Investment in developing the grid so as to facilitate its role in **enabling the energy transition to a decarbonised system, based on renewable energy**, is Terna's most important contribution to the environment.
In these actions to achieve its objectives, Terna puts great store by efforts to **minimise the impact its assets have on the surrounding environment** (visual impact, occupancy of land and biodiversity).
Moreover, in keeping with its role as an enabler of the energy transition, Terna is committed to cutting its carbon footprint, aiming to minimise leakage of the greenhouse gas SF_6 and to increase energy efficiency in the offices and substations.

87 km
OF LINES DEMOLISHED

86%
OF WASTE RECYCLED

0.38%
LEAKAGE RATE FOR SF_6 (AS A % OF THE TOTAL AMOUNT INSTALLED), OUR BEST EVER PERFORMANCE

6

Environment

Terna and the environment

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

Occupancy of the land, the visual impact on the landscape, electric and magnetic fields, and the effect of power lines on biodiversity, especially birdlife, are aspects that relate to the implementation and physical presence of Terna's assets. Greenhouse gas emissions and hazardous waste, however, are relevant within the context of operations.

Terna has adopted an Environmental Policy that sets out its commitment to containing and reducing its environmental impact, which in some cases goes beyond legal requirements, when this does not compromise the protection of other general interests provided for under the concession. This Policy is fully implemented via the Integrated Management System (see page 60) - which also covers efforts to reduce greenhouse gas emissions, the implementation of energy efficiency initiatives (see page 186) and the adoption of measures designed to protect birdlife (page 177). Terna extends the issue of environmental protection to its supply chain (page 76) and also to local stakeholders directly affected by NTG development projects (pages 84 and 118). In organisational terms, these matters are managed by several departments with responsibility for specific aspects.

With reference to the scope of the environmental data, it should be noted that the data relating to Tamini Trasformatori S.r.l. and Avvenia -The Energy Innovator S.r.l. - subsidiaries of Terna Energy Solutions, which is in turn controlled by Terna - are not included in this section (for details on the scope of reporting, see the "Methodological note"). The environmental indicators of the Tamini Group are shown in a specific Focus (see page 194). With regard to Avvenia, a company acquired in 2018, the monitoring of environmental impacts will begin in 2019.

Management of environmental impacts

of the electricity grid

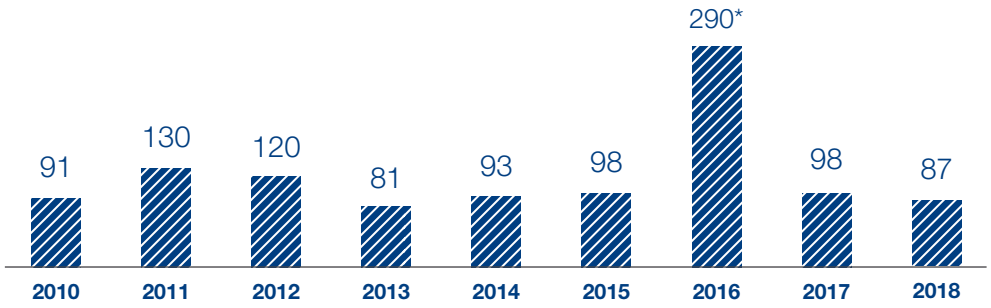
The construction, maintenance and presence of electricity infrastructure have an impact on their surroundings. The responsible management of these impacts is illustrated below. Aspects relating to greenhouse gas emissions, connected with grid operation and electricity transmission, are dealt with in the section on "Atmospheric emissions and energy efficiency" on page 180.

Power lines and local communities

< 413-2

The transmission grid has effects on the environment, primarily in terms of the visual impact on the landscape produced by the physical presence of power lines and electricity substations.
The physical removal of existing lines is one of the most radical ways in which Terna reduces environmental impacts, also in terms of land use. Demolitions are a component of upgrade initiatives, often resulting from agreements signed with local authorities during the consultation phase prior to the construction of new infrastructure.
In 2018, 87 km of lines were demolished, while in the period 2010-2018, a total of 1,089 km of lines were demolished.
Demolition is defined as the physical removal of overhead lines (or their replacement with underground cable) and does not include declassified or upgraded lines.

POWER LINES DEMOLISHED (KM)



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

1,089 km
of lines demolished

"TRANSMISSION IMPACTS" TARGET

KPIs AND TARGETS IN THE STRATEGIC PLAN 2019-2023

KPI	TARGET					
Visual impact	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
Km of overhead lines demolished during the year	87	82	107	59	87	47
Km of new underground lines during the year	53	46	243	56	100	166

An approach based on environmental sustainability guides all of Terna's activities, especially those regarding grid development. In terms of NTG development requirements, the interventions with the least environmental impact are rationalisation and reclassification.





Rationalisation	Complex initiatives involving several components of the grid, replacing certain components with others of a superior type, thereby eliminating parts of the grid that are of little use following the installation of new infrastructure or adding new elements of the grid to avoid the upgrade of power lines that have reached saturation point.
Reclassification	This involves the conversion of existing power lines to a higher voltage through the installation of new conductors and pylons to replace existing ones, which may be larger in size and therefore take up more space. Compared to the construction of a new line, this type of intervention usually has the advantage of using existing infrastructure corridors, thus avoiding the occupation of new areas of land.

When grid development requirements entail the construction of new infrastructure, environmental sustainability considerations are taken into account in all phases of a project.

Planning and consultation	Terna's planning uses assessments based on digital thematic maps, mostly deriving from official sources (regional authorities, water concession authorities, monitoring agencies), which are organised in a large and constantly updated database. Since 2002, Terna has voluntarily brought forward dialogue with local stakeholders in order to identify shared solutions ahead of any consents process for new projects. Dialogue with local authorities, the Strategic Environmental Assessment (SEA) procedure in the Development Plan and public initiatives that address the members of local communities directly affected by the presence of new infrastructure, all contribute to the design of initiatives to mitigate environmental impact (see page 118).

Design

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

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

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

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

Choice of pylons with reduced visual impact

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

NUMBER OF PYLONS INSTALLED AT 31 DECEMBER 2018

TYPE OF PYLON	LINE	TOTAL
Single pole	380 kV lines	498
	220 kV lines	43
	150 kV and 132 kV lines	2,244
	Minor 150 kV and 132 kV lines	798
"Germoglio" and "Foster"	Trino - Lacchiarella	6
	Santa Barbara - Tavarnuzze - Casellina	9

Use of underground cables, which eliminates or reduces the typical visual impact of overhead lines, is perceived as negative especially in built-up areas. Underground cables, although appreciated and requested by local authorities, pose technical and financial problems. Underground lines can only be built for a limited number of consecutive kilometres, are less reliable than overhead power lines over time and require much longer repair times in the event of a malfunction. For this reason, they often do not guarantee adequate security for the electricity system and continuity of service. Underground cables also have a greater impact during the construction phase - for example, in terms of road works - and higher construction costs.

Execution: site operations

EU13 >

Terna manages the impact of its construction sites on the environment via the operating manual, "The management of environmental aspects during infrastructure construction", in line with the Group's Environmental Policy and existing regulations.
This operating manual introduces the role of the environmental contact, a person tasked with monitoring the environmental requirements contained in the EIA Decrees and in the opinions of authorities with responsibility for the environmental, as well as compliance with legal obligations, also with reference to the activities carried out by contractors. The environmental contact also monitors the indicators set out in ISO 14001 certification, relating to complaints/reports, environmental accidents, waste, and the consumption of energy and natural resources.
Special attention is paid to the identification of areas and access roads to sites which, if compatible with technical and design requirements, are located in areas of reduced natural importance. On completion of the construction work, Terna restores the areas concerned to their original state.
If these areas regard natural or semi-natural habitats, in addition to the normal restoration works, specific interventions are implemented, based on natural engineering techniques, to provide favourable living conditions for animal species (https://www.aipin.it/). These include re-naturalisation, aimed at creating environments suitable for species or plant and/or animal communities (habitat reconstruction), the replanting of native live plants, which do not require irrigation or special fertilisation or the use of materials, even if only inert.
Terna's environmental policies, which are also applied at construction sites, have been drawn up in accordance with the applicable environmental laws and the ISO 14001 standard. These include such aspects as prevention of groundwater contamination and limitation of damage to vegetation, the management of accidents, the minimisation of atmospheric and noise pollution, the use of vehicles, and the proper management of waste and excavated earth (see page 174).
Internal audit campaigns regarding construction sites enable any deviations from the Company's environmental policies to be identified.

Mitigation and offsetting

In compliance with requirements received during the consents process, or voluntarily, Terna adopts mitigation measures to reduce the impact and improve the integration of electricity infrastructure within local areas.
Specifically, in its design process the Company gives priority to line locations that take advantage of natural morphological features, creates camouflage systems for its electricity substations, and makes use of natural engineering techniques for habitat reconstruction and the stabilisation of slopes and embankments.
With regard to the new overhead power lines, 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.
Offsetting, which is usually of a technical and/or environmental nature, is specified by the authority issuing the consents. In the preparation of a project proposal - together with national, regional and local regulations - this constitutes a "binding standard" for the detailed design and execution of the project.
In most cases, offsetting accentuates or better defines the mitigations proposed in the environmental impact study, or imposes new offsets on the advice of specialist bodies (government authorities, the grantors of water concessions, park authorities, etc.). Offsets may take the form of compensation. If the competent authority does not consider a residual impact to be sufficiently mitigated, it takes into account another initiative located elsewhere capable of offering environmental compensation.





Activities in 2018

In line with the approach described above, in 2018 a camouflaging project on the Villafranca substation ("Sorgente-Rizziconi" line), and the rehabilitation of a habitat of community importance involving the magredi del Cellina grasslands ("Udine West-Redipuglia" line) were implemented. A theoretical model for an Incremental Ecological Indicator (IEI) has also been developed.

This innovative tool is used to make a qualitative and quantitative assessment of the ecological status of new ecosystems resulting from initiatives, such as vegetation restoration, camouflaging, offsets, etc. This indicator will enable the ongoing monitoring of mitigations and offsets regarding vegetation, showing the various stages of progress and "health".

During the year, Terna finally launched a process for evaluating adoption of the Envision protocol, the first rating system to be applied during the construction of sustainable infrastructure, based on a grid for assessing projects and adaptable to any infrastructure development project. The system covers all the various phases involved, from planning through to consultation, design and construction.

With a view to implementing the Envision protocol, a number of Terna staff were trained and qualified as Envision SPs (Envision Sustainability Professionals) in 2018.

Use of resources and waste management

303-1 >

Development and maintenance of the NTG requires a substantial amount of capital goods, such as power lines (pylons, conductors, insulators), transformer substations (transformers, circuit breakers, other equipment) and control systems.
It should be noted, however, that water is not part of the production cycle for electricity transmission and dispatching. Normally, the water used - for hygiene purposes, office cleaning and cooling systems - derives from connections to water systems for civil use (water withdrawn is shown in the Key Indicator Table on page 245).
The production and direct management of waste primarily regards the maintenance of electricity infrastructure.

Resources

301-1 >

Terna does not use raw materials, but does purchase finished products (electrical equipment, conductors, tools and other components). An estimate of the materials contained in the main products purchased is shown in the table below. Amounts have been estimated taking into account the average material content of the various products purchased in the years referred to.

MAIN MATERIALS PROVIDED BY SUPPLIERS in tonnes	2018	2017	2016
Porcelain	715	303	193
Polymers	406	193	93
Copper	4,323	2,068	461
Aluminium	8,061	3,978	2,858
Steel	11,148	7,347	13,253
Glass	3,879	1,466	859
Dielectric oil	1,275	1,298	227
- of which vegetable oil	364	486	-
SF_6	8	9	34

In particular, the amounts shown in the table reflect the increase in the purchase of equipment used in operating electricity substations: autotransformers, current and voltage transformers, circuit breakers and disconnectors. It should be noted that the figures for 2017 have been updated to include the amounts relating to certain new types of machinery purchased for the first time in 2017. In particular, the amounts for autotransformers using vegetable oils have been included.

First two Tamini transformers using vegetable oil are in operation

Udine West and Tavazzano (LO) are the first two substations in which “green” transformers insulated with vegetable oil have been installed.
This innovation - developed over the last two years by the subsidiary, Tamini Trasformatori - replaces the mineral oil petroleum distillate with ester, a product of vegetable origin that is renewable, almost 100% biodegradable and drastically reduces the risk of fire and environmental impact.
This solution, which will be gradually extended across the whole country, confirms the attention Terna pays in adopting safe, reliable and sustainable technical solutions to minimise the environmental impact of electricity infrastructure.

Waste

< 306-2

At the end of their normal lifecycle, the materials used in electricity infrastructure are recovered for reuse in operations. Only a residual portion is sent to landfill and has an impact on the environment.

The percentage of waste recovered amounted to 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.

WASTE BY TYPE [1] (in tonnes)	2018	2017	2016
Waste produced [1]	**6,774.2**	**4,801.5**	**4,941.6**
of which hazardous	3,484.2	2,250.6	1,842.5
of which non-hazardous	3,290.0	2,550.8	3,099.1
Waste sent for recovery	**5,799.1**	**4,188.1**	**4,581.4**
of which hazardous	2,936.1	1,832.1	1,560.6
of which non-hazardous [2]	2,863.1	2,356.0	3,020.8
Waste sent for disposal [3]	**1,050.3**	**315.6**	**351.6**
of which hazardous	555.8	171.4	275.6
of which non-hazardous	494.5	144.2	76.0

[1] Only special waste produced during production processes is included, not waste produced by services (urban waste). Effluents and waste from septic tanks, produced by substations not connected to the sewer network, are not included; the quantity for effluents and waste from septic tanks was 388 tonnes in 2018, 617 tonnes in 2017 and 789 tonnes in 2016.

[2] This comprises uncontaminated metal waste deriving from the decommissioning of transformers, electrical equipment and machinery (e.g. generators), with an average recovery rate of 100%.

[3] Waste sent for disposal may differ from the mere disparity between waste generated and recovered due to temporary waste storage.

The main special hazardous waste generated by Terna's operating activities consists of:

This derives from the decommissioning of transformers, electrical equipment and machinery no longer in use and is contaminated by hazardous substances; they have an average recovery rate - after treatment by third parties - of over 95%.	Metal waste
In the event of a blackout, batteries enable emergency generators to be switched on in order to keep the energy transformation and transportation service up and running during emergencies; they have a recovery rate of 100%.	Batteries (lead and nickel)
These are used for insulating transformers replaced after periodic checks carried out for maintenance purposes. They constitute hazardous waste and have a recovery rate in the three-year period of around 100%.	Dielectric oils

The waste sent for disposal consists mainly of materials deriving from infrastructure maintenance and cleaning activities (sludge, oily emulsions and rags containing solvent oils) and insulating materials containing asbestos, for which no form of recovery is envisaged.

As in the previous two-year period, no significant spills of polluting liquids were reported in 2018.

< 306-3

Monitoring and supervision of electromagnetic fields

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

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

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

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

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

Reports and complaints regarding environmental concerns

In line with the ISO 14001 Environmental Management System, Terna monitors and classifies complaints received regarding significant environmental matters.
Any written communication from stakeholders, reporting that an activity carried out by Terna causes or has caused damage, may be submitted to one of the Group's offices or organisational units, where it will be filed and handled by the operating unit.

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

This year too, most of the concerns reported regard power lines and refer to the noise emitted by the lines when in operation, requests to measure electromagnetic fields and the need to cut back vegetation along power line corridors.

Terna replies as soon as possible, and in any event within 30 days of the date of receipt of a request, or within 60 days if the scope and complexity of a request is such that it cannot be handled within the first 30 days.
In this case, Terna promptly notifies the person making the request of the extension, and explains why it is necessary. Details of the concerns reported and dealt with over the last three years are published on pages 231-232.

Electricity power lines, biodiversity and birdlife

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

< EU13

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

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

< 304-1

HOVERHEAD POWER LINES IN PROTECTED AREAS*

	UNIT	2018	2017	2016
Lines impacting on protected areas	km	6,138	6,024	5,512
Lines with an impact as a percentage of total lines operated by Terna	%	10	10	10

(*) To calculate the percentage of lines impacting on protected areas, the Company has used "ATLARETE" data, which may contain differences compared with the data presented in the tables showing indicators of the number of lines.

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

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

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

BIRD DETERRENTS ON THE NTG

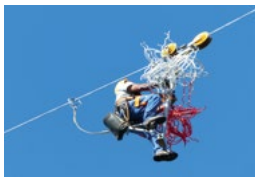
	UNIT	2018	2017	2016
Lines involved	n.	70	66	57
Length of lines involved	km	237.6	221.8*	212
Total deterrents installed	n.	15,503	14,728	14,472

(*) The 2017 figure regarding the length of lines involved has been recalculated following the emergence of revised data after publication.

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

In order to support scientific research and the re-naturalisation of local areas, in collaboration with environmental associations, Terna carries out targeted projects Over recent years, Terna has implemented the following projects:




Collision risk prevention tools

In 2018, CESI conducted a market survey on the availability of different types of deterrent, including a scientific study on their effectiveness. In 2019, the deterrents deemed suitable for installation on our assets will be purchased and field-tested.
Radar monitoring of the passage of migratory birds along the "Sorgente-Rizziconi" power line (last year), and assessment of the effectiveness of deterrents via surveys of the areas around power lines, was completed. Terna published the results of the monitoring on its website: www.terna.it.
Trials of AVIMON, the device that records bird strikes against ground wires on power lines, were completed on the "Villanova-Gissi" power line after a period of six months without registering any collision. New trials were launched on the "Redipuglia-Planais" power line where it crosses the Isonzo river.

Identification and monitoring of bird species on the IUCN Red List

304-4 >

Terna has carried out a study aimed at identifying the protected species included in the IUCN Red List that are potentially impacted by its infrastructure.
The IUCN Red List is the largest existing international database on the conservation status of thousands of plant and animal species, which are catalogued according to their risk of extinction. In its analysis, Terna specifically considered the presence of bird species on the IUCN Red List and at Natura 2000[49] sites, namely in protected areas with a high level of biodiversity (approximately 3,000 SPAs and SCIs).
The study selected the Natura 2000 areas affected by Terna power lines, then verified which protected species - among those included on the Red List and classified as Vulnerable, Endangered, Critically Endangered and Regionally Extinct - had chosen them as their habitat[50]. These species are conservation priorities as without specific measures to neutralise the threats they face, and in some cases to increase their populations, their extinction is a real prospect. The analysis showed that Terna's electricity infrastructure could interfere with the habitats of eight species. After checking scientific publications and via targeted consultations, no specific critical issues emerged regarding bird species except for a potential risk of collision for the corncrake, a species present in the Alpine area between Friuli-Venezia Giulia and Lombardy. A specific study on the ecology of the species is in progress with a view to mitigating this risk.

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

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

Alternative uses for electricity power lines

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

GEOREFERENCED NESTS AT 31 DECEMBER 2018

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

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

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

MONITORING OF NEST OCCUPATION AT 31 DECEMBER 2018

LOCATION	MONITORED	OCCUPIED
Abruzzo	30	17
Calabria	30	17
Piedmont	20	12
Sicily	30	15

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

Avian Team

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

Atmospheric emissions

and energy efficiency

At international level, convergence on the action to be taken to combat climate change was best reflected in the agreement signed at the United Nations Climate Conference (COP21) in Paris in December 2015.

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

Climate change entails both risks and opportunities for Terna's business (see page 68) in terms of Regulated and Non-regulated Activities. In particular, with regard to the former, investment in grid development meets the need to facilitate the energy transition by strengthening transmission capacity and interconnections with other countries, while research and innovation are aimed at identifying smart and sustainable solutions to be offered to the customers of the Non-regulated Activities.

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

With regard to the reduction of CO_2 emissions into the atmosphere by the electricity system as a whole, Terna's main contribution is to carry out the investment provided for in the NTG Development Plan (see page 120). In this section, the focus is on emissions relating to Terna's operating activities.

Direct and indirect CO_2 emissions

< 305-1

< 305-2

Direct greenhouse gas emissions (Scope 1) connected with Terna's activities derive mainly from SF_6 gas leaks (87% of total direct emissions in 2018), which are down on the previous year, partly thanks to maintenance of plants where the highest leaks were recorded in 2017. The remaining direct and indirect emissions (Scope 2) are due to energy consumption, especially electricity. Indirect emissions decreased by 12% in 2018, reflecting the combined effect of the different conversion factor compared to the previous year and a reduction in electricity consumption, partly due to efficiency measures (see the dedicated section on page 186). It should be borne in mind that, for technical reasons, Terna's energy consumption is not attributable to a supply contract. This makes it impossible to reduce indirect emissions by selecting supplies from renewable sources, and accounts for the need to use an average conversion factor for Italian electricity production.

TOTAL DIRECT AND INDIRECT GREENHOUSE GAS EMISSIONS

TONNES OF CO_2 EQUIVALENT [1]	2018	2017	2016
Direct emissions			
Leakages of SF_6	54,846.1	67,371.4	54,101.9
Leakages of refrigerant gases (R22, R407C, R410A)	427.9	489.4	478.5
Petrol for motor vehicles	36.8	39.9	37.7
Diesel for motor vehicles	6,295.0	6,269.0	5,730.6
Jet fuel for helicopters	605.6	582.2	499.5
Natural gas for heating	316.0	419.9	458.8
Fuel oil for heating and generators	471.8	621.3	684.6
Total direct emissions	**62,999.2**	**75,792.9**	**61,991.7**
Indirect emissions			
Electricity [2]	**64,050.5**	**72,489.3**	**74,715.5**

[1] *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.*

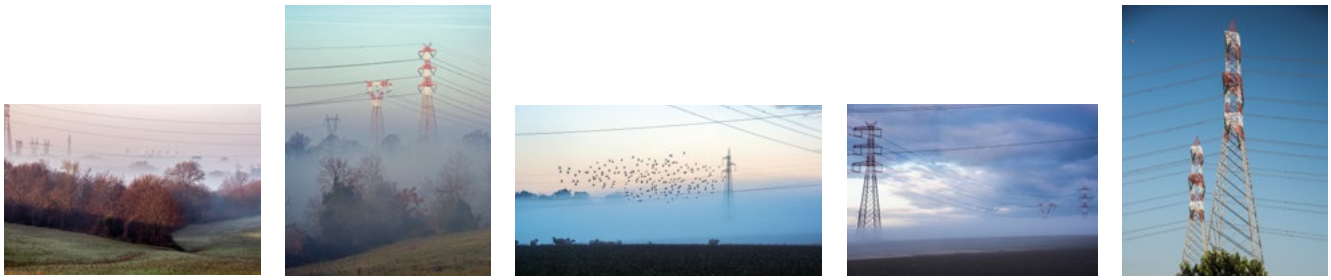
[2] *The conversion of indirect electricity consumption is carried out taking into account the share of total Italian electricity production represented by thermoelectric production in 2018. Allocation for the purposes of the production mix was based on the December 2018 issue of the "Monthly Report on the Electricity System", available on the website at www.terna.it.*

The reduction in total direct and indirect CO_2 emissions, which is mainly linked to the reduction in SF_6 leakages, is reflected in the decrease in the figure for carbon intensity, namely the ratio between direct and indirect emissions and revenue.

CARBON INTENSITY - TONNES OF CO_2 EQUIVALENT / REVENUE (€M)

< 305-4

	2018	2017	2016
Total emissions (direct and indirect)	127,049.7	148,282.2	136,707.2
Ratio of total emissions to revenue	57.8	66.0	65.0



Focus

Carbon intensity: comparative data

In the Sustainability Report for 2018, Terna has decided to extend its benchmarking to include carbon intensity for the first time, in order to compare its CO_2 emissions normalised by revenue with peer groups. The analysis was carried out by comparing Terna's emissions figure with three peer groups: FTSE-MIB listed companies, electric utilities included in the Dow Jones Sustainability World Index, and TSOs. In the absence of normalisation factors applicable to all sectors, it was deemed worthwhile to present the emissions data normalised by revenue which, despite differences in the value chains in the various sectors, is an important initial step in standardising the comparison.

In 2018, carbon intensity attributable to Terna's activities amounted to 57.8 tonnes of CO_2 equivalent normalised by revenue per €m.

57,8
TONNES OF CO_2 EQUIVALENT NORMALISED BY REVENUE PER €M

In 2017, however, the year for which comparison with the other companies is available, carbon intensity amounted to 66 tonnes of CO_2 equivalent normalised by revenue per €m.

As can be seen from the comparison with all three peer groups, in 2017 Terna was significantly below the average.

CARBON INTENSITY (TONNES OF CO_2 EQUIVALENT NORMALISED BY REVENUE PER €M) IN 2017	TSO	FTSE-MIB	DJSI-ELECTRIC UTILITIES
Available data	13	36	8
Min	13.4	0.5	16.3
Average	774.7	373.8	809.5
Max	6,719.3	7,280.7	1,760.7
Terna		**66**	

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

Terna focuses its attention on a number of voluntary action programmes aimed at reducing its main sources of greenhouse gas emissions, which primarily regard curbing the SF_6 leakage rate, the energy efficiency of buildings and energy saving at electricity substations.

Containment of direct emissions: SF_6

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SF_6 (sulphur hexafluoride) gas is used as insulation in certain electrical equipment (circuit breakers, current transformers and armoured equipment). Part of the gas in the equipment leaks into the atmosphere due to defective seals, when faults occur, and also sometimes during the repressurising process. SF_6 has a very powerful greenhouse effect, which is 23,500 times greater than CO_2: leakage into the atmosphere of 1 kg of SF_6 is equivalent to 23.5 tonnes of CO_2.

The amount of SF_6 present in the Group's infrastructure has risen steadily. This trend, which is common to many transmission grid operators, is linked to the better insulating performance of this gas and the smaller footprint of substations built with equipment containing SF_6 in comparison with more traditional solutions.

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

During the period in which the 0.60% target was applied (2012-2017), Terna managed to keep SF_6 leakages below the pre-set target, thereby avoiding 88,741 tonnes of CO_2 emissions.

Compared with the average of 0.70% recorded in the period 2007-2008, 165,770 tonnes of CO_2 were saved, an amount comparable to Terna's total annual direct and indirect CO_2 emissions.

In the light of the actual performance recorded until 2017, in the early months of 2018 the target was reformulated as follows: 0.47 for 2018 and 2019; 0.45 in subsequent years.

"TRANSMISSION IMPACTS" TARGET

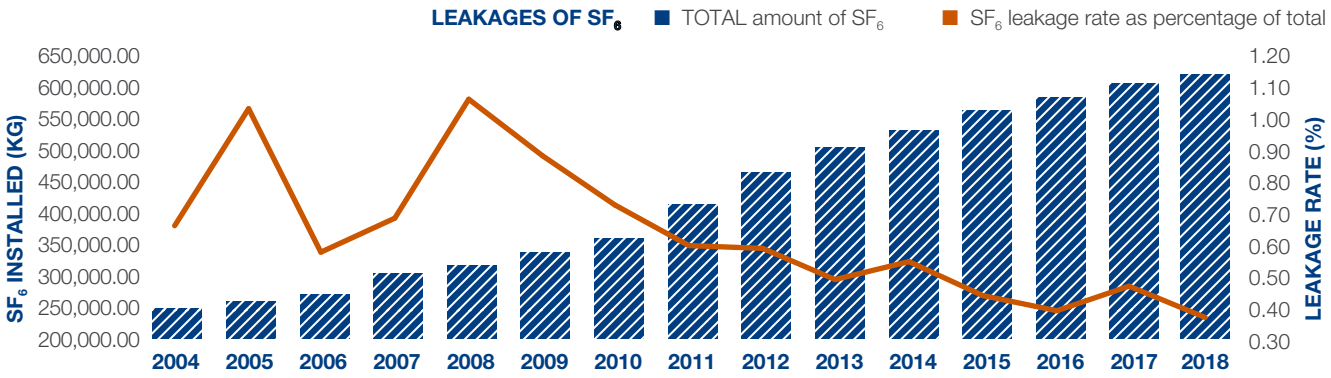
KPIs AND TARGETS IN THE STRATEGIC PLAN 2019-2023

KPI	TARGET					
	2018		2019	2020	2021	2022
	TARGET	ACTUAL				
SF_6 leakage rate (*)	0.47	0.38	0.47	0.45	0.45	0.45

(*) Baseline: average of the five-year period 2013-2017 (0.47%).

The target values should be qualified, bearing in mind the already substantial decrease recorded in the previous five-year period, and the higher average leakage rates of other leading European TSOs (0.7% in 2017, the latest available figure)

In the following three-year period 2020-2022 the target will be even more challenging (0.45%), thanks to the expected effect of the additional containment measures implemented in the first two years.



Routine and extraordinary maintenance has enabled the faults that caused the rise in 2017 to be dealt with, and led to an all-time low rate of 0.38% being registered in 2018. This figure is well below the average for the five-year period 2013-2017 (0.47%), enabling Terna to save 13,541 tonnes of CO_2.

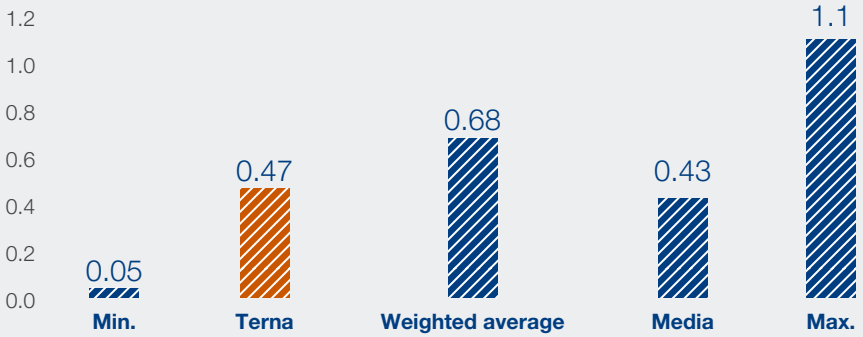
Focus

SF_6 leakage: comparative data

SF_6 gas is used by electricity transmission companies because of its excellent electrical insulation properties. The specific nature of the use of SF_6 gas limits comparison to the peer group of other TSOs only. The indicator compared is the leakage rate with respect to the total amount of gas installed in substation equipment. In 2018, Terna registered a leakage rate of 0.38%. This is a marked improvement on the figure for 2017, the year to which the comparison refers, when SF_6 leakage stood at 0.47%. In comparison with the other transmission operators, in 2017 Terna reported a percentage of SF_6 leakage below the peer group weighted average, calculated as the ratio between the sum of the leaks and the sum of the quantities installed by the TSOs as a whole, and slightly below the arithmetic mean.

0.38 %
OF LEAKAGE RATE IN 2018

SF_6 LEAKAGE RATE (%) – 2017



Further details on how the benchmarking of "SF_6 leakage" is conducted may be found in the "Sustainability" section of the Company's website at www.terna.it.

Energy consumption and energy efficiency initiatives

Energy consumption

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

- fuel for the Company's operational vehicles, cars and helicopters used for line inspections, fault repair and other line and substation maintenance activities (see "Asset management" on page 132);
- fuel oil for emergency generators that only come into operation in the event of a power failure. It is estimated that, nationwide, generators were used for a total of 6,237 hours (consumption equal to 0.3 GJ per hour);
- fuel oil and natural gas for office heating.

Indirect energy consumption coincides with the electricity used for the operation of substations and operating equipment (approximately 80% of the total) and for office and laboratory use. The figure relating to office consumption is 111,113 GJ which, compared to the total number of Terna employees (less blue-collar workers), corresponds to per capita consumption of 39.7 GJ, down compared with 2016 (47.8 GJ in 2017 and 53.5 GJ in 2016).

DIRECT AND INDIRECT ENERGY CONSUMPTION BY PRIMARY SOURCE - GIGAJOULES [1]

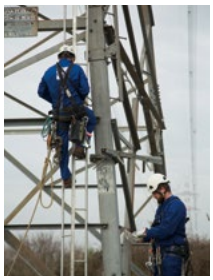
	2018	2017	2016
Direct consumption in GJ			
Petrol for motor vehicles [2]	531.8	576.8	544.8
Diesel for motor vehicles [2]	85,056.6	84,704.5	77,430.6
Jet fuel for helicopters	8,470.0	8,193.5	7,030.5
Natural gas for heating	5,636.3	7,489.9	8,184.0
Fuel oil for generators and heating	6,375.2	8,394.2	9,250.1
Total direct consumption	**106,069.8**	**109,358.8**	**102,439.9**
Indirect consumption in GJ			
Electricity to power substations and offices [3]	**684,672.4**	**703,737.8**	**702,286.9**

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

[2] *Only the consumption of operating vehicles is taken into account and not the cars used by managers.*

[3] *Allocation for the purposes of the production mix was based on the December 2018 issue of the "Monthly Report on the Electricity System", available on the website at www.terna.it.*

The reduction in direct consumption is primarily attributable to the effect of renovation work and the use of more efficient heating systems. The effect of efficiency measures (see page 186) is also reflected in the reduction in electricity consumption in offices. As far as electricity consumption at substations is concerned, in 2018 the scope of data recording increased due to the addition of the former RFI substations (see page 133). Despite this, consumption fell by 2%, mainly due to the closure of some construction sites at substations, the effect of certain efficiency measures and, finally, improvements to measurements.





Energy Management System

In line with its energy efficiency objectives, since 2015 the Terna Group has been certified in accordance with the UNI CEI EN ISO 50001:2011 standard.

In 2017, sensors were installed at 80% of Terna's main sites to measure energy consumption in real time. The analysis, which was carried out using time bands and the entire calendar year, highlighted numerous peculiarities regarding electricity use and enabled the definition of long-term improvement targets for all the sites monitored in 2018.

In 2018, a pilot project regarding the online monitoring of the electricity consumed by transformer substations was also launched, and in 2019 a representative sample of 23 substations, broken down by type of activity, will be involved nationwide. More than 20 meters will be installed in each station to accurately monitor the electrical energy used and, after monitoring, energy audits will be carried out to define improvement targets.

In 2018, energy audits were carried out at construction sites, office buildings, substations and sites. In 2019, energy audits will be carried out on a sample of 23 stations and other sites to be identified (construction sites and offices). The results of the audits will be submitted to Enea to comply with Legislative Decree 102/2014.

Energy efficiency in substations and offices

At Terna, the development of energy efficiency programmes relating to the use of electricity in substations and offices is experimental, as the Company's electricity consumption falls within the category of "own transmission uses" which, according to the industry's regulator, are not to be included in operating costs.

In offices, the main sources of energy consumption relate to lighting, air-conditioning, heating and the use of computers and printers. A number of Terna's offices have either been refurbished or are newly built under a long-term programme, which aims to upgrade the energy efficiency class of buildings owned by the Group, thereby combining civil engineering works with improved energy performance. With specific reference to Terna's main offices, the aim is to upgrade 70% of the buildings, measured in terms of total volume, to qualify for the highest energy efficiency classes (A-B-C).

Initiatives launched in recent years to reduce energy consumption, of which the benefits are measurable, include:

In 2018, Terna implemented a project to improve the efficiency of air conditioning systems at the head office in Rome, involving replacement of two air conditioning units. This initiative will lead to a reduction of approximately 115 tonnes in annual CO_2 emissions.	Improving the efficiency of air conditioning systems
In 2018, Terna implemented projects to improve the efficiency of lighting systems in the Naples transmission operating area and at the Montalto and Rome West electricity substations, which will reduce annual CO_2 emissions by approximately 56 tonnes.	Improving the efficiency of lighting systems
Since 2014, energy efficiency initiatives have been launched, leading to a reduction of around 444 tonnes of CO_2 at 31 December 2018 (equal to 174 tonnes of CO_2 in 2018).	Summary of previous years' initiatives
For 2019, six new energy efficiency initiatives have been planned with an estimated annual reduction of 120 tonnes of CO_2.	Forecast for initiatives in 2019
In 2018, the plant for self-producing electricity from renewables for the Turin Botticelli office entered service, which resulted in a reduction of approximately 22 tonnes of CO_2. In addition, a self-production plant has been operating at the Camin (PD) Infrastructure Unit since 2017, resulting in estimated savings of approximately 6 tonnes of CO_2 in 2018.	Self-production of electricity from renewable sources

Vehicle fleet

The Company's operational vehicles are used nationwide to carry out power line inspections and, in general, to visit infrastructure and construction sites.

Terna's vehicle fleet consists of four helicopters, purchased in 2015, for carrying out scheduled and random inspections of power lines, and a fleet of cars that is frequently renewed, of which 86% are equipped with Euro 6 and Euro 5 engines (for further information on vehicles and the related impact of the fleet, see the relevant table in the "Key indicator tables" on page 244).

305-3 >

Other indirect CO_2 emissions

In addition to emissions relating to electricity consumption, Terna's most significant indirect emissions are connected to grid losses. The indicators relating to emissions produced as a result of air travel by staff are shown on page 244.

Grid losses

EU12 >

Grid losses are defined as the difference between energy injected by producers (including imported energy) and final consumption; the relevant losses for Terna are those associated with the transmission grid. The figures shown in the following table are based on direct measurement of the energy injected and withdrawn from the transmission system. In 2017, pursuant to Resolution 458/16, Terna became responsible for direct measurement of the entire high voltage grid, whereas in previous years the Company was responsible for measurement of the energy injected into the NTG, while for the energy withdrawn, it could carry out remote readings for which the distribution companies remained responsible. This entailed a margin of uncertainty regarding the accuracy of the readings made, which, tended to decrease over the years as a result of cross-checks and the gradual elimination of discrepancies with distributors' data.

In order to reduce the margin of uncertainty and the risk of interpreting the effect of measurement errors and the related corrections as actual trends, it was decided to use the arithmetic moving average of losses with a three-year window as annual data (three-year period 2014-2016 for 2016; three-year period 2015-2017 for 2017). In order to maintain the consistency of the published data, the three-year moving average was also published for 2018.

GRID LOSSES

	2018		2017		2016	
	% compared with energy demand	GWh	% compared with energy demand	GWh	% compared with energy demand	GWh
VHV and HV grid	**1.4**	**4,613**	**1.4**	**4,583**	**1.5**	**4,525**

Terna can only determine the extent of the losses, which are not completely under its control. Dispatching operations, which are needed to guarantee a constant balance between injections and withdrawals and to prevent the occurrence of grid security problems and disruptions, are carried out in accordance with regulatory criteria within the production set-up created by the energy market, and cannot be influenced by Terna with the aim of minimising losses.

Grid development activities, given the same structure of production, would lead to greater efficiency and thus a reduction in losses. However, the actual impact of development initiatives on losses is unpredictable and not under the control of the transmission operator, as it depends on concomitant changes in production capacity and electricity supply and demand at local level.

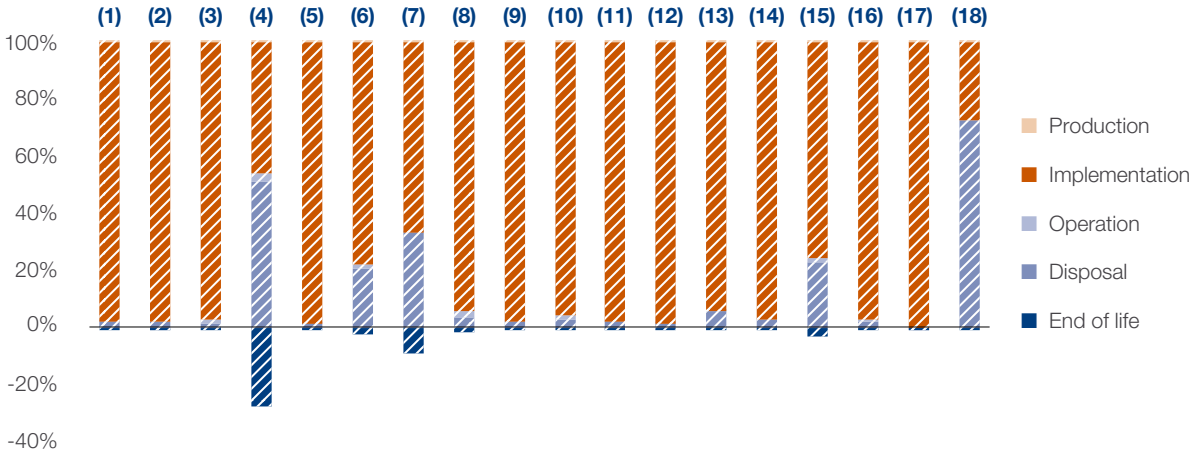
CO_2 emissions associated with grid losses amounted to 1,553,716 tonnes in 2018 (1,699,607 tonnes in 2016 and 1,700,916 tonnes in 2015). The trend differs from the one regarding losses measured in GWh, due to changes in the conversion factor used to convert energy into CO_2 equivalent emissions (see note on page 181), which in turn is affected by changes in the production mix among Italian power generators.

LCA studies on power lines

In recent years, in collaboration with CESI, Terna has conducted various Life Cycle Assessment studies on power lines in accordance with the UNI EN ISO 14040:2006 and UNI EN ISO 14044:2006 standards. These studies have enabled assessments of the environmental performance of lines to be carried out. Although the LCA studies are strongly influenced by the assumptions used and the functional unit taken into account, an analysis of the results clearly shows that, regarding both overhead lines and cables, the operating phase is the predominant one, in particular due to the effect of grid losses. Regarding the production phase, however, the materials used in conductors and in the structural works has a significant impact. It should be noted that in these LCA studies the impacts associated with grid losses are assessed taking into account the impacts generated by production of the electricity needed to offset them, as these are strongly influenced by the energy mix under consideration. This means that in the current energy context, which is decisively moving towards decarbonisation, the impact of grid losses will tend to become less and less relevant. Therefore, in addition to the absence of substantial influence on grid losses, Terna is interested in the entire life cycle of lines and all the other categories of impact.

Terna aims to use the LCA studies to conduct an initial analysis of the environmental impact of the entire National Transmission Grid, and to enable improvements in environmental performance through the evaluation of new technologies and alternative materials within a life cycle and circular economy context.

LIFE CICLE - HOVERHEAD POWER LINE 380 KV



1) Climate change Total
2) Climate change Fossil
3) Climate change Bio
4) Climate change Land use and transformation
5) Ozone depletion
6) Human toxicity, non-cancer effects
7) Human toxicity, cancer effects
8) Particulate matter
9) Ionizing radiation HH
10) Photochemical ozone formation
11) Acidification
12) Terrestrial eutrophication
13) Freshwater eutrophication
14) Marine eutrophication
15) Freshwater ecotoxicity
16) Land use
17) Water resource depletion
18) Mineral, fossil & ren resource depletion

Environmental costs

Terna's commitment to the environment is reflected in the costs incurred for environmental reasons, in terms of both capital expenditure and operating costs. Separate representation of environmental costs is based on the definitions set out below, through aggregating information derived from the Company's general and management accounting. These definitions and the methodology described below are taken from the Terna Group's operating guidelines.

Accounting methodology

The identification of environmental costs is based primarily on available definitions, primarily those of ISTAT (Italy's Office for National Statistics), Eurostat and GRI, as well as the European Commission Recommendation on the recognition, measurement and disclosure of environmental data in annual accounts and annual reports (Recommendation 2001/453/EC). According to this Recommendation, the term "environmental expenditure" includes the cost of initiatives undertaken by a company, directly or via third parties, in order to prevent, reduce or repair damage to the environment caused by its operating activities.

Secondly, the relevant definitions have been cross-referenced with the environmental aspects assessed as being significant (e.g. substation noise, electromagnetic fields, etc.) within the Company's ISO 14001 certified Environmental Management System, in order to identify Terna's environmentally relevant operating and capital expenditure activities within the main business processes.

Many of Terna's activities described in this Report entail environmental expenditure. However, certain limitations have been introduced in determining the scope of reporting:

- the exclusion of integrated costs, namely those related to activities that have no exclusively environmental purpose (e.g. the use of pylons with innovative characteristics, also in terms of how well they blend into their surroundings) due to the subjective nature of accounting for environmental components only;
- the exclusion of additional costs linked to the consideration of environmental constraints and demands when planning and designing new lines (re-routings and sections of cable laid underground).

Additional conditions were also imposed if costs were significant, consistent with annual accounting requirements (a clear distinction between operating costs and capital expenditure) and directly measurable on the basis of the Company's existing accounting system.

The latter condition meets the need to minimise the use of estimates based on non-accounting procedures.

Capital expenditure and operating costs

The table below provides the best possible view of Terna's capital expenditure and operating costs in relation to the environment.

It should be noted that these costs exclude expenses relating to internal resources, and only take into account the cost of external supplies. An exception is the item "Environmental activities - Existing plant", which does include the cost of internal personnel.

Based on the methodology adopted and the footnotes to the table, it should be noted that the environmental costs shown represent a subset of the total environmental costs actually incurred, as defined above.

ENVIRONMENTAL COSTS - CAPITAL EXPENDITURE AND OPERATING COSTS (€m)

	2018	2017	2016
Capital expenditure			
Environmental offsets [1]	7.1	7.9	14.7
Environmental impact studies [2]	3.5	4.2	2.4
Environmental activities - new plant [3]	3.9	4.8	4.3
Environmental activities - existing plant [4]	2.9	3.6	7.5
Demolitions [5]	2.2	0.8	0.9
Total capital expenditure	**19.6**	**21.2**	**29.8**
Costs			
Cost of environmental activities [6]	23.8	24.1	19.1
Total operating costs	**23.8**	**24.1**	**19.1**

[1] ***Environmental offsets****: These are amounts allocated to offset the works provided for in the Grid Development Plan, as identified by specific agreements signed with local authorities.*

[2] ***Environmental impact studies****: These relate to plants provided for in the Grid Development Plan that are under construction or awaiting the necessary consents from the competent authorities.*

[3] ***Environmental activities - new plant****: The amount shown is an estimated figure. Based on an analysis of certain large investment projects, it has been found that at least 1% of total project costs correspond to environmental items, usually deriving from regulatory requirements (for example, tree screens, noise barriers, the installation of bird deterrents, environmental monitoring, the testing of excavated soil and rocks). Therefore, a value of 1% of the capital expenditure cost for projects with similar characteristics has been taken into account.*

[4] ***Environmental activities - existing plant****: These are the costs of upgrading existing plant to comply with new legal requirements and regulations in the environmental field (e.g. noise and visual and landscape aspects).*

[5] ***Demolitions****: This is the cost of the final decommissioning of power lines as part of rationalisation programmes.*

[6] ***Cost of environmental activities****: This regards vegetation management, grass cutting, waste management and demolition/decommissioning activities, which represent small amounts and are not included under investment. These cost items, which are directly identifiable within the management accounts, do not cover all environmental operating costs, but do comprise the majority of such costs.*