends

To achieve the energy and climate targets, **it is essential for all the main actors in the Italian energy sector to work closely together**, so as to arrive at a coherent vision of where the energy system needs to go and, at the same time, ensure that the necessary action is taken by the various operators.

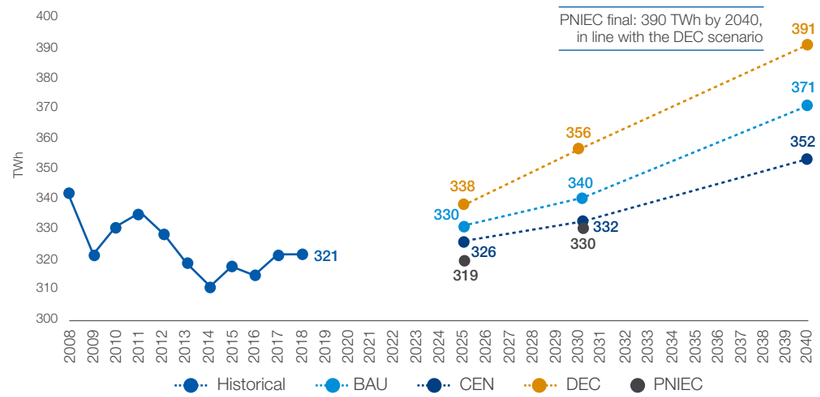
Projected energy scenarios at national level are produced by Terna together with the SNAM, Italy's gas system operator, with the aim of assessing the benefits of transmission grid development projects over a twenty-year timescale.

Business-As-Usual (BAU)	**Technology-driven** scenario	**Inertial projection of current trends**	Targets for 2030 contained in the Clean Energy for all Europeans Package and long-term targets **are not expected to be achieved**
Centralised (CEN)	**Development** scenario	**Increased development of centralised renewable and low-carbon technologies** (photovoltaic, wind and green gas thermoelectric power)	**Will enable achievement of the targets for 2030** contained in the Clean Energy for all Europeans Package and of long-term targets
Dentralised (DEC)	**Policy-driven** scenario	**Significant electrification of consumption** (electric heat pumps, electric vehicles)	In compliance with the national policies contained in the **PNIEC, all coal-fuelled thermoelectric generation is to be phased out by 2025**
PNIEC	**Policy-driven** scenario	Strong **growth in renewables** and storage systems, **electrification driven by heating and transport sectors**	**National and European targets** for decarbonisation, proportion of demand met by renewables and energy efficiency to be **delivered on schedule in 2030**

Demand for electricity rises under all the scenarios, above all under the Decentralised (DEC) scenario, based on assumptions of strong economic growth, the phase-out of coal by 2025, a significant increase in small-scale renewable production coupled with storage systems, energy efficiency incentives and major electrification of consumption.

Over the long term, the PNIEC (Integrated National Plan for Energy and Climate) is aligned with the DEC scenario. The scenarios developed for the document describing the scenarios for 2019 are based on figures for electricity demand that are lower than those used in the European TYNDP-18, Sustainable Transition (ST) and Distributed Generation (DG) scenarios.

ELECTRICITY DEMAND TRENDS (TWh)



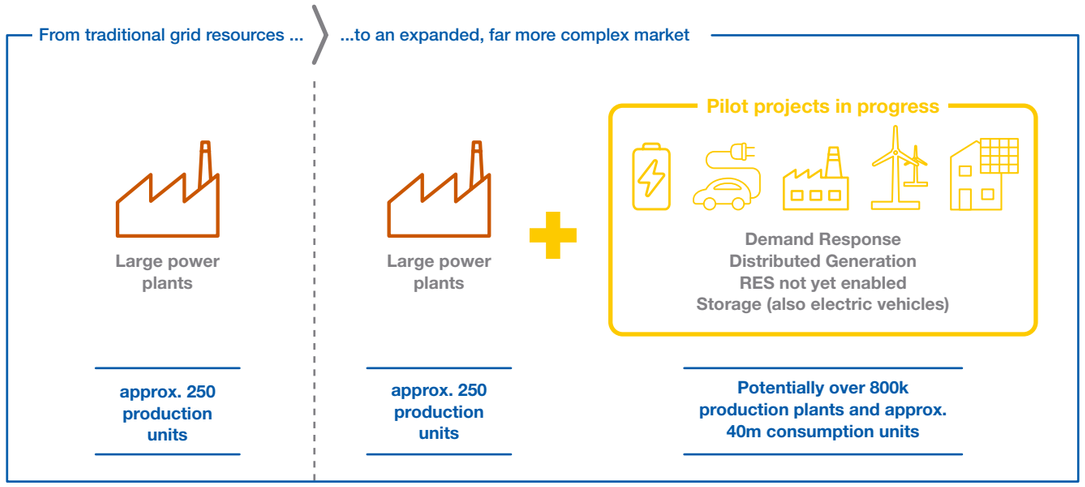
Development of the electricity system and the opening up of the market for services to new resources

In recent years, we have seen a progressive fall in thermoelectric generating capacity, with the decommissioning of a large number of conventional plants due to the reduced profitability of such plants. This partly reflects the growth in renewable energy production, which has helped to drive conventional production out of the market. This trend will continue in the coming years.

In contrast, under all scenarios, production from non-programmable renewable sources is expected to witness significant growth in installed wind and solar generation capacity. Wind and photovoltaic capacity has already recorded constant growth in the last ten years, reaching approximately 31 GW in 2019. Solar generation capacity is also expected to grow significantly in the coming years, in terms of both small-scale production (small plants coupled with electrochemical storage systems) and utility-scale production. The expansion in capacity will be driven by the introduction of new incentive schemes and a further reduction in technology costs.

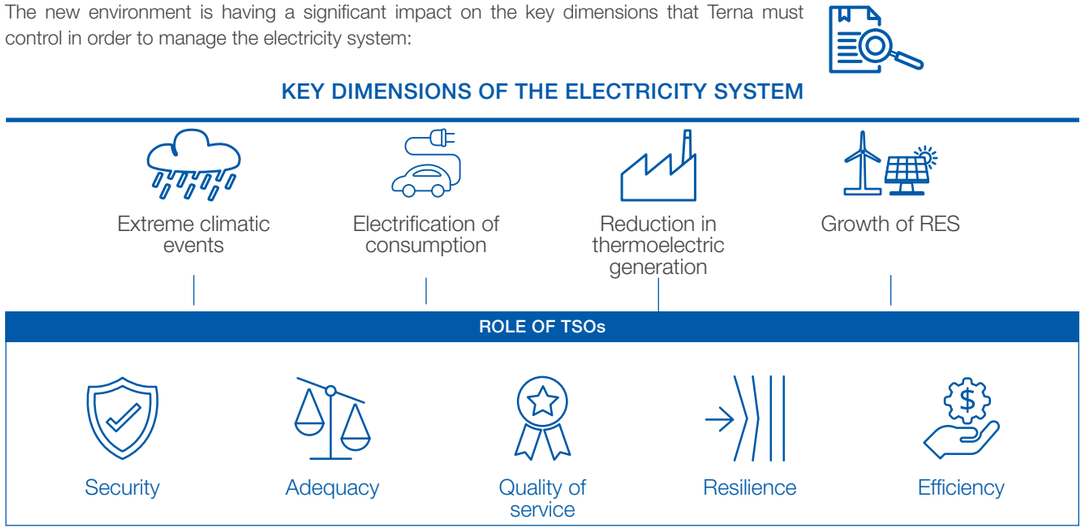
The phase-out of coal by 2025, together with the growing penetration of intermittent renewable sources, will make one of the biggest contributions to achieving the decarbonisation targets for the electricity sector. However, the decommissioning, albeit gradual, of approximately 8 GW of current coal-fired capacity will inevitably have a major impact on the country's electricity system, above all on the activities of transmission system operators (TSOs) like Terna. This will be one of the most challenging national energy targets to meet.

Achievement of the targets in the PNIEC thus implies a major transformation of the generation mix, with a large increase in RES plants.



Key dimensions of the electricity system

The new environment is having a significant impact on the key dimensions that Terna must control in order to manage the electricity system:



- **Security:** the ability of the electricity system to withstand changes to operating conditions as a result of unexpected disruption, without breaching the system's operating constraints;
- **Adequacy:** the system's ability to satisfy demand for electricity whilst meeting security and quality of service requirements. An electricity system is deemed to be adequate if equipped with sufficient resources in terms of generation, storage, control over demand and transport capacity to satisfy expected electricity demand with a reasonable degree of confidence;
- **Quality of service:** the ability to guarantee continuity and quality of service;
- **Resilience:** the system's ability to withstand shocks and return to normal operating conditions, if necessary via temporary actions;
- **Efficiency:** the ability to manage the electricity system to meet security, adequacy and quality requirements at the lowest overall cost to the consumer/end user.

In particular, whilst mid-term energy and climate targets, including the phase-out of coal, are extremely ambitious, they are eminently achievable whilst ensuring the system's adequacy and security, provided that they are accompanied by specific measures and solutions, such as the development of grid infrastructure.

Leading the change

Regulated Activities

Terna believes that the renewable sources can only be fully integrated with the electricity system by carrying out a set of essential, coordinates and coherent actions.
These are three categories of intervention that have a key role to play in achieving Italy's decarbonisation targets.

FACTORS ENABLING THE ENERGY SYSTEM'S TRANSITION	INVESTMENT IN THE GRID	LONG-TERM PRICE SIGNALS	MARKET EVOLUTION AND INTEGRATION
	Upgrade of the north-south backbone and strengthening of the grid serving the south and islands	Capacity market to promote investment in new-generation thermoelectric plants	Evolution of the structure and products traded on the services market to meet new needs (voltage regulation and inertia)
	Investment in voltage regulation and increased system inertia	Auctions and long-term power purchase agreements (PPAs) for renewable plants	Participation of "new" resources providing flexibility for the dispatching services market: demand, distributed generation, storage
	Overseas interconnections	Fixed-term contracts awarded through competitive auctions for new storage capacity, including hydroelectric	Progressive integration with European services markets
	Work on resilience		
	Improvements to core competencies		

INNOVATION AND DIGITALISATION

The factors enabling this transformation include, on the one hand, the new digital technologies that allow data to be gathered at low cost (such as IoT, smart meters, etc.), big data flows to be transferred using reliable connectivity solutions (such as fibre or 5G) and data to be effectively stored and analysed (advanced analytics); on the other, investment in innovation projects bringing together new digital solutions enabling the response to the new challenges presented by the energy environment.

DIALOGUE WITH LOCAL COMMUNITIES

Every project designed to create new infrastructure or modernise existing elements of the grid has a series of effects on the local area. For this reason, in the coming years we are not only committed to stepping up investment, but also to engaging ever more closely with all the parties affected by the infrastructure planning and development process, using an approach based on listening and dialogue. Terna has thus adopted the very latest forms of "participatory design" and stakeholder engagement, enabling us to consult widely with citizens and government institutions and work together with local communities in order to agree on innovative technical solutions.

Non-regulated Activities

Our strong background enables us to offer **solutions allowing customers to take full advantage of the energy transition**. To get the most out of this new energy economy, we use Terna's design, engineering, operational and maintenance expertise to offer complex solutions that increasingly resemble what we like to classify as "from watts to bytes", thanks in part to the integration of telecommunications networks with proprietary systems.

DEVELOPMENT OF TECHNICAL EXPERTISE

International Activities

For many years, our Group has provided support for TSOs and energy companies in developing countries, including as part of multilateral projects and programmes. We make available to international operators the technological know-how acquired **in managing complex systems, in transmission, in the integration of renewable sources and in storage systems**, together with our exceptional experience of constructing, managing and operating plants for all voltages. **In this way, we are promoting the energy transition at international level and the development of markets**, mindful of the fact that the radical transformation the world is undergoing is a shared responsibility.

INFRASTRUCTURE DEVELOPMENT

SYSTEMS INTEGRATION

TECHNICAL ADVISORY

Coming together

to overcome a major shared challenge

Terna's commitment to the energy transition continued in 2019, including efforts to encourage ever closer strategic cooperation with government institutions, businesses and associations. The energy transition brings a series of risks, but managed correctly represents a major opportunity for investment and job creation.

A permanent focus group to examine grid development

Launch of the "Cantiere dei Consumatori" initiative to look into the future of the electricity system

Terna and eleven consumer associations signed a memorandum of understanding on **31 January 2020**, setting up a permanent focus group to discuss the activities of the electricity system operator, above all looking at the objectives of security and efficiency.

Italy as a hub for transmission and dispatching in the Mediterranean area

Agreement with Steg for an interconnector between Italy and Tunisia

On **22 October**, Terna's CEO, Luigi Ferraris, and the Chairman of Steg, Tunisia's transmission system operator, Moncef Harrabi, signed a memorandum of understanding on the basis of which the two TSOs are "to step up industrial cooperation in the field of electricity infrastructure, and in particular the **Elmed project**" the 600 MW interconnector extending for approximately 200 km agreed by the two governments in April of last year.

Turning a challenge into a growth opportunity

CDP, Terna and Snam working together on sustainable energy infrastructure

On **16 and 17 October**, Cassa Depositi e Prestiti, Snam and Terna hosted the **States General of the Italian Energy Transition** in Rome, promoted by the Ministry for Economic Development and the Cabinet Office, in collaboration with The European House - Ambrosetti. The key stakeholders in the energy sector were brought together for the first time - with contributions from representatives of national and international institutions and companies - to take part in a strategic debate on the most crucial issues for Italy. On this occasion, Luigi Ferraris and Marco Alverà, the CEOs of Terna and Snam, also signed a memorandum of understanding regarding network security and the prevention of cyber threats.

Strengthening institutional partnerships to help create a more efficient and secure system

In order to strengthen control, surveillance and prevention in the areas where approximately 1,500 km of Terna's submarine cables are located, on **7 October**, an agreement **was signed with Port Authorities and the Coast Guard.**

Roadmap towards a sustainable development model

Online Scenario Description Document for 2019

On **30 September**, **Terna and Snam** published the first joint **study on future scenarios** for the energy sector, ahead of preparation of ten-year plans for the development of electricity transmission and gas transportation networks. With a view to stepping up collaboration on vital issues such as the resilience, security, flexibility, capacity, planning and management of infrastructure systems, Snam and Terna set out four scenarios that clearly reveal the key roles played by gas and electricity carriers in the transition.

Innovation and research for an increasingly sustainable electricity system

MoU with FCA on e-mobility

On **19 September**, **Terna and FCA** signed a **memorandum of understanding regarding joint trials for sustainable mobility technologies and services**, such as Vehicle-to-Grid (V2G), which enables interaction between vehicles and the grid, thanks to an "intelligent" charging infrastructure that meets the system's flexibility requirements.

Investment in improving the electricity service in Sicily

Planning agreement with the Regional Authority and CDP on 18 September, covering electricity system security initiatives and regional development. The agreement provides for investment of €614 million in work on Sicily's electricity grid over the next five years.

The development of sustainable mobility depends on the grid

Agreement with The Mobility House on intelligent charging solutions for electric vehicles

The memorandum signed with the international technology company based in Germany, Switzerland and Silicon Valley (California) on **31 May** focuses on technological solutions for enabling the integration of renewable sources into the grid and the development of sustainability mobility.

Expertise helping to reach decarbonisation targets

On **19 April, Terna, Eni, CDP and Fincantieri** signed an agreement to develop **wave energy plants**.

Highlights

The development of the national grid continues, with progress on all the major investment projects supporting the current energy transition.

The revised **Grids and Values corporate strategies for 2020-2024**, as approved by the Board of Directors, were presented to the market and to stakeholders on **10 March 2020**.

ITALY-MONTENEGRO INTERCONNECTOR

This 600 MW interconnector extending for 445 km entered service on 28 December.

Acquisition of BRUGG CABLES

On 29 February 2020, Terna completed the acquisition of a 90% interest in Brugg Kabel AG, one of Europe's leading manufacturers of terrestrial cables. The acquired company designs, develops, produces, installs and maintains electric cables for all voltages and accessories for high-voltage cables.

- **Italy-France Interconnector:**
  the laying of 75 km of cable has been completed, representing around 78% of the entire connection.
- **Open Fiber Project:**
  17,000 km of long-distance fibre cable delivered out of the 21,000 km envisaged under the related contract.
- **New acquisitions in Brazil:**
  completion of the transaction with Construtora Quebec, regarding the acquisition of a controlling interest in the first of the two companies covered by the transaction, which holds a concession to build a 500kV power line extending for approximately 190 km.

AWARDS AND SUSTAINABILITY

- Terna included for the second year in the **Bloomberg Gender Equality Index (GEI)** and confirmation of our presence in the Euronext and FTSE4Good indices.
- **RobecoSAM confirms Terna's ranking as world leader in the Electric Utilities Sector** and its position in the World Index and in the smaller Europe Index.

UTILITY MANAGER OF THE YEAR FOR 2018

CEO **Luigi Ferraris** rewarded for **his strong commitment at Terna to enabling the shift to an increasingly sustainable, efficient, secure and innovative model**.

OSCAR DI BILANCIO 2019

Terna ranked **first** for financial reporting among Italian blue chips.

Improvements in all key performance indicators confirm the virtuous growth path outlined in the Grids and Values Strategic Plan.

FINANCIAL HIGHLIGHTS

(€m)	2019	2018	Δ%
Revenue	**2,295.1**	2,197.0	4.5%
EBITDA	**1,741.2**	1,650.6	5.5%
Profit attributable to owners of the Parent	**757.3**	706.6	7.2%
Capital expenditure	**1,264.1**	1,091.1	15.9%
Net debt	**8,258.6**	7,899.4	

STOCK MARKET AND FINANCE

Terna's share price

Share price up 20.2% since the beginning of the year, with a price of €5.954 at 31 December 2019 versus €4.95 per share at 31 December 2018.

New all-time high of €6.786 per share registered on 19 February 2020.

Finance

November 2019: Terna and the European Investment Bank (EIB) agree a €490 million loan to finance investment in improvements to grid reliability and quality.

July 2019: €500 million issue of bonds to institutional investors paying a coupon of 0.125%, a record low for a corporate bond with a term in excess of 5 years.

April 2019: launch of a new €500 million green bond issue, with a term to maturity of 7 years and paying a coupon of 1%.

January 2019: launch of a €250 million fixed-rate green bond issue in the form of a private placement.

BUSINESS ENABLERS

Our People

323 additions to the workforce in 2019 to support delivery of the 2019-2023 Strategic Plan, compared with 285 leavers.

Innovation

Terna's first three Innovation Hubs open at Turin, Naples and Milan sites, providing a platform for the Group's innovation development.

The **AMS - Advanced Materials for Sustainability** call for innovation launched in July 2019 ends in October.

An **MoU regarding cyber security signed with Snam** in October, aimed at detecting, preventing and countering potential threats, attacks and damage to IT infrastructure.

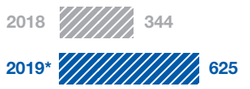
PERFORMANCE OF THE ELECTRICITY SYSTEM

Demand [TWh]

COVERED BY RENEWABLE SOURCES

(*) Provisional data. RS: Renewable sources - NRS: Non-renewable sources

RENS quality [MWh]



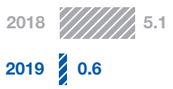
MAJOR INCIDENTS

Performance in 2018: exceptional event in north-eastern Italy.

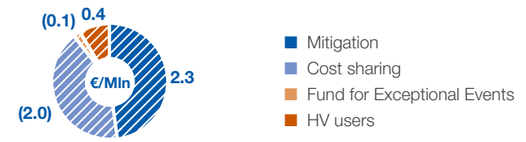
Performance in 2019: no major incidents affecting performance in 2019.

(*) Provisional data.

Cost of quality [€/m]



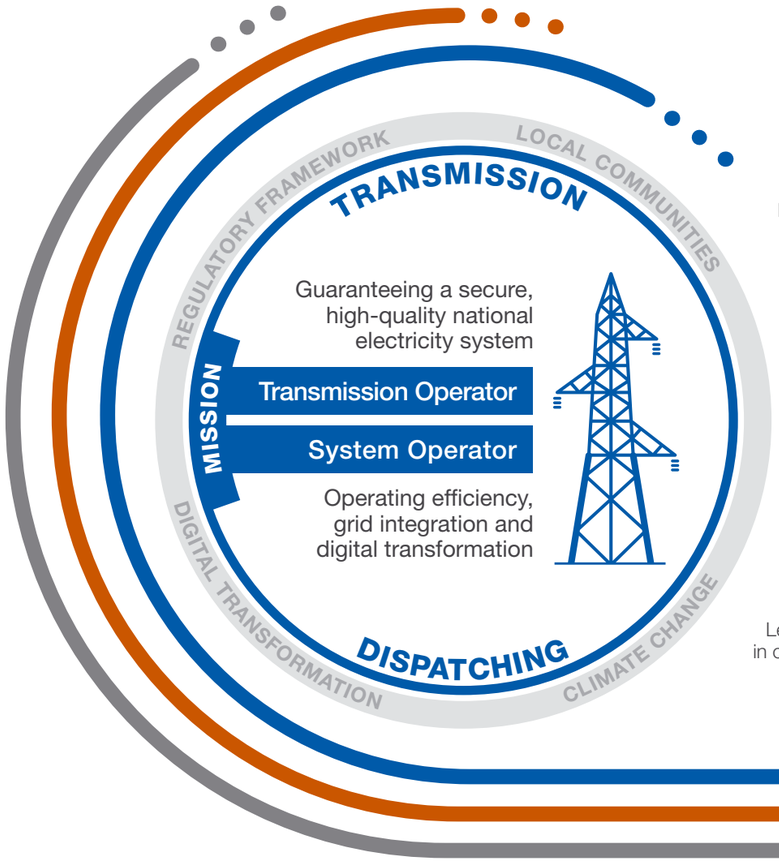
COST ALLOCATION **2019**



The business model

Terna has a central role to play in the current energy transition: within a context of radical change that has seen decarbonisation become a global objective, the electricity grid is one of the key enablers of this process.

ROLE · ACTIVITIES · ENABLERS · VALUE CREATION · SYSTEM EFFECTS



New business opportunities

Non-regulated Activities — 9.2% of revenue

Development and maintenance of the HV grid

Regulated Activities — 89.6% of revenue

Balancing supply and demand and investment in development

International Activities — 1.2% of revenue

Leveraging competencies in overseas markets

PEOPLE at the centre of our business
- Competencies
- Integrity and values
- Safety

INNOVATION in response to the growing complexity of the system
- Digital solutions
- New technologies
- Open innovation

Shareholder value

Security

Adequacy

Quality of service

Resilience

Efficiency

PROGRESSIVE DECARBONISATION

GROWING INTEGRATION OF RENEWABLES

CONTRIBUTION TO ACHIEVING THE UN'S SDGs

BUSINESS
SUSTAINABILITY
STRATEGY

A key role in the **ENERGY TRANSITION**

Adequacy

Adequacy refers to the system's ability to satisfy demand for electricity whilst **meeting security and quality of service requirements**. An electricity system is deemed to be adequate if equipped with sufficient resources in terms of generation, storage, control over demand and transport capacity **to satisfy expected electricity demand** with a reasonable degree of confidence. To measure adequacy, it is necessary to analyse all the potential situations in which the electricity system may have to operate (shifts in demand, the potential unavailability of thermoelectric plants and others).

2

The new energy environment

Macroeconomic environment

Italy's economy continued to stagnate in 2019, after almost two years of underperformance, against the backdrop of the global slowdown.

Slower pace of expansion at global level

The slower pace of economic growth across the world affected both industrialised and developing nations last year, driving the growth rate down to its lowest level in the last ten years. The trade war between the United States and China and the imposition or threat of tariffs on goods from countries such as Mexico, India and the European Union led to widespread uncertainty among investors, slowing investment and, as a result, global trade. This slowdown in growth also affected the United States, with GDP growth in volume terms projected to be 2.3% in 2019, compared with 2.9% in 2018. This was despite the continuation of expansionary fiscal and monetary policies. In spite of this, the United States retained its position as the fastest growing economy among industrialised countries.

Slowing GDP in the euro area

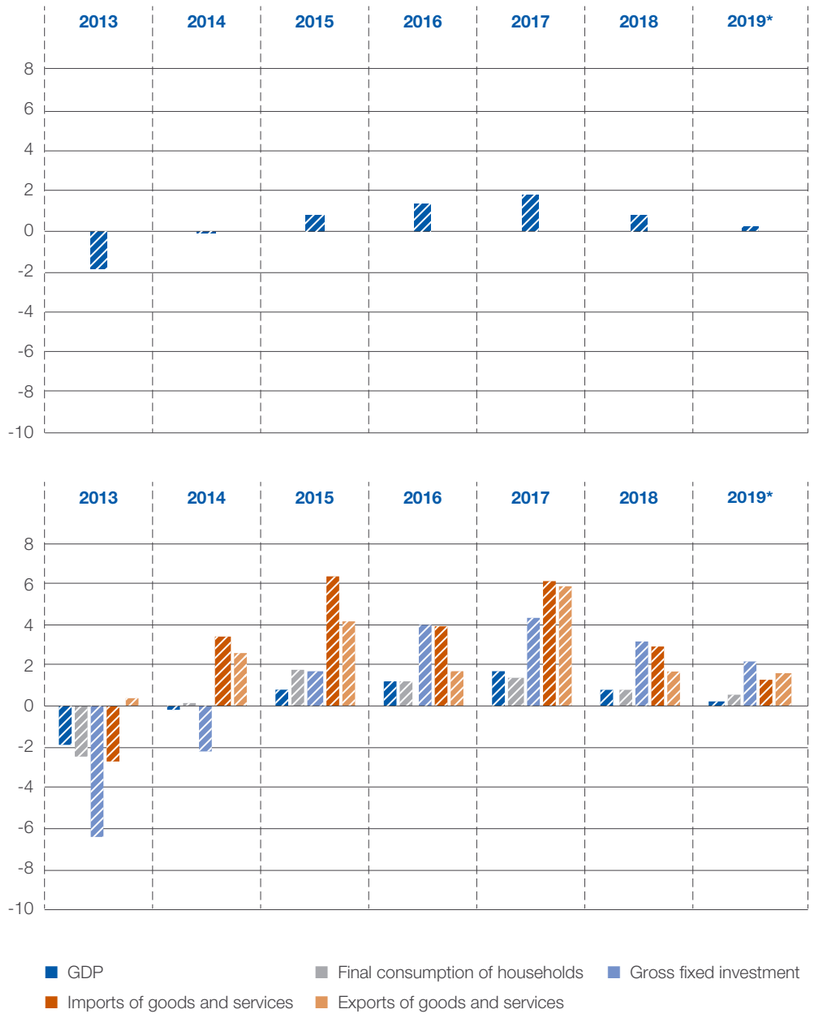
In addition to the uncertainties linked to protectionist policies and the Brexit process, **the level of economic activity in the euro area was impacted by difficulties in the industrial sector, above all those affecting automotive manufacturing**, following the announcement of new emissions limits and the transition to less polluting vehicles. The fallout from the crisis was most clearly seen in Germany and in Italy. For the euro area as a whole, **GDP growth in volume terms is estimated to be 1.2% in 2019**, down from the 1.9% of 2018. In response to this cyclical weakness, the ECB continued with its expansionary monetary policy, even requesting countries with budget surpluses to ease fiscal policy.

The Italian economy remained stagnant in the first three quarters of 2019, registering GDP growth of just 0.14% compared with the same period of the previous year. The most recent forecasts estimate that full-year GDP growth will only have been slightly up on this figure at 0.2%, a marked decline from the 0.8% recorded in 2018 (source: ISTAT, September 2019). Over the year, the contribution to growth from net external demand weakened as a result of falling exports in the second half of the year. In terms of domestic demand, consumer spending continued to be subdued, partly due to renewed interest in saving after the significant decline seen in previous years. Despite this, consumer spending represents the most dynamic component of domestic demand, given the lack of investment, which has been held back by the continued weakness of the outlook for demand and by a series of uncertainties that have had a negative impact on business confidence.

-1.1%
Italian Industrial output in 2019

The crisis in the German manufacturing sector was reflected in Italian industrial output, reflecting the high degree of integration between the two systems. In the period between January and November, industrial production fell 1.1% compared with the same period of the previous year. Output fell primarily in sectors linked to automotive manufacturing, such as vehicles (down 4.3%), steel (down 3.9%) and the production of rubber and plastics (down 2.8%), but also affected a number of more traditional specialist sectors, such as for example textiles, clothing, leather goods and accessories (down 4.7%).

ITALIAN GDP AND KEY ECONOMIC INDICATORS
% annual change in volume



+0.14%
Italian GDP in 2019

Increased uncertainties held back growth in 2019

** Provisional data*

The energy sector

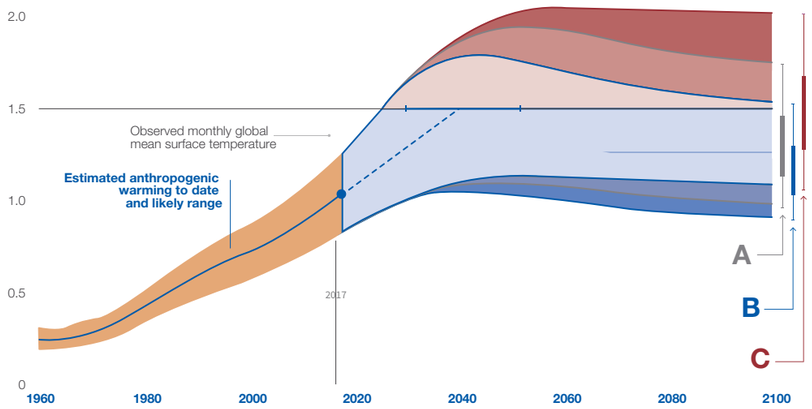
Changes in generation technologies and consumption patterns, together with the application of international directives in Italian energy sector regulations, mean that we are at the centre of a radical transformation: of the €96 billion of investment earmarked to develop the energy industry in Italy, Terna's investment programmes account for 15%[6].

The 2020-2024 scenario

In order to combat global warming, in December 2015, at the end of the twenty-first Climate Change Conference (COP21), 185 countries and international organisations drew up and decided to adopt **an action plan designed to keep the rise in the global temperature** below 2°C compared with pre-industrial levels, and preferably below 1.5°C.

The study published by the Intergovernmental Panel on Climate Change (IPCC) on 6 October 2018 officially announced that global warming is already within the range of 0.8 to 1.2 °C, with a rising trend of 0.2 °C per decade.

GLOBAL WARMING COMPARED WITH THE PERIOD 1850-1900 (C°)



Source: "Global Warming of 1.5 °C", Intergovernmental Panel on Climate Change, 2018.

BASELINE SCENARIO (A)
- Global CO_2 emissions reach net zero by 2055.
- Emissions of greenhouse gases other than CO_2 will be reduced from 2030.

SCENARIO (B)

Best-case scenario: global CO_2 emissions reach net zero by 2040 (greater likelihood of limiting the temperature rise to 1.5 °C).

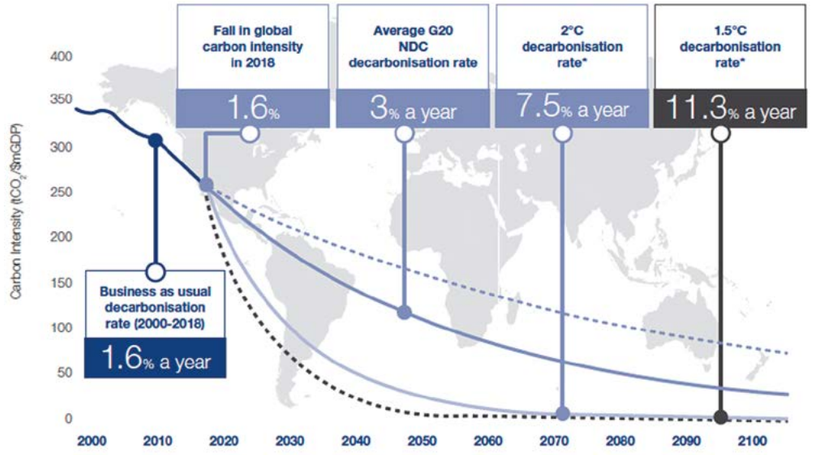
SCENARIO (C)

Worst-case scenario: emissions of greenhouse gases other than CO_2 are not reduced from 2030 (less likelihood of limiting the temperature rise to 1.5 °C).

[6] A study on "Energy infrastructure, the environment and local communities", prepared by PwC for Confindustria Energia - November 2018.

To prevent warming from rising above 2°C compared to pre-industrial levels, **the global economy must commit to cutting its carbon intensity by 7.5% per year until 2100** (source: "The Low Carbon Economy Index 2019", PwC). A necessary condition for achieving the COP 21 targets is decarbonisation of the electricity sector together with acceleration of the decoupling of economic growth and energy consumption.

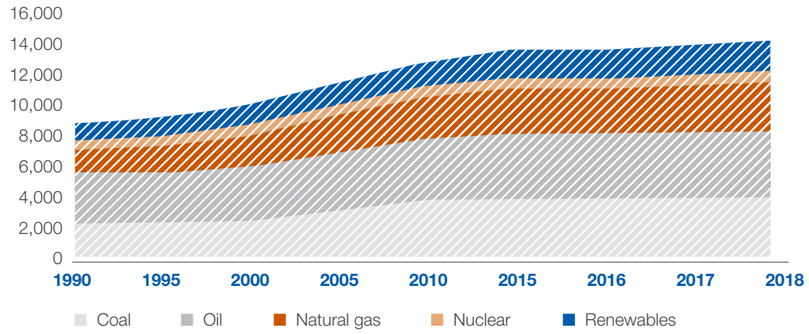
LOW CARBON ECONOMY INDEX 2019



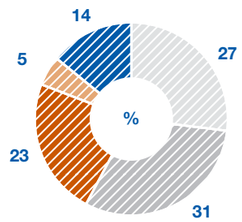
** Source: The Low Carbon Economy Index 2019, PwC.*

World primary energy consumption is growing steadily. In 2018, the RES share of primary energy consumption was approximately 14%, almost the same as 25 years earlier, despite the growing use of RES in the electricity sector.

TOTAL SUPPLY OF PRIMARY ENERGY* AT GLOBAL LEVEL



2018 LEVELS



** Excluding electricity trading.*
Source: World Energy Outlook 2019 - International Energy Agency.

Guidelines at european level

The 2019 European guidelines for the development of the energy sector are set out in the guidelines and regulations in the European Union's **Clean Energy Package**, presented on 30 November 2016 and including a number of legislative measures introduced in 2018 and 2019. These include:

- **Regulation (EU) 2018/1999** which established the Governance of the Energy Union and Climate Action, in line with the Paris Agreement of 2015 (COP21) and the United Nations Sustainable Development Goals (SDGs);
- the Energy Efficiency Directive 2018/2002;
- the Energy Performance of Buildings Directive 2018/844;
- the Renewable Energy Directive 2018/2001;
- the Internal Market for Electricity Regulation 2019/943;
- the Common Rules for the Internal Market for Electricity Directive 2019/944;
- the Risk-preparedness in the Electricity Sector Regulation 2019/941;
- the Regulation establishing an Agency for the Cooperation of Energy Regulators (ACER).

The United Nations 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.

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

For further details on Terna's commitment to the SDGs, reference should be made to the Sustainability Report.

Key SDGs for Terna

Terna's activities and its mission coincide almost entirely with the SDGs and the related targets, especially Goals 7, 9 and 13.

Ensure access to affordable, reliable, sustainable and modern energy for all.

Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.

Take urgent action to combat climate change and its impacts.

Strengthen the means of implementation and revitalize the global partnership for sustainable development.

Resolutions at national level

In line with these guidelines, at the end of 2018 the Italian government finally prepared a **Proposed Integrated National Plan for Energy and Climate (PNIEC)**, produced by the Ministry of Economic Development, the Ministry of the Environment and Protection of Land and Sea and the Ministry of Infrastructure and Transport. This provides key guidelines on the development policies for the national energy system. Following the recommendations of the European Commission in June 2019, Italy drew up and handed over the final versioin of the PNIEC at the end of 2019.

The final document does not differ significantly from the proposal put forward at the end of 2018 in terms of structure and targets for 2030, providing a number of clarifications and proposing slight changes, above all linked to the transport sector.

PROPOSED INTEGRATED NATIONAL PLAN FOR ENERGY AND CLIMATE - PNIEC (DECEMBER 2019)	THE 5 DIMENSIONS
• For final energy consumption: 116.6 Mtep by 2020 and 103.8 Mtep by 2030.	Energy efficiency
• RES to increase from 18.6% in 2020 to 30% in 2030 as a share of total energy consumption. • In the electricity sector, the increase will be from 34.1% in 2017 to 55.4% in 2030, compared to expected gross domestic electricity consumption.	Decarbonisation
• Competitive auction mechanisms. • Promotion of self-consumption for smaller power plants and renewable energy communities. • Full deregulation of the retail market.	Internal energy market
• Introduction of the Capacity Market. • Development of the grid to facilitate integration with renewable production plants and resolve congestion. • Addition of 6 GW of centralised storage and 4 GW of distributed storage.	Energy security
• In the industrial sector, the reconversion of infrastructure to improve sustainability. • Additional measures to combat energy poverty.	Research, innovation and competitiveness

To **reduce energy demand**, it will be necessary to deploy major initiatives. The expected reduction in final energy consumption will result in overall savings of 51.0 Mtoe, and development of renewable resources that will enable an increase in the consumption of RES as a share of total consumption.

Even more challenging are the goals set for the electricity sector, which will see a rise in the share of total electricity consumption represented by renewables from 34.1% in 2017 to 55.4% in 2030. This will increase the amount generated from renewables to 186.8 TWh by 2030, compared with 113.1 TWh in 2017.

Sustainable growth will also be enabled through the development of new technologies - such as **electric vehicles** (up to 4 million fully electric and 2 million plug-in hybrid vehicles by 2030) - and **applications relating to air conditioning** that ought to be used more widely, in view of the energy efficiency savings they offer. Finally, a measure adopted in the 2017 SEN for the electricity sector regarding the phase-out of coal for power generation by 2025 is maintained.

6 million
ELECTRIC VEHICLES BY 2030

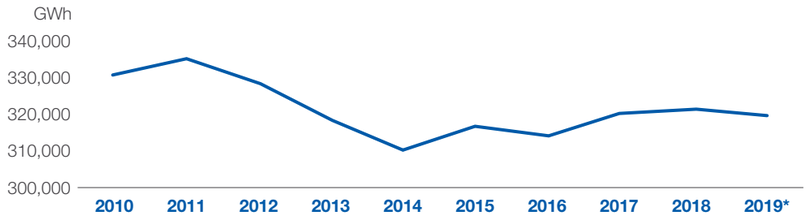
The regulatory measures regarding the **security of supply for energy**, above all electricity, are dependent on the introduction of the Capacity Market, as well as revision of the Emergency Plan for the Security of the Electricity System (*piano di Emergenza per la Sicurezza del Sistema Elettrico* or "PESSE").

There are also plans to increase the capacity of storage systems (an additional 6 GW of centralised storage and 4 GW of distributed storage), above all through the use of pumps, and for further expansion of interconnections with neighbouring countries (up to 14,375 MW). **Investment in resilience**, in relation to transmission grids and interconnector projects, will also play a major role, by helping to increase the network's ability to cope with increasingly frequent extreme weather events and the emergencies they create, including boosting coordination at European level. This has taken on added importance given the structural changes currently taking place in the electricity systems of many European countries, primarily linked to progressive decarbonisation and the reduction in nuclear generation capacity.

Electricity demand and production in Italy

Terna monitors domestic demand trends and takes appropriate actions, in full implementation of EU directives.

DEMAND TREND OVER THE LAST 10 YEARS



** Provisional data.*

Demand for electricity in Italy

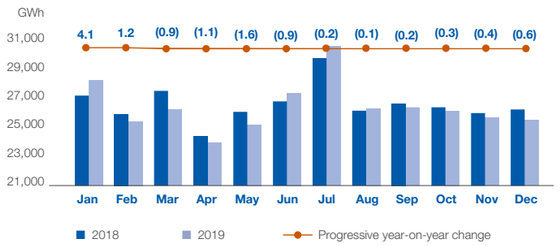
Demand for electricity in Italy amounted to 319,597* GWh in 2019, a **slight reduction of 0.6% compared with 2018**, which registered a rise of 0.3% compared with the previous year.

ELECTRICITY BALANCE IN ITALY (GWh)*	2019**	2018	CHANGE	% CHANGE
Net production	283,846	279,845	4,001	1.4%
From overseas suppliers (imports)	43,987	47,170	(3,183)	(6.7%)
Sold to overseas customers (exports)	(5,822)	(3,271)	(2,551)	78.0%
For use in pumping***	(2,414)	(2,313)	(101)	4.4%
Total demand in Italy	319,597	321,431	(1,834)	(0.6%)

* *Does not include demand for energy for ancillary services related to electricity production.*
** *Provisional data.*
*** *Electricity used for pumping water, for sole subsequent use in electricity production.*

Compared with the previous year, monthly demand for electricity in Italy in 2019* only rose in the months most subject to low or high temperatures (January, June, July and August).

MONTHLY DEMAND FOR ELECTRICITY IN ITALY (2019* vs. 2018)



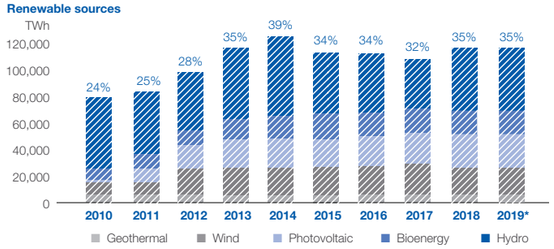
** Provisional data.*

Meeting demand and energy production

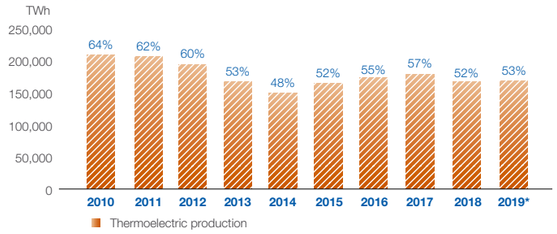
In 2019, approximately **35% of total energy demand was met by renewable energy sources**, in line with the figure for 2018.
In terms of the performance of the various renewable sources, there were increases in wind production (up 14%) and photovoltaic production (up 9%), which offset the sharp decline in hydroelectric (down 6%).

PERFORMANCE OF PRODUCTION SOURCES IN TERMS OF DEMAND[7]

Renewable sources



Traditional sources



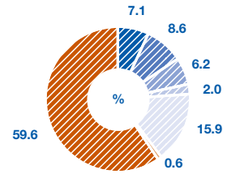
** Provisional data.*

The two charts on the left show the performance of renewable production in Italy over the last ten years, compared with the performance of thermoelectric production over the same time period.

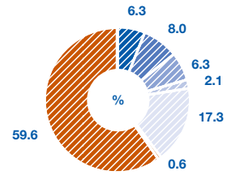
As can be seen from the charts, Italy met the target set in European Community directives, which required that renewable sources account for over 27% of demand by 2020, from as early as 2012.

NET ELECTRICITY PRODUCTION BY SOURCE

2019*
283.846 TWh



2018
279.845 TWh



- Net wind production
- Net photovoltaic production
- Net biomass production
- Net geothermal production
- Net renewable hydro production
- Net non-renewable hydro production
- Net thermoelectric production

** Provisional data.*

[7] The percentages shown in the two charts compared refer to the share of demand met by renewable sources (blue chart) and thermoelectric sources (orange chart).

European and international relations

Terna plays a strategic role in the integration of Europe's main electricity grids. Our goal is a to achieve an increasingly secure and efficient continental system that serves citizens and businesses. As the leading independent grid operator in Europe, we are members of various associations at European, national and industry level.

Opportunities for engagement and dialogue are provided by Terna's membership of the **principal national and international trade associations**, as well as of the leading associations connected with sustainability issues.

Stakeholder	EUROPEAN RELATIONS
ENTSO-E (European Network of Transmission System Operators for Energy)	ENTSO-E is the European Network of Transmission System Operators for Electricity including 43 operators which is involved in the process of integrating national electricity markets, coordinating the secure operation of interconnected electricity systems and developing electricity transmission grids, in implementation of EU legislation (the latest of which being the CEP-Clean Energy Package). ENTSO-E's main objectives are to: draw up European network codes, guarantee the coordinated development of the electricity grid at European level by drawing up the European Electricity Grid Development Plan (TYNDP) and the related benchmark scenarios, and draw up the Research, Development and Innovation Plan at European level. ENTSO-E's activities focus on four courses of action (security of supply, functioning of the energy market, promotion of energy saving, and promotion of the interconnection of energy networks), which generate new tasks for ENTSO-E (implementation of the Regional Coordination Centres - RCC, enhanced cooperation with DSOs, digitisation of networks and development of demand response). These activities will be developed in line with the new climate policies previously set out by the European Commission with the launch of the so-called European Green Deal, a roadmap that seeks to make the EU the first climate-neutral continent by 2050.
EASE (European Association for Storage of Energy)	The European association that is responsible for promoting industrial research and development in the field of electricity storage system applications in Europe and around the world and the use of this technology for the transition to a stable, flexible, sustainable and cheaper continental energy system. In particular, EASE is working on the development of a European platform for sharing information in the field of energy storage.
RGI (Renewables Grid Initiative)	An association consisting of eleven European TSOs and twelve environmental NGOs which aims to promote the integration of renewable energy sources through the development of electricity grids. RGI is committed to promoting strategic planning and participating in the construction of new power lines, via a meeting platform involving environmental NGOs and European TSOs.

In 2019, Terna intensified a series of contacts with the senior managements of European and non-European system operators, **with the aim of concluding cooperation agreements**, at bilateral and multilateral level, in areas of common interest, particularly with regard to gird development, electricity system operations and technological innovation.

In 2019, together with 7 other European TSOs, Terna signed a joint declaration aimed at highlighting the crucial role played by transmission system operators in facilitating the energy transition, ensuring the adequacy and security of the electricity system, promoting the development of networks and guaranteeing the necessary flexibility.

Terna has had a Brussels Office, together with the other entities in which CDP has a stake, since 2018. It enables the Company to strengthen Terna's links with European institutions, including from a technical standpoint, and to take advantage of the Company's technical contribution regarding European matters ahead of implementation of European legislation to reform the electricity sector (the Clean Energy Package and the European Green Deal) in support of the energy transition and the EU's decarbonisation goals.

INTERNATIONAL RELATIONS	Stakeholder
An international non-profit association that conducts research regarding high-voltage grids. It has over 90 member countries, represented by 60 national committees, and Terna is currently the Chair and Vice Chair of the Italian Committee.	CIGRE (Conseil International des Grands Réseaux Electriques)
An independent, nonpartisan US-based organisation dedicated to the study and analysis of global problems. The organisation promotes debate on key strategic and political issues of international importance.	CFR (Council on Foreign Relations)
This is the 50/50 Tunisian joint venture between Terna S.p.A. and STEG (Tunisia's vertically integrated, state-owned electrical utility) established in 2009 with the role of conducting studies and providing technical assistance for the Tunisia-Italy electricity interconnector.	ELMED Etudes SARL
An international association bringing together the 17 leading grid operators worldwide in order to share best practices in the management of electricity transmission grids. In addition to being present on the Steering Board and Governing Board, Terna co-chairs the "Resilience, infrastructure development and interconnections" strategic working group.	GO15 (Reliable and Sustainable Power Grids)
This association brings together the TSOs from 19 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 offices in Rome and appoints its Secretary General, as well as chairing the Technical Planning Committee.	Med-TSO (Mediterranean Transmission System Operators)

RES4MED/RES4FRICA (Renewable Energy Solutions for the Mediterranean & Africa)	This is a non-profit foundation established on 7 June 2019 following the transformation of the association of the same name. The objective is to promote the use of renewable sources and the adoption of energy efficiency measures, and to support the creation of favourable conditions for investment in renewable energies in countries in the southern and eastern Mediterranean and Sub-Saharan Africa. Its registered office is in Rome. Terna, as the founding member, sits on the Executive Committee.
WEC Italia (World Energy Council/Italian Committee)	The Italian national committee of the WEC, an international organisation that brings together operators from over 90 countries, with the aim of promoting a sustainable energy system worldwide.

KEY OPPORTUNITIES FOR COOPERATION IN 2019

Council on Foreign Relations

In addition to consolidating its presence in industry associations, in 2019, Terna participated in two major international events organised by the Council on Foreign Relations (one in April and the other in June) regarding geopolitical and geo-economic issues at global level. In April, Terna took part in a discussion of the theme of "Transatlantic Commerce in a Post-Brexit Reality: Leveraging the European-America Connection", focusing on the role of TSOs in managing the current energy transition in a sustainable manner. In June, at the Council's "CFR CEO Summit 2019", Terna focused on the need to invest in electricity infrastructure as an enabling factor in the energy transition to a decarbonised economy.

Italy-Tunisia Interconnector

As part of the ongoing activities linked to development of the electricity interconnector project between Italy and Tunisia (the "ELMED project"), on 22 October 2019, **Terna and STEG**, Tunisia's state-owned electrical utility, signed a **memorandum of cooperation** and a partnership agreement with a view to developing reciprocal exchanges and collaborating on areas of interest in relation to electricity infrastructure, such as for example live-line working, HV lines and stations and operation of the electricity system.

Via ELMED Etudes SARL, **work continued on development of the electricity interconnector project between Italy and Tunisia**. In execution of two financing agreements granted by the World Bank to the Republic of Tunisia regarding the project to provide technical assistance for the Tunisia - Italy electricity interconnector, in January 2019 ELMED Etudes signed two subsidiary agreements with the Republic of Tunisia, appointing it as the implementing agency for the project components relating to preparatory studies and project management. On 30 April 2019, the Italian Minister for Economic Development and the Tunisian Minister for Industry signed an "Intergovernmental agreement regarding the development of electricity transmission infrastructure to maximise electricity exchanges between Europe and North Africa", in which the activities entrusted to ELMED Etudes are also covered.

Italy-Austria Interconnector

On 19 February 2020, a **Memorandum of Understanding relating to development of the 220kV Lienz-Soverzene power line** was signed with the Austrian TSO, APG. This project forms part of the planned construction of the 220kV Italy-Austria Interconnector. Signature of the MoU will enable the TSOs to devise and agree on a joint strategy for developing cross-border capacity and coordinating the companies' plans and investment programmes. This will facilitate joint development of the project and strengthen the respective national grids in readiness for achieving the planned 500 MW increase in cross-border capacity.

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Other European and international events

On 10 October 2019, Terna took part, for the fourth time, in the **10th Italy-Latin America and Caribbean Conference**, held at the Ministry of Foreign Affairs and International Cooperation. Terna took part in the session on "**Sustainable growth and infrastructure**", focusing on the topic "*Innovation in the management of RES and electricity systems in order to increase the resilience and security of interconnected systems*", illustrating the Group's presence in Latin America.

In early 2019, as part of the Group's international activities, Terna initiated contacts with the main IFIs (International Financial Institutions) to explore the potential for cooperation in geographical areas of interest to the Group.

During the first half of 2019, ahead of the Climate Action Summit in September 2019, Terna worked with **Italy's Permanent Mission to the UN** on the issue of energy transition within the context of small islands.

In the second half of 2019, Terna joined the **Harvard Electricity Policy Group (HEPG)**, a think-tank whose members include leading stakeholders in the electricity sector (regulators, academics, managers, specialists, etc.), with aim of taking part in debates on the entire electricity chain (generation, distribution and transmission).

On 28 November 2019, Terna took part in the **conference organised by ARERA and CEI on the integration of energy systems in the Balkans.** The KEP (Know-How Exchange Programme), launched by ARERA, focuses on the implementation of market coupling mechanisms in order to facilitate the creation of a regional electricity market and its integration with the European single market. This will involve technical cooperation with regulators in Albania, Montenegro and Serbia.

Regulatory environment

Regulated revenue accounts for approximately 88% of the Group's total revenue

Terna operates as a natural monopoly and within a market regulated by the Regulatory Authority for Energy, Networks and the Environment (ARERA).

Regulated revenue, which represents approximately 88% of the Group's total revenue, mostly derives from transmission and dispatching, subject to regulation by the **Regulatory Authority for Energy, Networks and the Environment (ARERA).**

In Resolutions 653/2015/R/eel, 654/2015/R/eel and 658/2015/R/eel, ARERA set the tariff regime for electricity transmission, distribution, metering and dispatching services and regulations regarding the quality of the transmission service for the fifth regulatory period (sub-period "NPR1", 2016-2019). The regulatory framework for the second four-year period (sub-period "NPR2", 2020-2023) was revised by Resolutions 567/2019/R/eel, 568/2019/R/eel and 574/2019/R/eel.

The framework for NPR2 (2020-2023) is broadly in line with the criteria applied in the period 2016-2019, with the principles for recognising the cost of capital (rate of return) and operating costs (price cap and profit sharing) unchanged with respect to NPR1. The most important change regards readmission of the return on fixed assets in progress, under a mechanism that reflects the related expenditure in tariffs based on rates of return differentiated on the basis of how long ago the expenditure was incurred and for a maximum of four years (beyond four years, the tariff will take into account interest expense incurred whilst work was in progress)[8]. The change will enable operators to recover earlier costs, together with those relating to the Italy-France Interconnector project.
At the end of NPR2, and on a trial basis in 2023, the regulations provide for adoption of a **TOTEX/OUTPUT BASED approach.** This recognises costs based on total expenditure incurred (operating and capital expenditure) and shares the resulting benefits for the community.

In Resolution 583/2015/R/com, ARERA announced the procedure for determining and revising the **Weighted Average Cost of Capital (WACC)** for a period of six years (2016-2021). This applies to infrastructure services in the electricity and gas sectors and is subject to revision, mid-way through the period, which, with Resolution 639/2018/R/COM, enabled adjustment of the WACC in a predictable and transparent manner in keeping with the economic cycle. The WACC for the period 2019-2021 has been set at 5.6%. This is a vital element in guaranteeing an adequate return on capital, a key factor in enabling Terna to complete the substantial investment programme needed to meet the challenges of the energy transition.

A number of key aspects of regulation in the fifth regulatory period are described below, with regard to allowed revenue for transmission and dispatching services.

[8] When reviewing transmission tariffs for 2020, ARERA also accepted Terna's request for the partial readmission of the Italy-Montenegro Interconnector project among the list of strategic projects in the regulatory period 2012-2015. This means restoring the return on the related WIPs not already included in the tariffs, in relation to the share of public investment (not covered by the interconnectors).

Transmission revenue makes up the most significant portion of regulated revenue and is generated from application of the related transmission charge **(TC)**, billed by Terna to distributors connected to the National Transmission Grid. This charge pays for the transmission services provided by all transmission service operators, including the owners of residual portions of the grid (external to the Terna Group), and is divided into two components: a power component (equal to 90% of revenue, expressed in euro cents/kW/year) and an energy component (10% of revenue, expressed in euro cents/kWh).

Transmission revenue makes up the most significant portion of regulated revenue

The **dispatching service charge (DSC)** aims to recompense Terna for carrying out the activities relating to the dispatching service and is billed by Terna to users of the dispatching service in proportion to the quantity of energy dispatched.

Allowed costs that combine to determine the TC and DSC components are attributable to three main categories, as summarised below.

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[9] represents the weighted average cost of equity and debt. The methods of determining and revising the WACC are established by the regulator.	1. 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.	2. To cover depreciation
Allowed costs are determined by the regulator at the beginning of the regulatory sub-period, based on operating costs recognised during the relevant year (which, in the case of NPR1, was 2014 and in the case of NPR2 is 2018) and increased by any remaining portions of additional efficiencies achieved in previous regulatory periods. The resulting amount is revalued annually to take account of inflation and reduced by an efficiency factor designed to ensure that additional efficiencies are, over time, passed back to end users in full.	3. To cover operating costs

[9] The real pre-tax regulatory WACC for the transmission service was **5.3%** for the period 2016-2018, and is set at **5.6%** for the period 2019-2021.

Quality

Quality of service is of ever greater importance, reflecting the growing electrification of consumption, which is highly dependent on the continuous availability of the service.
In addition, the increased use of electrical automation components, above all in industrial equipment, requires a high-quality of supply. This topic primarily breaks down into two aspects: **service continuity** (the absence of interruptions to the supply of high-voltage electricity) and **power quality**, meaning the ability to maintain a steady supply voltage and frequency for end users within prescribed ranges.

3

The Group's strategy and businesses

Strategic Plan 2020-2024

To play a leading role in the sustainable energy transition, by leveraging our distinctive innovation capabilities, competencies and technologies for the benefit of all stakeholders: this is the mission confirmed in the new Grids and Values Strategic Plan for 2020-2024.

The energy model on which the planet's development has depended in recent years is no longer sustainable. This is borne out by the exponential increase in global primary energy consumption, the increase in CO2 emissions and the impact on our planet's ecosystem and the growing attention paid to issues relating to the climate and environment by international institutions. This situation requires a global commitment to a progressive and as rapid as possible decarbonisation and improved efficiency across all forms of energy. In this context, the electricity sector has a central role to play in achieving the energy system's overall decarbonisation goals, thanks to the intrinsic efficiency of electricity as an energy carrier and the technological maturity of renewable energy sources (RES).
This transformation will not have zero impact on the electricity system, but will face us with a series of challenges that we must meet in order to ensure that the energy transition takes place in a decisive and effective manner, maintaining the current high levels of service quality and, at the same time, avoiding an excessive increase in the cost to society.
The large-scale use of RES has a significant impact on the way in which Terna manages the grid. This is because they are intermittent sources, not as flexible as traditional power plants and sometimes far away from centres of consumption, leading to an increase in grid congestion, especially from south to north.
In addition, the growing frequency of extreme climate events, allied with the structural nature of the Italian transmission grid, puts major demands on the TSO, which is called on to protect and manage the national grid in order to guarantee the security of electricity supply.

In response to the changes brought about by this new energy environment, Terna has to focus on five key dimensions of the system: **Security, Adequacy, Quality of service, Resilience** and **Efficiency**. In this regard, the Company has confirmed the strategy set out in the Plan for the period 2019-2023, further stepping up infrastructure investment to meet the new requirements of the electricity system, as part of an integrated approach based on sustainability values, community engagement, skills development and the promotion of innovation.

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

- **Regulated Activities:** to give top priority to all the activities that enable Italy to tackle its energy challenges in a safe, efficient and sustainable way by leveraging the specific characteristics of local areas;
- **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 PLAY A LEADING ROLE IN THE SUSTAINABLE ENERGY TRANSITION, BY LEVERAGING OUR DISTINCTIVE INNOVATION CAPABILITIES, COMPETENCIES AND TECHNOLOGIES FOR THE BENEFIT OF ALL STAKEHOLDERS — Strategy

Pillars:
- Stronger core business in Italy
- New services to support the transition
- Overseas use of core competencies

Enablers:
- Digital transformation and innovation leadership
- Insourcing of key competencies and flexibility in operations

A key driver of this strategy will be investment in the innovation and digital solutions needed to manage an increasingly complex, integrated and distributed system. Attention will also be paid to the development and insourcing of the strategic skills required to cope with projects of growing size and complexity.
The guidelines identified for the Group's various strategic business areas have been divided into appropriate priority actions to be carried out over the life of the Plan.

With reference to **Regulated Activities**, the system needs a new investment drive to respond to developing needs, with a focus on maximising long-term use and sustainability. The role of proactive system operator in defining the grid's structure and in digitally managing assets should also be strengthened by combining Terna's specialist expertise with the experience gained in the most advanced markets. In this regard, Terna is to invest €7.3 billion over the five-year period 2020-2024, making the Company's largest ever investment programme.

Non-regulated Activities will be geared towards supporting the energy transition, with competency-based initiatives focusing on the development of services for corporate customers and on taking advantage of value added market opportunities for traditional and renewable customers.
Asset-based initiatives will, on the other hand, aim to pursue opportunities based on connectivity and computing linked to the Group's infrastructure.

International Activities will focus on the execution of projects in progress and the management of projects in operation, 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.

	Plan 2020-2024	Plan 2019-2023
Net capex	€7.3 bn	6.2 bn €
RAB (end of Plan)	€19.7 bn	18.5 bn €
CAGR RAB[1]	5%	> 4%
EBITDA	€~ 450 m	> 400 m €
Capex	€[2]~ 150 m	350 m €
EBITDA[3]	€~ 200 m	150 m €
Capex[4]	€~ 900 m	700 m €
CAGR EBITDA	> 4%	> 4%
CAGR EPS	5%	> 3%

1. Calendar RAB, including work in progress;
2. Capex in execution + to be identified;
3. Includes financial income from Uruguay project;
4. Already included in investment plan for Regulated Activities.

- Regulated Activities
- Non-regulated Activities
- International Activities
- Digitalisation and innovation
- Efficiency and value creation

Outlook

As described above, the electricity industry is evolving rapidly as a result of the current energy transition, which requires the achievement of challenging objectives relating to sustainability, competitiveness and security. In particular, the expected increase in global electricity consumption, in a context of progressive decarbonisation, will see strong development of renewables, giving rise to criticalities regarding their integration into the electricity system. The pursuit of energy security by strengthening interconnections, the development of power grid resilience and, finally, greater competitiveness in the market, will be the determining factors in the management of complex trading relations between TSOs and other parties operating within the system.

In 2020, the Group will be engaged in implementing the provisions of the 2020-2024 Strategic Plan. With specific reference to the total investment of €7.8 billion planned over the next five years, investment of approximately €1.3 billion is planned for 2020.

The principal electricity infrastructure under construction includes the interconnection with France, which is expected to come on stream in 2021, as well as the start of work on the new SA.CO.I.3 project (strengthening the link between Sardinia, Corsica and the Italian mainland). In addition, the main projects to increase the exchange capacity between the various areas of the Italian electricity market include the Colunga-Calenzano and Paternò-Pantano-Priolo power lines, while the reorganisation of electricity grids in metropolitan areas will concern the cities of Genoa, Milan, Naples and Rome, and will primarily entail renewal of the existing infrastructure, using more technologically advanced connections in line with the best environmental sustainability standards.

In terms of our Non-regulated Activities, in line with previous years, the Group will focus on supporting the energy transition via innovative services. Specifically, Terna will consolidate its competency-based activities, developing high value added services for corporate customers and taking advantage of market opportunities for traditional and renewable customers. Meanwhile, asset-based initiatives will pursue opportunities linked to connectivity and computing and based on exploiting the Group's infrastructure. In this context, the integration of Brugg Cables within the Group is expected to be completed in 2020.

In 2020, International Activities will focus on managing and maintaining the power lines that have entered service in Brazil and Uruguay, and on carrying out existing projects in Peru and Brazil (Quebec). The process of scouting for further opportunities in overseas markets will continue. This may take the form of partnerships and will involve the careful selection of projects with a view to ensuring a low risk profile and avoiding the need to tie up large amounts of capital.

To provide 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 competencies, to the strengthening of departments, and to the consolidation of project execution and project control capabilities.

The Plan must ensure sustainability and respect for the ESGs, minimising the environmental impact, involving local stakeholders and meeting the need for integrity, responsibility and transparency, principles that have always formed the basis of Terna's approach to doing business.

The above objectives will be pursued whilst maintaining our commitment to maximising the cash generation necessary ensure a sound, balanced financial structure.
Above all, however, these ambitious goals can only be met thanks to our most important asset: our people.

Further details of the impact of the Covid-19 emergency on the Terna Group's activities are provided in the section, "Events after 31 December 2019".

Our people

A key role in driving the change: all our actions are underpinned by our corporate values.

The world of energy is undergoing a radical and rapid transformation: requirements are evolving, challenges are increasing, and our ways of working and the skills we need are changing. Against this backdrop, the two inextricably linked enabling factors of Terna's Strategic Plan - Innovation and People - are vital in taking up the challenges of the current energy transition, and therefore for our Company's growth and development. **No change can take place unless it is driven by people.**

Comprising a wide range of professionals across a broad spectrum of skills, Terna's team places great emphasis on working together. For us it is vital to have the best talent on our team, so we seek to identify new ways of working, tapping into new ways of thinking, and thus creating more productive and satisfying working conditions and corporate wellbeing.

Terna's values system

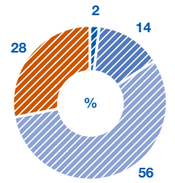
TRUST | PASSION | RESPONSIBILITY

Our corporate identity and our values - **Trust, Passion and Responsibility** - are the foundations for everything we do and include:

Up-skilling and re-skilling of staff, giving priority to digital skills	New ways of working together	Agreements and partnerships with top universities in Italy and abroad	Innovative sharing and crossover initiatives (hackathons, hackstorms, calls for innovation)	Projects to raise corporate environmental awareness
Constant commitment to consolidating the safety and accident prevention culture via extensive training, communication and engagement programmes	Paying attention to the work-life balance via smart working, welfare programmes and parent support initiatives	An internal communication system to develop the corporate culture and strengthen the sense of belonging	An industrial relations system based on dialogue and engagement with the labour unions	

WORKFORCE	AT 31.12.2019	AT 31.12.2018	CHANGE
Senior managers	**72**	67	5
Middle managers	**617**	638	(21)
Office staff	**2.382**	2,290	92
Blue-collar workers	**1.219**	1,257	(38)
TOTAL	**4,290**	**4,252**	**38**

% COMPOSITION OF THE WORKFORCE



The increase in the Terna Group's workforce at 31 December 2019 reflects 323 additions to the workforce and 285 people leaving the Group. The amount of additions to the workforce, as well as the replacements relating to the generational turnover programme that will end in 2020, includes the new initiatives envisaged in the Strategic Plan, primarily focused on the Investment Plan, on the development of non-regulated business in Italy and overseas and strengthening the Group's distinctive expertise.

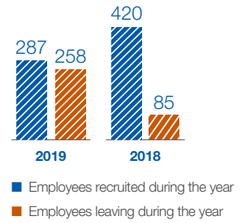
323
additions to the workforce

At 31 December 2019, the number of agency workers employed by the Terna Group totalled 29 (15 in 2018).

The turnover rate[10] of 6.71% was up compared with 2018, due to staff taking retirement under the regulatory framework agreement of art. 4 of the Fornero Law, signed with the trade unions. The incidence of voluntary resignations is very low (1.12%).

COMPOSITION OF THE WORKFORCE	2019	2018	CHANGE
Permanent employees	**100%**	100%	-
Average age (in years)	**41**	42	(1)
University and high-school graduates	**95.6%**	94.3%	+1.3%
Women as a % of the total	**13.9%**	13.5%	+0.4%
Women in senior and middle management roles out of total senior and middle managers	**19.8%**	19.7%	+0.1%

WORKFORCE TRENDS



The average age of the workforce is 41, down on the figure for 2018. University and high-school graduates make up 95.6% of the total workforce, up 1.3% compared with 2018.

41
average age

In terms of gender, there has been an **increase in women employed (up 0.4%),** although the majority of the Group's workforce consists of men (accounting for 86.1% in 2019).

The presence of women in the workforce has grown steadily over the years, rising from 8.8% in 2005 to 13.9% in 2019. In addition, in 2019, 21% of new recruits, excluding operating personnel, were women.

In terms of type of contract, all employees are on permanent contracts.

100%
permanent contracts

[10] The following commentary refers to employees of the Terna Group, excluding the employees of the Tamini Group (351), Avvenia (17) and Terna Crna Gora d.o.o. (10), as well as the workforces of other overseas companies (local staff in Brazil, Uruguay and Peru, numbering 25, 8 and 7, respectively).

TERNA'S APPROACH

Occupational safety

Safety and accident prevention to guarantee the physical integrity of employees are among the Company's main priorities.

In 2019, Terna launched the **"Zero Accidents"** project, a structured and integrated long-term process which, via a series of wide-ranging initiatives, aims to promote a global approach to safety involving all the Company's staff, as well as people working at Terna's plants in various capacities. Through the definition of improvement and prevention plans, including awareness raising and training initiatives, the two-year project aims to ensure that safety becomes nothing less than a way of life.

The objective is to obtain a significant reduction in accident indicators over the years, in order to achieve and then maintain the target of **zero accidents**.

A total number of 34 accidents was registered, none of which had an initial prognosis of more than 40 days of estimated recovery time, while 8 accidents had a subsequent ongoing prognosis of more than 40 days, which therefore had not been deemed serious[11] on initial prognosis. Five accidents were also registered with an initial prognosis of less than 3 days of estimated recovery time[12].

OCCUPATIONAL INJURIES SUFFERED BY TERNA EMPLOYEES - GRI-ILO DEFINITIONS	2019	2018
Injury rate	0.98	1.28
Lost day rate	39.31	34.40
Number of injuries	34	40
- of which serious (initial prognosis > 40 days)	-	-
- of which serious (subsequent ongoing prognosis > 40 days)	8	11
- of which fatal	-	-

The injury rate and the lost day rate in 2019 are down compared with the previous year.
For further details on this matter, reference should be made to the "Sustainability Report".

Environmental protection

Environmental protection is a priority for the Company, which has always been committed to improving its ESG (Environmental, Social, Governance) performance. This commitment is reflected positively in the sustainability ratings assigned by specialist agencies, in the Company's inclusion in the leading international sustainability indices and in the appreciation shown by socially responsible investors.
In 2019, for example, Terna carried out two "**Terna Plastic Free**" campaigns at its Rome headquarters, which provide for the elimination of single-use plastic from its offices, and "**Terna Recycling**", which steps up the separate collection of municipal solid waste. These initiatives were gradually extended to the regional offices.

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[11] Since 2018, the criterion for classifying an injury as serious has become more detailed. A serious injury is now defined as resulting in a total absence from work of 40 (forty) days or more, excluding the day of the event, as an initial prognosis or as a subsequent ongoing prognosis accompanied by medical certificates. Previously, only injuries with an initial prognosis of 40 (forty) days or more were registered as being serious, excluding the day of the event.

[12] Since 12 October 2017 (art. 3, paragraph 3-bis of Law Decree 244/2016), companies have an obligation to report to INAIL any injuries resulting in an absence from work of at least one day, excluding the day of the relevant event. Previously, the obligation only applied to absences of over 3 days, excluding the day of the event. Absences of less than 3 days were only registered internally.

Training

During 2019, over **183,193 hours of training were provided (47 hours per capita**).
Approximately 183,000 hours of training had been provided at 31 December 2019, primarily focused on professional and technical and operational skills (for example, **multi-skills**), transmitting highly specialised know-how (for example, **high voltage working**), ensuring compliance with **HSE, GDPR and statutory 231** requirements, and integrating newly hired personnel.

As part of the Call for Open Innovation "**HRR-Human Renewable Resources**" - launched in April by Terna and Digital Magics - innovative training and development initiatives were designed in collaboration with the best start-ups that have responded to the call for proposals, which will be implemented in 2020. In particular, the project in collaboration with EggUp/Together will supplement digital assessment and performance and training management by gauging the effectiveness of the initiative at the end of the course. The project in collaboration with MAAM envisages use of a training method that turns life experience (parenting/caring) into business/managerial skills, thus creating a virtuous continuity between personal and professional life.

Development of human capital

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.

Recruitment and selection

In 2019, the recruitment and selection strategy was strengthened with the introduction of new initiatives aimed at recruiting new hires and enhancing staff who already work at the Company.
In line with the previous year, 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. 2019 also saw the recruitment of specialist and middle manager profiles, needed to acquire new expertise and professional skills.
The third edition of **Next Energy**, an excellence programme that enables the Company to recruit outstanding new graduates with a flair for innovation, was implemented in 2019. The **Call for Talent** concluded in July 2019 with the selection and recruitment of 10 talented young people. The fourth edition of the project began on 31 October, and 10 new talented young people started an internship on 20 January 2020.
Other initiatives dedicated to our people included the launch of these **Calls for Employees:**

- **the Guest Auditor Programme**, which enabled two internal staff members to join the Internal Audit team for a period of around 3 months;
- the second edition of **Terna - RTE TSO Erasmus** led to the selection of 2 Terna employees and 2 employees from the French TSO, Réseau de Transport d'Électricité (RTE), to swap their respective offices and working groups for 4 weeks;
- **the Terna - Caiso Exchange Programme** enabled us to host a senior manager from the California Independent System Operator (Caiso) for one month in the dispatching department. In 2020, a Terna employee will undergo the same experience in California;
- the **Stanford Visiting Scholar** programme provides an opportunity to attend a semester of courses at this prestigious California university and take part in a strategic research project.

Terna 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 connection, during 2019, the third edition of the **Work Experience Scheme** project took place, involving 15 technical colleges throughout Italy and around 750 4th- and 5th-year students, which led to the Company recruiting its first 4 dual apprentices.
Lastly, as part of its partnership with Luiss University, Terna continued its commitment to support engineering and economics students from South American countries. With the second edition of the **International Training Programme** launched in July, two candidates - on Brazilian, and one Peruvian - were selected to attend a specialised two-year Business Administration course at Luiss University, starting in September.

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Company welfare

Given the successful outcomes of the trial in the previous year, and following the signing of specific agreements with the labour unions in 2019, the **Terna Welfare initiative, which allows Group employees to allocate part of their performance bonus for the purchase of welfare goods and services and supplementary pension schemes, was confirmed.** The amount chosen is tax-free and increased by 15% (compared with 12% in 2018), thanks to an additional supplement paid for by the Company. In defining the management service for the welfare plan, special attention was paid to the "Family" category. Indeed, employees allocated a significant portion of their bonuses to reimbursement of this type of expenditure, especially school expenses relating to tuition fees, study holidays, books and taxes.

In addition, in order to facilitate work-life balance, on 1 July 2018 a **smart working** trial was launched lasting throughout the second half of 2018, involving approximately 100 employees from organisational departments at offices in Rome. Given the success of the trial and its largely positive reception, in 2019 **smart working** was extended to staff based in Rome and other large cities, such as Turin, Milan, Padua and Naples, affecting a **total of approximately 550 employees.** This extension of the initiative, in line with the desire to enlarge the role played by collective bargaining in relation to such issues, was also the subject of a specific agreement with the labour unions.

Remuneration

Further details of remuneration and incentive schemes are provided in Terna S.p.A.'s annual Remuneration Report, which is published on the Company's website (www.terna.it).

Local stakeholders

Engagement with local communities is a key part of our Grid Development Plan. This allows us to create the conditions in which together we can build an increasingly sustainable national grid.

A favourable social environment, coinciding with the availability of sufficient relational capital, is essential to Terna's ability to carry out the investments envisaged in the Grid Development Plan within the established time-scale and to exploit available opportunities for its Non-regulated business, in Italy and overseas.

Participatory design

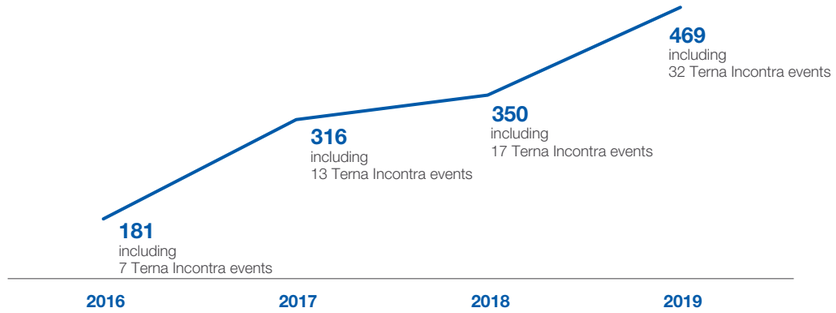
To create the best conditions for building and maintaining high-quality stakeholder relations, Terna has developed a number of tools and procedures within its "Stakeholder Engagement Model" designed to engage with and monitor public opinion, with the aim of creating an increasingly efficient and sustainable grid together.

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 stakeholders are listened to on a regular basis.

In line with this approach, Terna:

- speaks directly to people living in the areas where new infrastructure is to be located;
- presents and explains projects, and listens to local communities' opinions and requests for clarification;
- shares improvement solutions regarding the location of new infrastructure or the reorganisation of existing assets, always respecting environmental and landscape constraints.

NUMBER OF LOCAL MEETINGS



SUSTAINABILITY INITIATIVES

Terna has, since 2002, adopted a voluntary approach designed to foster the prior involvement of local government (regional and local authorities, park authorities, etc.). Since 2015, this has been extended to include people from the communities directly affected by Terna's plans through public meetings called "**Terna incontra**". These events focus on listening to local concerns, sharing design ideas and on dialogue, with the aim of ensuring a secure, efficient and sustainable grid.

Terna also held **40 public meetings**, including 32 "Terna Incontra" events, in 11 Italian regions (Piedmont, Lombardy, Veneto, Tuscany, Emilia-Romagna, Campania, Sicily, Basilicata, Abruzzo, Trentino-Alto Adige and Calabria), respectively, in Ponte Gardena, Chiusa, Fortezza, Renon Frazione Auna di Sotto, Bressanone, Tiles, Barbiano, Treviglio, Chiari, Casirate d'Adda, Urago d'Oglio, Malles-Venosta, Curon, Vizzini, Celano, Scafati, Castelnovo, Reggio-Emilia and Sant'Ilario d'Enza, at which the potential locations for 16 Development Plan initiatives were discussed.

Stakeholder

Local communities:
more engagement and consultation

Terna's commitment to the environment and biodiversity led, in 2009, to the conclusion of partnership agreements with critical stakeholders, such as leading environmental organisations, with the aim of arriving at shared solutions designed to boost the environmental sustainability of the National Transmission Grid (NTG). Growing concerns over the impact of climate change, and the accompanying focus on energy transition initiatives, has led to further cooperation between Terna and these organisations. In particular, in 2016, Terna renewed and expanded its partnerships with Legambiente, the WWF and Greenpeace.

Environmental organisations:
strengthening partnerships

Approaches to climate change and the energy transition **have widened calls from numerous institutional investors** for major companies to conduct an informed and full assessment of the business risks linked to ESG (environmental, social and governance) issues. Moreover, with the adoption, by European countries, of Directive 2014/95/EU on non-financial disclosures (in Italy with Legislative Decree 254/2016), large companies are now required to publish an annual non-financial statement. Of particular importance, in terms of transparency and reporting, are the recommendations from the Task Force on Climate-related Financial Disclosures (the so-called Bloomberg Task Force) regarding the publication of information on the implications of climate change for business strategies, in terms of risks and opportunities. This is considered of central importance, with regard to both the best possible allocation of investment and efforts to combat climate change. Terna has for some time now implemented these recommendations (an examination of the emerging risks has also been included this year in the section "Dispatching of electricity").

Investors:
a growing request for transparency regarding environmental, social and governance aspects

Innovation

Innovation and digitalisation are essential in an increasingly complex energy sector. Decisions regarding future development focus on the technology trends most relevant to our business.

The current **energy transition** process requires a new systemic and organic approach to innovation, based around the 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 2019, adopting a centralised, coordinated vision in order to encourage and coordinate research and the development of ideas, with the aim of creating a synergistic innovation ecosystem within the Company, **capable of enabling the transition to a new TSO 2.0 model**.

The transition requires a new, smarter approach to managing the electricity system, which should be increasingly intelligent and flexible both at the level of the grid, thanks to the use of Industry 4.0 enabling technologies, above all the Internet of Things or IoT (advanced sensors, big data, advanced analytics), 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 main tools Terna has put in place to develop innovation are:

- implementation of an **Open Innovation process**;
- creation of **Terna Innovation Hubs**;
- execution of projects within the **Innovation Hubs** via the **Innovation Factories and central departments**.

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. This will lead Terna to invest in technological initiatives of greater value for the Company and the national electricity and energy system.

RELEVANT TECHNOLOGICAL TRENDS FOR TERNA

Analytics
Advanced analyitics
Machine learning
Artificial Intelligence
Big data

Digital & Computing
Distributed computing
Cloud computing
Augmented and
Virtual Reality

Energy Tech
Power system productions
Energy efficiency
Storage
Charging stations
Electric mobility
Renewables
Power to Gas
Smart Grid

Cybertech
Encryption Management
Cybersecurity

Advanced Materials
3D Printing
Nanotech Materials

Full IOT
Satellites
Sensors
Drones
5G
Robotics

The steps taken in this regard include the development of a structured **Innovation Plan** and implementation of an **Open Innovation** process.

INNOVATION PLAN

The Innovation Plan organises the innovation flow in a consistent manner, from the birth of new ideas through to development of the projects emerging from the R&D process.

In 2019, Terna inaugurated its first three Innovation Hubs at local sites:

- On 9 April 2019, the first Innovation Hub was inaugurated at Terna's Turin site. The Turin Innovation Hub focuses on IoT (Internet of Things) and on advanced monitoring processes for power transmission infrastructure.
  Four areas of interest (satellites, drones, robots and advanced sensors) will be developed there, aimed at controlling the grid in a more dynamic and innovative way in order to guarantee the system's efficiency and security. Thanks to centralised data management it will be possible, among other things, to carry out predictive maintenance of assets, thereby cutting costs and increasing the reliability of the transmission grid;
- On 7 November 2019, the second Innovation Hub was inaugurated at Terna's Naples site. The Naples Innovation Hub focuses on Digital to People, namely on the digital transformation of business processes and the innovation of tools in the Human Resources, Organisation and General Affairs department. With the selected start-ups, Terna will develop Digital Safety and Digital Human Resources projects at the Naples Hub, including processes designed to make asset maintenance more efficient, the creation of apps that virtually reconstruct field operations to be used for staff training, and implementation of a platform for collecting information about training needs for use in designing personalised training and digital coaching courses;
- On 17 December 2019, the third Innovation Hub was inaugurated at Terna's Milan site. On 17 December 2019, the third Innovation Hub was inaugurated at Terna's Milan site. The Milan Innovation Hub operates in the field of Analytics and Energy Systems, in order to develop tools and skills for increasingly "intelligent" power grid management, via the processing and interpretation of data and the development of algorithms and advanced simulation and forecasting tools. The Milan Hub has two separate laboratories. The first one focuses on Advanced Analytics, in order to interact with start-ups and innovative companies in a specially designed environment. The second one, nicknamed the Energy Tech Lab, is a laboratory for System Operators' innovation projects, where Terna staff can experiment with innovative technologies in order to develop solutions for secure operation of the electricity system. The Energy Tech Lab consists of three different environments:
- Simulation and Modelling Desk - workstations for the simulation and modelling of process data from Terna's offline systems (historical data);
- Simulation and Modelling Integrated Systems - workstations for simulation and modelling via synchronous interaction with Terna systems (online data);
- Operational Console - workstations that provide synchronous interaction with Terna systems, which are capable of sending commands to the field.

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Terna Innovation Hubs

Origination and R&D projects

Work on the "**OSMOSE** - Optimal System-Mix of Flexibility Solutions for European Electricity" project, launched in January 2018 as part of the Horizon 2020 initiative, continued. The 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.

Terna's role is to lead Working Package 5 (WP5, one of the 4 demonstrators of actual grid situations to be developed in Italy along a 150kV portion of the NTG between Basilicata and Puglia, and coordinate important Italian partners in order to develop a new Energy Management System, which will involve the combined, "optimal" use of Dynamic Thermal Rating, Power Flow Control devices, new forecasting techniques and demand side response resources, with the aim of giving the electricity system greater flexibility.

Regarding the D5.2 "General technical specification for EMS and physical demo implementation" project, the main engineering and construction activities have been launched with regard to the Energy Management System, as well as the peripheral flexibility resources (industrial Demand Side Response and wind farms) and line monitoring (Dynamic Thermal Rating).

OPEN INNOVATION

New initiatives, which may be driven by requirements within the Company or by the Open Innovation process, are classified within a coherent framework, based on the principal new technologies earmarked by Terna:

- **Internet of Things**: IoT, industrial IoT, sensors and wearables;
- **Energy Tech**: technologies linked to the new energy resources (storage, demand side response, E-mobility) and smart grids;
- **Advanced Materials**: nanotechnologies, biomimicry and smart dust.

In particular, the Open Innovation process encourages the opening up of new development fronts within and beyond the Company, through dynamic interaction with universities and research centres and partnerships with peers and large industrial players, as well as access to start-ups and small and medium enterprises.

Sector	Description
Energy sector and infrastructure peers	The signature of agreements and partnerships with energy business players 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. *Examples: RTE, ENI, RFI, ENTSO-E, EASE*
Universities and research centres	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. *Examples: RSE, Ensiel*
Large companies and industries	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.
Start-ups, SMEs & venture capital	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. *Examples: the Next Energy programme*

The main initiatives during the year include:

LARGE COMPANIES, INCLUDING IN THE ENERGY AND INFRASTRUCTURE SECTORS

MoU with SNAM

On 16 October 2019, Terna and SNAM signed a **memorandum of understanding regarding cyber security** within the scope of the States General of the Italian Energy Transition. Terna and SNAM will engage in synergistic actions to identify, prevent and counter potential threats, attacks and damage to IT infrastructure, in order to boost the security and protection of electricity and gas systems and networks, which are vital elements of national interest.

On 1 March 2019, **Terna and SNAM signed a memorandum of understanding** to define and implement joint initiatives regarding **research, development and innovation** and the potential for convergence between the electricity and gas systems. In accordance with the legislative and regulatory framework, the agreement regards the development of shared scenarios for use in designing investment plans, the exploitation of convergence between the gas and electricity systems, the use of programmable renewable sources for power generation and the development of innovative technological solutions for the analysis and monitoring of infrastructure.

MoU with The Mobility House

On 31 May 2019, **Terna Energy Solutions and The Mobility House AG signed a memorandum of understanding** to evaluate the potential for cooperation or a partnership in order to exploit commercial openings **in the field of intelligent charging solutions, stationary storage and microgrids.**

UNIVERSITIES AND RESEARCH CENTRES

Hackathon

The Hackathon Smart Tower was held at the Turin Innovation Hub in September. The event, involving teams made up of Polytechnic University of Turin students with the support of CLIK and tutoring by Terna specialists, was aimed at identifying profiles of potential future interest. Innovative proposals were developed for services that use the Smart Tower platform.

Academy

In March 2019, the research project, to be carried out as part of the five-year partnership between Terna and California's **Stanford** University, got underway. The six-month project involved a member of Terna's personnel who was selected in 2018. The programme, which focused on the adoption of a nodal market model in Italy, concluded in August. The second part of the project, which is currently being organised, will see another colleague engaged as a Visiting Scholar at Stanford University to develop and investigate other aspects of the same research. The second part of the project will also last six months, starting in January/February 2020.

START-UPS, SMES AND VENTURE CAPITAL

Next Energy

The third edition of **Next Energy** consisted of three Calls:

- **Call for Talent:** 10 new graduates were selected, who, from January 2019, had access to a 6-month internship at Terna's Innovation facilities;
- **Call for Ideas:** In May, the Windcity project, deemed to be the best idea among the 10 finalists selected at the end of January 2019, which developed and produced V-Stream, a variable geometry turbine, was awarded a €50,000 voucher to be exchanged for acceleration services;
- **Call for Growth:** In January 2019, with support from the Cariplo Factory, 5 start-ups were selected for further engagement, with a view to defining use cases for subsequent partnerships with Terna.

On 31 October 2019, the fourth edition of Next Energy was launched on the theme of energy transition, with a focus on aspects of the Innovation Plan (Full Internet of Things, Energy Tech, Advanced Materials and Sustainability Digitization Data Management & Analytics).

AMS (Advanced Materials for Sustainability)	On 9 October 2019, the start-up, Particular Materials, won the **AMS - Advanced Materials for Sustainability** Terna Call for Innovation, aimed at developing latest-generation solutions as part of the quest for innovative materials to improve the efficiency and sustainability of electricity grid infrastructure.
D2O (Digital to Operations)	On 8 July 2019, the start-up, Smart Track, won the **D2O - Digital to Operations** Terna Call for Innovation, launched in May, aimed at improving the effectiveness of operations, with particular reference to personal safety issues, through the development of new technologies, devices, applications and high-added-value services to bring about "digital transformation".
Human Renewable Resources (HRR)	On 21 June 2019, Eggup, an HR-Tech SME, won the **HRR - Human Renewable Resources Terna Call for Innovation**, launched on 1 April, aimed at identifying the best services, applications and latest-generation and high-added-value solutions, to help bring about a real digital transformation in human resources management.

Factories

The main strategies relating to **Transmission Operator (TO)** and **System Operator (SO)** activities regard two factories set up in 2018: **the Transmission Operator Innovation Factory** and the **System Operator Innovation Factory**, which are responsible for the Innovation projects assigned to them, monitoring their progress, and the results of research and innovation activities in their fields.

The TO Innovation Factory includes the field of **Transmission Technologies** and is related to asset management, engineering and plant construction processes. It provides support for technological scouting, identification and implementation of technologies, and innovative processes and solutions for the evolution and continuous improvement of the NTG. Specifically, Transmission Operator R&D&I activities are mainly driven by the requirements of the Development Plan and asset management activities. Therefore, priorities are focused on new technologies for the construction and maintenance of Terna's assets (overhead lines, underground cables, electricity substations, HVDC systems).

The SO Innovation Factory includes the **Dispatching and Conduction** process, as well as the related engineering, supervision, control, management and monitoring activities of the national electricity system to ensure the adequacy, security, economy, continuity, quality and efficiency of the transmission service, in accordance with predefined and measurable standards; and **System Engineering**, with a focus on the upgrade and management of the national electricity system, preparation of defence and restart plans, commissioning of plants, calibration and protection systems, malfunction analysis and statistics, and system innovation.

Therefore, SO innovation is mainly focused on enabling participation in distributed generation resources markets, and electricity demand and storage, with the key objective of promoting the penetration and integration of Non-Programmable Renewable Sources within the National Electricity and Energy System. The priority innovation project streams in this sector regard 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 relating to the resilience of the Electric System, pilot projects relating to enhanced monitoring of distributed resources, etc.).

Digitalisation is the main enabler of innovation and the 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), and asynchronous data management (e.g. big data technologies and machine learning for use in data analytics and the exploitation of historical data).

Innovation within the Company is supported and promoted via:

- **Systems and processes to support the enhancement of assets and internal expertise**, including tools to enhance intellectual capital and share corporate know-how, as well as portfolio management tools;
- **Open innovation**, which 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 innovative small and medium-sized enterprises;
- **Access to incentive and soft financing mechanisms**, which encourages access to incentives (e.g. tax relief for companies investing in research and development and patent box schemes), and to specific funding programmes for both international and national R&D subjects.

RISK MANAGEMENT

Cybersecurity and data protection

Some time ago, Terna adopted an Information Security Governance model that has enabled identification of the top cyber risks. The model is based on a constantly evolving system of rules and procedures, inspired by national and international reference standards (including NIST, National Cybersecurity and Data Protection Framework, ISO 27001). The Cybersecurity and Data Protection operating model supports the main ICT processes, by guaranteeing task segregation principles and associating governance responsibilities with operational and cybersecurity event management responsibilities.

The nerve centre for cyber event management is Terna's Computer Emergency Readiness Team ("TERNA-CERT"). TERNA-CERT ensures centralised real-time monitoring of the Group's security, and preventive and reactive monitoring of potential cyber threats. A member of the main CERT communities at international level, TERNA-CERT is for all intents and purposes a cutting-edge centre for the prevention, identification and prompt management of cyber incidents, via the collection, monitoring and correlation of security events from diverse ICT platforms. Vital cybersecurity info-sharing processes are based on reports from institutional sources - especially from the National Anti-Crime Computer Centre for Critical Infrastructure Protection (CNAIPIC), with which Terna has had an active protocol for some years, and from the national CERT, with which cooperation agreements have been in force for some time - as well on specific agreements with specialised cybersecurity intelligence providers.

It is also important to highlight Terna's constant commitment to the preparation of dedicated cybersecurity infrastructure (relating to IT, OT and IoT), to the security by design of technological projects, and to continuous implementation of vulnerability assessments and penetration tests on the Company's information systems.

Terna has also adopted a Privacy Management Model in order to ensure compliance with GDPR. The Group's Privacy Management Model ("Privacy Model") is constantly updated, and organisational processes inspired by the "Principle of Responsibility and Transparency" (accountability) are implemented.

Specifically, this requirement translates into Terna's obligation to demonstrate and document implementation of all the necessary measures to protect the privacy of parties who entrust their personal information to the Company for various reasons.

Risk management

We carefully analyse all types of risk and assess the most suitable actions to take in order to mitigate any resulting effect, adopting specific safeguards, tools and organisational structures for this purpose.

In view of the distinctive and specific nature of the core business, regulated primarily through a government concession arrangement and by the Regulatory Authority for Energy, Networks and the Environment (ARERA, or the *Autorità di Regolazione per Energia reti e Ambiente*), Terna is exposed not to the usual price- and market-related risks (or is so only to a limited extent with regard to its non-regulated and overseas operations), but to regulatory and legislative risk, as well as the traditional operational risks which have become increasingly critical with the energy transition in progress.

Regulatory risk derives from potential changes in the criteria used to determine regulated revenue, particularly following a multi-year review of the regulatory framework. Legislative risk relates to potential changes in Italian and European laws governing matters relating to the environment, energy, tax and social aspects (above all labour and tenders).

From an organisational point of view, the key players in the risk management process are:

- **Audit, Risk, Corporate Governance and Sustainability Committee:** this committee consists of independent members of the Board of Directors and supports the Board of Directors in making assessments and decisions regarding the Internal Control and Risk Management System (ICRMS). Periodically, it is called on to assess the adequacy and efficacy of this system with respect to the nature of the Company and its risk profile;
- **Chief Risk Officer (CRO):** the CRO is responsible for planning and supporting implementation of the risk management process, encouraging the development of the necessary methods and tools, and for coordinating all the entities involved in the ICRMS, to maximise efficiency and minimise the duplication of roles;
- **Quality and Risk Management department:** through its Risk Coordination unit, this department guarantees effective oversight of the implementation of risk management policies and guidelines and supports other departments in this regard.

Risk management actors

Risk management methodology

The Terna Group has for some time used an **approach to risk management that is based on best Enterprise Risk Management (ERM) practices**, appropriately tailored to its own situation as grid operator, to identify, assess, control and monitor its risks. ERM analysis has enabled the Group to create a detailed map of its operations and their inter-relations, which are associated with a catalogue of over a thousand operational risks of differing importance in terms of critical nature and impact. This has provided a significant body of information for use when assessing critical areas.

over 1,000 operational risks

Alongside the adoption and application of an integrated risk management model, Terna has also developed an enterprise Governance, Risk and Compliance (eGRC) IT tool, allowing it to simplify and classify information to obtain a standardised and comparable representation of the Group's risks and produce an integrated report for senior management.

The risks to which the Terna Group is exposed may therefore be grouped into three macro-categories: **Governance & Compliance** (described below), **Operations** and **Strategy & Financial** (details are provided below in line with the corresponding activities).

RISK MANAGEMENT

Governance and Compliance models

By continuously monitoring Governance, Integrity and Compliance risks, and based on **best governance and compliance practices**, Terna:

- has adopted a Code of Ethics;
- has implemented an *Organisational and Management Model, as provided for in Legislative Decree 231 of 2001, as amended;*
- has approved "*Compliance rules for the prevention of administrative offences and violations relating to market abuse*" and adopted *Anti-corruption Guidelines*";
- has adopted a "*Global Compliance Program*";
- has appointed a "*Manager responsible for financial reporting*";
- has adopted an *Integrated Management System*, laying down the criteria for the management of Quality, the Environment, Occupational Health and Safety, Energy, Anti-corruption efforts, Information Security, multi-site Test Lab Security, Live-Line Working and the multi-site Calibration Centre, and a *Management System for the Prevention of Major Accidents* in accordance with the provisions of Legislative Decree 105/15 ("SEVESO III"), as amended (integrated into the Integrated Risk management system;
- has developed an *Information Security Governance Model*;
- has implemented a *Data Protection Model* in compliance with EU Regulation 2016/679 ("GDPR").

The Group has also adopted a "*Trade Compliance Policy*" on overseas trade and established a *Fraud Management* team, accompanied by an *Anti-Fraud Model*.

Fraud management

The approach to combating fraud is based on the **continuous monitoring of processes, in order to determine the level of exposure to the risk of fraud and the related risk factors.** The aim is to adopt suitable governance measures and increasingly rigorous controls, such as, for example, the definition of new internal rules and procedures.

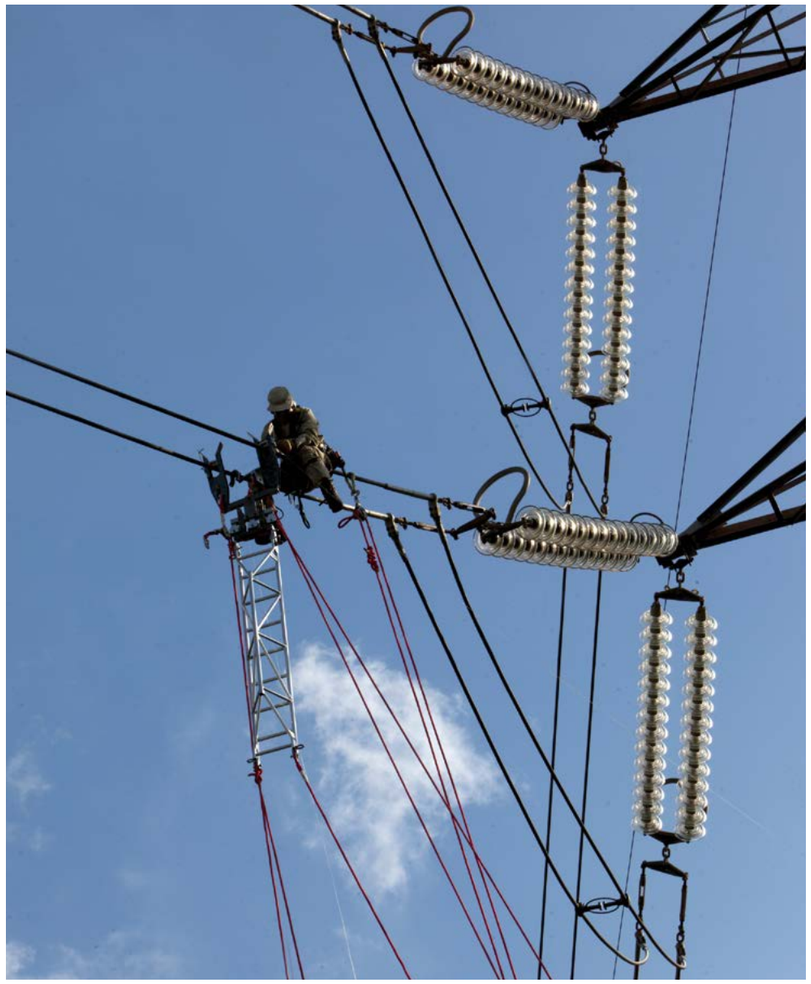
In pursuit of this objective, Terna has established, and continues to study, various types and forms of control, as part of a constant commitment to identifying new approaches to fraud management and new ways of implementing them in order to combat the related risks in the most efficient and effective manner possible.

The systematic analysis of the conditions that could give risk to fraud events, and cooperation with numerous government institutions, constitute the methodological approach to identifying critical areas that may give rise to such events.

Regulated Activities

The National Transmission Grid

We are responsible for planning, development and maintenance of the grid, contributing our expertise, technology and innovation (as the Transmission Operator). We are responsible for the transmission and dispatching of electricity (as the System Operator), with the aim of ensuring access to electricity for everyone with the highest level of quality and at the lowest possible cost.

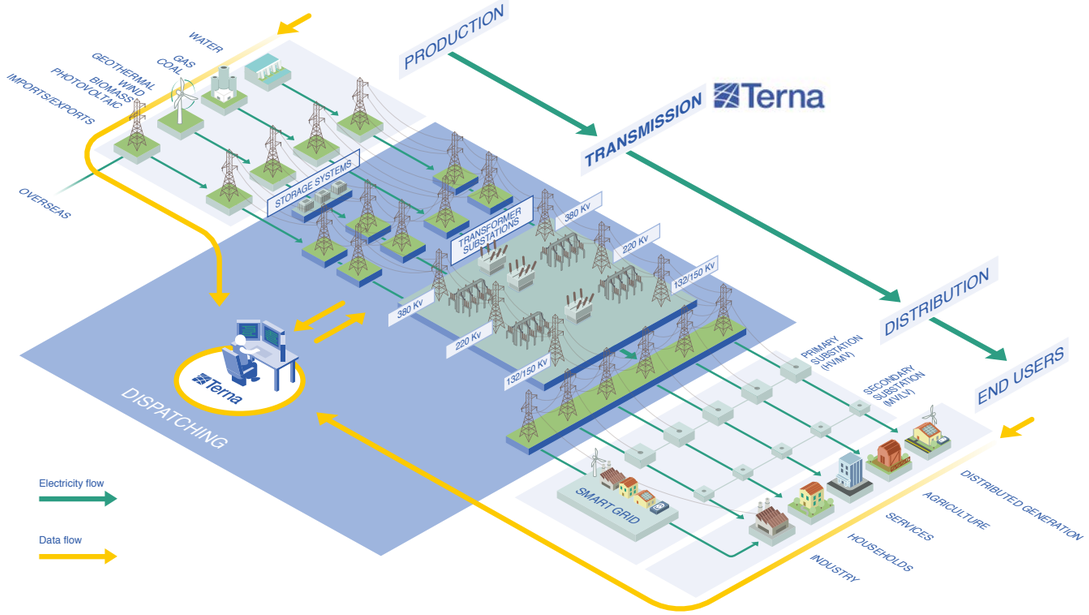


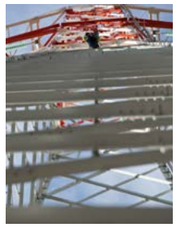
Terna's role in the Italian electricity supply chain

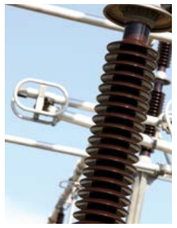
The Italian electricity supply chain consists of four segments: production, transmission, distribution and the sale of electricity.

The Terna Group's main regulated activities are the transmission and dispatching of electricity in Italy.
Terna performs these activities in its role as the Italian TSO (Transmission System Operator) and ISO (Independent System Operator), under a monopoly arrangement and a government concession.

THE NATIONAL ELECTRICITY SYSTEM SUPPLY CHAIN



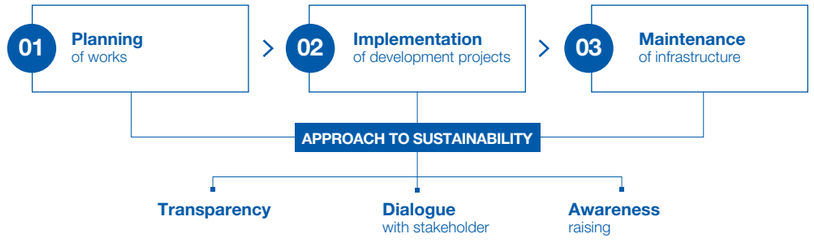



As the Italian System Operator, Terna is responsible for the dispatching service forming part of the National Electricity System.
One of the peculiarities of every electricity system is the need to be able to continuously guarantee that demand for energy from end users (households and businesses) is always balanced by the energy produced by power plants.
Terna has the key and delicate role of guaranteeing this balance through a high-technology system, using a specific market (the dispatching services market or "MSD"), in which it makes daily purchases of the "services" necessary to constantly ensure the continuity and security of electricity supply.

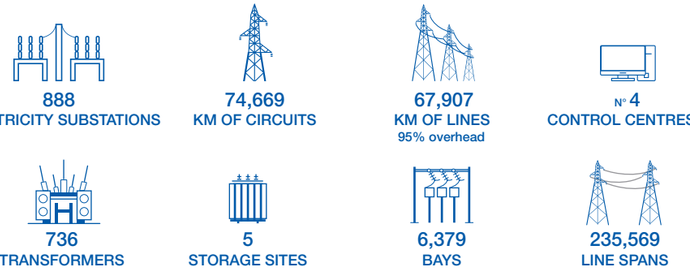
Electricity transmission

Planning for development of the National Transmission Grid, the performance of construction services and the maintenance of electricity infrastructure are the three areas of responsibility included in the regulated electricity transmission business.

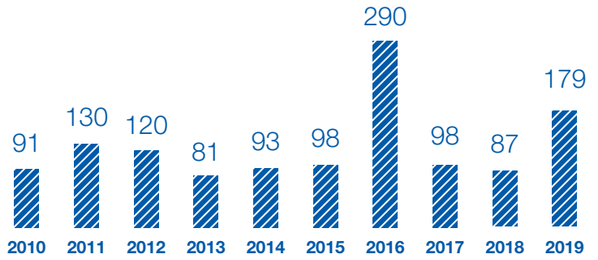


The Group adopts a sustainable approach throughout every stage of the process. This takes the form of transparency in managing the Group's social capital through engagement with the stakeholders directly affected by the Group's development initiatives, with a view to building awareness of the importance of delivering the planned new electricity infrastructure.

Terna's infrastructure



Risk management covers each phase of the operational process for regulated transmission activities. Each risk identified by the Group's adopted ERM methodology is assigned a level of importance. For risks that are above the selected acceptance threshold (risk appetite), possible mitigation actions are identified and implementation times estimated.



1,268 km

POWER LINES REMOVED (KM)

The figure for 2016 is exceptional due to the demolition of over 200 km of obsolete power lines in Valtellina as a result action that began in previous years. After adjusting for this removal, demolitions amounted to approximately 80 km, in line with previous years (approximately 100 km per year).

Integration with the environment

The main initiatives designed to mitigate Terna's environmental impact are described below.

- **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. The demolition of obsolete lines represents one of the most important positive contributions that Terna makes to improving the environment: 179 km of lines were demolished in 2019, freeing up an area equal to 556 hectares. This brings the total number of kilometres of line demolished since 2010 to 1,268. Demolition is defined as the physical removal of overhead lines (or their replacement with underground cable) and does not include downgraded or upgraded lines;
- **Use of pylons with reduced visual impact:** Terna increasingly uses new single-pole pylons with a low environmental impact (occupying only 10 m^2 of ground, rather than the 150 m^2 occupied by the traditional pad/pyramid type pylons). Other mitigation measures consist of camouflaging pylons with paint and the use of coloured insulators that enable the new lines to blend in better with the landscape;
- **Use of underground cables:** may eliminate or reduce the typical visual impact of overhead lines. Over 60% of the new power lines entering service during the timeframe of the new Plan will be "invisible", as they will be made of terrestrial or submarine cable;
- **Camouflaging electricity substations:** use of natural engineering techniques for habitat reconstruction and the stabilisation of slopes and embankments.

Electricity substations are significant from an environmental viewpoint partly as they are the principal source of the Group's direct greenhouse gas emissions. These consist of leakages of SF_6 (sulphur hexafluoride), a gas used as insulation in certain electrical equipment (circuit breakers, current transformers and armoured equipment). Leakages as a percentage of installed gas capacity in 2019 stood at 0.40%.

The Group's direct CO_2 equivalent emissions have thus fallen.

TOTAL DIRECT AND INDIRECT GREENHOUSE GAS EMISSIONS - TONNES OF CO_2 EQUIVALENT[13]	2019	2018	2017
Direct emissions			
Total direct emissions	**68,404.4**	**62,999.2**	**75,792.9**
of which: Leakages of SF_6	60,162.2	54,846.1	67,371.4
Indirect emissions			
Electricity[14]	**65,246.9**	**64,050.5**	**72,489.3**

CARBON INTENSITY TONNES OF CO_2 EQUIVALENT / REVENUE (€M)	2019	2018	2017
Total emissions (direct and indirect)	**133,651.3**	**127,049.7**	**148,282.2**
Ratio of total emissions to revenue	**58.2**	**57.8**	**68.6**

[13] The conversion of direct energy consumption and leakages of SF_6 (sulphur hexafluoride) and refrigerant gases into equivalent CO_2 emissions has been carried out using the parameters indicated in the IPCC Fifth Assessment Report (AR5) and the Greenhouse Gas Protocol (GHG) Initiative.

[14] The conversion of indirect electricity consumption is carried out taking into account the share of total Italian electricity production represented by thermoelectric production in 2019. Allocation for the purposes of the production mix was based on the December 2019 issue of the "Monthly Report on the Electricity System", available on the website at www.terna.it.

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 94% in 2019 (86% in 2018, 87% in 2017 and 93% in 2016). 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.

RISK MANAGEMENT

Relations with government institutions and local communities

In running test Strategic Environmental Assessments (SEAs) of the impact of its Grid Development Plan and then, once implemented, in complying with EU Directive 42/2001/EC, Terna has realised that, by progressively involving stakeholders and with the proactive participation of the authorities in deciding on the location of alternative corridors and the feasibility of routes for infrastructure, it has managed to significantly reduce the time needed to complete the consents process for works involved in developing the NTG.

By then extending this participatory approach to the Environmental Impact Assessment (EIA) process through engagement with local communities, the time employed to complete development projects is reduced to a minimum, with increasingly rare instances of opposition or attempts to halt construction work. Terna has invested in "participatory design", creating the conditions for the shared "construction" of an increasingly sustainable national grid. At the same time, we have identified institutional partners with whom we can discuss the risks resulting from their activities. This has led to cooperation with national bodies and authorities and the signature of memoranda of understanding, represented by a total of around 400 agreements. In this way, it is possible to overcome potential problems arising during operations.

The 2020 Development Plan

Terna's Board of Directors approved the 2020 Development Plan on 31 January 2020. Key aspects of the Plan are set out below:

CAPITAL EXPENDITURE

- **To boost overall exchange capacity with other countries**
- **To reduce congestion**
- **To cut energy losses**
- **To reduce CO_2 emissions** as a result of the production mix and lower grid losses

DRIVERS

DECARBONISATION

1. 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 over the long term, guaranteeing the system's security.

MARKET EFFICIENCY

2. 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

3. Security of supply ensures the security of the national electricity system and, at the same time, creates an increasingly resilient system, capable of handling critical events external to the system itself.

SYSTEMIC SUSTAINABILITY

4. The ability to conceive, design and implement following rigorous analysis capable of maximising the environmental and economic benefits is the only possible guarantee of sustainability.

PROJECT GUIDELINES

INTEGRATION WITH LOCAL PLANNING	GRID OPERATION	ENVIRONMENTAL SUSTAINABILITY
Focus on local development needs in response to Italy's new challenges, such as the new electric mobility projects, paying attention to metropolitan areas and reviewing projects in order to make them environmentally-friendly.	Identify and develop initiatives aimed at improving grid operation, with a special focus on enhancing service quality of service and the resilience of the system.	Support and guide the energy transition through the growing connection and integration of new renewable energy plants.

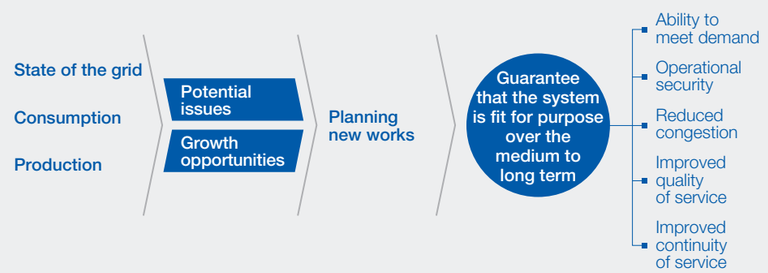
The key project guidelines have been divided into four **areas of action**, the main aspects of which are:

	RATIONALISATION	RESILIENCE	ACQUISITION OF GRID ASSETS	INTEGRATION OF RES
INTEGRATION WITH LOCAL PLANNING	› Metropolitan areas › Critical areas	› Development of new risk-based approach	› Acquisition of HV/HV substations and other assets to resolve operational issues	› Development of RES › Interconnections
GRID OPERATION	› Local agreements/ commitments	› Assessment of other climate events other than ice and snow		› Phase-out of coal
ENVIRONMENTAL SUSTAINABILITY	› Optimisation of the former RFI grid	› Infrastructure works		

With regard to decarbonisation, in line with Legislative Decree 93/11 and Resolution 627/16, as amended[15], Terna has included a specific section in the National Development Plan setting out the actions needed in order to make full use of the power produced by renewable plants. The network assessments conducted with a view to facilitating the use and development of renewable production have led to the identification of the work to be carried out on both the primary 380-220kV transmission grid and on the 150-132kV high-voltage grid.

The national electricity grid planning process

Analysis of the state of the grid (electricity flows through the grid and electricity market trends), and the evolution and distribution of consumption and production, enables Terna to identify critical issues and development opportunities and, consequently, to plan the new works required to ensure that the system is adequate, including in the medium to long term with regard to meeting demand, operational safety, reducing congestion and improving service quality and continuity.



The new works to be carried out are included in the **National Transmission Grid Development Plan**, which is submitted annually to the Ministry of Economic Development for approval. The approval process also includes adoption by the Ministry of the Environment and Protection of Land and Sea (MATTM) in agreement with the Ministry of Cultural Heritage (MIBAC) of the opinion relating to the Strategic Environmental Assessment (SEA) pursuant to Legislative Decree 152/06.

The **NTG Development Plan** 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.

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 and the integration of production from renewable sources in keeping with the objectives identified in the recent **Proposal for an Integrated National Plan for Energy and Climate (PNIEC)**, provided for by Regulation 2016/0375 of the European Parliament and of the Council on the Governance of the Energy Union.

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, resulting from its implementation.

A positive cost-benefit ratio is a necessary condition for an investment project's inclusion in the Development Plan.

[15] Resolution 627/2016/R/eel, as amended - Provisions for consultation on the ten-year National Transmission Grid Development Plan and approval of the minimum requirements for the Plan, in relation to the assessments for which the regulator is competent.

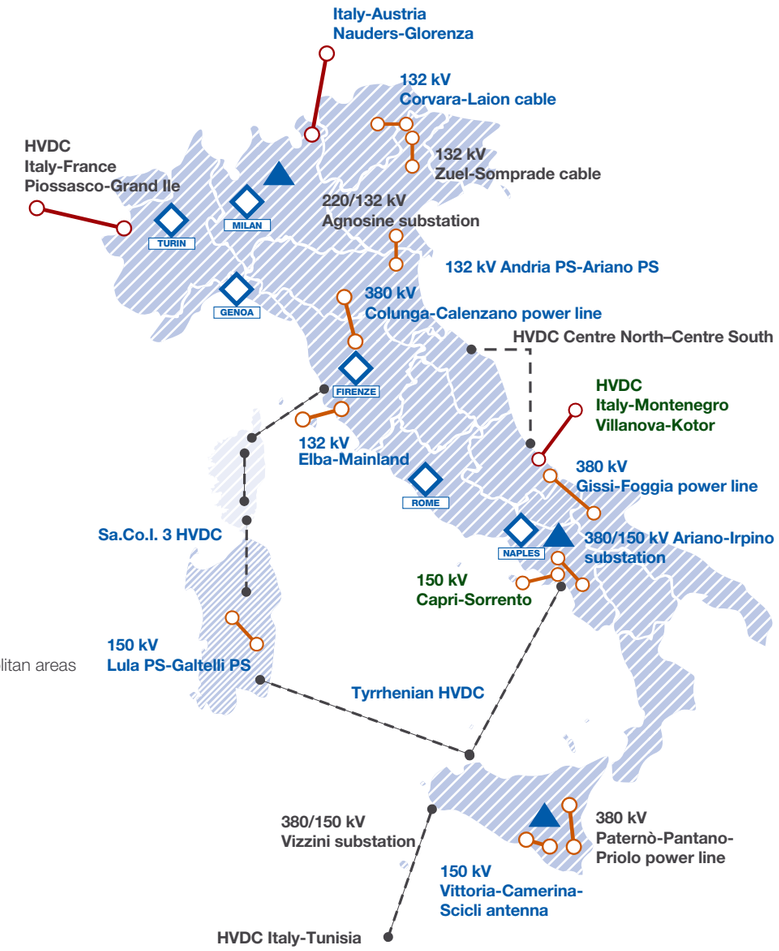
Principal projects for the National Transmission Grid

The Development Plan envisages capital expenditure of over €4 billion in the period 2020-24, which is in addition to expenditure on the Security Plan, the Electricity Asset Renewal Plan and other investment:

Capex 2019

in up 15.9%

versus 2018



Key to assets

- New substations
- Reorganisation of metropolitan areas
- Interconnections
- VHV grid upgrades
- HVDC under design

Key to work in progress

- Project in progress
- Project awaiting consents
- Completed project

DEVELOPMENT PLAN

Interconnections and lines	Km of circuit	Status	Driver
Italy-Montenegro interconnector	445	●	
Italy-France interconnector	190	○	
Italy-Austria interconnector	24	○	
Italy-Switzerland interconnector	100	○	
Italy-Slovenia interconnector	114	○	
Sardinia-Corsica-Italy interconnector	540	◎	
HVDC Centre South - Centre North	221	●	
HVDC Italy-Tunisia	200	●	
HVDC Mainland Sicily-Sardinia	882	●	
Sorrento Peninsula interconnector	20	●	
Reorganisation of metropolitan areas ✓	182	○	
Chiaramonte-Gulfi-Ciminna	173	○	
Rationalisation in the Mid Piave Valley ✓	90	○	
Colunga- Calenzano ✓	85	○	
Gissi-Foggia	140	○	
Cassano- Chiari	36	○	
Deliceto Bisaccia	36	○	
Upgrade North - Calabria	10	○	
Paternò-Pantano-Priolo	63	○	
Elba-Mainland	35	○	
Substations			
Substations entering service: Cepagatti and Kotor belonging to the Italy-Montenegro Interconnector project and Brennero, Nuraminis, Santerno, Mercatello sul Metauro, Picerno and Pontelandolfo		●	

SECURITY PLAN

Projects	Status	Driver
Fiber for the Grid	○	
Ice and snow risk mitigation systems ✓	○	
Control devices	○	

RENEWAL PLAN

The Plan to renew electricity assets provides for widespread initiatives across the entire NTG, aimed at improving the reliability of the electricity grid. Particular efforts were made in 2019 with regard to the renewal of overhead lines and substation equipment, including through the use of equipment with insulation using vegetable esters.

Legenda Resilienza e Status *

✓ Resilience Plan | ● Completed/ in service | ○ Under construction | ○ Awaiting consents | ◎ Consultation | ● Under design | ● Planned

Key *

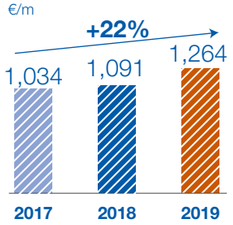
Decarbonisation | Market efficiency | Security of supply | Systemic sustainability

** The other initiatives completed in 2019 are shown in the section "Changes in the dimensions of the NTG" in the annexes.*

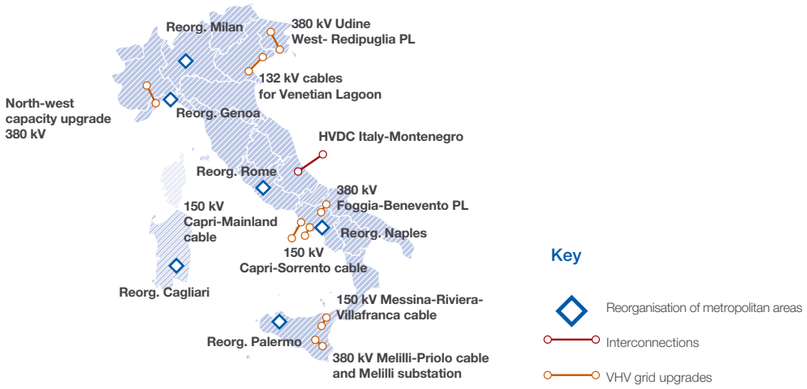
The Group's capital expenditure

The Terna Group's total capital expenditure in 2019 amounts to **€1,264.1 million**, compared with €1,091.1 million in the previous year **(up 15.9%)**.

CAPITAL EXPENDITURE
€/m



WORKS COMPLETED IN THE THREE YEARS 2017-19



(€m)	2019	2018	CHANGE	% CHANGE
Development Plan	488.1	471.7	16.4	3.5%
Security Plan	188.1	135.9	52.2	38.4%
Projects to renew electricity assets	372.4	296.0	76.4	25.8%
- of which electricity assets (before functional separations)	*312.7*	*227.6*	*85.1*	*37.4%*
- of which functional separations	*59.7*	68.4	(8.7)	*(12.7%)*
Other capital expenditure [1]	99.0	85.0	14.0	16.5%
Total regulated assets	1,147.6	988.6	159.0	16.1%
Non-regulated assets [1][2]	104.4	87.4	17.0	19.5%
Capitalised financial expenses	12.1	15.1	(3.0)	(19.9%)
TOTAL CAPITAL EXPENDITURE	1,264.1	1,091.1	173.0	15.9%

[1] Includes impact of IFRS 16.
[2] Expenditure in non-regulated assets primarily regards the private Italy-France Interconnector and include the private Italy-Montenegro Interconnector.

A total of 671 km of power lines entered service in 2019 (the Italy-Montenegro Interconnector, Pontelandolfo- Castelpagano, Capri-Sorrento, Schio-Arsiero, Palo del Colle-Bari Termica, Valle-Piscioli, La Rosa substation - Azimut, Brentelle-Bassanello, the connection to the Fiera substation, Pace del Mela-Villafranca, Marcello-Villafranca), in addition to the **8 electricity substations** referred to above. Following the conclusion of energy transmission tests, the new 150kV Benevento III - Pontelandolfo power line entered service in January 2020. This line, which is over 15 km long, connects the new Pontelandolfo electricity substation with the Benevento III electricity substation.

DEVELOPMENT PLAN - €488.1 million

Piossasco converter station:

- the civil works and the main buildings for the Piossasco converter station (control building, valve room, direct current equipment room) have been completed, as has production of key equipment for the station (converters and transformers), with installation nearing completion. Installation of the transformers and the cooling system has also been completed.

Italy-France Interconnector (€59.3 million)

Cable connection: cables have been laid over a 75-km section, representing 78% of the connection as a whole

- Former Sitaf section (from the station to the A32 motorway): completed;
- Upper and lower sections (A32 motorway): 36 km of civil works have been completed and 29 km of cable laid out of a total 45 km;
- Middle section (avoiding the A32 motorway): 24 km of civil works have been completed and 22 km of cable laid out of a total 25 km;
- Frejus: the civil works have been completed and 5.8 km of cable has been laid out of a total of 6.6 km.

Submarine and terrestrial cable: the new 19-km Capri-Sorrento connection was declared ready to enter service on 28 December 2019 (3 km of underground cable in the town of Sorrento and 16 km of submarine cable).

Sorrento Peninsula Interconnector (€27.6 million)

Sorrento substation: the Sorrento substation is under construction. The reactor has been completed.

The entire connection entered service on 28 December and work on the final layout of the site is in progress. This work extends for 445 km between Italy and Montenegro, linking the electricity substations of Cepagatti, in the province of Pescara, and Lastva, in the town of Kotor. This infrastructure is considered to be of strategic importance for the integration of European electricity markets, providing two-way interconnection capacity of 600 MW.

Italy-Montenegro Interconnector (€25.9 million)

Bisaccia-Deliceto power line: archaeological surveys and the removal of unexploded war-time bombs have been completed. The executive design has been completed and the procurement of materials is in progress. Construction work has begun.

Grid upgrades in the Foggia-Benevento area (€16.5 million)

Expansion of the Bisaccia electricity substation and the installation of PSTs: civil works are at an advanced stage; electromechanical assembly of the HV equipment has begun.

The provisional layout of the substation was completed in May 2019, and production from renewable sources consequently connected. Work has continued in 2020 on the final layout of the substation. In particular, the layout of the site is nearing completion, prefabricated buildings have been completed, as have the foundations for the electrical equipment; electromechanical assembly of the HV and LV equipment is in progress.

Belcastro substation (€13.3 million)

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Reorganisation in Naples (€10.2 million)

220kV Castelluccia-Naples Primary Substation cable: work is nearing completion and the cable is due to be commissioned in the first half of 2020.

220kV Astroni-Naples Centre cable: work began in May 2019 and cable laying is in progress.

220kV Castelluccia-San Sebastiano power line: work on the upgrade and putting the existing line under ground began in September 2019; construction work is in progress.

Brennero substation (€10.3 million)

Brennero substation: the 132kV section entered service in December 2019; work on the 110kV section is nearing completion, as is arrival of the equipment (the transformer and PSTs).

Overhead links: work on the links between the new substation and the Prati di Vizze-Austria cross-border line has been completed; this infrastructure is needed to begin operating the interconnection with Austria.

Reorganisation in Rome (€9.5 million)

150kV cable linking Rome South-Laurentina 1 and 2: line 1 has been in service since November 2019; excavation work and laying of the new cables for line 2 is in progress.

Main 150kV Laurentina-Nomentana power line:

- Laurentina-Ostiense: excavation work and cable laying is in progress (excavation for three sections has been completed, as has one of the six sections of cable A "Laurentina-Ostiense"; the executive design and archaeological surveys regarding the B "Laurentina-Ostiense" cable are in progress and work on excavation of the first section has begun);
- Villa Borghese-Nomentana: work on the executive design is in progress.

SECURITY PLAN - €188.1 million

Synchronous compensators (€84.1 million)

The plan to install synchronous compensators in Sardinia and central and southern Italy is being implemented. This will support the regulation of short-circuit voltage and power in areas of the country characterised by a high level of production from renewable sources and a significant reduction in traditional production.

In particular:

- **Selargius and Matera:** the civil works are nearing completion and production of the related supplies has been completed. The equipment (synchronous compensators and transformers) has been delivered on site and the related on-site assembly has begun;
- **Garigliano and Maida:** work has begun and the civil works are in progress; production of the related supplies is in progress;
- **Foggia:** the executive design has been completed.

Fiber for the Grid (€36.7 million)

This project aims to boost the availability of data on the grid in order to make it easier to monitor and manage the security of the electricity system, by increasing and expanding the fibre optic network.

A further 40 electricity substations on the NTG (making a total of 436 substations) and 40,800 km of fibre were connected and lit in December 2019.

Power line Brindisi Pignicelle - Brindisi EniPower (€18.4 million)

Construction work began in July 2019 and the laying of cables is in progress.

RENEWAL PLAN - €372.4 million

Renewal of electricity assets (€312.7 million, before functional separations)

A further 4 green assets entered service in 2019 (making a total of 8 green assets). Approximately 15 km of fluid-oil cables have been replaced with new cables with solid insulation, confirming the commitment to using new, more sustainable and eco-friendly technological solutions.

Separation of Rete S.r.l.'s substations (€59.7 million)

Work continued on the project involving the separation of Rete S.r.l.'s substations, aimed at progressive integration into the grid of the HV substations acquired from FSI S.p.A..

A further 67 electricity substations were integrated in 2019 (making a total of 306 substations out of the 350 acquired in 2015).

Infrastructure maintenance

Giving priority to quality and security

Maintenance of electricity grid infrastructure is essential in order to guarantee quality of service, the security of the assets managed and the performance of power line and substation components. These operations are carried out on the basis of a predictive and conditional approach. **The tools used to support maintenance activities are subject to continuous innovation**. In particular, the maintenance engineering "engine" is the expert decision support system (DSS) called **MBI (Monitoring and Business Intelligence)** whose engineering models are continuously updated. For scheduling and execution of operations, **(WFM - Work Force Management)** software is used, and aerial inspection techniques for the electricity grid have now been consolidated. Terna has, for many years, participated in international benchmarking for the sector, with the aim of sharing best maintenance practices. It has consistently ranked as one of the best TSOs in terms of fault rates and the efficiency of its maintenance process.

INFRASTRUCTURE MONITORING AND CONTROL

34,740
checks on substations of various voltage levels

1.3
inspections a year for each line

89,174 km
visual inspections of circuits

48,563 km
inspections of underground cable

39,544 km
visual inspections using helicopters

25
total average frequency inspections per year

ROUTINE MAINTENANCE

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.

VEGETATION MANAGEMENT

28,960 km
of power line; this has to be done to ensure the correct and safe operation of the lines

LIVE-LINE WORKING

3,100
checks and line maintenance interventions using live-line working were carried out

RENEWAL PLAN

The Renewal Plan is based on an analytical method that, starting from consistent, objective technical criteria, identifies and evaluates extraordinary maintenance works ("renewal"), assessing the state of repair and technical status of line components and substation equipment, using a priority clustering approach with the aim of improving the quality of the electricity service and prolonging the useful lives of assets.

Renewal work is associated with the following benefits:

- **Sustainability**, resulting from the use of more eco-friendly components, the replacement of fluid-oil cables and improvements to the reliability of assets;
- **Innovation and digitalisation**, reflecting the adoption of monitoring systems for existing assets using digital and innovative solutions;
- **Resilience**, work on strengthening the NTG in order to increase the resilience of the infrastructure.

The main renewal initiatives ("extraordinary maintenance") are described below:

EXTRAORDINARY MAINTENANCE

POWER LINES

2,747 km
of conductors

3,296 km
of ground wires

167
pylons were replaced

SUBSTATIONS

27
static machines

221
circuit breakers

353
disconnectors

678
current transformers

857
voltage transformers were replaced

RISK MANAGEMENT

Relations with institutional partners

Following an innovative approach to risk reduction policies, **Terna cooperates with institutional partners (national and international regulatory bodies and authorities) with which to share the risks resulting from its activities**. These include the Ministry of the Interior, the Italian tax police, the Fire Service, the National Association of Italian Municipalities, Prefectures and CNAIPIC (the National Centre for Combating Cyber Crime and for the Protection of Critical Infrastructure), the State Police, ANIE (the National Association of Electricity Companies), Snam, ISCTI (the Higher Institute of Communication and Information Technologies) in relation to cooperation regarding the national CERT and DIS (the Cabinet Office's Security Intelligence Department). In particular, in October 2019, **a memorandum of understanding was signed by Terna, Port Authorities and the Coast Guard** with the aim of boosting efforts to prevent damage to submarine cables. The parties have committed to increasing the effectiveness of surveillance of the stretches of water where around 1,500 km of submarine cable are located. The aim is to draw up a structured cooperation plan to facilitate the investigation of cases where damage has been caused to submarine electricity cables, in order to identify the persons responsible for the damage.

Protection of people and assets

The physical security of substations is assured by using devices, systems and units operating 24 hours a day, seven days a week. **To safeguard the security of the Company's premises and plant, Terna has also developed a surveillance platform called the Integrated Physical Security System**, which allows the dedicated surveillance centre - the Security Operations Centre or SOC - to continuously monitor any intrusion alarms and video from 235 substations.

When needed, the VideoBox system also makes it possible to set up a video-surveillance and alarm system for critical areas (such as storage areas for materials or construction sites) in just a few hours.

In order to raise the level of physical security, the analysis of video flows using AI began in 2019. This identifies intrusion events through the use of Deep Learning algorithms based on neural networks, integrated with the central physical security systems.

Terna has partnered with the Italy's **Carabinieri police force** to further strengthen its communications and rapid intervention system, which enables the SOC to quickly alert the police in the event of attempts at forced entry to critical substations, all equipped with video surveillance equipment. The new system has been called "O.D.I.N.O." (Operational Device for Information, Networking and Observation) and is connected, via a secure link, to the centralised operating system used by Carabinieri operations rooms throughout Italy.

Ongoing Security Intelligence activities continued in 2019 in order to protect Group companies' assets, operations and interests in Italy and overseas, assessing and monitoring security in the countries and areas of interest to the Group.

The process of installing seismic sensors began in 2019, marking the first step in creating Terna's Accelerometric Network. Work also began on the centralisation of the resulting data on a central platform, making it possible to measure the physical impact of seismic events on electricity substations.

Work also began in 2019 on the protection of pylons using a centralised system to record events (attempts at sabotage and pylon stability), based on data from sensors integrated with central physical security systems. This has been done for the purpose of managing emergency situations and protecting lines and the areas around substations.

Finally, the Advanced Enterprise Protection System (SETA) was released in 2019. **SETA** aims to provide an integrated, georeferenced system for managing business threats and emergencies, based on a single infrastructure available to the SOC. SETA will be made available to senior management and the Company's key departments.

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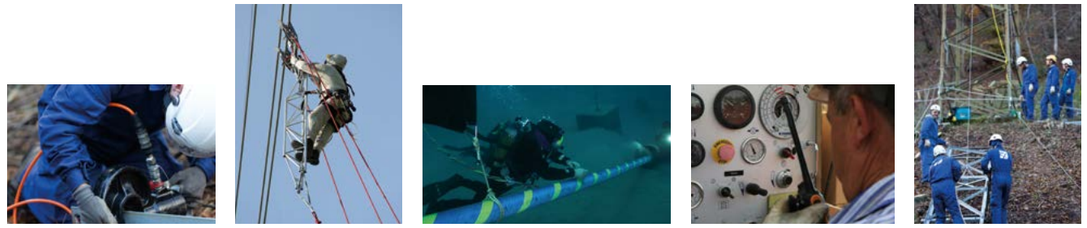
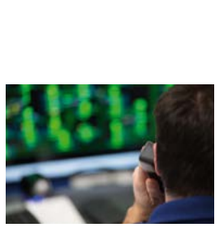
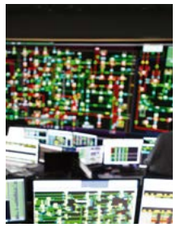


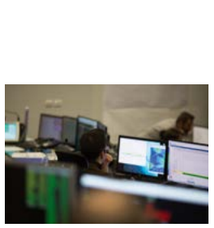
Supply chain

Terna uses a Supplier Qualification System set up pursuant to existing legislation governing Public Works (Legislative Decree 50 of 18 April 2016 "Public contracts code for the supply of works, services and goods"), for all the main core categories of goods, works and services that Terna intends to procure, established on the basis of strategic importance, degree of competitiveness and annual procurement volumes.

The qualification procedure is overseen by a Qualification Committee whose members are senior managers and an independent, external Chair in compliance with the **principles of neutrality, impartiality and collective responsibility**.

The qualification process assesses the suitability of each supplier on the List through rigorously assessing their satisfaction of legal, financial, technical, organizational and health and safety requirements and their social ethics, assessed partly via on-site inspections. During the three-year qualification period, suppliers are constantly monitored. **37 inspections** were carried out in 2019 in order to conduct checks and monitoring on suppliers' premises.




Quality of service

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 monitors service continuity through various indicators defined by ARERA (Resolution 250/04) and in Terna's Grid Code.
These continuity indicators are significant for the system, as they monitor the frequency and impact of events that have occurred on the electricity grid as a result of faults or due to external factors, such as weather events. In all cases, the period of observation is four years, a period in which there have been no significant changes, testifying to the high quality of service achieved.

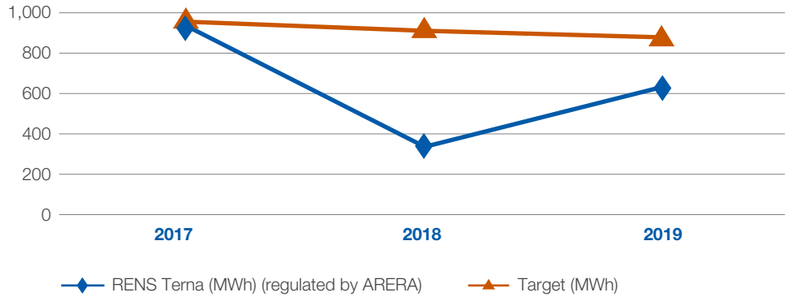
CONTINUITY INDICATORS USED

RENS*

What it measures
Energy not supplied following events affecting the relevant grid.**

How it is calculated
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).

RENS[16] INDICATOR PERFORMANCE 2017-2019



* *Regulated Energy Not Supplied.*
** *The "relevant grid" refers to all of the high-voltage and very high-voltage network.*

The **"NTG RENS"** indicator for the period from January to December 2019, based on preliminary data, amounts to approximately 625 MWh (compared with an annual target of approximately 881 MWh set by ARERA).

[16] The targets for 2016-2023 have 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. Since 2016, Terna's bonus/penalty mechanism also includes the performance of the grid operated by Terna Rete Italia S.r.l. (merged with Terna S.p.A. on 31 March 2017).

As regards the **ASA** indicator, availability was 99.99980% in 2019, compared with 99.99991% in the previous year. 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.

Existing regulations (set out in Resolution 653/2015/R/eel) envisage a series of mechanisms designed to regulate and encourage improvements in the quality of service provided by Terna. The overall economic effects of the bonus/penalty mechanisms related to quality of service for 2019, compared with 2018, are shown below.

QUALITY OF SERVICE (€M)	2019	2018	CHANGE
RENS bonuses/(penalties)	20.2	7.4	12.8
Revenue	**20.2**	**7.4**	**12.8**
Mitigation and sharing mechanisms	4.3	7.5	(3.2)
Contributions to the Fund for Exceptional Events	0.6	2.0	(1.4)
Compensation mechanisms for HV users	0.6	0.4	0.2
Contingent assets	(4.9)	(4.8)	(0.1)
Costs	**0.6**	**5.1**	**(4.5)**
TOTAL	**19.6**	**2.3**	**17.3**

* *Average Service Availability.*

CONTINUITY INDICATORS USED

ASA*

What it measures
Availability of the service provided by the NTG.

How it is calculated
Based on the ratio of the sum of energy not supplied to users connected to the NTG (ENS) and energy fed into the grid.

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.

Constant balance between energy demand and supply

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 transfers 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 following key events in relation to efficient management of the grid took place in 2019.

KEY EVENTS IN 2019

Black start simulations

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 2019, four live tests **were successfully conducted**, followed by the related black starts.
On 13 January, black start testing was carried out from overseas, from Slovenia to Puglia. In September, November and December, a further three simulations were conducted in Italy, with black starts carried out in Friuli-Venezia Giulia, central Italy (Abruzzo, Lazio and Umbria) and in Sardinia.

TERRE project

The TERRE (Trans-European Replacement Reserve Exchange) project began in 2013 as an early implementation of the Electricity Balancing Guidelines regarding the design, development, implementation and management of a platform to **share balancing resources among European countries.**
The project involves 11 countries of which nine are full members (France, the UK, Switzerland, the Czech Republic, Poland, Spain, Portugal, Romania and Italy) and two are observers (Bulgaria and Hungary).
In August 2019, a Cooperation Agreement was signed that marks the beginning of the implementation and operational phase of the TERRE platform for the exchange of Replacement Reserves (to be activated in over 15 minutes).

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Capacity Market

The Capacity Market enables Terna to procure generation capacity via fixed-term contracts awarded by competitive auction. This market will make the energy market more efficient and guarantee the security of the system and the procurement of electricity. In addition, the Capacity Market also has a key role to play in the phase-out of coal by 2025.

European Regional Coordination initiatives

In implementation of **Regulation SO GL 2017/1485**, regarding the creation of a **Regional Security Coordinator (RSC)** to protect the operational security of the electricity transmission system, the quality of frequency and efficient use of the interconnected system and within the **GRIT Region** (which includes the borders between areas of the internal market within the Italian system and the interconnection with Greece) and the **South-Eastern Europe Region**, on 20 December, the TSOs from the countries concerned (Italy, Greece, Hungary and Romania) agreed to set up a company to be based in Salonika.

In implementation of the Regulation, on 24 December, Terna submitted the following to ARERA:

- the joint proposal agreed by TSOs in the Greece-Italy Region regarding the approach to regional coordination of operational security;
- the joint proposal agreed by TSOs in the Northern-Italy Region (Italy, France, Switzerland, Austria and Slovenia) regarding the approach to regional coordination of operational security.

Opening up of the DSM to new types of resource

In accordance with ARERA Resolution 300/2017/R/EEL (which set up pilot projects as part of the progressive opening up of the dispatching services market to new types of resource, including storage systems and distributed demand and generation), on 20 November 2019, Terna published a document, to be consulted on with entities interested in making use of the **Fast Reserve** service, in the "Pilot Projects" section of its website. These projects aim to increase the resources available to provide grid services, try out new forms of revenue and test new kinds of fixed-term procurement of resources, partly in view of the future scenarios described in the proposed National Integrated Plan for Energy and Climate (PNIEC). The Fast Reserve service could thus contribute to system security by improving the speed of response to frequency changes, a service up to now provided by traditional generating plants.

Application of European Grid Codes

In implementation of the related EU regulations:

- **EU Regulation 2016/631** on requirements for the connection of generators to the grid;
- **EU Regulation 2016/1388** on demand connection;
- **EU Regulation 2016/1447** on requirements for connection to the grid of high voltage direct current systems and direct current-connected power park modules.

Terna submitted changes to the Grid Code to ARERA. These regarded Chapters 1, 4 and 14 and Annexes A17 and A68. The changes were approved by ARERA in resolutions 592/18, 82/19 and 539/19.

In implementation of **EU Regulation 2017/2196** (the "Emergency and Restoration" Regulation), which established a Grid Code for electricity emergencies and restoration, Terna submitted changes to the Grid Code to ARERA regarding Chapter 10 and Annexes A9, A10, A12 and A75. These changes were approved by ARERA in Resolution 546/2019.

In implementation of **EU Regulation 2019/943** on the internal market for electricity in the Italy North Region, Terna submitted its proposed method for calculating capacity to ARERA. The proposal, drawn up by the Region's TSOs, has altered the method to reflect the provisions designed to guarantee markets minimum cross-zonal capacity of 70%.

Dispatching

RISK MANAGEMENT

The transition to a new model of distributed generation from renewable sources is rapidly changing the market, with the rise of the prosumer (producer and consumer) model, which is progressively replacing the traditional consumer. This has resulted in exponential growth of "active" resources connected to the grid.

The risk is linked to difficulties in maintaining observability of the grid in terms of injections and withdrawals of energy. This is having an impact on the ability to forecast residual demand (before self-consumption) and, as a result, on the correct management of generating resources that are able to provide flexible services.

Terna mitigates the risks associated with the management of renewable sources and the "real-time" observability of resources by **using advanced forecasting and planning tools, a supply of new flexibility resources, and innovative data management and analytics solutions.**

Electricity cost trends

Electricity prices

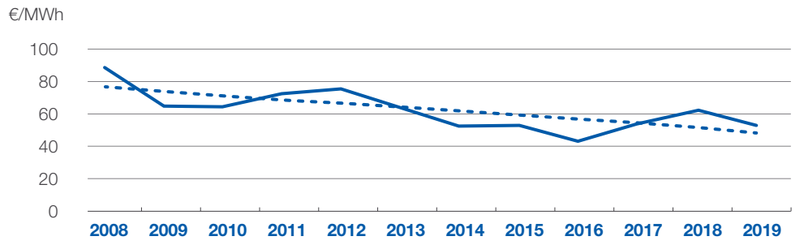
-15%

PUN 2019

The average hourly price on the Italian Power Exchange (IPEX[17]/SNP -Single National Price) for 2019 is €52 per MWh, down 15% compared with 2018, reflecting reductions in commodity prices (especially the price of gas) and the increased supply of renewable energy.
The Day Ahead Market, which sets the SNP, is based on supply and demand, although Italy must, by necessity, also take account of its particular geography, with the physical nature of the electricity grid, the widespread nature of its infrastructure and the location of consumption, and the resulting grid congestion. This means that there are a number of "bottlenecks" on the transmission grid, which have made it necessary to identify "market zones" and set transmission limits. Eliminating these bottlenecks is one of Terna's tasks, above all through development of the grid.

The following chart shows the performance of the SNP from 2008 to 2019, **highlighting a declining trend.**

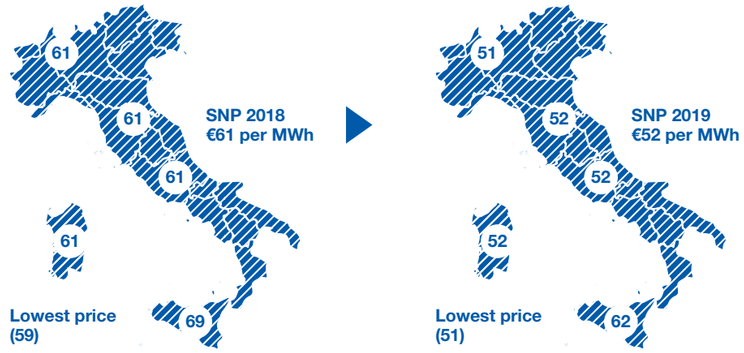
PERFORMANCE OF THE SINGLE NATIONAL PRICE (SNP) FROM 2008



Over the years, prices in the principal zones that make up the Italian electricity market and the Single National Price (SNP) have fallen into line.

[17] IPEX: the Italian Power Exchange.

PERFORMANCE OF ITALY'S SNP AND ZONAL PRICES



Trade with other countries

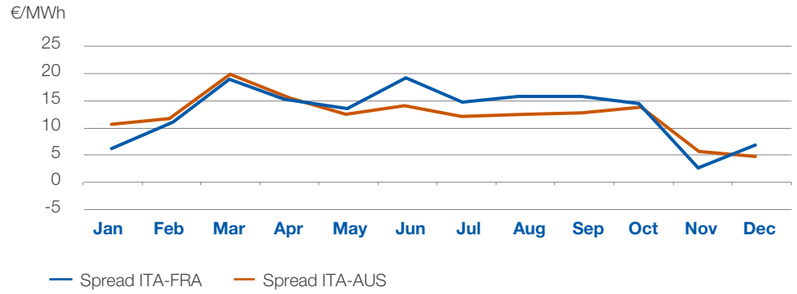
Trade with other countries in 2019 resulted in a reduction in net imports, which are down approximately 6 TWh (13%) compared with the previous year.
The winter period (January and the last two months) registered the usual reduction in the quantity of electricity imported, compared with the available transmission capacity in the northern interconnection. This was above all due to the alignment of power exchange prices.

-6TWh

net imports

Prices on the French (PNX) and Austrian (EEX) exchanges fell year on year in line with the decline in commodity prices (especially the price of gas).

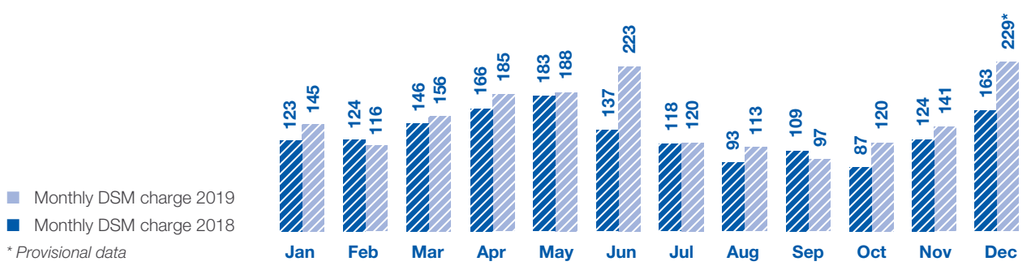
MONTHLY SPREAD FOR ENERGY PRICES COMPARED WITH FRANCE (PNX) AND GERMANY/AUSTRIA (EEX/PHELIX)



In particular:

- the Powernext (French price) registered an increase in the cold months of the year during which, traditionally, energy demand in France rises sharply, whilst recording lower average prices in the summer. The average annual price was €39 per MWh (down €11 per MWh or 21% compared with the previous year);
- during summer, the Austrian price (EEX) diverged from the trend recorded by the French price, registering increases due to both greater demand from Slovenia and the fact that it is no longer coupled with the German market. The average annual price was €40 per MWh (down €6 per MWh or 13% compared with the previous year).

ANNUAL AND MONTHLY DSM COSTS (€M)



Dispatching Services Market (DSM)

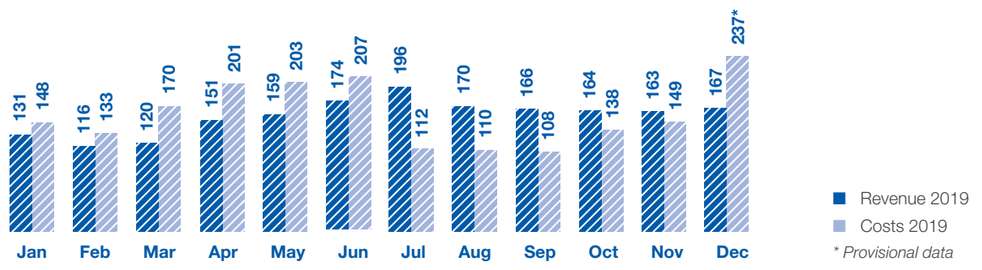
Net DSM charge up in 2019

In 2019, the net charge for using the DSM was €1,833 million, up on the previous year (€1,573 million). The increase is due above all to:

- an increase in the cost of selection, resulting from the need to meet technical constraints due to a reduction in the number of traditional plants in service as a result of Electricity Market trends;
- an increase in the cost of procuring reserve capacity compared with the previous year, primarily due to price increases.

Terna procures dispatching resources on the Dispatching Service Market (DSM) to ensure the security and adequacy of the electricity system.

2019 REVENUE AND UPLIFT COSTS (€M)



Cost of procuring resources on the Dispatching Services Market (uplift)

+10%
the UPLIFT in 2019

In 2019, the total uplift was €1,916[18] million, up 10% on the previous year. The rise was primarily due to the increased cost of procuring services on the DSM and a reduction in revenue resulting from imbalance costs.
Uplift payments are the tool used by the system to recover the net costs deriving from energy-related items from the end user, including the supply of services and energy to cover system imbalances in the DSM, imbalance costs, congestion revenue and the related coverage (CCT, CCC, CCP and DCT[19]) and the cost of the virtual interconnection (the Interconnector).
ARERA Resolution 111/06 (TITLE 4) regulates charges for dispatching services and the connected guarantees. Dispatching charges include the cost of procuring resources on the Dispatching Services Market (known as the uplift), pursuant to article 44, as amended.

The charge is invoiced pro-rata to dispatching users based on energy withdrawn, to cover the expected accrued monthly cost and any prior differences.

[18] The uplift includes the virtual interconnection, amounting to approximately €232 million in 2019 (compared with approximately €292 million in 2018).

[19] These abbreviations, which refer to the Italian terms, have the following meanings:
CCT - Fees for Assignment of Rights of Use of Transmission Capacity;
CCC - Contract Covering the Risk of Volatility of the Fee for Assignment of Rights of Use of Transmission Capacity (between zones);
CCP - Contract Covering the Risk of Volatility of the Fee for Assignment of Rights of Use of Transmission Capacity (between industrial centres);
DCT - Contract Covering the Fee for Assignment of Rights of Use of Transmission Capacity on Foreign Interconnections.

Operating results of Regulated Activities

The following table shows a breakdown of the results from the Terna Group's Regulated Activities in 2019 and 2018[20].

(€m)

	2019	2018	CHANGE
Total regulated revenue	**2,055.0**	**1,989.6**	**65.4**
Tariff revenue	1,973.1	1,932.2	40.9
- Transmission revenue	*1,860.2*	*1,789.1*	*71.1*
- Dispatching, metering and other revenue	*112.9*	*143.1*	*(30.2)*
Other Regulated revenue	54.3	31.9	22.4
Revenue from construction services performed under concession in Italy	27.6	25.5	2.1
Total cost of Regulated Activities	**397.5**	**403.1**	**(5.6)**
Personnel expenses	213.1	203.4	9.7
External resources	150.6	155.5	(4.9)
Other	6.2	18.7	(12.5)
Cost of construction services performed under concession in Italy	27.6	25.5	2.1
EBITDA from Regulated Activities	**1,657.5**	**1,586.5**	**71.0**

EBITDA from Regulated Activities in Italy amounts to €1,657.5 million, an increase of €71 million compared with the figure for the previous year. This primarily reflects an increase in the WACC used in setting tariffs.

65.4 € mln
the increase of Regulated Revenue

Regulated Revenue is up €65.4 million, reflecting the following:

- a €71.1 million increase in **transmission revenue**, due to the adjustment to the Group's WACC applied by Resolution 639/18 (up to 5.6% for the three-year period 2019-2021 from the 5.3% of the previous period 2016-2018), an increase in invested capital (RAB), the determination of revenue from the Italy-Montenegro Interconnector (ARERA Resolution 568/19) and the recognition of additional payments for energy-intensive storage systems (ARERA Resolution 169/19);
- a €30.2 million decrease in **dispatching, metering and other revenue**, due to ARERA's one-off recognition of certain expenses arising in the previous year;
- an increase in revenue resulting from the RENS quality incentive mechanism (up €12.8 million), following assessment of the performance in 2018 (Resolution 521/2019/R/eel) and valuation of the performance in 2019, taking into account the estimated results expected overall for the regulatory period 2016-2020 (Resolution 653/2015/r/eel);
- increased revenue from the application of penalties to suppliers (up €1.8 million) and connection services (up €1.7 million).

The **cost of Regulated Activities** is down €5.6 million, primarily reflecting the adjustment of the Group's provisions for taxation, linked to prior provisions made in relation to Land Registry Circular 6/2012 (a reduction of approximately €6.6 million), a decrease in the cost of leases and rentals falling within the scope of IFRS 16 (down €5 million), lower costs relating to quality of service (down €4.5 million, primarily due to the impact of outages and interruptions in 2018), partially offset by the impact on **personnel expenses** due to an increase in the average workforce (up €9.7 million).

[20] The Terna Group's operating segments are consistent with the internal control system adopted by the Parent Company, in line with the Strategic Plan for the period 2020-2024.

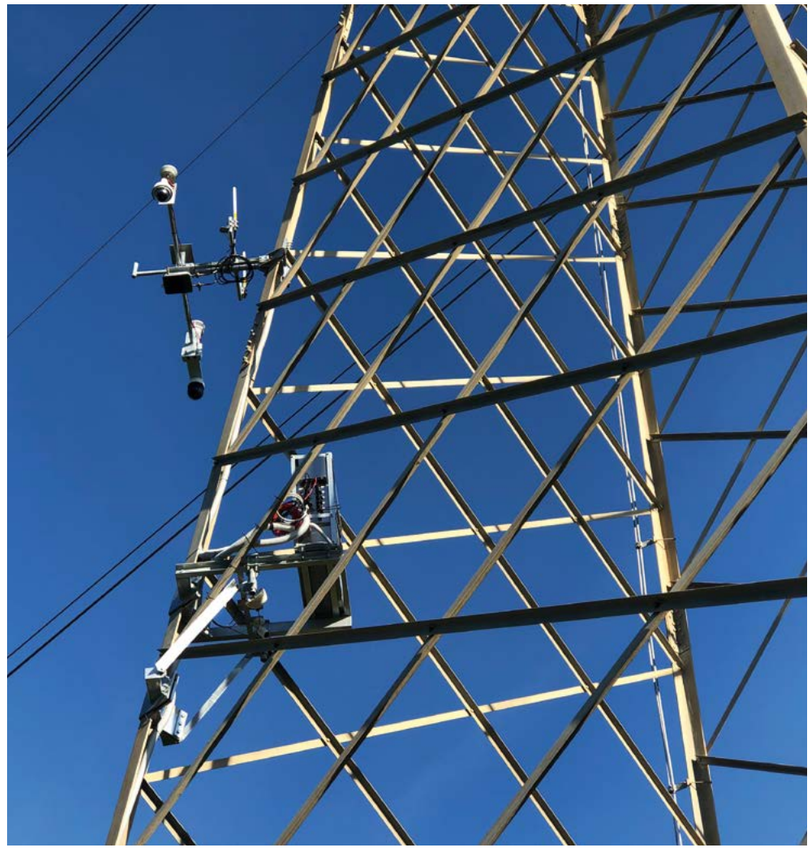
Non-regulated Activities

Energy market solutions

Using our distinctive competences, we develop value added services as an "energy solutions provider" for businesses. Our Non-regulated Activities are designed to support the energy transition, in keeping with our core business.

The main areas in which these activities are developed are:

- **CONNECTIVITY**
- **ENERGY SOLUTIONS**
- **PRIVATE INTERCONNECTORS PURSUANT TO LAW 99/2009**
- **TRANSFORMERS - TAMINI GROUP**



CONNECTIVITY

FIBRE

These projects are designed to extract value from Terna's fibre network by selling IRUs (Indefeasible Rights of Use) and the provision of ancillary services.

OPEN FIBER PROJECT

The backbones connecting the 13 planned national POPs have been delivered, whilst the 41 regional rings that will connect the regional POPs (Clusters A and B) have been designed and partially delivered.
The most significant portion of the fibre optic regional ring requirements have been met by using Terna's overhead power lines, which were also set up during the year, and through the selected acquisition of fibre optic sections from third parties (Retelit and Fastweb).
The plan to make available long-distance fibre infrastructure (regional rings) for Open Fiber S.p.A. was further developed in 2019. With respect to the terms of the related agreement, which call for a total of 21,000 km of long-distance fibre, at 31 December 2019 a total of approximately 17,000 km has been delivered.
Talks are taking place regarding an addendum to the agreement that will cover the provision of fibre in so-called white areas, where the market has failed to offer a solution, by expanding coverage through secondary connections (backhaul lines) to neutral concentration points.
Customers can acquire new infrastructure, which performs better than standard underground cables in terms of both reliability (much lower number of faults per km per year) and quality (low attenuation), with significant savings in terms of length compared with terrestrial connections (> 20% over long distances).

SMART TOWERS

The Smart Tower project aims to extract value from the NTG by expanding its use from an infrastructure exclusively designed for transmitting HV power to an Integrated Monitoring and Environmental Protection System.
The aim of the project is to offer value-added applications and services, exploiting the potential of the IoT (Internet of Things) in various areas of interest, with particular reference to: "environmental protection services", "NTG services" and "connectivity infrastructure".

SMART TOWER INNOVATION PROJECT

Implementation of the experimental project to extract value from high voltage pylons by using them for environmental monitoring (smart towers) was completed with installation of eleven smart tower pylons in Sicily and the purchase of computer systems that were set up at two substations. Another two smart towers have been set up in the province of Belluno and in Abruzzo, to meet the needs of the electricity system. Scouting activities are underway to find new customers.

EXTRACTION OF VALUE FROM PYLONS

Terna is developing a commercial strategy aimed at extracting value from its assets, if available, for the provision of services to telecommunications operators. As Terna is not a telecommunications operator, the Company offers its services on the market in a neutral way, merely providing passive infrastructure (the rental of space on pylons or in substations and dark fibre).

INSTALLATION OF ANTENNAE ON PYLONS

Negotiations have been completed regarding the installation of antennae on Terna's pylons to cover remote areas with Open Fiber (a contract for up to 500 pylons in the three-year period 2020-2022) and with Eolo (for up to a further 500 pylons in the three-year period 2020-2022). The study and design of latest generation mobile radio solutions (software-defined XRAN and 5G) continued in 2019, with field trials and their marketing to potential customers take place in 2020.

By relying on Terna infrastructure (NTG pylons) and taking advantage of its nationwide reach, Open Fiber and Eolo will be able to achieve Fixed Wireless Access coverage in rural areas. In the future, the design of software-defined radio solutions could prove to be a strategic enabler in rolling out new technologies, above all 5G, in geographies where there is a lack of infrastructure.

ENERGY SOLUTIONS

ENERGY EFFICIENCY

This regards energy efficiency initiatives exploiting the know-how developed by Avvenia and Terna Energy Solutions in order to create value for customers, in terms of energy and environmental benefits, the identification of potential efficiency improvements, the management of energy efficiency certificates and improve sustainability performance.

MEMORANDUM OF UNDERSTANDING BETWEEN TERNA AND FCA

Joint trials of sustainable mobility technologies and services, such as Vehicle-to-Grid (V2G).

MEMORANDUM OF UNDERSTANDING BETWEEN TERNA AND ANSALDO ENERGIA

Energy efficiency initiatives forming part of the memorandum of understanding, signed by **Terna and Ansaldo Energia** on 30 September 2019 with a view to identifying, evaluating and implementing joint energy research, development and innovation initiatives.

The joint working group aims to define initiatives to increase consumption efficiency with regard to:

- Load analysis of Ansaldo plants;
- Efficiency improvement proposals;
- Opportunities to enable flexibility services;
- Studies on the development of offerings for external customers.

CONSTRUCTION OF A COGENERATION PLANT

Construction of a **cogeneration plant** for the customer, ITS-SISA Detergenti S.r.l., in collaboration with Compendia S.r.l..
The project, for which design and construction work began in 2018, was completed in March 2019.

A NON-FOSSIL HEAT RECOVERY STEAM GENERATOR

On 16 April 2019 a new steam production plant was delivered to Acciaierie Speciali di Terni (AST).

This is an innovative energy efficiency project, the first of its kind in Italy, designed and implemented by Avvenia The Energy Innovator S.r.l. (ATEI). The plant is designed to boost the qualitative and environmental performance of production, enabling AST to produce up to 70% of the steam needed to manufacture stainless steel without using fossil fuels and cutting the quantity of CO_2 released into the atmosphere by 30 thousand tonnes a year.

The work, carried out in record time without having to shut down production, involved around a hundred of ATEI's specialist engineers and technicians and a number of local firms. The total investment amounted to €4 million.

ENERGY ASSESSMENT DRONE

Activation of an **energy assessment drone** promoted and managed within the Innovation Plan.

The project envisages the conduct of full assessments to identify complex energy efficiency interventions. The drone will also be able to inspect areas or portions of the plant that are difficult to reach or inspect (e.g. roofs for installation of refrigeration units and photovoltaic panels, piping, etc).

The project saves time in carrying out energy audits, especially in the post-processing phase, by automating the process of reporting and identifying faults and possible related interventions. It also presents the opportunity to identify "hidden" interventions that are difficult to detect with normal inspection methods and consequently increase project pipelines. Finally, it offers the possibility of using the diagnostic tool in synergy with other business areas (e.g. for photovoltaic systems and grid infrastructure).

NON-REGULATED ACTIVITIES (NRA) CONTROL CENTRE

PLANT MAINTENANCE FOR THIRD PARTIES

Implementation of a platform that gathers and processes data deriving from the assets managed by Terna in the Energy Solutions segment, optimising performance and maintenance processes. The FTV module monitoring platform was developed in 2019, with initial delivery of the product (basic and advanced functions) in November.

In addition to meeting contractual obligations, the system will enable the optimisation of performance and maintenance processes.

The system will permit constant remote monitoring of the status of plants, with diagnostics and synthetic KPIs. It will provide the possibility to carry out optimised planning of maintenance interventions and implement purpose-built algorithms for the predictive maintenance of assets, including an advanced reporting system.

HV/MV SUBSTATION

EPC - ENGINEERING, PROCUREMENT AND CONSTRUCTION

Design and construction for the customer, Macchiareddu Energy, of the two **HV/MV substations** and the line connecting the future substation and the National Transmission Grid to the "Cilea" and "Tosti" photovoltaic plants located in the municipality of Civita Castellana (VT) and of the HV/MV User Substation and the line connecting the Rumianca substation and the NTG to 8 photovoltaic plants located in an industrial area in the towns of Assemini and Uta, again for Macchiareddu Energy.
The infrastructure is close to completion.

Construction of the infrastructure will take advantage of Terna's positioning and know-how for the construction of the HV/MV substation and the connection line to the future substation and the NTG, developing advanced services for renewable sources.

FRAMEWORK AGREEMENT WITH RFI

Framework agreement with RFI (December 2018) regarding the "Design, supply, installation, certification and entry into service of metering devices".

During 2019, agreement was reached on the plan for work to be carried out in 2020 and work on design, procurement and site surveys began prior to the start-up of work on the planned initiatives.

These activities take advantage of Terna's positioning and know-how regarding the installation of metering equipment in order to ensure that withdrawals by the FS Group's energy service system are accurately measured (timely certification of consumption) in accordance with current legislation, using the Group's distinctive expertise for the benefit of a strategic partner.

SMART ISLANDS

The implementation of sustainable infrastructure projects with very low environmental impact in the interests of the energy transition of small, non-interconnected islands. Overall, these initiatives, as well as minimising the impact of traditional power generation on the local population, will enable islands to reap all the benefits arising from a transition towards more sustainable forms of energy, while at the same time improving the quality of the electricity service.
For the Terna Group, these projects will bring increased know-how regarding the implementation and operation of hybrid off-grid systems, the management of energy flows and the development and testing of innovative grid services. They also allow the Group to mitigate the technological risks relating to key technologies in the Energy Solutions sector with regard to future projects, and enable it to achieve a better technical and economic fit.

GIANNUTRI PROJECT SMART ISLAND

- The **Giannutri Project Smart Island**, built and tested during 2018, is the first real project in Italy that aims to bring about the energy transition from a diesel production system to completely renewable power generation.
  The project received awards for "Sustainable Development 2018" and as "Good Practice of the Year 2018 - Environmental Protection".
  Final testing, in the presence of the customer's technicians, was successfully carried out in November 2019. Once it enters service, expected for the first quarter of 2020, the new arrangement will contribute to meeting the island's energy needs. During the middle of the day (when loads are low and the sun is at its hottest), the island's grid will be able to function without the need for traditional generation, allowing Giannutri to become 100% renewable.
- After the signing of an agreement in 2016 between the **Municipality of Pantelleria** and SMEDE Pantelleria (the company that produces and distributes electricity on the island) and Terna Plus, a new agreement between Terna Energy Solutions and SMEDE was negotiated in 2019 and is awaiting signature. The agreement covers the design of photovoltaic plants and support during the process of obtaining permission for their construction. A number of industrial areas where the plants can be located have already been earmarked.
- In accordance with the guidelines set out in the memorandum of understanding signed in 2015 by Terna Plus with the **Municipality of the Island of Giglio**, the Tuscan Archipelago National Park Authority and SIE, the concessionaire for the production and distribution of electricity on the island, all the necessary preparatory activities for the development of renewable power generation were carried out. Work then started on the purchase of available land for the construction of a 500 kWp plant and a related 2 MW / 1 MWh storage system in Allume. Work is also continuing on the development of an innovative photovoltaic plant at the island's landfill site, which is necessary to achieve the challenging objectives set by the Ministerial Decree of 14 February 2017, in the relation to meeting the energy needs of smaller islands.

PRIVATE INTERCONNECTORS PURSUANT TO LAW 99/2009

In order to support the development of a single electricity market by expanding the infrastructure needed for interconnections with other countries, EU legislation was introduced, setting out guidelines for the creation of interconnections with other countries by entities other than grid operators.

The European guidelines have been introduced into Italian legislation by **Law 99/2009**, which assigned Terna responsibility for selecting undertakings (the "selected undertakings"), on the basis of public tenders, willing to finance specific interconnectors in exchange for the benefits resulting from a decree granting a third-party access exemption with regard to the transmission capacity provided by the new infrastructure. In particular, the law states that these private backers, in exchange for a commitment to finance such projects, are required to commission Terna to build and operate the interconnectors.

A total of five interconnectors are planned for the borders with Montenegro (this project was completed in December 2019), France (at an advanced stage of completion), Austria (the necessary consents have been obtained), Switzerland and Slovenia (currently awaiting the necessary consents).

Italy - Montenegro Interconnector project

On 28 December 2019, the first module of the 500kV direct current interconnector between the substations of Villanova (IT) and Lastva (ME) entered commercial operation. The line, part in submarine cable and part in terrestrial cable, extends for approximately 445 km, has provided interconnection capacity of 600 MW between Italy and Montenegro, including 200 MW available under the exemption to the private backers pursuant to Law 99/09.

In implementation of Law 99/2009, on 17 December 2019, the Terna Group and Consorzio Interconnector Energy Italia S.C.p.A., which brings together the private backers who will have access to cross-border capacity between Italy and Montenegro, signed a series of contracts for construction (EPC), operation and maintenance (O&M) of the Interconnector. Signature of the contracts coincided with execution of the Framework Agreement, under which the Terna Group sold Monita Interconnector S.r.l. to the private backers.

On 18 September 2019, the Ministry for Economic Development issued an exemption decree for Monita Interconnector S.r.l. (covering 200 MW of capacity for a period of 10 years), having taken into account the clearance issued by ARERA on 25 June 2019.

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Italy - France Interconnector project

The new direct current interconnection between Piossasco (IT) and Grande Ile (FR) will increase interconnection capacity between Italy and France by 1200 MW, raising it from approximately the existing 3 GW to over 4 GW.
The Terna Group continued work on construction of the private line, in implementation of Law 99/09 on behalf of Piemonte Savoia S.r.l. (Pi.Sa.), which was transferred to the private backers on 4 July 2017.

Approximately 35.6 km of civil works had been completed and 29.1 km of cable laid for the upper and lower sections along the A32 motorway by December 2019, whilst around 22.4 km of cable and approximately 21.6 km of civil works for the middle section had also been completed. In addition, with regard to the Frejus Tunnel, the laying of cable along sections inside the tunnel had been completed in December 2019. On the section not appertaining to Sitaf *(Società Italiana per il traforo autostradale del Frejus)*, the civil works and the laying of cable for the entire section were completed at the end of August 2018.

The main buildings for the Piossasco converter station had been completed by the end of 2019, as was installation of the principal HV equipment. Installation of equipment for the DC room and valves has been completed. Finally, production and installation of the converter, converter transformers and key AC and DC equipment has also been completed.

During meetings with the Ministry for Economic Development in early 2019, the Ministry:

- stated that there is a need to finance the residual 150 MW[21] of the cross-border capacity originally allocated to selected undertakings for the French border;
- requested that 100 MW of exempted capacity be switched from the Montenegro interconnector to the French one;
- confirmed the need to proceed with construction of the total capacity planned for (250 MW), for this purpose using the other direct current module in the Italy-France Interconnector.

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[21] This residual capacity results from the fact that, in implementation of the provisions of art. 32 of Law 99/09:
- total capacity of 500 MW had been allocated on the French border;
- on 6 April 2017, Pi.Sa. has been granted exemption for capacity of 350 MW on a module in the Italy-France Interconnector currently under construction.





Italy - Austria
Interconnector project

The Italy-Austria interconnector (the Reschenpass project) involves construction of a new 220kV AC interconnection between the Glorenza (Italy) and Nauders (Austria) substations. This will consist of 26 km of underground cable and the necessary upgrade of the domestic grid.

On 18 April 2019, Terna received clearance for the laying and operation of the 220kV cable for the Italian section between the Glorenza substation and Passo Resia, which, together with enlargement of the Glorenza substation and other related works, comprises the Italy-Austria interconnector envisaged pursuant to Law 99/09. As regards the Austrian side, all the consents required to implement the project were granted to the Austrian national grid operator in the second half of 2019.

The project will increase cross-border interconnection capacity between Italy and Austria by around 300 MW, practically doubling the currently available capacity.

On 16 July 2018, the Terna Group set up the special purpose vehicle, Resia Interconnector S.r.l., which, on behalf of the private backers, is to prepare and submit a request for exemption from the right of third parties to access capacity of 150 MW. In addition, on 1 October 2019, the Ministry for Economic Development issued the decree transferring the consents for the Interconnector to Resia.

Italy - Switzerland
Interconnector project

The project involves the development of new transmission lines between Italy and Switzerland, in part in alternating current and in part in direct current, with the aim of increasing interconnection capacity between Italy and Switzerland.

Italy - Slovenia
Interconnector project

The creation of a direct current line is planned, partly in undersea cable, between the substations of Salgareda (IT) and Bericevo (SL), together with work on upgrading the domestic grids in Italy and in Slovenia. The project is currently awaiting the necessary consents on the Italian side. The expected increase in cross-border capacity of approximately 1 GW will raise the interconnection capacity to more than double the current level.

TRANSFORMERS - TAMINI GROUP

Tamini 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 production.

With a hundred years of experience, Tamini has a well-established name in Italy and overseas, thanks to its technological and engineering capabilities, combined with the degree of customisation and production flexibility it can offer.

Tamini has six production plants in northern Italy - in Melegnano, Legnano, Ospitaletto, Valdagno, Novara and Rodengo - 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.

+19%
ORDERS IN THE POWER SECTOR

THE TAMINI GROUP IN 2019

Order book

Tamini received orders for transformers worth approximately €120 million in 2019, in line with the previous year. Orders in the Power sector recorded strong growth (up 19%), primarily reflecting increased capital expenditure by European utilities.

Service orders amount to approximately €13 million for 2019, up 16% on the figure for 2018 and in line with expectations.

Factory order books are thus slightly up compared with the end of 2018.

2019 results

In 2019, the volume and value of new transformers designed, built and tested rose by around 7%, in line with expectations.
Construction of a Phase Shifter Transformer (PST) and a 400 MVA transformer took place during the year for two European utilities, whilst work for industrial customers included design and production of a furnace transformer using smart technology developed by Tamini's researchers.
Thanks to the increase in volumes and the improved mix of machinery being produced, gross operating profit is significantly ahead of the figure for 2018.

Vegetable oil transformers

Strong growth in the volume of vegetable oil transformers for the Power sector continued in 2019. Six 250 MVA vegetable oil transformers, built at the Legnano plant, were produced and successfully tested. In addition, Tamini also received two orders to design and build vegetable oil transformers for industrial use in 2019.

2020 M&A operations

BRUGG CABLES

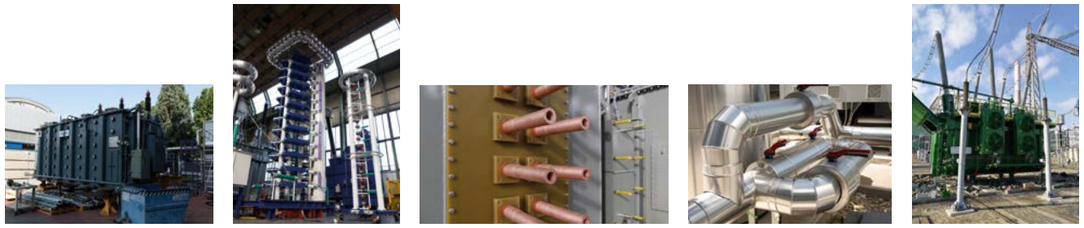
In implementation of the preliminary agreement signed on 20 December 2019, on 29 February 2020, Terna acquired a 90% interest in Brugg Kabel AG (a Brugg group company), one of Europe's leading manufacturers of terrestrial cables. The acquired company designs, develops, produces, installs and maintains electric cables for all voltages and accessories for high-voltage cables.

The transaction, which Terna has financed from cash, was completed through the subsidiary, Terna Energy Solutions S.r.l.. The preliminary consideration for the acquisition of the investment is 25.8 million Swiss francs.

The acquisition of Brugg Kabel will give Terna access to a centre of excellence for research, development and testing of one of the core technologies for a TSO, namely terrestrial cables. The transaction gives Terna the opportunity to rapidly integrate core competencies by acquiring a business that possesses:

- Specialist expertise in 150kV cables with standards in line with those required by Terna;
- Production capacity for HV cable in line with Terna S.p.A.'s needs;
- Extensive know-how built up over more than 120 years of activity, as Terna itself can testify;
- Potential for significant synergies with the Group's Non-regulated Activities.

In this connection, it should be noted that Terna's Development Plan, in keeping with the aim of boosting the sustainability and resilience of the NTG, envisages that the quantity of terrestrial cables in use will double in the next 10 years. As a result, the development of distinctive competencies in the use of underground cables to support cable design and installation, as well as O&M expertise, could well play a key role in Terna's future.



Operating results of Non-regulated Activities

A breakdown of the Terna Group's results from its Non-regulated Activities for 2019 and 2018 is shown below[22].

(€m)

	2019	2018	CHANGE
Revenue from Non-regulated activities	**211.7**	**194.9**	**16.8**
Tamini	110.2	103.4	6.8
Connectivity	39.9	41.7	(1.8)
Energy Solutions	41.2	38.5	2.7
- EPC	*19.1*	*14.9*	*4.2*
- Energy efficiency	*4.9*	*7.2*	*(2.3)*
- O&M	*17.2*	*16.4*	*0.8*
Private interconnectors	18.4	9.0	9.4
Other	2.0	2.3	(0.3)
Cost of Non-regulated Activities	**141.7**	**134.4**	**7.3**
EBITDA from Non-regulated Activities	**70.0**	**60.5**	**9.5**

EBITDA from Non-regulated Activities amounts to €70.0 million for 2019, an increase of €9.5 million. This mainly reflects revenue linked to the private Italy-Montenegro Interconnector.

Revenue from Non-regulated Activities is up €16.8 million. In addition to the above contribution from the private Italy-Montenegro Interconnector (€11.1 million), this is primarily due to the following factors:

- increased revenue at the **Tamini Group** (up €6.8 million), reflecting the greater volume and value of transformers produced in 2019;
- increased revenue from **Energy Solutions** (up €2.7 million), primarily due to the start-up of work in 2019 on the contract with Rete Ferroviaria Italiana - RFI relating to the installation of metering units (up €10.9 million), partly offset by the greater volume of work in progress in the previous year (down €6.2 million, essentially in relation to the construction of two electricity substations in the Lazio and Sardinia regions for a third-party customer, and nearing completion in 2019) and by the gain recognised on the bargain purchase of Avvenia The Energy Innovator S.r.l. in 2018 (down €2.4 million).

9.5 €/m
the increase in Non-regulated Activities

[22] The Terna Group's operating segments are consistent with the internal control system adopted by the Parent Company, in line with the Strategic Plan for the period 2020-2024.

International Activities

International markets offer opportunities to leverage the expertise developed in Italy as a TSO, including in the integration of renewables and the development of power lines. We are aware that the radical transformation the world is experiencing is a shared responsibility.

Overseas investment focuses on countries with stable political and regulatory regimes and a need to develop their electricity infrastructure, 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 and the opening up of markets to foreign operators.

Terna's strategic priorities with regard to its overseas operations include:

- **Europe:** to strengthen its presence (assessing and monitoring M&A opportunities and developing merchant interconnector projects);
- **Latin America:** to complete ongoing projects in Brazil and Peru and operate the infrastructure built in Brazil and Uruguay, consolidating its position in the countries of interest;
- **Other geographical areas:** to develop advanced services in order to leverage Terna's technical expertise acquired in Italy. These initiatives are low risk and absorb a limited amount of capital.

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 and/or secondary market awards, leveraging the core competencies and experience developed in the international arena;

Energy solutions: this includes all high value-added non-traditional activities aimed at exporting the experience Terna has in Italy in the fields of energy storage and smart solutions;

Technical assistance: this involves the provision of consulting and technical assistance services regarding a TSO's core activities, as well as the definition and implementation of regulatory and market frameworks in the local energy context, with a view to exporting and taking advantage of the distinctive expertise acquired in Italy;

Project Management: Project Management (EPCM) activities enable the Group to leverage its expertise in managing overseas projects and in infrastructure management.

INITIATIVES IN PROGRESS IN SOUTH AMERICA

Uruguay

Work on construction of the 213 km Melo-Tacuarembò 500kV transmission line was completed and the line has been in operation since 24 October 2019.

The line is of major importance for the Uruguayan electricity transmission system, above all as it marks completion of the 500kV ring and will help to increase the production of electricity from renewable sources.

Brazil

Operation and maintenance of the **Santa Maria Transmissora de Energia (SMTE)** power line in the State of Rio Grande do Sul continued. 77% of the line, which has been in commercial operation since 3 October 2018, was built using single-pole cable-stayed pylons with a low environmental impact.

The power line located in **the Santa Lucia Transmissora de Energia (SLTE) concession in the State of Mato Grosso** entered commercial operation on 30 April 2019 and the Group is responsible for operation and maintenance. 75% of the line was built using single-pole cable-stayed pylons with a low environmental impact.

In April 2019, the Group signed a preliminary agreement with **Construtora Quebec** for the acquisition of two new concessions for the construction of power lines in Brazil. This will involve construction of electricity infrastructure in the State of Minas Gerais, with the aim of boosting the efficiency, security and sustainability of local grids and facilitate the full integration of renewable sources.

On 11 November, the Terna Group completed the acquisition of a 75% interest in the Brazilian-registered joint-stock company, **SPE Transmissora de Energia Linha Verde II S.A.**, the first of the two companies covered by the transaction with Construtora Quebec. The acquired company holds one of the two concessions to build a 500kV power line extending for approximately 190 km. Acquisition of the second concession is expected to complete in the first quarter of 2020. The agreement assigns the Terna Group responsibility for developing, building and managing the assets, with EPC activities to be carried out by Construtora Quebec. The value of the transaction, which includes the cost of developing and building the infrastructure, is approximately 60 million US dollars and will largely be financed using project financing.

Peru

Work, which began in 2017, on construction of 132 km of new 138kV lines between Aguaytìa and Pucallpa is continuing.

The process of acquiring the related easements was substantially completed in 2019 and construction work and the assembly of pylons have begun. The procurement of transmission line materials has been completed.

The project is expected to be completed by the end of 2020.

Operating results of International Activities

A breakdown of the Terna Group's results from International Activities for 2019 and 2018 is shown below[23].

It should be noted that "Revenue from International Activities" directly includes the margin earned on work in progress on overseas concessions. Operating costs and maintenance expenses associated with infrastructure now in operation, together with other operating costs, are classified in the "Cost of International Activities".

(€m)

	2019	2018	CHANGE
Revenue from International Activities	28.4	12.5	15.9
Cost of International Activities	14.7	8.9	5.8
EBITDA from International Activities	**13.7**	**3.6**	**10.1**

EBITDA from International Activities amounts to €13.7 million for 2019, an increase of €10.1 million compared with the previous year. This primarily reflects the impact of initiatives in Brazil (up €6.5 million), where the related infrastructure fully entered service from October 2018 and April 2019, and the completion of work in Uruguay on construction of the Melo-Tacuarembò line (up €4.6 million).

[23] The Terna Group's operating segments are consistent with the internal control system adopted by the Parent Company, in line with the Strategic Plan for the period 2020-2024.

Financial resources

Our management approach aims to maximise efficiency and achieve and maintain a solid financial structure, taking a highly prudent stance towards mitigation of the potential risks.

The key aspects of the resulting financial strategy are:

- **diversification** of the sources of financing, raising funds on both the capital markets and in the form of borrowings from major banks and supranational financial institutions;
- a **balance** between short and medium-term instruments, in keeping with the composition of assets;
- the **proactive management** of debt in order to take advantage of the opportunities offered by the capital markets;
- a commitment to maintaining **high credit ratings**, based on a strong financial position;
- **active management of the financial risks** to which the Company is exposed, as set out in more detail in the section, "Risk management".

Sustainable finance

Fully in line with Terna's strategy, which aims to combine investment and sustainability to drive growth and value creation, it is Terna's ambition to play a leading role in the sustainable finance market. This strategy was confirmed during 2019 **via the issue of two green bonds amounting to a total of €750 million**, to be used to finance or refinance "Eligible Green Projects". These are projects producing environmental benefits that meet certain criteria (the use of the issue proceeds, the process of selecting and assessing projects, management of the issue proceeds and reporting) listed in the "Green Bond Framework", published by Terna in compliance with the "Green Bond Principles 2018" drawn up by the ICMA (International Capital Market Association). Specifically, the net proceeds from the issues will be used to finance:

- projects that aim to increase renewable energy production - for example, infrastructure enabling renewable energy plants to be connected to the national grid or that allow for a larger volume of renewable energy to be injected into the grid;
- projects designed to cut carbon emissions by reducing grid losses - for example, infrastructure designed to boost the efficiency of the electricity transmission gird;
- projects that aim to reduce soil use and protect biodiversity.

In April, moreover, the Company obtained its second **ESG-linked Revolving Credit Facility**: this facility, amounting to €1.5 billion, also uses a mechanism based on a series of bonuses and penalties linked to the achievement of specific environmental, social and governance ("ESG") objectives.

Debt is described in detail in the section, "The Terna Group's financial review of 2019".

RISK MANAGEMENT

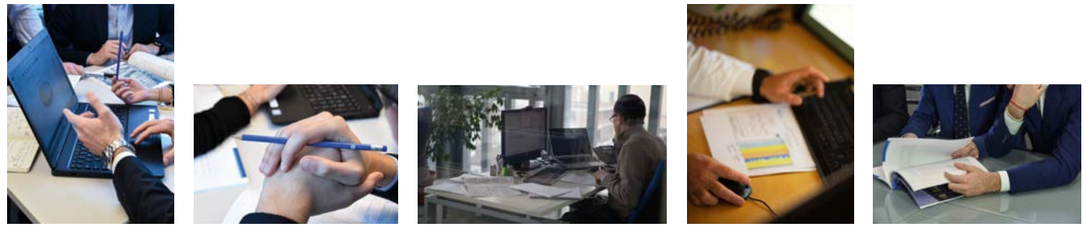
Terna adopts a dynamic approach to managing the various forms of financial risk, including market risk (interest rate, exchange rate and inflation risk), liquidity risk and credit risk. This approach includes constant monitoring of the financial markets, in order to carry out planned hedging operations under favourable market conditions, but also to take advantage of opportunities to improve existing hedges, when changes in market conditions make previous hedges unsuitable or excessively costly.

Further details are provided in the notes to the consolidated financial statements and to the Parent Company's separate financial statements.

Market, liquidity and credit risk

Key events relating to finance during 2019 are described below:

- On **19 November 2019**, Terna and the European Investment Bank (EIB) agree a €490 million loan to finance investment in improvements to grid reliability and quality. For the first time in the history of relations between Terna and the Bank, the loan is earmarked for "investment in renewal": the replacement of assets and individual components, adopting the latest solutions in terms of eco-compatibility with the host environment. The loan, with a longer duration and having more competitive costs with respect to those available in the market, is part of Terna's policy of optimising its financial structure and ranks among the EIB's most important transactions in the field of energy and the environment. The agreement provides for disbursement in two fixed-rate tranches, each with a term of approximately 22 years. The first, totalling €147 million, is to be disbursed in June 2020 and is subject to a fixed rate of 0.717%; the second, amounting to €343 million, will be disbursed in March 2021 and is subject to a fixed rate of 0.78%.
- On **18 July 2019**, the Company launched an issue of euro-denominated bonds for institutional investors. The issue, which was very popular among investors, with the bonds being approximately four times oversubscribed, was carried out under the EMTN Programme and amounts to €500 million. The bonds will have a term of 6 years and will mature on 25 July 2025. They will pay a coupon of 0.125%, the lowest ever for an Italian corporate bond with a term of more than 5 years, and will be issued at a price equal to 99.245%, with a spread of 45 basis points with respect to the midswap rate and an indicative spread that is around 70 basis points lower than BTPs (Italian Treasury Bills) of the same duration at the time of pricing. The effective cost of the issue for Terna is, therefore, equal to 0.25%.
- On **23 April 2019**, the Company agreed a back-up ESG-linked Revolving Credit Facility, in the form of a committed credit facility amounting to €1.5 billion, from a pool of banks made up of Banca IMI, BNP Paribas, Cassa Depositi e Presititi, Santander, SMBC and Unicredit. At the same time, the Company cancelled two back-up facilities totalling €1.3 billion and expiring in 2020 and 2021. The facility is for a period of 5 years and will be used to fund the Company's day-to-day operations. The interest rate is linked to EURIBOR plus an initial spread of 0.65% (variable between a minimum of 0.60% and a maximum of 1.45% depending on Terna's rating). The transaction strengthens the incorporation of sustainability goals within the Company's business strategy through a series of bonuses and penalties linked to ESG criteria.
- On **3 April 2019**, Terna launched an issue of euro-denominated green bonds for institutional investors. The securities have a 7-year term, maturing on 10 April 2016, and pay a coupon of 1.000%. They will be issued at a price equal to 99.886%, with a spread of 78 basis points with respect to the midswap rate and an indicative spread that is around 100 basis points lower than BTPs (Italian Treasury Bills) of the same duration at the time of pricing. The effective cost of the issue for Terna is, therefore, equal to 1.02%. The net proceeds of the issue will be used to finance the Company's eligible green projects.
- On **15 January 2019**, Terna joined the Corporate Forum for Sustainable Finance, a network of 16 major European companies committed to developing sustainable finance as a way of combatting climate change and promoting a more sustainable and responsible society.
- On **10 January 2019**, Terna launched a fixed-rate green bond issue in the form of a private placement, amounting to €250 million, reopening the bond issue of 23 July 2018. The bonds, maturing on 23 July 2023, will pay a coupon of 1.000% and will be issued at a price equal to 99.787%, with a spread of 90 basis points with respect to the midswap rate and a yield of 1.05%, slightly below that of the July 2018 issue. The proceeds will be used to finance the Company's eligible green projects.



RATING

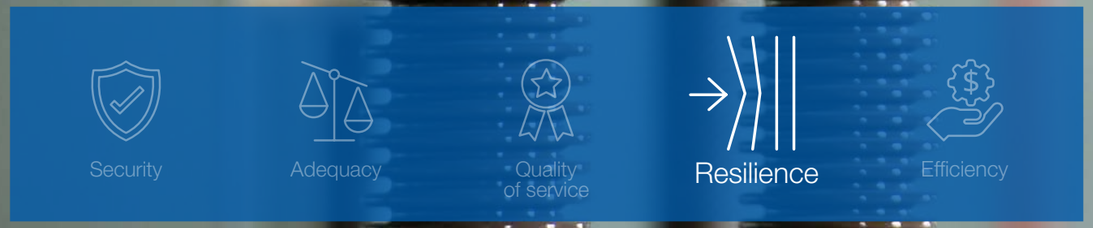
	SHORT-TERM	MEDIUM/LONG-TERM	OUTLOOK	LATEST REVIEW
Terna S.p.A.				
Standard & Poor's	A-2	BBB+	Negative	29 October 2018
Moody's	Prime-2	Baa2	Stable	23 October 2018
Fitch	F2	BBB+	Stable	28 March 2019
Scope	S-1	A-	Stable	17 May 2019
Italian state				
Standard & Poor's	A-2	BBB	Negative	26 October 2018
Moody's	Prime-3	Baa3	Stable	19 October 2018
Fitch	F2	BBB	Negative	7 February 2020
Scope	S-2	BBB+	Stable	7 December 2018

In 2019, the rating agencies (Standard & Poor's, Moody's and Fitch) left the Company's ratings unchanged: Terna's long-term ratings - BBB+ (Negative) for S&P, Baa2 (Stable) for Moody's and BBB+ (Stable) for Fitch - continue to be one notch above those assigned to the Italian state.

Moreover, in May 2019, Scope Ratings AG (Scope) assigned Terna a long-term rating of "A-", with a stable outlook, representing a more favourable rating than those assigned by other agencies. The rating assigned by Scope confirms the strength of Terna's financial structure and financial position and recognises the Group's significant commitment to integrating sustainability into its business strategy as a key driver of value creation.

Resilience

The increased frequency of extreme weather events makes it necessary to boost the electricity system's **capacity to withstand** such events.
The growing intensity and severity of extreme weather events closely linked with global warming has a cascade effect, raising the likelihood of significant damage to the country's infrastructure, including the national transmission grid. **Investment** is therefore needed in the grid, which must be able to respond to this increased threat and, in the event of disruption due to extreme events, we must be **able to manage the resulting emergency** and quickly restore normal operating conditions.



4

Performance

The Terna Group's financial review of 2019

Introduction

The Annual Report for 2019 has been prepared in accordance with the requirements of art. 154-ter of Legislative Decree 58/98 introduced by Legislative Decree 195 of 6 November 2007 (the "Transparency Decree"), as amended by Legislative Decree 27 of 27 January 2010.

As required by Legislative Decree 38 of 28 February 2005 and EEC Regulation 1606/2002, the financial statements of the parent company Terna S.p.A. and the consolidated financial statements of the Terna Group for the year ended 31 December 2019 were prepared in compliance with the International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board and endorsed by the European Commission (hereinafter "EU-IFRS").

In compliance with the provisions of art. 2364 of the Italian Civil Code and art. 9.2 of the Company's Articles of Association, the Board of Directors decided to call an Annual General Meeting of shareholders within 180 days of the end of the annual reporting period, given that Terna S.p.A. is a company required to prepare consolidated financial statements. After the date of approval of this Report, and in view of the current health emergency linked to the Covid-19 epidemic and the legislation introduced in order to contain the outbreak, the Company has announced a new date for TERNA S.p.A.'s Annual General Meeting, which is now scheduled for 18 May 2020.

Basis of presentation

The measurement and recognition criteria applied in this Annual Report are consistent with those adopted in the consolidated financial statements for the year ended 31 December 2018, with the exception of application of the new accounting standard, IFRS 16 - Leases, effective from 1 January 2019, which deals with the accounting treatment of leases. The standard was applied in accordance with the modified retrospective approach, with prospective measurement of lease assets and liabilities at the date of first-time adoption, without restating comparative amounts.

In order to present the performance of the Terna Group and Terna S.p.A. and to analyse the financial positions, separate reclassified statements have been prepared. These differ from the statements required by the EU-IFRS adopted and described in the consolidated and separate financial statements for the year ended 31 December 2019.

These reclassified statements contain alternative performance indicators, which differ from those resulting directly from the separate and consolidated financial statements. Management considers these indicators to be useful in assessing the performances of the Group and of Terna S.p.A. and representative of the business's operating results and financial position.
In line with the guidance provided by ESMA/2015/1415, the criteria used in constructing these indicators are described in specific notes, reconciling them with the amounts presented in the consolidated and separate financial statements. The notes are contained in an annex to this Integrated Report.

In addition, in response to the entry into effect of new IFRS, a number of comparative amounts have been reclassified in order to improve presentation, without altering the comparative result.

Scope of consolidation

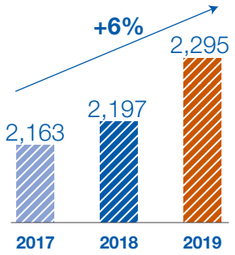
The following changes in the structure of the Group have taken place with respect to 31 December 2018:

- **PI.SA.2 S.r.l.**, a wholly owned subsidiary of Terna S.p.A., was established on 15 February 2019, following a restructuring of the regulated activities relating to the Italy-France interconnector;
- **Terna 4 Chacas S.A.C.** was established on 6 August 2019, following the agreement signed in 2016 to start work on the construction of a new 16-km power line in Peru. The company is 99.99999% owned by Terna Plus S.r.l. with the remaining interest held by Terna Chile S.p.A.;
- on 11 November 2019, Terna S.p.A., acting through its subsidiary, Terna Plus S.r.l., closed the **transaction with Construtora Quebec** resulting in the acquisition of a 75% interest in the Brazilian-registered joint-stock company, **SPE Transmissione de energia Linha Verde II S.A.**, the first of the two companies covered by the transaction, which holds one of the two concessions to build a 500kV power line extending for approximately 190 km;
- the sale of **Monita Interconnector S.r.l.** to Interconnector Energy Italia s.c.p.a. was completed on 17 December 2019. Agreements have been reached with the purchaser regarding construction and operation of the private part of the planned direct current electricity interconnector between Italy and Montenegro.

The Group's reclassified income statement

The Terna Group's operating results for the year ended 31 December 2019, compared with those for the previous year, are summarised in the following reclassified income statement, obtained by reclassifying amounts in the statutory consolidated income statement.

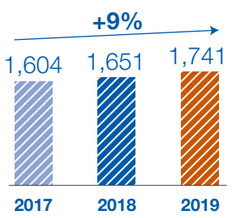
REVENUE €m



(€m)

	2019	2018	CHANGE	% CHANGE
TOTAL REVENUE	**2,295.1**	**2,197.0**	**98.1**	**4.5%**
- Regulated revenue	2,055.0	1,989.6	65.4	3.3%
of which Revenue from construction services performed under concession	*27.6*	*25.5*	*2.1*	*8.2%*
- Non-Regulated revenue	211.7	194.9	16.8	8.6%
- International revenue	28.4	12.5	15.9	127.2%
TOTAL OPERATING COSTS	**553.9**	**546.4**	**7.5**	**1.4%**
- Personnel expenses	251.6	238.8	12.8	5.4%
- Cost of services, leases and rentals	171.8	176.5	(4.7)	(2.7%)
- Materials	86.2	77.9	8.3	10.7%
- Other costs	16.1	22.6	(6.5)	(28.8%)
- Quality of service	0.6	5.1	(4.5)	(88.2%)
- Cost of construction services performed under concession	27.6	25.5	2.1	8.2%
GROSS OPERATING PROFIT (EBITDA)	**1,741.2**	**1,650.6**	**90.6**	**5.5%**
- Amortisation, depreciation and impairment losses	586.1	554.1	32.0	5.8%
OPERATING PROFIT (EBIT)	**1,155.1**	**1,096.5**	**58.6**	**5.3%**
- Net financial income/(expenses)	(77.7)	(88.8)	11.1	(12.5%)
PROFIT/(LOSS) BEFORE TAX	**1,077.4**	**1,007.7**	**69.7**	**6.9%**
- Income tax expense for the year	313.5	296.1	17.4	5.9%
PROFIT FOR THE YEAR	**763.9**	**711.6**	**52.3**	**7.3%**
- Profit/(Loss) attributable to non-controlling interests	6.6	5.0	1.6	32.0%
PROFIT FOR THE YEAR ATTRIBUTABLE TO OWNERS OF THE PARENT	**757.3**	**706.6**	**50.7**	**7.2%**

EBITDA €m



(€m)

EBITDA BY OPERATING SEGMENT	2019	2018	CHANGE
Regulated Activities	1,657.5	1,586.5	71.0
Non-regulated Activities	70.0	60.5	9.5
International Activities	13.7	3.6	10.1
EBITDA	**1,741.2**	**1,650.6**	**90.6**

Gross operating profit (EBITDA) for the year amounts to **€1,741.2 million**, up €90.6 million compared with the €1,650.6 million of 2018. This primarily reflects the improved result from Regulated Activities.

Revenue

(€m)

REGULATED ACTIVITIES	2019	2018	CHANGE
Tariff revenue	1,973.1	1,932.2	40.9
Other regulated revenue	54.3	31.9	22.4
Revenue from construction services performed under concession in Italy	27.6	25.5	2.1
TOTAL	**2,055.0**	**1,989.6**	**65.4**

Regulated revenue is up €65.4 million, primarily reflecting the impact on tariff revenue of the adjustment of the Group's WACC and an increase in RAB, as well as an increase in the value of the RENS (Regulated Energy Not Supplied) bonus (essentially following assessment of the performance in 2018 and valuation of the performance in 2019, taking into account the estimated results expected overall for the regulatory period 2016-2020).

(€m)

NON-REGULATED ACTIVITIES	2019	2018	CHANGE
Tamini	110.2	103.4	6.8
Services for third parties (telecommunications. energy solutions. other)	83.1	82.5	0.6
Private interconnectors	18.4	9.0	9.4
TOTAL	**211.7**	**194.9**	**16.8**

The increase in **Non-Regulated revenue**, totalling €16.8 million, primarily reflects revenue linked to the private **Italy-Montenegro Interconnector** project (€11.1 million) and revenue growth at the **Tamini Group** (up €6.8 million).

(€m)

INTERNATIONAL ACTIVITIES	2019	2018	CHANGE
Latin America	28.1	10.9	17.2
Other	0.3	1.6	(1.3)
TOTAL	**28.4**	**12.5**	**15.9**

International revenue is up €15.9 million, reflecting revenue generated by investment in assets held under concession in **Brazil**, which are now fully operational (up €12.7 million) and by the contract for construction of the power line in **Uruguay** (up €4.6 million), which has entered service.

Costs

Operating costs are up €7.5 million compared with the previous year. Without taking into account the increase in the cost of work carried out under concession, this reflects the following:

- **Personnel expenses**: up €12.8 million, broadly reflecting an increase in the workforce following the plan to recruit new personnel launched in 2018 in order to keep pace with the Group's expansion;
- **Services, leases and rentals**: down €4.7 million, primarily due to restatement of the cost of leases and rentals following the adoption of IFRS 16;
- **Materials**: up €8.3 million, primarily reflecting the work carried out on the new contract to install metering units for Rete Ferroviaria Italiana (formalized in December 2018);
- **Quality of service**: down €4.5 million, primarily due to the impact of outages and interruptions in 2018;
- **Other operating costs**: down €6.5 million, broadly due to the adjustment to the Group's provisions for risks and charges.

Amortisation, depreciation and impairment losses for the year amount to €586.1 million, an increase of €32 million compared with 2018. This primarily reflects the entry into service of new plant. The change also reflects depreciation charged as a result of leases falling within the scope of IFRS 16 (€6.7 million) and increased impairment losses on assets in the previous year (down €11.1 million).

Operating profit (**EBIT**), after amortisation, depreciation and impairment losses, amounts to **€1,155.1 million**, compared with €1,096.5 million for 2018 (up 5.3%).

Net financial expenses for the year total €77.7 million, a reduction of €11.1 million compared with the €88.8 million of 2018. This primarily reflects the seasonal nature of inflation, increased returns on the investment of liquidity and on short-term financial assets and the reduction in short-term interest rates.

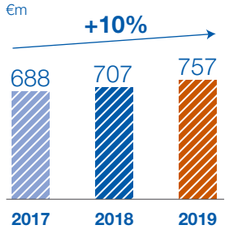
After net financial expenses, **profit before tax** amounts to **€1,077.4 million**, up €69.7 million compared with the previous year (up 6.9%).

Income tax expense for the year totals €313.5 million, an increase of €17.4 million (5.9%) compared with the previous year, essentially due to the improved profit before tax. The tax rate for the year is 29.1%, broadly in line with the previous year (29.4% for 2018).

Profit for the year amounts to **€763.9 million**, an increase of €52.3 million (7.3%) compared with the €711.6 million of 2018.

Profit for the year attributable to owners of the Parent (after excluding the share attributable to non-controlling interests) amounts to **€757.3 million**, up €50.7 million (7.2%) compared with the €706.6 million of 2018.

PROFIT FOR THE YEAR ATTRIBUTABLE TO OWNERS OF THE PARENT
€m



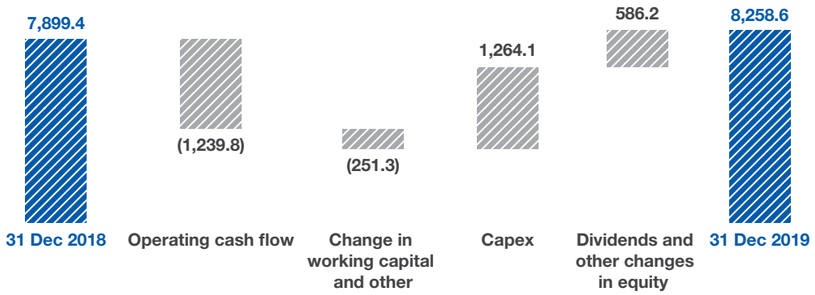
Cash flow

The above performance, combined with non-cash items and other cash flows from and for operating activities, has resulted in a cash inflow of €1,491.1 million, enabling the Group to finance a large part of its investing activities (€1,264.1 million) and provide a return on equity (€586.2 million, including €479.7 million in the form of dividends paid to shareholders). The balance is financed for the remaining part by net debt, which totals €8,258.6 million, compared with €7,899.4 million at the end of 2018 (up €359.2 million).

(€m)

	CASH FLOW 2019	CASH FLOW 2018
- Profit for the year	763.9	711.6
- Amortisation, depreciation and impairment losses	586.1	554.1
- Net change in provisions	(97.3)	(48.3)
- Net losses/(gains) on sale of assets	(12.9)	(3.5)
Operating cash flow	**1,239.8**	**1,213.9**
- Change in net working capital	386.2	336.6
- Other changes in property, plant and equipment and intangible assets	46.8	36.0
- Change in investments	(3.3)	1.7
- Change in financial assets	(178.4)	(113.7)
Cash flow from operating activities	**1,491.1**	**1,474.5**
- Total capital expenditure	(1,264.1)	(1,091.1)
Free cash flow	**227.0**	**383.4**
- Dividends paid to the Parent Company's shareholders	(479.7)	(451.1)
- Cash flow hedge reserve after taxation and other movements in equity attributable to owners of the Parent	(106.5)	(39.6)
- Other movements in equity attributable to non-controlling interests	-	4.3
Change in net debt	**(359.2)**	**(103.0)**

CHANGE IN NET DEBT (€m)



The Group's reclassified statement of financial position

The Terna Group's financial position at 31 December 2019 and 31 December 2018 is summarised below in the reclassified statement of financial position, obtained by reclassifying amounts in the statutory consolidated statement of financial position.

(€m)

	AT 31 DECEMBER 2019	AT 31 DECEMBER 2018	CHANGE
Total net non-current assets	**14,908.5**	**14.083.6**	**824.9**
- Intangible assets and goodwill	542.7	519.4	23.3
- Property, plant and equipment	13,864.2	13,244.3	619.9
- Financial assets	501.6	319.9	181.7
Total net working capital	**(2,207.8)**	**(1,822.5)**	**(385.3)**
- Net energy-related pass-through payables	(575.8)	(777.6)	201.8
- Net receivables resulting from Regulated Activities	320.4	313.9	6.5
- Net trade payables	(899.1)	(908.9)	9.8
- Net tax liabilities	(5.3)	50.9	(56.2)
- Other net liabilities	(1,048.0)	(500.8)	(547.2)
Gross invested capital	**12,700.7**	**12,261.1**	**439.6**
Sundry provisions	(210.2)	(307.5)	97.3
NET INVESTED CAPITAL	**12,490.5**	**11,953.6**	**536.9**
Equity attributable to owners of the Parent	**4,190.3**	**4,019.2**	**171.1**
Equity attributable to non-controlling interests	**41.6**	**35.0**	**6.6**
Net debt	**8,258.6**	**7,899.4**	**359.2**
TOTAL	**12,490.5**	**11,953.6**	**536.9**

The €824.9 million increase in **net non-current assets** compared with 31 December 2018 primarily reflects a combination of the following:

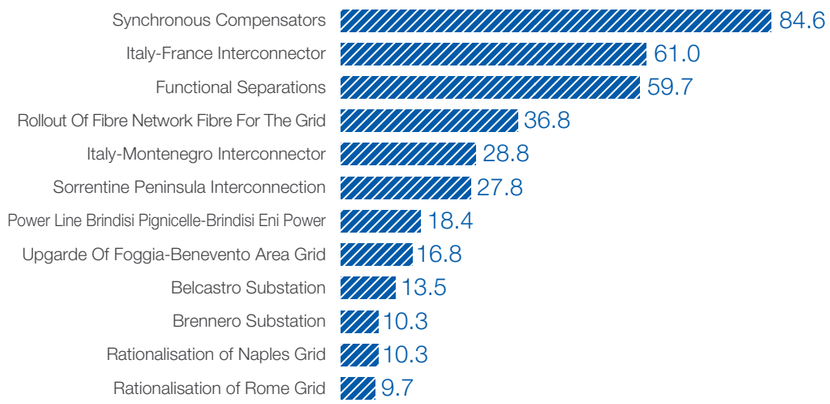
- total capital expenditure of €1,264.1 million, as described below;
- an increase of €181.7 million in financial assets, broadly due to recognition of the amounts deposited by operators who participate in the capacity market pursuant to Resolution 98/2011/R/eel[24], as amended (€142.6 million), an increase in the Interconnector Guarantee Fund, set up to fund investment in interconnections by art. 32 of Law 99/09 (up €22.1 million) and the progress of construction services performed under concession in Brazil (up €12.6 million);
- amortisation and depreciation for the year, totalling €584.7 million;
- other movements during the year, resulting in a reduction of €27.3 million, reflecting grants related to assets (primarily in relation to projects financed by the Ministry for Economic Development and the EU) and disposals and impairment losses amounting to €9 million.

The Group's **capital expenditure** totalled **€1,264.1 million** in 2019, up 15.9% on the €1,091.1 million of 2018.

[24] Legislation governing the system for remunerating the provision of production capacity is contained in the Ministerial Decree of 28 June 2019. Deposits were paid by operators following the outcome of the auctions organised by Terna on 6 and 28 November 2019. They are to guarantee the entire capacity market with effect from 2022, whose aim is to ensure the adequacy of the national electricity system is achieved and maintained. This is necessary to ensure the system's structural ability to meet expected demand for electricity plus the reserve margin needed to provide determinate levels of security and quality of service.

The following chart shows key capital expenditure on the NTG in 2019:

KEY CAPITAL EXPENDITURE IN REGULATED ASSETS* (€m)



** Amounts include financial expenses.*

Capital expenditure in non-regulated assets, amounting to €104.4 million, primarily regards the private parts of the Italy-France and Italy-Montenegro interconnectors.

Net working capital of -€2,207.8 million generated cash of €385.3 million during the year compared with 2018. This reflects the combined effect of:

Cash inflows

- an increase of €547.2 million in **other net liabilities**, primarily due to an increase in payments on account received from the entities financing the private Italy-Montenegro and Italy-France interconnectors (a total increase of €302.8 million), an increase in the guarantee deposits received from operators participating in the capacity market and electricity market operators guaranteeing their obligations assumed in dispatching and virtual interconnection agreements (up €142.6 million and €39.9 million, respectively). There was also an increase in the provision for the Interconnector Guarantee Fund set up by Terna S.p.A. following the issue of the 2016 Stability Law (up €21.9 million) and a rise in payables recognised during the year in the form of amounts to be paid to employees who have opted to take part in the generational turnover plan;
- an increase of €56.2 million in **net tax liabilities**, mainly reflecting an increase in VAT payable by the Group (up €33.2 million, broadly due to a reduction in net energy-related payables, totalling €22.8 million, and the receipt of VAT refunds claimed in previous years, totalling €10.4 million). The increase also reflects the higher amount of income tax payable (up €20.8 million, essentially due to the transfer of IRES and IRAP tax credits from previous years, amounting to €14.1 million, and the increase in pre-tax profit after deducting the higher payments on account made, totalling €6.7 million).

Cash outflows

- a decrease in **net energy-related pass-through payables** of €201.8 million, primarily reflecting the combined effect of:
  - a reduction in net payables relating to capacity payments (€115 million) as a result of an increase in payments required by ARERA[25] compared with the previous years;
  - a reduction in net payables linked to plants that are essential for the security of the electricity system – UESS (€96.9 million), reflecting items collected during the period after payments made in 2019[26];

  partially offset by
  - an increase in net payables as a result of the higher cost of selections (in terms of prices and volumes) relating to the Dispatching Services Market – DSM (€60.2 million) and an increase in imbalances (€19.9 million); these higher costs, primarily registered in December, are reflected in the uplift component, with the related amount receivable having risen €71.2 million;
- an increase of €6.5 million in **net receivables resulting from Regulated Activities**, primarily reflecting increases in amounts due in the form of transmission and dispatching service charges;
- a reduction of €9.8 million in **net trade payables**, broadly due to increased receivables relating to completion of the contract in Uruguay.

Gross invested capital thus amounts to €12,700.7 million, marking an increase of €439.6 million compared with the previous year.

Sundry provisions are down €97.3 million, primarily due to:

- the use of provisions for early retirement under the current generational turnover plan (down €10.1 million) and net uses of provisions relating to quality of service (down €9 million);
- an adjustment to net tax liabilities, primarily as a result of net deferred tax assets (up €60.7 million) due mainly to the effect on taxation of amortisation and depreciation, the above movements in provisions for risks and charges and movements in derivative instruments held by the Group.

Net invested capital of €12,490.5 million is up €536.9 million compared with 31 December 2018 and is financed by equity attributable to owners of the Parent, totalling €4,190.3 million (versus €4,019.2 million at 31 December 2018), equity attributable to non-controlling interests of €41.6 million (€35.0 million at 31 December 2018) and net debt of €8,258.6 million up €359.2 million compared with the €7,899.4 million of 31 December 2018.

[25] ARERA ordered capacity payments to be made in resolutions 30, 206 and 233/2019.

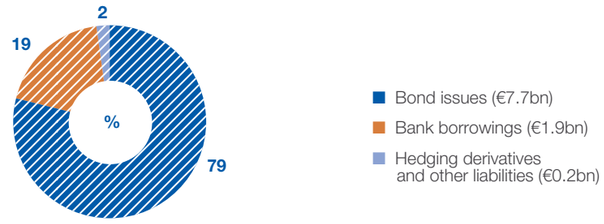
[26] ARERA ordered payments to the owners of essential plants in the following resolutions in 2019: 48-79-101-111-118-150-194-205-235-342-434-459-460-475-476-505-506-523-524-525.

Debt

The Group's financial policy and gross debt

The Terna Group's financial management is based on an approach that aims to maximise efficiency and achieve and maintain a solid financial structure, whilst adopting a highly prudent stance towards mitigation of the potential financial risks. The key aspects of the Group's financial policy are diversification of the sources of funding, a balance between short- and medium/long-term forms of debt and the proactive management of debt.

Gross debt at 31 December 2019 amounts to approximately **€10 billion**, consisting of €8 billion in the form of bond issues and €2 billion in bank borrowings. The average term to maturity of debt, which is almost all fixed rate, is approximately 5 years.



Bonds have been issued in the form of both public and private placements under the €8 billion Euro Medium Term Notes (EMTN) Programme (in which a large number of Italian and overseas banks participate), in addition to a stand-alone issue of €800 million dating back to 2004. Focused specifically on qualified investors and listed on the Luxembourg Stock Exchange, Terna's bonds have a very diverse investor base, in terms of both sector and geographical profile.

The main provider of Terna's bank loans is the European Investment Bank (EIB). Total borrowings from the EIB at 31 December 2019 amount to almost €2.1 billion (including €490 million yet to be drawn on). Thanks to its strong credit ratings, Terna is able to obtain financing from banks on extremely good terms, as shown by the three bond issues launched in 2019, amounting to a total of €1.25 billion, and the agreement, signed on 23 April 2019, for a Revolving Credit Facility of €1.5 billion. The Group currently has two committed revolving credit facilities, amounting to approximately €2.7 billion.

Net debt

The Group's net debt at 31 December 2019 amounts to €8,258.6 million, marking an increase of €359.2 million compared with 31 December 2018.

(€m)

NET DEBT (BY TERM TO MATURITY)	AT 31 DECEMBER 2019	AT 31 DECEMBER 2018	CHANGE
Total medium/long-term debt	**9,596.1**	**8,286.8**	**1,309.3**
- Bond issues	7,757.3	6,563.2	1,194.1
- Borrowings	1,723.4	1,664.4	59.0
- Derivative financial instruments	115.4	59.2	56.2
Total short-term debt/(funds)	**(1,337.5)**	**(387.4)**	**(950.1)**
- Bond issues (current portions)	-	616.7	(616.7)
- Short-term borrowings	25.0	25.0	-
- Borrowings (current portions)	126.5	613.9	(487.4)
- Other current financial liabilities net	81.8	89.8	(8.0)
- Derivative financial instruments	(0.1)	(1.3)	1.2
- Financial assets	(513.3)	(402.6)	(110.7)
- Cash and cash equivalents	(1,057.4)	(1,328.9)	271.5
Total net debt	**8,258.6**	**7,899.4**	**359.2**
NET DEBT (BY TYPE OF INSTRUMENT)			
- Bond issues	7,757.3	7,179.9	577.4
- Borrowings	1,849.9	2,278.3	(428.4)
- Short-term borrowings	25.0	25.0	-
- Derivative financial instruments	115.3	57.9	57.4
- Other financial liabilities net	81.8	89.8	(8.0)
GROSS DEBT	**9,829.3**	**9,630.9**	**198.4**
- Financial assets	(513.3)	(402.6)	(110.7)
- Cash and cash equivalents	(1,057.4)	(1,328.9)	271.5
Total net debt	**8,258.6**	**7,899.4**	**359.2**

Changes in the **Group's net debt** are as follows:

- an increase in bond issues (up €577.4 million), following the three fixed-rate euro-denominated green bond issues described in the section, "Financial resources" and repayment, in October, of the €600 million bond issue launched on 3 July 2009. The change also reflects the adjustment of the amortised cost of all the bonds in issue;
- a reduction in borrowings (down €428.4 million), primarily due to:
  - repayment, on 2 February 2019, of the €500 million loan from CDP, using EIB funds;
  - repayments of principal on existing EIB loans (down €112.0 million);
  - new EIB loans drawn down in June, totalling €46.6 million;
  - drawdown of the final tranche of the loan granted to the Uruguayan subsidiary, totalling €13.1 million;
  - new loans obtained by the Brazilian subsidiary, totalling €101.8 million;
  - lease liabilities recognised following first-time adoption of IFRS 16 (€24.5 million);
- a reduction in other net financial liabilities (down €8 million), primarily reflecting movements in the interest rates on borrowings and on outstanding hedges;
- an increase in derivative financial instruments (up €57.4 million), primarily due to movements in market interest rates and the change in the notional value of the derivatives held;
- an increase in financial assets (up €110.7 million), primarily following repayment, in December, of government securities with a notional value of €400 million and the purchase of government securities having a notional value of €500 million;
- a reduction in cash and cash equivalents (down €271.5 million). Cash amounts to €1,057.4 million at 31 December 2019, including €647.4 million invested in short-term, readily convertible deposits and €410.0 million held in bank current accounts and in the form of cash in hand.

Reconciliation of the Group's profit for the year and equity with the corresponding amounts for the Parent Company

The reconciliation of consolidated equity and consolidated profit for 2019 and the corresponding amounts for the Parent Company is shown below.

(€m)

	PROFIT FOR 2019	EQUITY AT 31 DECEMBER 2019
Parent Company's financial statements	**713.5**	**3,981.1**
Profit and equity contributed by Group companies:		
- Group companies - Regulated Activities	60.1	175.1
- Group companies - Non-regulated Activities*	(8.7)	55.7
- Group companies - International Activities**	(4.3)	(15.0)
Companies accounted for using the equity method	3.3	35.0
Total consolidated financial statements	**763.9**	**4,231.9**
Share attributable to non-controlling interests - Non-regulated Activities	6.6	41.6
Terna Group's consolidated financial statements	**757.3**	**4,190.3**

* *Includes the impact of a different presentation of the interconnector transaction compared with the Parent Company's results.*
** *Includes overheads attributable to Terna Plus S.r.l..*

Terna's shares

+250%
capital gain
since the date
of the IPO

Terna and the financial markets

Terna S.p.A. has been listed on Borsa Italiana's screen-based trading system (Mercato Telematico Azionario) since 23 June 2004. **From the date of floatation to the end of 2019, the share price has risen 250% (a capital gain)**, providing a Total Shareholder Return (TSR[27]) of 724%, ahead of both the Italian market (FTSE Mib +48%) and the relevant European sector index (DJ Stoxx Utilities), which has risen 233%.

Europe's leading stock markets rose during 2019, with Milan gaining 28.3%, Frankfurt and Paris 21.5% and 26.4%, respectively, London 12.1% and Madrid 11.8%.

Performance of Terna's shares

Terna's shares also ended 2019 in positive territory at a price of €5.954, representing an annual increase of 20.2%. The average daily volume traded during the year amounted to approximately 6.2 million shares. The share price reached its peak for the year on 6 November at €6.012. The ex-dividend date for the interim dividend for 2019, amounting to 8.42 euro cents per share, was 18 November.

KEY INDICATORS PER SHARE

	2019	2018	2017	2016	2015	2014
Number of shares (in millions)	2,010	2,010	2,010	2,010	2,010	2,010
Price at year end (€ per share)	5.95	4.95	4.84	4.35	4.76	3.76
Market capitalisation* (€m)	11,273	9,507	9,668	9,367	8,482	7,718
Average price for year (€ per share)	5.61	4.73	4.81	4.66	4.22	3.84
Earnings per share (€)	0.377	0.352	0.339	0.315	0.296	0.271
Dividend per share (€)	0.250	0.233	0.220	0.206	0.200	0.200
Payout ratio**	66.22%	66.34%	64.24%	65.40%	67.51%	73.82%
Dividend yield***	4.2%	4.7%	4.5%	4.7%	4.2%	5.3%
Total shareholder return	25.1%	7.3%	15.9%	(4.3%)	32.5%	8.9%

* *Based on the average price for the year.*
** *Ratio of the total dividend to profit attributable to owners of the Parent.*
*** *Dividend per share for the year as a percentage of the share price at year end.*

WEIGHTING OF TERNA'S SHARES	2019	2018
> on the FTSE MIB index	2.27%	2.42%

Source: Borsa Italiana

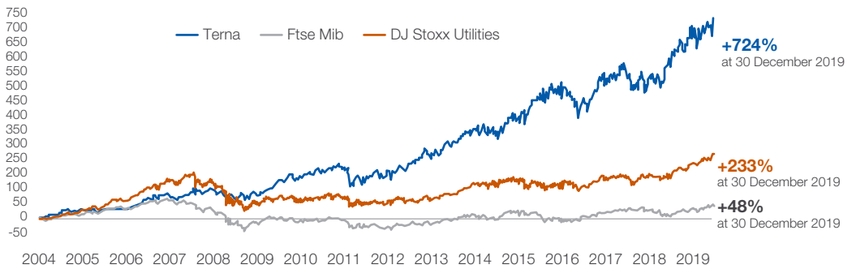
[27] *Total Shareholder Return* (TSR): total return on an equity investment, calculated as the sum of:
I. the capital gain: the change in the share price (difference between the price at the end and at the beginning of the relevant period) as a percentage of the price at the beginning of the period;
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 SHARES - *Price (2019)*

+20.2%
performance
2019

Source: Bloomberg

PERFORMANCE OF TERNA'S SHARES - Total Shareholder Return (from their floatation to the end of 2019) (%)



Source: Bloomberg

Inclusion in stock exchange sustainability indices

Terna's commitment to measuring and improving its ESG (Environmental, Social and Governance) performance is reflected positively in sustainability ratings.
Terna's inclusion in all the leading international stock exchange sustainability indices was confirmed in 2019. In September, on the occasion of the annual review conducted by the Swiss sustainability rating agency, RobecoSAM, Terna's presence in the Dow Jones Sustainability Index (World and Europe) was confirmed, and the Company was, for the second year running, named **Industry Leader in the Electric Utilities sector**.

INDEX	TERNA
BLOOMBERG GENDER EQUALITY INDEX	Included since 2019
DOW JONES SUSTAINABILITY INDEX	Included since 2009
ECPI	Included since 2007
ETHIBEL SUSTAINABILITY INDEX (ESI)	Included since 2009
EURONEXT VIGEO	Included in the World 120, Eurozone 120 and Europe 120 baskets since 2012
FTSE ECPI	Included since 2010
FTSE4Good	Included in the index (Global and Europe baskets) every year since 2005
MSCI GLOBAL SUSTAINABILITY	Included regularly in the index since 2007
STOXX® ESG	Included in the index since 2011
STOXX® LOW CARBON	Included in the index since February 2016, the date the index was launched
UNITED NATIONS GLOBAL COMPACT ("GC100")	Included in the index since 2013

In recognition of its ranking as "Industry Leader", Terna was included in the Gold Class in RobecoSAM's "Sustainability Yearbook 2020", published in January 2020.

Terna S.p.A.

A review of the operating performance and financial position of the Parent Company, Terna S.p.A., is provided below.

Terna S.p.A.'s reclassified income statement

Terna S.p.A.'s operating results for the years 2019 and 2018 are summarised in the following reclassified income statement, obtained by reclassifying amounts in the statutory income statement.

(€m)

	2019	2018	CHANGE	% CHANGE
TOTAL REVENUE	**2,054.5**	**1,967.6**	**86.9**	**4.4%**
- Tariff revenue	1,838.5	1,800.6	37.9	2.1%
of which transmission revenue	*1,725.6*	*1,657.5*	*68.1*	*4.1%*
of which dispatching, metering and other revenue	*112.9*	*143.1*	*(30.2)*	*(21.1%)*
- Other operating income	188.4	141.5	46.9	33.1%
- Revenue from construction services performed under concession*	27.6	25.5	2.1	8.2%
TOTAL OPERATING COSTS	**451.0**	**452.0**	**(1.0)**	**(0.2%)**
- Personnel expenses	60.0	63.6	(3.6)	(5.7%)
- Cost of services, leases and rentals	354.5	343.8	10.7	3.1%
- Materials	1.2	0.9	0.3	33.3%
- Other costs	7.1	13.1	(6.0)	(45.8%)
- Quality of service	0.6	5.1	(4.5)	(88.2%)
- Cost of construction services performed under concession*	27.6	25.5	2.1	8.2%
GROSS OPERATING PROFIT (EBITDA)	**1,603.5**	**1,515.6**	**87.9**	**5.8%**
- Amortisation, depreciation and impairment losses	540.7	517.9	22.8	4.4%
OPERATING PROFIT/(LOSS) (EBIT)	**1,062.8**	**997.7**	**65.1**	**6.5%**
- Net financial income/(expenses)	(63.6)	(78.5)	14.9	(19.0%)
PROFIT/(LOSS) BEFORE TAX	**999.2**	**919.2**	**80.0**	**8.7%**
- Income tax expense	285.7	257.9	27.8	10.8%
PROFIT FOR THE YEAR	**713.5**	**661.3**	**52.2**	**7.9%**

** Recognised in application of interpretation IFRIC 12 - Service Concession Arrangements.*

Revenue of €2,054.5 million is up €86.9 million due to:

- an increase of €37.9 million due to the adjustment to the Company's WACC applied by Resolution 639/18 (up to 5.6% for the three-year period 2019-2021 from the 5.3% of the previous period 2016-2018), an increase in invested capital (RAB), the determination of revenue from the Italy-Montenegro Interconnector (ARERA resolution 568/19) and the recognition of additional payments for energy-intensive storage systems (ARERA Resolution 169/19), offset by ARERA's one-off recognition of certain expenses arising in the previous year;
- recognition of revenue resulting from the sale of the private Italy-Montenegro Interconnector (on 17 December 2019), amounting to €25.8 million;
- the value of the RENS (Regulated Energy Not Supplied) bonus (up €12.8 million);
- connection services (up €1.1 million).

Operating costs are broadly in line with the previous year (down €1 million), primarily reflecting reductions in other costs (down €6 million), following the adjustment of provisions for risks and charges, in quality of service costs (down €4.5 million) and in personnel expenses (down €3.6 million, linked primarily to the different performance of staff incentive schemes), partially offset by an increase in the cost of services, leases and rentals (up €10.7 million), primarily due to intercompany services provided under specific agreements.

Gross operating profit (EBITDA) for 2019 amounts to €1,603.5 million, up €87.8 million (5.8%) on the previous year.

Amortisation, depreciation and impairment losses for the year amount to €540.7 million, an increase of €22.8 million compared with 2018. This primarily reflects the entry into service of new plant, and increased impairment losses on assets in the previous year (down €12.9 million).

Operating profit (**EBIT**) thus amounts to €1,062.8 million, up €65.1 million on the figure for 2018 (up 6.5%).

Net financial expenses for the year total €63.6 million, a reduction of €14.9 million compared with the €78.5 million of 2018, due primarily to the seasonal nature of inflation, increased returns on the investment of liquidity and on short-term financial assets and the reduction in short-term interest rates.

Income tax expense for the year amounts to €285.7 million, an increase of €27.8 million compared with the previous year, essentially due to the increase in pre-tax profit. The tax rate is 28.6% compared with 28.1% for 2018.

Profit for the year thus amounts to €713.5 million, an increase of €52.2 million compared with profit for 2018 (up 7.9%).

Cash flow

The above performance, combined with non-cash items and other cash flows from and for operating activities, has resulted in a cash inflow of €1,369.1 million, enabling the Parent Company to finance a large part of its investing activities (€1,045.6 million) and provide a return on equity (€583.3 million, including €479.7 million in the form of dividends paid to shareholders). The balance is financed for the remaining part by net debt, which totals €8,361.6 million compared with €8,101.8 million at the end of 2018 (up €259.8 million).

(€m)

	CASH FLOW 2019	CASH FLOW 2018
- Profit for the year	713.5	661.3
- Amortisation, depreciation and impairment losses	540.7	517.9
- Net change in provisions	(86.3)	(66.1)
- Net losses/(gains) on sale of assets	(11.2)	(3.0)
Operating cash flow	**1,156.7**	**1,110.1**
- Change in net working capital	130.5	243.0
- Change in investments	(29.2)	(55.7)
- Other movements in property, plant and equipment and intangible assets	275.6	38.7
- Change in financial assets	(164.5)	(19.6)
Cash flow from operating activities	**1,369.1**	**1,316.5**
- Total capital expenditure	(1,045.6)	(886.1)
Free cash flow	**323.5**	**430.4**
- Dividends paid to shareholders	(479.7)	(451.1)
- Cash flow hedge reserve after taxation and other movements in equity	(103.6)	(34.6)
Change in net debt	**(259.8)**	**(55.3)**

Terna S.p.A.'s reclassified statement of financial position

Terna S.p.A.'s financial position at 31 December 2019 and 2018 is summarised in the following statement, obtained by reclassifying amounts in the statutory statement of financial position.

(€m)

	AT 31 DECEMBER 2019	AT 31 DECEMBER 2018	CHANGE
Total net non-current assets	**13,981.2**	**13,548.1**	**433.1**
- Intangible assets and goodwill	443.8	427.7	16.1
- Property, plant and equipment	12,258.3	12,035.0	223.3
- Financial assets	1,279.1	1,085.4	193.7
Total net working capital	**(1,517.4)**	**(1,388.0)**	**(129.4)**
- Net energy-related pass-through payables	(598.6)	(799.7)	201.1
- Net receivables resulting from regulated activities	320.4	313.9	6.5
- Net trade payables	(592.5)	(537.6)	(54.9)
- Net tax liabilities	(79.3)	(14.2)	(65.1)
- Other liabilities net	(567.4)	(350.4)	(217.0)
Gross invested capital	**12,463.8**	**12,160.1**	**303.7**
Sundry provisions	(121.1)	(207.4)	86.3
NET INVESTED CAPITAL	**12,342.7**	**11,952.7**	**390.0**
Equity	**3,981.1**	**3,850.9**	**130.2**
Net debt	**8,361.6**	**8,101.8**	**259.8**
TOTAL	**12,342.7**	**11,952.7**	**390.0**

The principal changes with respect to 31 December 2018 are described below.

Net invested capital amounts to €12,342.7 million at 31 December 2019, an increase of €390 million compared with the previous year. This reflects an increase in **net non-current assets** (€433.1 million), the cash generated by **net working capital** (down €129.4 million) and a reduction in sundry provisions (€86.3 million).

The change in **net working capital**, represented by a reduction of €129.4 million, is primarily due to an increase in guarantee deposits received from electricity market operators and increases in VAT and income tax payable and in the Interconnector Guarantee Fund, offset by a reduction in net trade payables.

Net non-current assets are up €433.1 million, primarily due to the Company's capital expenditure (€1,045.6 million, including €12.5 million recognised in application of IFRS 16), after amortisation and depreciation for the year (€541.3 million) and the sale of the private Italy-Montenegro Interconnector (€213.5 million), as well as recognition of the amounts deposited by operators who participate in the capacity market pursuant to Resolution 98/2011/R/eel, as amended (€142.6 million).

Sundry provisions are down €86.3 million, primarily due to adjustments to provisions for net tax liabilities, mainly due to the effect on taxation of amortisation and depreciation, movements in provisions for risks and charges and movements in derivative instruments held by the Company (up €51.4 million), the use of provisions for early retirement under the current generational turnover plan (down €10.1 million) and net uses of provisions relating to quality of service (down €9 million).

Net debt of €8,361.6 million is up €259.8 million.

(€m)

NET DEBT (BY TYPE OF INSTRUMENT)	AT 31 DECEMBER 2019	AT 31 DECEMBER 2018	CHANGE
- Bond issues	7,757.3	7,179.9	577.4
- Borrowings	1,665.5	2,221.8	(556.3)
- Short-term borrowings and other financial liabilities	81.4	89.5	(8.1)
- Derivative financial instruments	114.0	57.8	56.2
Gross debt	**9,618.2**	**9,549.0**	**69.2**
- Long- and short-term loans to subsidiaries	(24.1)	(99.5)	75.4
- Financial assets	(513.3)	(402.6)	(110.7)
- Cash and cash equivalents (including the net balance on intercompany current accounts)	(719.2)	(945.1)	225.9
Total net debt	**8,361.6**	**8,101.8**	**259.8**

In addition to the information provided above, the increase in net debt also reflects the repayment of intercompany loans granted to the Brazilian subsidiaries in 2018 (down €89.5 million), partly offset by an increase in the loan to the Uruguayan subsidiary (up €14.1 million).

Proposal for the Annual General Meeting regarding the distribution of Terna S.p.A.'s profit for the year

Proposal for appropriation of profit for the year

Terna S.p.A.'s Board of Directors proposes to pay a total dividend of €501,493,004.00 for 2019, equal to €0.2495 per share, of which €0.0842 per share was declared in the form of an interim dividend on 13 November 2019.

The Board of Directors thus proposes to appropriate Terna S.p.A.'s profit for 2019, amounting to €713,513,547.45, as follows:

- €169,241,326.40 to cover payment of the interim dividend payable from 20 November 2019;
- €332,251,677.60 to pay a final dividend of €0.1653 to the holders of each of the 2,009,992,000 ordinary shares outstanding at the date of this Board of Directors' meeting. The final dividend will be payable on 24 June 2020, with an ex-dividend date for coupon 32 of 22 June 2020 (a record date, as defined by art.83-terdecies of Legislative Decree 58 of 24 February 1998, the Consolidated Law on Finance, of 23 June 2020);
- €212,020,543.45 to be taken to Retained earnings.

Efficiency

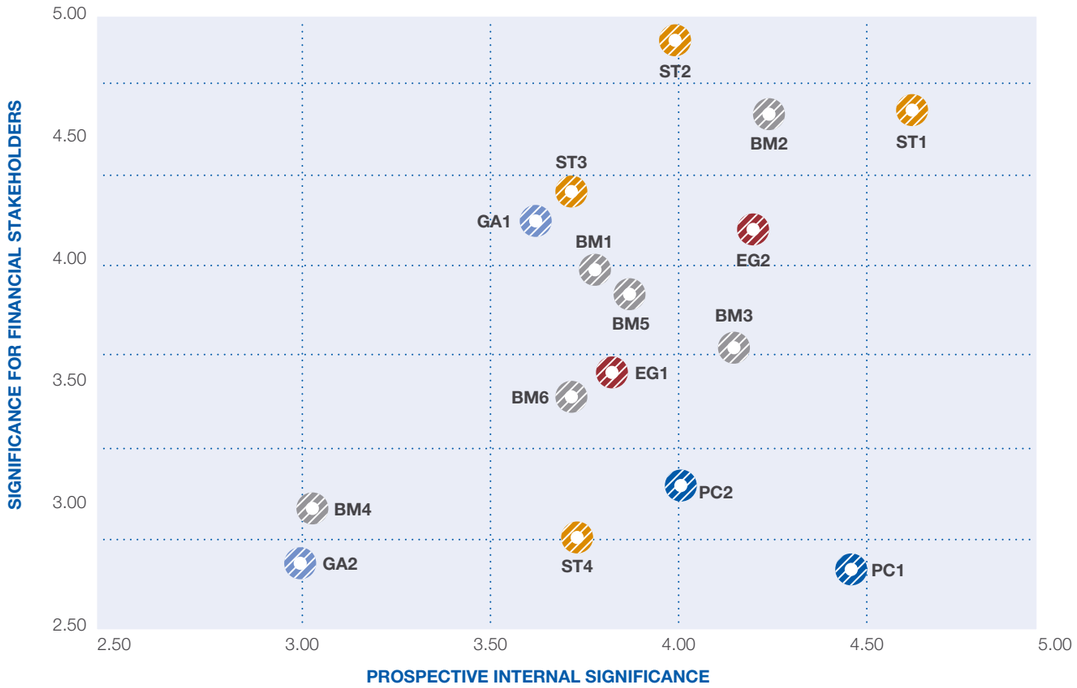
The ability to **manage the electricity system** so as to meet security, adequacy and quality requirements **at the lowest overall cost** to the consumer/ end user, representing one of the cornerstones of our mission. An efficient system is able to reduce curtailment affecting renewable energy plants and/ or at low cost, caused by congestion on the grid or by overgeneration with respect to demand. In addition, thanks to targeted work on the grid and on the system, it will be possible to contain cost rises in the market for services, caused by the reduction in the number of traditional plants in operation and by the growing volatility of the residual load.

5

Annexes

Materiality analysis

PROSPECTIVE MATERIALITY MATRIX



Ethics and governance model
- **EG1:** Governance model effectiveness
- **EG2:** Business integrity

Transmission service
- **ST1:** Delivering the energy transition
- **ST2:** Ensuring the quality, security and continuity of the electricity service
- **ST3:** Grid resilience
- **ST4:** Economic impacts on the community

People and communities
- **PC1:** Workplace health, safety and rights
- **PC2:** HR development

Business Management
- **BM1:** Strategic approach to stakeholder management
- **BM2:** Delivering on financial and performance goals
- **BM3:** Information security
- **BM4:** Optimal management of relations with local stakeholders
- **BM5:** Growing and diversifying the business
- **BM6:** Innovation and digitalisation

Management of environmental impacts
- **GA1:** Reducing the Group's CO_2 emissions
- **GA2:** Reuse and recycling of materials

In the preparation of its Integrated Report for 2019, Terna has taken into account the guiding principles in the Integrated Reporting Framework developed by the IIRC-International Integrated Reporting Council. One of these principles is materiality, which requires entities to consider, when selecting the matters to cover and the related KPIs, their effective relevance in terms of their role in value creation.
The matters covered in the Integrated Report for 2019 are consistent with the materiality matrix on the previous page. Construction of the matrix also played a part in the materiality analysis carried out during preparation of the Sustainability Report, which for the last two years also has the role of "Non-financial statement", now obligatory in accordance with Legislative Decree 254/2016 and also based on the materiality principle.

Key steps in this process are the following:
- **selection of the main topics:** the selection was conducted in 2016 on the basis of an in-depth analysis of internal and external documents and revised in 2019 to take into account changes in Terna's strategic guidelines. 22 topics, belonging to 5 areas, were identified: ethics and the governance model; the transmission service; the management of environmental impacts; business management; people and communities;
- **determination of significance for Terna:** the selected topics were then classified according to their importance for Terna.
  This process took the form of a survey of the Company's managers was carried out (on two levels starting from the Group Parent's Chief Executive Officer), with participants asked to assess the topics in the new topic tree.
  This survey results were weighted against the assessments completed in 2018, aimed at evaluating the level of "active management" (existence of policies, procedures, objectives, monitoring activities, etc.) and the priorities in the Strategic Plan 2018-2022 and the document "Sustainability initiatives and KPIs for the Strategic Plan 2019 – 2023". The overall results were then validated by the Group's senior management;
- **determination of significance for stakeholders:** each topic was ranked by combining the significance of the topic for each category of stakeholder with the weighting assigned to that category in Terna's stakeholder map.
  In particular, the significance of each topic for a given category of stakeholder was assessed on the basis of a) the results of an external survey involving various subgroups of key stakeholders, b) the analysis of documents and c) the results of specific surveys. Each topic was then ranked by combining the significance of the topic for each category of stakeholder with the weighting assigned to that category in Terna's stakeholder map. In particular, the significance of each topic for a given category of stakeholder was assessed on the basis of a) the analysis of documents, b) the results of specific surveys (es. engagement surveys of personnel, questionnaires completed by customers of the Group's non-regulated business) and c) management's perception of the significance of topics for stakeholders with whom they have direct contact.
  Further details are provided in the section on materiality in the Sustainability Report-Non-financial Statement.

The materiality matrix used for the Integrated Report differs from the one used for the Sustainability Report-Non-financial Statement as regards the following key aspects:
- to determine the significance for Terna, the results of the internal survey of second-level managers conducted in 2019 were weighted against the results of the assessment of prospective significance completed in 2018, which evaluated, with respect to each topic, the need for investment – in terms of boosting management capabilities – in order to achieve the objectives in the Strategic Plan;
- in determining significance for stakeholders, and again in line with IIRC principles, only the opinions of those belonging to the financial category, meaning "shareholders" (including financial analysts and institutional investors) and "credit providers" (e.g. banks), were taken into account;
- the topics placed in the matrix (16) are those for which, in the set of sources analysed, it was possible to identify the information of significance to financial stakeholders.

In the matrix, the most significant topics are those furthest away from the origin, for both axes.

Regulatory framework and other information

Summary of the principal legislative measures

A brief description is provided below of the principal legislation of interest to the Group issued during 2019 and, subsequently, up to the date of preparation of this Annual Report.

- **Law 145 of 30 December 2018, containing the Budget Law for the 2019 financial year and the long-term budget for the three-year period 2019-2021, published in Official Gazette no. 302 of 31 December 2018.**

  The Budget Law extended the application of a number of measures to 2019, including: hyper depreciation (making it possible for businesses to increase the purchase cost of the most innovative operating assets for the purposes of depreciation), capping eligible expenditure at €20 million and making the applicable rates of depreciation progressive; and forms of contribution holiday for newly hired personnel in southern Italy. Again, with regard to job creation incentives, the legislation introduced a new form of contribution holiday for companies who hire young people who have recently graduated from university with a first-class degree and people who have recently completed a doctorate. The law has reduced the deductible portion of additional spending on research and development to 25%, in relation cost items such as personnel expenses for staff not on permanent contracts and contracts with innovative start-ups and SMEs not belonging the same group. The 2019 Budget Law also set up a fund to enable people to take early retirement or take part in generational turnover. Other measures, relating to the tax-deductibility of council tax and incentives for companies to raise more capital, were later revisited in Law Decree 34 of 30 April 2019 and Law 160 of 27 December 2019.

- **Law Decree 4 of 28 January 2019, containing urgent measures regarding citizens' income and pensions, converted into Law 26 of 28 March 2019, published in Official Gazette no. 75 of 29 March 2019.**

  This Law Decree, in implementation of the 2019 Budget Law, granted the right to take early retirement to workers who are at least 62 years old and who have been paying contributions for a minimum of 38 years. In addition, changes to the requirements for access to early retirement based on length of contribution period or age on entering the workforce have been frozen. The Decree has also extended the so-called "women's option", allowing women who, at 31 December 2018, had reached the age of 58 and had been paying contributions for 35 years to qualify for early retirement. Finally, the Decree introduced provisions governing the citizens' income, offering incentives to companies who hire beneficiaries of the income.

- **Law Decree 32 of 18 April 2019, containing urgent measures regarding the award of public works contracts, the acceleration of infrastructure projects, urban regeneration and reconstruction following seismic events, converted into Law 55 of 14 June 2019, published in Official Gazette no. 140 of 17 June 2019.**

  The Decree has introduced a number of measures for 2019 and 2020, such as abolition of the obligation to include a list of subcontractors when tendering and an increase in the maximum proportion of a contract that can be subcontracted from 30% to 40%.

- **Law Decree 34 of 30 April 2019, containing urgent measures designed to stimulate economic growth and resolve specific problems, converted into Law 58 of 28 June 2019, published in the Official Gazette of 29 June 2019.**

  This Law Decree has increased the deductible portion of council tax, previously raised from 20% to 40% in the Budget Law, to 50% and extended the application of hyper depreciation, based on up to 130% of the purchase cost, to new operating assets purchased in 2019, capping the related expenditure at €2.5 million.

- **Law Decree 124 of 26 October 2019, containing urgent measures regarding taxation and non-deferrable necessities, converted into Law 157 of 19 December 2019, published in the Official Gazette of 24 December 2019.**

  The Decree requires entities contracting out works and services, with a total annual value of in excess of €200,000, to request the contractor or the company awarded the contract and any subcontractors to provide copies of proof of payment of any withholdings deducted from the pay of employees. The legislation applies to "contracts… where workers are primarily employed at the principal's premises, using the principal's own operating assets or assets attributable thereto in whatever form". The Decree also provides that the offset of tax credits on income tax and the related surcharges, withholding tax on income and IRAP, amounting to over €5,000 per year, may take place only "from the tenth day following the date of presentation of the tax return or the claim from which the credit emerges".

- **Law 160 of 27 December 2019, containing the Budget Law for the 2020 financial year and the long-term budget for the three-year period 2020-2022, published in the Official Gazette of 30 December 2019.**

  The 2020 Budget Law has re-introduced Aiuto per la Crescita Economica tax relief, previously abolished by the 2019 Budget Law, establishing a deductible notional return on new equity of 1.3% from 2019. Accelerated and hyper depreciation have been replaced, for 2020, by a tax credit on investment in operating assets, applying a regressive rate based on the value of the purchases made. For 2020, in place of the tax credit applied only to additional research and development expenditure, the Law has introduced a new tax credit at a lower rate (6% for technological innovation and 12% for research and development), but applicable to the entire amount spent on the above activities. The legislation has also extended the application of gender quotas to boards of directors and boards of statutory auditors. The quota applicable to the least represented gender may not be less than 2/5. Other changes regard the so-called "women's option", which has been extended for 2020, and the establishment of a fund to reduce the tax wedge, use of which will be the subject of future legislation.

Resolutions of the Italian Regulatory Authority for Energy, Networks and the Environment

A summary is provided below of the principal resolutions adopted by Italy's Regulatory Authority for Energy, Networks and the Environment (ARERA) during 2019 and, subsequently, up to the date of preparation of this Annual Report.

- **Resolution 30/2019/R/eel**: Revision of the criteria for the transitional arrangements for specific capacity payments for 2018.
- **Resolution 69/2019/R/eel**: Audit of contractual compliance by Terna S.p.A. and Gestore dei Mercati Energetici S.p.A. with regard to the launch of single day-ahead coupling.
- **Resolution 78/2019/R/eel**: Definition and regulation of physical and financial items relating to injections and withdrawals of electricity into and from Italian distribution networks interconnected only with overseas networks.
- **Resolution 83/2019/R/eel**: Compliance review of proposed changes to the code governing grid transmission, dispatching, development and security in relation to the series of guarantees that must be provided to Terna by end users of the dispatching service.
- **Resolution 103/2019/R/eel**: Further measures regarding sub-division of the grid into zones, following the review process conducted in accordance with Regulation (EU) 2015/1222 (CACM).
- **Resolution 106/2019/R/eel**: Determination of the quality of service bonuses and penalties for electricity transmission for 2017.
- **Resolution 146/2019/R/eel**: Determination of the bonus for implementation of tools in preparation for output-based regulation of the electricity transmission service in 2017.
- **Resolution 169/2019/R/eel**: Determination of performance-based incentives for pilot projects relating to energy-intensive storage systems and dynamic thermal rating.
- **Resolution 171/2019/R/eel**: Recognition of the costs incurrent by Terna S.p.A. in 2018 in carrying out the activities involved in managing and developing the unique database of production plants (GAUDÌ).
- **Resolution 195/2019/R/efr**: Revision of the "IA" reliability index, as referred to in article 5 of Annex A to the regulator's determination ARG/elt 5/10, used in calculating the shortfall in wind production.
- **Resolution 233/2019/R/eel**: Revision of the criteria for the transitional arrangements for specific capacity payments for 2019.
- **Resolution 272/2019/R/eel**: Measures relating to extension of the *ex ante* checks on the figure for average annual power with regard to requests for switching submitted by each dispatching user.
- **Resolution 274/2019/R/eel**: Approval of the method for distributing congestion revenue for long-term transmission rights, pursuant to Regulation (EU) 2016/1719 (FCA).
- **Opinion 275/2019/I/eel**: Revision of the regulator's opinion 701/2016/I/eel, provided to the Ministry for Economic Development, granting an exemption for a portion of the "Italy-Montenegro" direct current interconnection.
- **Opinion 281/2019/R/eel**: Opinion provided to the Ministry for Economic Development on the draft decree approving capacity market regulations.
- **Resolution 289/2019/R/eel**: Measures regarding transitional capacity payments for 2019.
- **Resolution 343/2019/R/eel**: Approval of the Regulation drawn up by Terna S.p.A., regarding the procedures for the enablement and participation of consumption units for the capacity market in the dispatching services market and measures regarding the auctions to be held by the end of 2019.
- **Resolution 363/2019/R/eel**: Economic criteria for capacity market auctions for delivery years 2022 and 2023, as referred to in article 6, paragraph 1 of the Ministerial Decree of 28 June 2019.
- **Resolution 364/2019/R/eel**: Assessment of compliance of the technical rules governing the functioning of the capacity market.
- **Resolution 365/2019/R/eel**: Determinations of the fee referred to in article 14 of determination ARG/elt 98/11.
- **Resolution 420/2019/R/eel**: Determinations regarding essential plants. Amendments to the related regulations.
- **Resolution 421/2019/R/eel**: Approval of the forms of contract to be used by Terna S.p.A. and Monita Interconnector S.r.l. for technical and commercial management of the exempted section of the Italy-Montenegro Interconnector.
- **Resolution 437/2019/R/eel**: Measures regarding transitional capacity payments for 2020 and 2021.
- **Resolution 464/2019/R/eel**: Approval of the rules for allocating long-term transition rights and daily transmission rights at the border with Montenegro, valid for 2020.
- **Resolution 494/2019/R/eel**: Approval of Terna's proposed method for correlating the financial value of the guarantees provided by dispatching with the equivalent in MW, for use in determining the value of PMAmax for each user.
- **Resolution 503/2019/R/eel**: Determinations regarding the alternative regime for essential plants.
- **Resolution 504/2019/R/eel**: Measures regarding essential plants for 2020. Amendments to the regulator's determination 111/06.

- **Resolution 539/2019/R/eel**: Approval of changes to the Code for Transmission, Dispatching and Grid Development and Security prepared by Terna S.p.A. for the purposes of implementing European regulations governing connections.
- **Resolution 541/2019/R/eel**: Approval, for 2020, of the estimated costs relating to monitoring of the wholesale electricity market by Gestore dei Mercati Energetici S.p.A., and the fees for participation in the feed-in tariff system.
- **Resolution 546/2019/R/eel**: Compliance review of proposed changes to the Code for Transmission, Dispatching and Grid Development and Security for the purposes of implementing Regulation (EU) 2017/2196.
- **Resolution 558/2019/R/eel**: Amendment of the Consolidated Text for Closed Distribution Systems (TISDC) and extension of the deadline for its application to electricity grids serving ports and airports included in the register of other closed distribution systems after 31 December 2019. Update of the register of other closed distribution systems.
- **Resolution 560/2019/R/eel**: Recognition of the final costs for 2018 and the estimated costs for 2020 incurred by Terna S.p.A. in carrying out its market monitoring activities.
- **Resolution 567/2019/R/eel**: Revision of output-based regulations for the electricity transmission service for the sub-period 2020-2023.
- **Resolution 568/2019/R/eel**: Revision of tariff regulations for electricity transmission, distribution and metering services for the regulatory sub-period 2020-2023.
- **Resolution 574/2019/R/eel**: Revision of dispatching fees from 1 January 2020.
- **Resolution 575/2019/R/eel**: Determinations regarding the request for admission to the regime for covering the costs of the Assemini, Biopower Sardegna and Portoferraio plants.

Further details of the above resolutions, and information of further resolutions adopted by the regulator (ARERA), can be found on the regulator's website at www.arera.it.

Other information

Additional information is presented below in accordance with specific statutory or industry requirements.

Treasury shares

The Parent Company does not directly or indirectly hold any of its own shares or the shares of CDP Reti S.p.A. or Cassa Depositi e Prestiti S.p.A., nor has it purchased or sold any such shares during the reporting period.

Related party transactions

Related party transactions entered into by the Terna Group in 2019 primarily regard services forming part of its ordinary activities and provided under normal market conditions, as described in greater detail in the consolidated financial statements for the year ended 31 December 2019[28].

The Parent Company's Corporate Governance rules ensure that such transactions are conducted in accordance with the rules governing procedural and substantial correctness and on an arm's length basis, and in keeping with the regulations for transparent reporting to the market.
No material transactions[29] were carried out in 2019, nor were any transactions subject to the reporting requirements applicable in the event of exemptions applied in accordance with the relevant regulations[30].

Information on ownership structures

The disclosures required by art. 123-*bis* "Report on Corporate Governance and ownership structures" of the Consolidated Law on Financial Intermediation (Legislative Decree 58 of 24 February 1998) are provided in a separate document approved by Terna's Board of Directors ("Report on Corporate Governance and Ownership Structures" for 2019, available on Terna S.p.A.'s website (www.terna.it – in the section "Investor Relations").

[28] Relations with members of the Parent Company's Board of Statutory Auditors, with particular regard to their remuneration, are described in the notes to the item, "Services" in the notes to the consolidated and separate financial statements for the year ended 31 December 2019. In addition, in implementation of CONSOB Resolution 18049 of 23 December 2011, disclosures regarding the remuneration of "*members of management and supervisory bodies and general managers*", and their shareholdings in the Company and those of the other persons referred to in the above article, are included in the annual Remuneration Report published in accordance with the law.

[29] These are related party transactions classified in compliance with Annex 3 to the "Regulations on related party transactions" (adopted with CONSOB Resolution 17221 of 12 March 2010, as amended by CONSOB Resolution 17389 of 23 June 2010).

[30] As "*transactions falling within the scope of the ordinary activities of the Company or its subsidiaries or associates or of financing activities related thereto, provided that the transactions are conducted on equivalent to market or standard terms and conditions*".

Attestations pursuant to article 2.6.2, paragraphs 7 and 8 of the Regulations for the markets organised and managed by Borsa Italiana S.p.A., relating to the conditions described in articles 15 and 16 of the CONSOB's Markets Regulation (no. 20249 of 28 December 2017 in Official Gazette no.1 of 2 January 2018)

With reference to the provisions of article 15, paragraph one, letters a), b) and c) point i) of the CONSOB Markets Regulation, under the title *conditions for listing the shares of companies controlling companies incorporated and regulated under the laws of countries not belonging to the European Union*, we declare that TERNA S.p.A. does not hold any significant controlling interests, as defined in Title VI, Chapter II of CONSOB Regulation 11971 of 1999, in companies incorporated and regulated under the laws of countries not belonging to the European Union.

With reference to the provisions of article 16 of the CONSOB Markets Regulation, under the title *conditions prohibiting the listing of the shares of subsidiaries subject to management and coordination by another company*, we declare that TERNA S.p.A. is subject to the de facto control of Cassa Depositi e Prestiti S.p.A., exercised through CDP Reti S.p.A. (a joint-stock company controlled by Cassa Depositi e Prestiti S.p.A.), which holds a 29.851% interest in the Parent Company. The checks, providing confirmation of the above situation of control, were conducted by Cassa Depositi e Prestiti and notified to the Company and the CONSOB with effect from 19 April 2007 and, subsequently, by letter dated 30 October 2014 and 2 December 2014. At this time, there are no formal arrangements for the management and coordination of the Company, nor have any such rights been exercised. Terna S.p.A. conducts its business either directly or through its subsidiaries in conditions of operational and contractual independence.

Participation in the regulatory simplification process introduced by CONSOB Resolution 18079 of 20 January 2012

Pursuant to art. 3 of CONSOB Resolution 18079 of 20 January 2012, Terna has elected to adopt the simplified regime provided for in articles 70, paragraph 8, and 71, paragraph 1-bis of CONSOB Regulation 11971 of 14 May 1999, as amended (the CONSOB Regulations for Issuers). As a result, Terna exercises the exemption from disclosure requirements provided for in the above Regulations in respect of transactions of a significant nature involving mergers, spin-offs, capital increases involving contributions in kind, acquisitions and disposals.

Changes in the dimensions of the NTG

Below are details of changes in the dimensions of the infrastructure available for use and in service with respect to the situation at 31 December 2018.

DETAILS OF ELECTRICITY SUBSTATIONS OWNED BY THE TERNA GROUP*

(AT 31 DECEMBER)	UNIT OF MEASUREMENT	2019	2018	CHANGE	% CHANGE
Substations	no.	165	164	1	0.61
Power transformed	MVA	117,504	115,258	2,246	1.95
220kV					
Substations	no.	149	150	(1)	(0.67)
Power transformed	MVA	31,996	31,417	579	1.84
Lower voltages (≤150kV)					
Substations	no.	574	567	7	1.23
Power transformed	MVA	3,884	3,914	(30)	(0.77)
Total					
Substations	no.	888	881	7	0.79
Power transformed	MVA	153,384	150,589	2,795	1.86

** MVA calculated to the third decimal place and rounded to a whole number. Percentages calculated to the fifth decimal place and rounded to the second decimal place.*

DETAILS OF POWER LINES OWNED BY THE TERNA GROUP*

(AT 31 DECEMBER)	UNIT OF MEASUREMENT	2019	2018	CHANGE	% CHANGE
380kV					
Length of circuits	km	12,854	12,496	358	2.87
Length of lines	km	11,673	11,315	358	3.16
220kV					
Length of circuits	km	11,845	11,915	(70)	(0.58)
Length of lines	km	9,473	9,549	(77)	(0.80)
Lower voltages (≤150kV)					
Length of circuits	km	49,969	50,031	(62)	(0.12)
Length of lines	km	46,761	46,806	(45)	(0.10)
Total					
Length of circuits	km	74,669	74,442	226	0.30
overhead	km	70,815	71,043	(228)	(0.32)
underground cables	km	2,091	1,945	146	7.50
submarine cables	km	1,762	1,454	309	21.24
Length of lines	km	67,907	67,671	236	0.35
overhead	km	64,053	64,271	(218)	(0.34)
underground cables	km	2,091	1,945	146	7.50
submarine cables	km	1,762	1,454	309	21.24
Incidence of direct current connections (200 - 380 - 500kV)					
Circuits	km	2,435	2,077		
% of total	%	3.26	2.79		
Lines	km	2,115	1,757		
% of total	%	3.11	2.60		

** Km calculated to the third decimal place and rounded to a whole number. Percentages calculated to the fifth decimal place.*

PRINCIPAL CHANGES IN THE SIZE OF THE TERNA GROUP'S INFRASTRUCTURE

Substations

New infrastructure:

The following substations have **entered service:**

- switching substation at Picerno [PZ] (6 150kV bays);
- switching substation at Nuraminis [SU] (3 150kV bays);
- transformer substation at Mercatello [BZ] (5 132kV bays);
- transformer substation at Brennero [BZ] (4 132kV bays);
- switching substation at Santerno [RA] (4 132kV bays);

and **commissioning in final setup** of the transformer substation at Belcastro 380 [CZ] and **acquisition** of the switching substation at Pontelandolfo [BN] (5 150kV bays).

In addition:

- the non-standard infrastructure at the Cepagatti Converter (1 380kV bay) and Kotor Converter (2 380kV bays) and the switching substation at Albacina [AN] (2 150kV bays) **were** also **included** in the Group's assets;
- **elimination** of the infrastructure at the Milan Certosa substation (220 kV);
- **demolition** of the non-standard Roe' Volciano infrastructure [BS] (1 132kV bay).

Existing infrastructure:

- **commissioning** of 19 new line bays at the substations at Selargius (2 380kV bays), La Spezia (1 220kV bay and 1 132kV bay), Milan Marcello (1 220kV bay), Foggia (2 150kV bays), Troia, Castelnuovo, Piscioli, Valle, Genzano and Catanzaro (1 150kV bay each), Rondissone, Villeneuve, Bistagno, Milan Rogoredo, Trento South and Adria (1 132kV bay each);
- **commissioning** of 14 new machine and/or power factor correction bays in the substations of Genzano (2 380kV bays and 2 150kV bays), San Severo (1 380kV bay and 1 150kV bay), Erchie (1 380kV bay), Grosotto and Cardano (1 220kV bay and 1 132kV bay each), Minturno (1 150kV bay), Padua and Valbruna (1 132kV bay each);
- **commissioning** of 3 new parallel and/or connector bays in the substations of Genzano (2 150kV bays) and Milan Rogoredo (1 66kV bay);
- **acquisition** of 2 132kV machine bays for the Bolzano RT and Spinea substations;
- **demolition and/or decommissioning** of 11 bays at the substations at Erchie (1 380kV bay), Grosotto (1 220kV bay and 1 132kV bay), Milan Ricevitrice North (2 220kV bays), Milan Lambrate (1 220kV bay), Bistagno (2 132kV bays), Bolzano RT (1 132kV bay) and Pontebba (2 66kV bays).

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Transformers

The following transformers **entered service**:

- 3 new 380/207kV 194 MVA single-phase transformers at the non-standard Cepagatti Converter;
- 6 new 380/207kV 194 MVA single-phase transformers at the non-standard Kotor Converter;
- 2 new 380/150kV 250 MVA autotransformers at the Belcastro 380 and San Severo substations;
- 2 new 380/132kV 250 MVA autotransformers at the Rondissone and Vignole Borbera substations;
- 3 new 220/132kV 250 MVA autotransformers at the Grosotto, Marcaria and Cardano substations;
- 1 new 220/20kV 63 MVA transformer at the Fratta substation;

and the following **further changes** occurred:

- demolition of 2 380/132kV 250 MVA autotransformers at the Rondissone and Vignole Borbera substations;
- demolition of 1 220/132kV 200 MVA autotransformer at the Marcaria substation;
- replacement of 1 220/132kV 160 MVA autotransformer with another with the same voltage at the Camporosso substation;
- demolition of 1 220/132kV 100 MVA autotransformer at the Grosotto substation;
- replacement of 1 220/60kV 63 MVA transformer with an 80 MVA transformer at the Cardano substation;
- replacement of 1 220/60kV 60 MVA transformer with a 63 MVA transformer at the Borgo Val Sugana substation;
- replacement of 2 220/20kV 40 MVA transformers with 63 MVA transformers at the Conegliano and Verona Borgo Milano substations;
- replacement of 1 220/15kV 63 MVA transformer with another with the same voltage at the Biella East substation;
- replacement of 1 132/15kV 50 MVA transformer with a 40 MVA transformer at the Carpi South substation.

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Power lines

- **entry into service** of the entire pole 1 for the new 500kV direct current connection between Italy and Montenegro (MON.ITA.) Cepagatti - Kotor (299.0 km in cable) and terrestrial sections and the anode and cathode connection for pole 2 (59.0 km in cable);
- **construction** of 7 new lines amounting to 60.0 km of circuit: Porta Venezia - Porta Volta 220kV (3.8 km in cable), Marcello - Porta Venezia 220kV (1.6 km in cable), Capri - Sorrento 150kV (19.0 km in cable), Bari Termica - Palo del Colle 150kV (11.5 km in cable), Piscioli - Valle 150kV (10.8 km in cable), Bassanello - Brentelle 132kV (7.5 km in cable), Canevari - Molassana 132kV (5.8 km in cable);
- **construction** of 2 short 132kV connections between adjacent infrastructure: 1 of 0.3 km in cable and 1 of 0.1 km of overhead;
- **acquisition from third parties** of 3 150kV lines amounting to 146.2 km of circuit: Italcementi Castrovillari - Italcementi Matera 150kV (125.0 km of overhead), Morcone-Pontelandolfo 150kV (13.5 km of overhead) and Castelpagano - Morcone 150kV (7.7 km of overhead);
- **construction** of 8 in-out derivations on lines in operation, with an overall increase of the same number of circuits and 0.8 km of circuit, including: 4 lines of 0.6 km at 150kV, 3 lines of 0.2 km at 132kV, 1 line at 60kV;
- **construction of variants, rigid derivations, re-routings and/or changes to grid distribution** with a total increase of 33.2 km of circuit, including: additional 11.1 km at 220kV, additional 2.2 km at 150kV, additional 23.0 km at 132 kV, additional 0.1 km at 66 kV and removal of 3.4 km at 60kV;
- **downgrade** from 220kV to 132kV of 2 overhead lines amounting to 66.9 km;
- **demolition of** 14 lines and further sections of line amounting to 345.9 km of circuit, including: 3 linee and 25.8 km at 220kV, 1 line and 7.8 km at 150kV, 8 lines and 241.5 km at 132kV, 2 lines and 61.7 km at 70kV, 2.1 km at 60kV and 7.1 km at 50kV;
- **sale to third parties** of 6 lines amounting to 3.6 km of circuit, including 5 lines and 3.2 km at 220kV in cable and 1 line and 0.3 km at 132kV of overhead.

The identification of power lines using the code for each technical unit, adopted from this year, has **on a like-for-like basis** resulted in an increase of 31 in the number of lines.

MON.ITA.

To provide further details with respect to the above information, the 500kV direct current (HVDC) submarine cable between Italy and Montenegro has entered service with the following **initial configuration**:

- **Cepagatti Converter (IT)** consisting of two independent converter modules, **the first of which operated by the Interconnector**;
- **Kotor Converter (ME)** consisting of two independent converter modules;
- **pole 1** of the connection, consisting of:
    - 16 km of HV underground cable (Italy side) **operated by the Interconnector**;
    - 423 km of HV submarine cable, with the first 167 km **operated by the Interconnector**;
    - 6 km of HV underground cable (Montenegro side).

Alternative performance measures (APMs)

In accordance with the guidelines in ESMA/2015/1415, the alternative performance measures used in this Integrated Report are described below.

MEASURE	DESCRIPTION
OPERATING RESULTS	
Operating profit/(loss) - EBIT	is an indicator of operating performance obtained by adding **Net financial income/(expenses)** to **Profit/(Loss) before tax**.
Gross operating profit/(loss) - EBITDA	is an indicator of operating performance obtained by adding "**Amortisation, depreciation and impairment losses" to Operating profit/(loss) (EBIT)**.
TAX RATE	is the amount of tax paid as a proportion of pre-tax profit and is based on the ratio of "**Income tax expense**" to "**Profit/(Loss) before tax**".
FINANCIAL POSITION	
Net working capital	is an indicator of financial position, showing the Group's liquidity position; it is based on the difference between **Current assets** and **Current liabilities** of a non-financial nature, as presented in the statement of financial position.
Gross invested capital	is an indicator of financial position, showing the Group's total assets and is obtained by adding **Net non-current assets** and **Net working capital**.
Net invested capital	is calculated by deducting **Sundry provi**sions from **Gross invested capital**.
CASH FLOW	
Net debt	is an indicator of the Group's financial structure and is obtained by deducting **Cash and cash equivalents** and **Financial assets from Short- and long-term financial liabilities** and the related **derivative instruments.**
Free cash flow	is the cash generated by operating activities less capital expenditure and is the difference between **Cash flow from operating activities** and **Cash flow for investing activities**.

Reconciliations

In accordance with the guidelines in ESMA/2015/1415, reconciliations of the reclassified income statement and statement of financial position and of net debt and cash flow of the Terna Group and Terna S.p.A. with the related statutory income statement and statement of financial position are shown below.

RECONCILIATION OF THE TERNA GROUP'S RECLASSIFIED INCOME STATEMENT AND STATEMENT OF FINANCIAL POSITION AND NET DEBT

THE GROUP'S RECLASSIFIED INCOME STATEMENT	€M	CONSOLIDATED INCOME STATEMENT
Regulated revenue	2,055.0	"Revenue from sales and services", totalling €2,287.9 million, "Other revenue and income", totalling €56.9 million, after the cost of International Activities: "Personnel expenses", totalling €0.1 million, " Raw and consumable materials used", totalling €49.0 million, "Services", totalling €0.5 million, and "Other operating costs" of €0.1 million
Non-Regulated revenue	211.7	
Revenue from International Activities	28.4	
Personnel expenses	251.6	"Personnel expenses" after the cost of construction services performed under concession in Italy in accordance with IFRIC 12 (€5.0 million) and the cost of International Activities (€0.1 million)
Cost of services, leases and rentals	171.8	"Services" after the cost of construction services performed under concession in Italy in accordance with IFRIC 12 (15.0 million) and the cost of International Activities (€0.5 million)
Materials	86.2	"Raw and consumable materials used" after the cost of construction services performed under concession in Italy in accordance with IFRIC 12 (€7.6 million) and the cost of International Activities (€49.0 million)
Other costs	16.1	Other operating costs after the cost of International Activities (€0.1 million)
Quality of service	0.6	
Cost of construction services performed under concession	5.0	"Personnel expenses"
	15.0	"Services"
	7.6	"Raw and consumable materials used"
Net financial income/ (expenses)	(77.7)	Points 1, 2 and 3 of letter C - "Financial income and expenses"

(follows)

(follows)

THE GROUP'S RECLASSIFIED STATEMENT OF FINANCIAL POSITION	€M	CONSOLIDATED STATEMENT OF FINANCIAL POSITION
Financial assets	501.6	""Investment accounted for using the equity method", "Other non-current assets" and "Non-current financial assets", after the value of fair value hedges (€45.0 million)
Net energy-related pass-through payables	(575.8)	"Trade receivables" relating to the value of energy-related pass-through receivables (€758.4 million) and "Trade payables" relating to the value of energy-related pass-through payables (€1,334.2 million)
Net receivables resulting from Regulated Activities	320.4	"Trade receivables" relating to the value of receivables resulting from Regulated Activities (€345.0 million) and "Trade payables" relating to the value of payables resulting from Regulated Activities (€24.6 million)
Net trade payables	(899.1)	"Trade payables" after the value of energy-related pass-through payables (€1,334.2 million) and payables resulting from Regulated Activities (€24.6 million) and "Trade receivables" after the value of energy-related pass-through receivables (€758.4 million) and the value of receivables resulting from Regulated Activities (€345.0 million)
Net tax liabilities	(5.3)	"Tax assets", "Other current assets" relating to the value of other tax assets (€23.2 million), "Other current liabilities" relating to the value of other tax liabilities (€21.9 million) and "Tax liabilities"
Other liabilities net	(1,048.0)	"Other non-current liabilities", "Other current liabilities" after other tax liabilities (€21.9 million), "Inventories" and "Other current assets" after other tax assets (€23.2 million)
Sundry provisions	(210.2)	"Employee benefits", "Provisions for risks and charges" and "Deferred tax assets"
Net debt	8,258.6	"Long-term borrowings", "Current portion of long-term borrowings", "Non-current financial liabilities", "Short-term borrowings", "Cash and cash equivalents", "Current financial assets" and "Current financial liabilities" and "Non-current financial assets" relating to the value of fair value hedges (€45.0 million)

THE GROUP'S ANALYSIS OF NET DEBT	€M	CONSOLIDATED STATEMENT OF FINANCIAL POSITION
"Bond issues" and "Borrowings"	9,607.2	Corresponds with "Long-term borrowings" and "Current portions of long-term borrowings"
"Derivative financial instruments" – short- and medium/long-term	115.3	Corresponds with "Non-current financial liabilities", "Current financial assets" relating to the value of cash flow hedges (€0.1 million) and "Non-current financial assets" relating to the value of fair value hedges (€45.0 million)
Other current financial liabilities, net	81.8	Corresponds with "Current financial assets" relating to the value of accrued financial income (€5.9 million) and "Current financial liabilities", after cash flow hedges (€0.3 million)
Financial assets	(513.3)	Corresponds with "Current financial assets" relating to the value of government securities (€513.3 million)

RECONCILIATION OF THE TERNA GROUP'S CASH FLOW

(€m)

	CASH FLOW 2019	RECONCILIATION WITH FINANCIAL STATEMENTS	CASH FLOW 2018	RECONCILIATION WITH FINANCIAL STATEMENTS
- Profit for the year	763.9		711.6	
- Amortisation. depreciation and impairment losses	586.1		554.1	
- Net change in provisions	(97.3)		(48.3)	
Employee benefits		*(5.5)*		*(11.3)*
Provisions for risks and charges		*(31.1)*		*(25.1)*
Deferred tax assets		*(60.7)*		*(3.3)*
Deferred tax liabilities		-		*(8.6)*
- Net losses/(gains) on sale of assets (1)	(12.9)		(3.5)	
Operating cash flow	**1,239.8**		**1,213.9**	
- Change in net working capital	386.2		336.6	
Inventories		*12.5*		*(0.4)*
Trade receivables		*(122.8)*		*75.5*
Income tax assets		*14.1*		*17.6*
Other current assets		*(33.3)*		*53.1*
Trade payables		*(94.4)*		*16.2*
Tax liabilities		*6.7*		*5.1*
Other liabilities		*603.4*		*169.5*
- Other changes in non-current assets	(134.9)		(76.0)	
Intangible assets (2)		*0.5*		*(9.3)*
Property. plant and equipment (3)		*46.3*		*45.3*
Non-current financial assets		*(177.3)*		*(113.2)*
Other non-current assets		*(1.1)*		*(0.6)*
Investments accounted for using the equity method		*(3.3)*		*1.8*
- Cash flow from operating activities	**1,491.1**		**1,474.5**	
Capital expenditure				
- Total Capital expenditure	(1,264.1)		(1,091.1)	
Property. plant and equipment (3)		*(1.182.9)*		*(1.034.7)*
Intangible assets (2)		*(81.2)*		*(56.4)*
Total cash flow from (for) investing activities	**(1,264.1)**		**(1,091.1)**	
Free cash flow	**227.0**		**383.4**	
- Cash flow hedge reserve after taxation and other movements in equity attributable to owners of the Parent (4)	(106.5)		(39.6)	
- Other movements in equity attributable to non-controlling interests	-		4.3	
- Dividends paid to Parent Company's shareholders (4)	(479.7)		(451.1)	
- Change in net debt	**(359.2)**		**(103.0)**	
- Change in borrowings	**87.7**		**(557.3)**	
Non-current financial assets		*(45.0)*		*4.3*
Current financial assets		*(114.8)*		*(404.3)*
Non-current financial liabilities		*101.2*		*48.7*
Long-term borrowings		*1,253.1*		*(444.0)*
Short-term borrowings		-		*(93.0)*
Current portion of long-term borrowings		*(1,104.1)*		*346.3*
Current financial liabilities		*(2.7)*		*(15.3)*
- Change in cash and cash equivalents	**(271.5)**		**(660.3)**	

(1) Included in "Other revenue and income" and "Other operating costs" in the consolidated financial statements.
(2) See note 14 to the financial statements.
(3) See note 12 to the financial statements.
(4) See the consolidated statement of changes in equity.

RECONCILIATION OF TERNA S.P.A.'S RECLASSIFIED INCOME STATEMENT AND STATEMENT OF FINANCIAL POSITION AND NET DEBT

TERNA'S RECLASSIFIED INCOME STATEMENT	€M	INCOME STATEMENT
Tariff revenue	1,838.5	"Revenue from sales and services"
Revenue from construction services performed under concession	27.6	"Revenue from sales and services"
Other operating income	188.4	"Revenue from sales and services", totalling €107.2 million, and "Other revenue and income"
Personnel expenses	60.0	"Personnel expenses" after the cost of construction services performed under concession in accordance with IFRIC 12 (€0.3 million)
Cost of services. leases and rentals	354.5	"Services" after the cost of construction services performed under concession in accordance with IFRIC 12 (€23.8 million)
Materials	1.2	"Raw and consumable materials used" after the cost of construction services performed under concession in accordance with IFRIC 12 (€3.5 million)
Other costs	7.1	Other operating costs
Quality of service	0.6	
Cost of construction services performed under concession	0.3	"Personnel expenses"
	23.8	"Services"
	3.5	"Raw and consumable materials used"
Net financial income/ (expenses)	(63.6)	Points 1 and 2 of letter C - "Financial income and expenses"

TERNA'S RECLASSIFIED STATEMENT OF FINANCIAL POSITION	€M	STATEMENT OF FINANCIAL POSITION
Financial assets	1,279.1	"Non-current financial assets" after loans to subsidiaries (€24.1 million) and the value of fair value hedges (€45.0 million) and "Other non-current assets"
Net energy-related pass-through payables	(598.6)	"Trade receivables" relating to the value of energy-related pass-through receivables (€758.4 million) and "Trade payables" relating to the value of energy-related pass-through payables (€1,357 million)
Net receivables resulting from Regulated Activities	320.4	"Trade receivables" relating to the value of receivables resulting from Regulated Activities (€345.0 million) and "Trade payables" relating to the value of payables resulting from Regulated Activities (€24.6 million)
Net trade payables	(592.5)	"Trade payables" after the value of energy-related pass-through payables (€1,357 million) and payables resulting from Regulated Activities (€24.6 million) and "Trade receivables" after the value of energy-related pass-through receivables (€758.4 million) and the value of receivables resulting from Regulated Activities (€345.0 million))
Net tax liabilities	(79.3)	"Tax assets", "Other current assets" relating to the value of other tax assets (€6.5 million), "Other current liabilities" relating to the value of other tax liabilities (€71.9 million) and "Tax liabilities"
Other liabilities net	(567.4)	"Other non-current liabilities", "Other current liabilities" after other tax liabilities (€71.9 million), "Inventories" and "Other current assets" after other tax assets (€6.5 million)
Sundry provisions	(121.1)	"Employee benefits", "Provisions for risks and charges" and "Deferred tax assets"
Net debt	8,361.6	"Long-term borrowings", "Current portion of long-term borrowings", "Non-current financial liabilities", "Short-term borrowings", "Cash and cash equivalents", "Non-current financial assets" relating to the value of fair value hedges (€45.0 million) and loans to subsidiaries (€24.1 million), "Current financial assets" and "Current financial liabilities"

TERNA'S ANALYSIS OF NET DEBT	€M	STATEMENT OF FINANCIAL POSITION
"Bond issues" and "Borrowings"	9,422.8	Corresponds with "Long-term borrowings" and "Current portions of long-term borrowings"
"Derivative financial instruments"	114.0	Corresponds with "Non-current financial liabilities"
"Short-term borrowings and other financial liabilities"	81.4	Corresponds with "Current financial liabilities" and "Current financial assets" relating to the value of accrued financial income (€5.9 million)
"Cash and cash equivalents (including the net balance on intercompany current accounts)"	(719.2)	Corresponds with "Cash and cash equivalents"
"Long- and short-term loans to subsidiaries"	(24.1)	Corresponds with "Non-current financial assets", totalling €24.1 million
"Financial assets"	(513.3)	Corresponds with "Current financial assets" relating to the value of government securities (€513.3 million)

Reconciliations - *continued*

RECONCILIATION OF TERNA S.P.A.'S CASH FLOW

(€m)

	CASH FLOW 2019	RECONCILIATION WITH FINANCIAL STATEMENTS	CASH FLOW 2018	RECONCILIATION WITH FINANCIAL STATEMENTS
- Profit for the year	713.5		661.3	
- Amortisation. depreciation and impairment losses	540.7		517.9	
- Net change in provisions	(86.3)		(66.1)	
Employee benefits		*(0.1)*		*(0.9)*
Provisions for risks and charges		*(34.8)*		*(29.7)*
Deferred tax assets		*(51.4)*		*(18.2)*
Deferred tax liabilities		-		*(17.3)*
- Net losses/(gains) on sale of assets (1)	(11.2)		(3.0)	
Operating cash flow	**1,156.7**		**1,110.1**	
- Change in net working capital	130.5		243.0	
Inventories		-		*5.3*
Trade receivables		*(69.2)*		*51.9*
Income tax assets		*12.5*		*41.9*
Other current assets		*(5.8)*		*42.7*
Trade payables		*(82.4)*		*7.0*
Tax liabilities		*9.3*		*8.1*
Other liabilities		*266.1*		*86.1*
- Other changes in non-current assets	81.9		(36.6)	
Property. plant and equipment (2)		275.4		36.8
Intangible assets (3)		0.2		1.9
Non-current financial assets		(193.9)		(74.6)
Other non-current assets		0.2		(0.7)
Cash flow from operating activities	**1,369.1**		**1,316.5**	
Capital expenditure				
- Total Capital expenditure	(1,045.6)		(886.1)	
Property. plant and equipment (2)		(976.9)		(834.3)
Intangible assets (3)		(68.7)		(51.8)
Total cash flow from (for) investing activities	**(1,045.6)**		**(886.1)**	
Free cash flow	**323.5**		**430.4**	
- Dividends (4)	(479.7)		(451.1)	
- Cash flow hedge reserve after taxation and other movements in equity (4)	(103.6)		(34.6)	
Change in net debt	**(259.8)**		**(55.3)**	
- Change in borrowings	**33.9**		**(677.8)**	
Current financial assets		*(25.2)*		*(493.8)*
Non-current financial assets		*(59.1)*		*(6.8)*
Non-current financial liabilities		*99.9*		*49.2*
Long-term borrowings		*1,133.5*		*(466.6)*
Short-term borrowings		-		*(90.0)*
Current portion of long-term borrowings		*(1,112.4)*		*345.8*
Current financial liabilities		*(2.8)*		*(15.6)*
- Change in cash and cash equivalents	**(225.9)**		**(733.1)**	

(1) Included in "Other revenue" and "Other operating costs" in the financial statements.
(2) See note 10 to the financial statements.
(3) See note 12 to the financial statements.
(4) See the statement of changes in equity.