

The background of the image is a high-angle aerial shot of a natural landscape. It features a dense forest of coniferous trees on the upper left and right slopes. A rocky, light-colored shoreline curves along the bottom left, leading into a body of water that has a deep turquoise or teal hue. The water appears clear and shallow near the shore.

*alperia*

# Resilience. Today and tomorrow.

## Sustainability Report 2019

*energizing  
south tyrol*

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## LETTER TO THE STAKEHOLDERS {GRI 102-14}

Dear Readers,

Three years have passed since Alperia started out on a formal sustainability journey. It is a concrete commitment that has implications for our values and on a social, environmental and business level, as we seek to generate long-term added value not only for our customers, but for the whole of the province where we operate, South Tyrol.

As an energy service provider, we know how crucial our actions can be in contributing to the development of a more sustainable and smarter province. A province where clean and accessible energy can be a widespread and inclusive driver of well-being.

To achieve our goal, we must first have an in-depth understanding of today's risks and challenges and then adopt the most suitable tools to face them. So, in 2019, in addition to measures to detect financial and plant risks, Alperia developed a project to assess the group's non-financial risks, analysing the adequacy of our planned monitoring. This allowed us to further refine our activities, specifically aligning them with the local and global situation. The central challenges faced by all humanity include climate change, major natural disasters, extreme weather events, but also the loss of biodiversity, environmental damage caused by humans and risks associated with cyber security. We see these challenges as new opportunities for responsible development. Through our work we want to contribute to the achievement of the United Nations' Sustainable Development Goals. These are ambitious goals, to which we know we can make a real and positive contribution.

In an unprecedented historical moment, in which tens of thousands of companies and freelancers found themselves confronted with no income from one week to the next, our company also had to face the difficulties and insecurity related to COVID-19. The greatest attention was paid to safeguarding the health of employees. The measures taken to support customers, our community and the region in which we operate will be detailed in the Sustainability Report 2020 which will be published next year.

### A sustainable vision

In 2019, we achieved 78% of the targets set out in the sustainability plan; in this, our third report, we would like to illustrate to readers just how much progress has been made to structurally integrate sustainability into our corporate strategy.

From the outset, we defined material topics in consultation with our stakeholders, giving us clear and measurable objectives. This led us to establish the Steering Committee on Corporate Social Responsibility and a CSR governance structure. In 2019, we also adopted a new sustainability policy and incorporated the achievement of sustainability objectives into the assessment of our executives MBO scheme, in addition to that of the company bonus scheme. But we have gone further still. Starting from the 2020–2024 Strategic Plan, to be presented in 2020, sustainability will become increasingly central to the Alperia world, with UN SDG indicators being integrated into each business unit's business plan.

With this as our driving vision, we have continued to increase investments in infrastructure, modernising it and making it increasingly stable and efficient. We have continued to support the local economy; invested in innovation, research and development; promoted transparent communication; and strengthened our trust-based relationship with customers. In the next years, we will continue to strengthen the sale of sustainable products and services (green gas and green energy), increasing their importance in our activities.

### Commitment to the local economy

Supporting the economy of South Tyrol has always been one of our priorities, so much so that in 2019 we created an added value locally of almost €235 million; we aim to reach €1.2 billion by 2021. We will achieve this target through a range of actions, including tax payments, employee salaries and benefits, dividends to shareholders, donations and sponsorship, as well as by purchasing products and services from local suppliers whenever possible. In 2019, for example, 62% of our purchase orders went to suppliers based in South Tyrol. And that's not all. Supporting our region means limiting the environmental impact of our activities as much as possible (it's no coincidence that 71% of our power lines are underground) and working on our infrastructure

to keep it up-to-date and reliable. In 2019 alone, we invested €104 million in this area. Even in times of emergency, such as the extreme bouts of bad weather that hit South Tyrol last autumn, we were able to quickly restore service, with no permanent damage to plants or injuries to our staff, who are highly trained and always prepared to deal with this kind of situation.

During 2019, we also continued to extend the district heating network to Bolzano and Merano, and connected our first subsidiary, Edyna, to district heating. With this system, we are investing in an ecological form of heating, allowing us to further reduce fossil-fuel consumption and CO<sub>2</sub> emissions. Just as important is the commitment we made to energy efficiency and emissions reduction through Alperia Bartucci, including the development of Sybil, an AI-based technology that creates alerts to correct non-optimum user behaviour and reports system malfunctions, generating energy savings of up to 30%.

### **Water, a key asset**

Water is our primary source of energy. It is clean, efficient and has no negative impact on the climate. It is of particular importance in South Tyrol, a region which is naturally rich in water resources. Because we are aware of its importance, we have developed a sustainable water-management system. In addition to holding discussions with the provincial offices responsible for the protection of the aquatic environment and fish, and carrying out regular river cleaning, we have signed an agreement with the Venosta Valley Reclamation Consortium to guarantee the necessary water to protect orchards from night frosts during the spring flowering period. A similar agreement has been made with the Piazzadella Consortium in Bolzano.

We have also launched the Smart Land project, together with the Laimburg Research Centre and the Fruit and Vegetable Consultation Centre, with over 120 moisture sensors installed in the fields of 60 South Tyrolean fruit and vine growers. These sensors are able to record and monitor data that can be useful for the irrigation process, giving farmers real-time measurement information as well as avoiding waste and dispersion loss.

Finally, with Alperia Bartucci we have developed a project to optimise the Trento aqueduct water network managed by the Novareti company. Alperia Bartucci has designed and implemented an advanced algorithm based on predictive models that allows optimised water-pumping from wells to tanks and minimises network pressure, ensuring more efficient management with lower loss and waste levels.

### **Research and development to create new sustainable business models**

South Tyrol is on its way to becoming a smarter, greener province. Alperia intends to make an active contribution to achieving that goal. Already to date, 94% of the energy we produce is from renewable sources. To improve on this, we are developing new products such as green gas, as well as services and business lines that help our customers be more energy efficient. In addition, we work with our suppliers to promote sustainable procurement and collaborate with some of Italy's leading academic and technological institutions by investing in research, development and innovation. Through our commitment to R&D, we are working on projects to encourage the development of energy-efficient and more sustainable cities. The Regalgrid project promotes the development of energy communities by changing consumers into "prosumers" (co-producing consumers). Our Flexi-Grid project, meanwhile, will make the electricity grid more and more safe, reliable, sustainable and innovative. Furthermore, between 2020 and 2024, Edyna, Alperia's energy distribution company, will replace the meters of its more than 200,000 customers with new generation Smart Meters, which will allow more efficient management of energy resources.

During 2019, we continued to carry out our Innovation Board projects, promoting a multidisciplinary approach to innovation. Of the nine projects selected in 2018, two ended, two came to fruition (the Mixed Enabled Virtual Units and ELISA chatbot) and five are still in progress. We also chose the winners of the Alperia Startup Factory, our competition to promote innovation in the field of renewable energy and the green economy. Out of 142 candidates from all over Europe, two came out on top: FieldBox.ai, with their digital solution to monitor strain in penstocks, and Beedata, specialised in creating energy bills with additional information and sophisticated data analysis. Given the success of the competition's first year, we have already launched the second edition, which has attracted applications from 230 teams based in 37 countries worldwide. We see this as a sign that innovation in the energy field is truly a global mission.

## **Close to people**

In 2019, we supplied electricity, natural gas and district heating to 323.772 customers, including families, large and small businesses and public institutions. We put transparent, efficient and reliable customer communication systems in place, as demonstrated by our high customer satisfaction rates measured last year (87% of our customers are "very satisfied" with the service they received).

We also increased the proportion of paperless bills by 3 percentage points to 27%, although our goal is to reach 90%. All the material we use for our communications and internal use is printed on 100% Forest Stewardship Council certified paper; we also offset the CO<sub>2</sub> emissions. In addition, every year, we scrutinise our advertising materials to ensure we are making the most sustainable choices. In 2019, we reduced the number of printed brochures from 35.000 to 17.250 as well.

This year we again organised numerous Open Days in power plants to increase cognisance about what we do and raise community awareness on energy issues; each Open Day was certified as a Green Event. In addition, we continued to support the community with our charitable donations and sponsor South Tyrolean organisations in the fields of sport, culture, environmental protection and safety. In fact, the Alperia brand was South Tyrol's most recognised in sports, for the first time in 2019. In 2019 alone, we allocated around €1,7 million in donations and sponsorships.

Furthermore, Alperia contributes to the Protection System for Asylum Seekers and Refugees (SPRAR) project, making facilities available in Barbiano (which has already welcomed 17 asylum seekers and refugees) and Naturno.

## **The value of our team**

Over 1.000 people work with us. We are a close-knit team, increasing our skill set every day with numerous training courses on strategic issues such as workplace safety and change management; in 2020, courses on cyber security will be added. Occupational health & safety is fundamental for us. In 2019, despite an almost unchanged number of accidents, unfortunately we saw an increase in lost working days, which increased from 293 to 427 (+46%) due to a serious accident that led to a high number of absence days. This has spurred us on to be increasingly rigorous in adopting policies to limit the risk of accidents as much as possible, both for our employees and for external companies operating on our premises. In 2019, for example, we further improved the system for assessing contractor work performance and continued to raise employee awareness with new tools such as information tips with the hashtag #weworksafely and videos.

To deal with the many employees expected to retire in the coming years, we are working on a succession plan. We've also implemented a range of measures to attract more women into our profession and reduce the gender pay gap. In 2019, in particular, the number of women at governance level saw a significant increase from 33% to 42%. In addition, during the year we hired 62% more women than in 2018, with a consequent improvement in the diversity rate, which increased from 21% to 23%. We will continue to pursue these targets relentlessly, including through the expansion of work-life balance and flexibility measures. To this end, in 2019, we extended our nursery-school contribution to municipal structures, increasing potential beneficiaries from 9 to 90 people. Paternity leave is becoming increasingly common. In 2019, 84% of working dads benefited from approximately 2,7 weeks of leave (up from the previous year, when the average length was 1,7 weeks). In addition, each employee can take advantage of a dedicated welfare program, supplementary health insurance, insurance against accidents at work and those outside work in the event of permanent disability.

To increase our retention levels, we have implemented career and talent development plans, and extended employee feedback interviews from 27% to 51%, with the aim of involving 100% of our people.

Creating a healthy and wellness-focussed workplace also means raising employee awareness on the issue of sustainability. Because of this, we introduced glass water bottles, drinking water dispensers, free apples and sanitisers to our offices. Soon we will add new measures such as providing organic, vegan and wholemeal snacks in our vending machines.

This range of actions has significantly increased worker satisfaction. Our 2019 survey saw the satisfaction rate increase to 50%. This result inspires us to make further improvements, ensuring that everyone is supported in making their contribution to creating a greener and more energy-efficient future.

As you can see from reading this document, sustainability is a key value for us; together with innovation, it is the engine of inclusive and balanced growth. We have a deep conviction that a company like ours has a duty to make responsible environmental and social decisions, which have a positive impact on the whole community. For this reason, and with renewed determination, we will continue to combine the principles of economic efficiency and sustainability, working responsibly for South Tyrol's present and future.

## 2019 HIGHLIGHTS

**BUSINESS** In 2019, we made progress with important corporate operations including closing the acquisition of Gruppo Green Power SpA. Alperia Smart Mobility Srl, the company responsible for developing electric mobility, saw Dolomiti Energia Holding SpA enter into its share capital, leading to the creation of the Neogy Srl joint venture. We also reorganised the group's commercial activities. All operations were in line with the business plan, the objective of which is to transform Alperia from a traditional utility company to an all-round energy service provider.

**STRATEGY & GOVERNANCE** We achieved 78% of the 2019 targets set out in the 2017–2021 Sustainability Plan and created a new sustainability policy. We are working on drafting the 2020–2024 Strategic Plan, which will integrate the UN's SDG into the business plan of each business unit, rendering CSR increasingly strategic for our group. In addition, we decided that the degree of achievement of sustainability objectives must also have a bearing on our executive MBO (Management by Objectives) scheme, in addition to the company bonus scheme.

**RISK MANAGEMENT** In 2019, in addition to identifying financial and plant risks, we assessed the group's non-financial risks, monitoring the safeguards put in place and their effectiveness. The process led to the identification of 58 risks, most of which had already been included in the 2017–2021 Sustainability Plan with appropriate containment measures. Following the analysis carried out, there are three remaining significant risks for Alperia: the ageing workforce, the expansion of electric mobility and stakeholder engagement on sustainability issues. We are already actively working on these issues.

**SUPPLY SECURITY** In November, heavy snowfall hit South Tyrol causing one or more faults on 57 medium-voltage power lines and interrupted supply to 25.000 users. We managed the emergency by installing temporary generators (GE) to restore service as soon as possible. Situations such as this demonstrate how important it is to continue investing in infrastructure maintenance and modernisation, to make it increasingly resilient and efficient and to continue running power lines underground to ensure they remain stable even in an emergency. Edyna is also replacing traditional meters with new generation Smart Meters, which are able to measure consumption in greater detail and communicate with other devices, representing a new frontier in Smart Home development.

**ADDED ECONOMIC VALUE** In 2019, we created €235 million of added value for South Tyrol, through payments to public bodies, staff salaries and benefits, contracts for local companies (reaching a 62% share), sponsorships, donations and dividends to local shareholders. Our goal is to generate added value of €1,2 billion over five years, by 2021.

**SUSTAINABLE PRODUCTS AND SERVICES** In 2019, revenue generated by Alperia through sustainable products and services increased by 1,6%, a figure which the next business plan aims to further increase. We will do this by increasingly investing in green gas, green energy, district heating, energy efficiency and electric mobility and by continuing to offset the amount of CO<sub>2</sub> generated with specific investment in projects to protect the environment.

**CUSTOMER SATISFACTION** We supply our products and services to 323.772 customers, building relationships based on transparency and trust. We do this by efficiently managing their requests (every month we actively respond to 97% of calls received, performing better than the 85% response-rate goal set by the authority).

**RESEARCH AND DEVELOPMENT**

We have developed numerous innovative projects, including two through the Innovation Board (for UVAM and the creation of a customer service chatbot), plus others such as Smart Edyna, Smart Land, Regalgrid and Flexi-Grid, which involve the collaboration of numerous parties and business units. We also chose the winners of the Alperia Startup Factory, our competition to promote innovation in the field of renewable energy and the green economy. We've already launched the second competition, to which 230 teams from 37 countries around the world have applied. The winning start-ups of the first competition were FieldBox.ai and Beedata: the former was selected for its digital solution to monitor strain on penstocks and the latter for its system to create energy bills with additional information and sophisticated data analysis.

**EMISSIONS**

We are supporting the Autonomous Province of Bolzano's 2050 Climate Plan by reducing our greenhouse-gas emissions. To reduce mobility-related emissions, we are working to ensure that 50% of the company's car fleet is made up of electric vehicles in the next three years; we already have over 100 electric or hybrid vehicles. To this end, we carried out a survey among our employees to gauge their reactions to green mobility and identify suitable measures to promote more sustainable ways to travel between home and work. During 2019, we also continued to extend the district heating network to Bolzano and Merano, and connected our first subsidiary, Edyna, to district heating. With this system, we are investing in an ecological form of heating, allowing us to further reduce fossil-fuel consumption and CO<sub>2</sub> emissions.

**EMPLOYEES**

We have implemented individual career development as well as talent and leadership plans for our employees. To attract more women into technical professions, we have strengthened our promotion activities in the main schools and universities in the area. We are also expanding conciliation and flexibility measures (84% of fathers took advantage of parental leave in 2019). . The number of women at governance level increased, reaching 42%. We hired 62% more women than in 2018, with a consequent improvement in the diversity rate, which increased from 21% to 23%. In addition, we provided more than 20.000 hours of training, largely focussed on the issue of occupational health and safety.

## KEY SUSTAINABILITY FIGURES

	2019	2018
<b>COMMUNITY</b>		
Added value for South Tyrol (EUR)	235.822.778	222.373.892
Total investments (EUR)	104.700.000	84.381.000
Percentage of net energy produced by renewable sources	94%	94%
Percentage of power lines that are underground	71%	70%
Number of power-supply interruptions per customer	1,51	1,73
Duration of power-supply interruptions per customer (in mins)	28,07	27,36
Availability index (for hydroelectric plants)	86,43%	87,67%
Environmental incidents	0	0
Percentage of orders to local companies (based on total number of orders)	62%	60%
<b>GREEN MISSION</b>		
Percentage of energy consumption from renewable sources within the company	66%	64%
Market-based greenhouse gas intensity (CO <sub>2</sub> e tonnes released per MWh)	0,03	0,03
<b>CLIENTS</b>		
Percentage of calls to the toll-free number answered	97%	97%
Number of complaints per 100 clients	0,13	0,18
<b>EMPLOYEES*</b>		
Number of employees (persons)	1017	945
New employee hires (%)	7%	6%
Turnover of personnel (%)	6%	6%
Average training hours per employee	20,3 h	18,7 h
Percentage of women in Alperia	23 %	21%
Percentage of women in middle management	17%	15%

	2019	2018
Average pay gap between men and women in the category white-collar workers	5%	13%
Percentage of fathers who took parental leave	84%	88%
Average length of paternity leave	2,7 weeks	1,7 weeks
Return-to-work rate (women)	33%	86%
Retention rate (one year later; women)	100%	75%
Employee absentee rate (per 1,000 h)	6,01	5,5
Accident rate (per 1,000,000 h)	8,68	8,94
Lost day rate (per 1,000 h)	0,26	0,20

\*Data without Gruppo Green Power SpA, with Neogy SRI

RESEARCH AND INNOVATION		
Investment in research and innovation (EUR)	1.560.934	1.056.717
Percentage of employees involved in research and innovation projects	9%	5%
Share of revenues with sustainable products and services	40%	49%

## WHO WE ARE {GRI 102-1; 102-3; 102-4; 102-5; 102-6; 102-7; 102-16}

Alperia is South Tyrol's leading energy service provider and one of the most important sustainable-energy companies in Italy. Nature is our primary source of inspiration. We work in harmony with the local community and encourage the development of South Tyrol as a green region.

The energy we produce comes from renewable sources, mainly hydroelectric. We hold the majority of shares in 34 hydroelectric plants, which are accompanied by seven photovoltaic plants and three parks, five district heating plants and one biomass plant in Ottana, Sardinia. We also manage an 8.736 km electricity distribution grid. Besides this, we sell energy, build renewable power plants, develop electric mobility and provide the benefits of internet connectivity services. With our vast experience and the know-how of our experts, we are able to offer innovative energy-efficiency solutions. Our commitment to making sustainability a strategic driver for short- and long-term operations is all-encompassing.

Alperia SpA is a joint-stock parent company created on 1 January 2016 from the merger of the two largest energy companies in the province of Bolzano. The Autonomous Province of Bolzano currently holds 46,38% of the company. Selfin, which is owned by 100 municipalities in South Tyrol, holds 11,62%; the municipalities of Bolzano and Merano each hold 21% of the shares. The head office is in Bolzano; there are other operational offices in South Tyrol and elsewhere in Italy.

## ALPERIA AT A GLANCE {GRI 102-7}

<b>Revenue</b>	<b>1.562.765.371</b>
	(+23% compared to 1,3 bn in 2018)
<b>Net energy produced</b>	<b>4,6 TWh</b>
	(2018: 4,5 TWh)
<b>Workforce</b>	<b>1.017</b>
<b>Net financial position</b>	<b>- 395.815.750</b>
	(2018: -388 mln)
<b>Electricity sold to end customers</b>	<b>5.423 Gwh</b>
	(2018: 4 TWh)
<b>Natural gas sold to end customers</b>	<b>464 MSmc</b>
	(2018: 367 MSm <sup>3</sup> )
<b>Electricity trading</b>	<b>4.788 Gwh</b>
	(2018: 1,9 TWh)
<b>Heat distributed</b>	<b>217</b>
	(2018: 199 GWh)
<b>Hydroelectric production</b>	<b>4.044 Gwh</b>
<b>Hydroelectric plant availability index</b>	<b>86,43%</b>

## Corporate Structure {GRI 102-1; 102-2; 102-6}

Alperia SpA is divided into five business units: Generation, Sales & Trading, Networks, Heat & Services and Smart Region, within which Alperia's 32 subsidiaries and affiliates are incorporated (data referring to 31 December 2019).

After the 2018 acquisition of 60% of Bartucci SpA, one of the leading Italian operators for efficiency and integrated energy services, January 2019 saw the acquisition of 70% of the share capital of SUM (Servizi Unindustria Multiutilities SpA), a company also held by the regional Confindustria of Treviso, Padua, Venice and Rovigo. With a total turnover of over €130 million and supplying more than 1.600 companies, SUM is one of the leading energy operators for the corporate world in north eastern Italy. This strengthens Alperia's presence in a sector and region the group considers strategic.

This is also true of the acquisition of Gruppo Green Power SpA in September 2019. The company based in Mirano, in the province of Venice, is active in the domestic energy-efficiency services sector and has over 18.500 customers. Alperia made a public takeover bid for the company, which is listed on the AIM, the Italian stock exchange SME market, through which it acquired 86,53% of share capital.

The company appointed to deal with electric mobility development, Alperia Smart Mobility Srl, saw Dolomiti Energia Holding SpA enter into its share capital with a 50% share, leading to the establishment of the joint venture Neogy Srl on 1 July 2019. The Board of Directors of the new company is made up of two members of Alperia and two from Dolomiti Energia. Alperia appointed Sergio Marchiori, director of the Smart Region business unit, as CEO.

In 2019, Alperia reorganised the group's commercial activities, which are now managed by Alperia Smart Services Srl. The demerger involved transferring the Risk & Energy Management business unit to Alperia Trading Srl, the transfer of the commercial activities of Alperia Ecoplus Srl and Alperia Fiber Srl to Alperia Smart Services Srl and the transfer of the Marketing business unit of Alperia SpA to Alperia Smart Services Srl. The final step of the reorganisation was formalised with effect from 1 July 2019.

All 2019 operations were in line with the business plan, the objective of which is to transform Alperia from a traditional utility company to an all-round energy service provider.

## Value Chain {102-9}

Since its first materiality survey (2017), Alperia has defined a sustainability strategy committed to a responsible and safe relationship with the South Tyrolean community, creating shared value in the medium and long term. This is a commitment that also involves suppliers. All the products and services we provide (from energy to gas, green mobility to energy efficiency and fibre optics) aim to ensure South Tyrol's future is innovative and sustainable. As part of this strategy, we make certain that our energy sources are predominantly natural and local, in particular:

- Water is drawn from the local province of South Tyrol, providing sustainable energy products and services in return.
- Biomass is mainly local or in any event from the Alpine arc and bordering areas.
- Palm oil (or CPO, crude palm oil) used by the subsidiary Biopower Sardegna Srl does not come from local suppliers but is sourced from ISCC EU-certified suppliers. This certification guarantees the sustainability of the entire supply chain, from cultivation to mill, storage to transport. The quality of palm oil is chemically analysed as it must reflect the chemical characteristics demanded by Alperia. Controls are carried out by third companies when the product is loaded onto the ship and before it is unloaded.
- Natural gas is purchased in Italy and is a mix between domestically extracted gas and that extracted abroad. Gas imports in Italy amount to over 90%<sup>1</sup> (compared to an EU average of around 70%). Natural gas is brought to Italy through gas pipelines with 50% coming from Russia, followed by Algeria, Qatar, Libya, the Netherlands and Norway. Only a residual part is directly extracted in Italy;
- Machinery and technical equipment are purchased locally, in Italy or abroad, depending on necessity.
- Heat comes directly from the waste-to-energy plant in Bolzano.

<sup>1</sup> <https://www.sr-m.it/wp-content/uploads/2019/12/SINTESI-Energy-Bruxelles-2019.pdf>

These materials are used to produce, transmit, distribute, trade and sell electricity and gas.

## **Corporate Governance {GRI 405-1, 102-16, 102-18}**

In 2019, Alperia SpA and a large number of its subsidiaries or affiliates saw the members of their respective management and/or control bodies reappointed on reaching the natural expiry of their mandate.

The parent company has adopted the two-tier system pursuant to Article 2409-octies of the Italian Civil Code, which provides for a Management Board composed of six members and a Supervisory Board also composed of six members, of whom three are appointed by the Autonomous Province of Bolzano and Selfin Srl and three by the Municipalities of Bolzano and Merano.

Neither gender makes up less than one third of the membership of both bodies. Absolute gender equality was achieved on the Management Board, with a membership of three women and three men. The body is chaired by Flora Emma Kröss, while the Deputy Chair is Renate König. The other members of the Management Board, who will remain in office for three years, are Helmuth Konrad Moroder, Daniela Vicedomini, General Manager Johann Wohlfarter and Deputy General Manager Paolo Acuti. The Management Board has sole responsibility for the administration and management of the company and therefore is responsible for the preparation and implementation, once approved by the Supervisory Board, of the general strategic and programmatic policies of the company and the group.

The Supervisory Board is made up of Mauro Marchi (Chairman), Wolfram Sparber (Deputy Chairman), Paula Aspmair, Manfred Mayr, Maurizio Peluso and Luitgard Spögler. Women make up 50% of the ten external members on the company's two senior bodies. Meanwhile the Supervisory Board monitors compliance with the law and the company's bylaws and the principles of sound administration. It also approves some operations decided by the Management Board, which are considered strategic by the bylaws.

Operational control of the company rests with management, which is made up of General Manager Johann Wohlfarter, Deputy General Manager Paolo Acuti and Corporate Strategy Director Paolo Vanoni. The General Manager is the head of the management structure, guiding company business and overseeing all technical, administrative and financial activities. Therefore, just like the Deputy General Manager, the holder of this position has a dual role as a director and a member of the Management Board, contributing to Board's decision-making process. The Deputy General Manager, Paolo Acuti, has also been appointed as a member of the Executive Committee and the Energy Management Board of Utilitalia, the Italian federation of energy, water and environmental companies.

Alperia's governance structure is completed by the Internal Audit function, which carries out independent and objective assurance. It evaluates the effectiveness of the internal control system and helps the organisation pursue its goals by assessing whether the risk management and corporate governance processes are adequate and function effectively. Internal Audit therefore assesses all corporate functions and departments, systems, processes, directives, procedures and practices adopted by them, the parent company and the companies belonging to the group.

## **Governance Tools {102-18}**

Alperia has adopted various governance tools to ensure proper management of both internal and external activities. Some of these tools comply with national legislation provisions and guarantee specific control of activities; others, however, have been deliberately put in place by the group to strengthen the spirit of legality, transparency and fairness.

## Risk management

Risk	Management Approach
Risk of failure to monitor processes and activities with a risk of corruption between private individuals and in relationships with the Public Administration, as well as relationships with related parties	We want to minimise the phenomenon of active and passive corruption between private individuals and conflicts of interest in relationships with the Public Administration. For this reason, we adopted the Organisation Management and Control Model, pursuant to Legislative Decree 231/01 (active corruption), implemented a Whistleblowing procedure and follow a rigorous code of ethics.

## The Organisation, Management and Control Model, pursuant to Legislative Decree 231

The Organisation, Management and Control Model required by Legislative Decree 231/01 (231 Model) is the set of organisational rules and procedures intended to prevent the committing of the offences governed by Legislative Decree 231/01. Adopting this model is an act of social responsibility on the part of the company. Its aim is to affirm and spread a corporate culture based on the legality and control of all decision-making and operational activities, with full awareness of the risks deriving from the commission of offences.

The parent company Alperia SpA approved the updated full version of its 231 Model at the end of 2018. In 2019, following the numerous organisational and corporate changes that took place within the group, the 231 organisation charts and models of many of its companies were revised. On 1 January 2019, the demerger of Alperia Energy Srl took effect, transferring the Risk & Energy Management business branch to Alperia Trading Srl., which had been established in September 2018. Alperia Trading markets the group's energy production and manages energy trading. It has therefore been equipped with its own 231 model and Supervisory Body, which is responsible for supervising the effectiveness, compliance and updating of the 231 model. This Supervisory Board deals with all the internal functions of the company and all recipients of the 231 Model are required to inform it (anonymously) of any actual or potential offence covered by Legislative Decree 231/01 and/or of any infringements mentioned in the 231 Model.

Between 22 and 28 November 2019, the 231 models of Alperia Bartucci SpA, Alperia Ecoplus Srl, Biopower Sardegna Srl and Alperia Smart Services Srl were approved. Alperia Bartucci SpA, Alperia Trading Srl, Edyna Srl and Gruppo Green Power SpA have established their own SBs, while in Alperia Smart Services Srl, Biopower Sardegna Srl and Alperia Ecoplus Srl these tasks continue to be carried out by the previously appointed SBs. All the models are available in Italian and German on the group's website ([www.alperiagroup.eu](http://www.alperiagroup.eu)) and on the intranet. To increase employee awareness on the value of the 231 Model, e-learning training courses specific to each company area have been organised. In 2019, no infringements of the 231 Model were detected, nor any significant events with respect to Legislative Decree 231/01.

The Alperia SpA 231 Model and those of the individual companies are the main instruments for preventing public and private corruption, fraud against the state and public administration or offences of extortion and influence peddling. These instruments are supported by further measures such as the Code of Ethics, the Disciplinary Code and the Golden Rules.

## Code of Ethics

Legal compliance and the fight against corruption are established in the Alperia Code of Ethics and are embodied in the practices and operating methods that are defined and disseminated through our procedures. The Code of Ethics is an integral part of the Organisation, Management and Control Model pursuant to Legislative Decree 231/2001, defining the values, principles and rules that guide the conduct and activities of the group. These provisions are addressed, without exception, to the directors and employees of the group companies. They equally apply to all those who collaborate with Alperia and its companies in various capacities, who are also required to conduct themselves in line with these principles, without prejudice to respect for religious, cultural and social practices.

The provisions contained in the Code of Ethics integrate the conduct with which internal personnel are required to comply, in accordance with the rules of due diligence to which employees are required to adhere, governed

by the regulations on employment relationships. The Code of Ethics is binding for the conduct of all Alperia personnel and for all those who, for whatever reason and regardless of the type of contractual relationship, contribute to the achievement of the company's aims and objectives. Under no circumstances may pursuit of Alperia's interests justify behaviour that is contrary to the Code of Ethics or existing laws.

The body responsible for monitoring the application of the Code of Ethics is the Supervisory Body of Alperia Spa, established in accordance with the 231/2001 model and related regulations. It coordinates the proper implementation and assessment of the principles contained in the Code of Ethics with the Supervisory Bodies of each company and the relevant company functions. The Code of Ethics is available on the company's intranet and on the Alperia corporate website ([www.alperiagroup.eu](http://www.alperiagroup.eu)).

### **Disciplinary Code and Golden Rules**

The objective of the Disciplinary Code is to identify the applicable disciplinary measures for misdemeanours committed by Alperia employees. Employees may not take advantage of their position to take on paid or unpaid work (during or outside office hours) that competes with or conflicts with the company's business, especially for profit, nor may they receive gifts or compensation of any kind. In addition, to strengthen the group's values and vision, 10 Golden Rules have been drawn up. They are posted in each company workplace, allowing for a positive and equality-based working environment, in which every employee can make a contribution according to their abilities and with a sense of responsibility. Both documents are available in German and Italian on the group's intranet page.

### **Whistleblowing**

The Whistleblowing procedure, introduced in 2018, gives employees the opportunity to promptly report any risk situations (fraud, crimes and unlawful or irregular conduct on the part of individuals inside the company). This procedure is mandatory for all companies equipped with 231 Organisational Model. It was therefore also implemented by Alperia, which set up the cloud e-Whistle platform through which confidential reports may be made. The Supervisory Body did not receive any reports via this channel in 2019.

### **The Gruppo Green Power case**

In 2019, Alperia acquired a majority stake in Gruppo Green Power SpA, the parent company of a group involved in marketing services and products for domestic and SME energy efficiency. Following a television broadcast by Canale 5 questioning the correctness of the work of GGP group companies, Alperia immediately took action, requesting a leading auditing company to carry out a specific audit prior to the acquisition. At the end of the audit, the GGP group rectified the critical issues. In recent months, Alperia has redefined some management and contractual aspects of the commercial activities of GGP group companies and is now starting to redefine its business plan, balancing commercial needs with the principles of correctness and transparency that have always characterised Alperia's activities.

### **The PVB Power Bulgaria case**

In press conferences in Sofia and Bolzano, a Bulgarian businessman alleged that the PVB Power Bulgaria company and its subsidiary Vez Svoghe, owner of five hydroelectric plants in Bulgaria, had been impacted detrimentally in the past by irregular activities carried out by the then Executive Director.

Alperia, Dolomiti Energia Holding and Finest, shareholders alongside relative majority shareholder PVB Power Srl of PVB Power Bulgaria, contested attempts by the aforementioned Bulgarian businessman, who had just become a minority shareholder in PVB Power Srl, to suggest they may have been involved in alleged illegal or irregular activities within PVB Power Bulgaria. Moreover, the three companies have always stressed that even if irregularities were uncovered in the Bulgarian company, they themselves would actually be injured parties.

As soon as they became aware of these alleged irregularities, the three companies commissioned an external risk-management company to carry out an investigation into the matter.

It should be noted that a sales procedure for the three companies' shares in PVB Power Bulgaria is in progress and the aforementioned businessman has expressed a willingness to acquire them. His offer was considered completely inappropriate and thus has not been accepted; the three companies deemed it necessary to proceed with a selection procedure amongst other possible buyers.

## Sustainability Governance

Alperia has adopted a sustainability plan which runs from 2017 to 2021, aiming to make a significant contribution to the sustainable development of the group and the region in which it operates. The plan indicates the environmental, social and economic sustainability objectives to be achieved. From 2018 forward, these objectives have been monitored through the Sustainability Report, a document approved by the Management Board and Supervisory Board.

In 2019, a new sustainability policy was defined and approved by the General Manager, with the purpose of approaching sustainability issues in a more comprehensive way, not limited solely to the HSE (Health, Safety, Environment) field. In 2020, this document will be followed by the definition of a CSR Management Procedure; sustainability will thus become a central driver of the group's new business plan. In doing this, we intend to clearly define to which of the UN's Sustainable Development Goals (SDGs) Alperia can contribute, by making suitable choices and implementing measures in line with these goals.

It is fundamental for Alperia that all employees are involved in this process. For this reason – after having already linked the employees' year-end bonus to the achievement of sustainability objectives in 2018 – this mechanism was extended to senior management in 2019, with at least one sustainability objective being included in the Management by Objectives (MBO) scheme. The measure will become operational from 2020, with the aim of applying it to long-term management objectives as well.

Management of all Corporate Social Responsibility activities is carried out by CSR Management within the Brand & Communication department. It has a range of responsibilities including preparing a sustainability plan and report, assisting technical services in the implementation of the projects, submitting recommendations relating to actions to be developed with the governance bodies, auditing the annual non-financial reporting and collaborating with the CSR Steering Committee. This body is essentially an interface between group employees and CSR Management; it met once in 2019. It is responsible for providing information on current activities, assessing CSR performance, making proposals for improvements, monitoring objectives and measures to be achieved and encouraging greater awareness of sustainability issues. The CSR Steering Committee is made up of CSR Management and service managers or collaborators of the Human Resources, HSE, Procurement, Enterprise Risk, Corporate Strategy, Engineering, Controlling, Accounting, IT, Communications, Marketing, Production, Sales & Trading, Heat & Services and Smart Region sectors.

## Sustainability Policy

Sustainability is an integral part of Alperia's vision and strategy, as well as a key aspect in all our activities. Our new sustainability policy is based on this principle; through it, we have committed ourselves to taking action in five strategic areas:

- **Community:** We create added value on a local level in terms of employment, duties and taxes, supply agreements and social engagement. Corporate governance systems such as codes of conduct, proactive complaint management and tools for compliance and risk management ensure transparency and prevent reputational and operational risks. The utmost importance is placed on the technical safety and stability of plants, with the main focus always on the reliability and availability of the energy supply. Alperia actively promotes the sustainability of the entire supply chain by defining minimum ecological and social requirements for tenders as well as for the process of selecting, evaluating and auditing suppliers. Primary energy sources are identified locally, where possible, and are predominantly renewable.
- **Development and Innovation:** We work on developing new technology to offer cutting-edge and competitive energy products and services with the lowest possible environmental impact that guarantee a reliable and sustainable supply. The ultimate goal is to make the company's operations 100% green.

- **Green Mission:** We keep environmental impact to a minimum and promote low-emission energy production, the implementation of programmes for protecting biodiversity, the prevention of contamination and the proper disposal of the waste produced. We strive to use water resources rationally and sustainably to manage the risks associated with water scarcity. All energy is used in a responsible manner, supporting measures designed to save energy and ensure that the latter is used efficiently.
- **Customers:** We work to build customer relationships that are based on trust. They can always reach us, and we are able to offer tailored energy products with attentive and solution-oriented customer service, taking advantage of the opportunities that the market presents and choosing to offer sustainable products and services. To all this, we add transparent, up-to-date and stakeholder-oriented communications and marketing activity, with a focus on social and ecological issues. Comprehensive data protection and compliance with current privacy and security regulations are guaranteed at all times.
- **Personnel:** We pursue responsible human-resource management through open and transparent communication, continuous staff training in line with individual skills, the creation of a family-friendly environment for both man and women, as well as the promotion of diversity and equal opportunity in all activities. Employee health is of central importance to Alperia, and we thus guarantee the maximum level of work safety for staff and contractors alike.

**Strategic Objective:** We want to anchor ecological, social and economic sustainability to our governance and management processes.

Operational objectives	Measures implemented in 2019	Measures planned in 2019	Deadlines (new)	KPI	Target value	Value in 2019
Introduction of an incentive policy for management to achieve sustainability objectives (e.g. through the inclusion of CSR objectives in personal targets and as remuneration assessment criteria)	* Inclusion of one sustainability objective in the Management by Objectives scheme for the group's senior management	* Further development of the sustainability reporting system with: - integration of non-financial indicators into group-level control processes to improve data quality - establishment of a regular reporting process for management - evaluation of data collection supported by IT (e.g. non-financial reporting module from SAP)	2017–2021 (ongoing)	-	-	-
Definition and formalisation of the CSR/sustainability governance structure	* Development of a group sustainability policy	* Development of a CSR Management Procedure to formalise the governance structure for sustainability management	2020 (ongoing)	-	-	-

## Certifications

- ✓ ISO 9001:2015 for quality management
- ✓ ISO 14001:2015 for environmental management
- ✓ ISO 45001:2018 for occupational health and safety management
- ✓ ISO 27001:2018 for data security and data protection
- ✓ UNI CEI 11352:2014 for ESCOs, energy services companies that work to improve their customers' energy efficiency by directly assuming risk and guaranteeing successful projects.

## Selected External Initiatives

{GRI 102-12}

- **KlimaFactory:** Alperia business customers may request an energy audit, allowing them to take part in the KlimaFactory programme run by the CasaClima Agency to improve energy efficiency in companies. Once the audit has been carried out, the company obtains the KlimaFactory logo and certificate of participation.
- **MOTUS-E:** Association that brings together and represents the world interested in the success of electric mobility, with the aim of setting standards, carrying out network activities, defining best practices to promote the topic in Italy and supporting government policy. The General Manager of Alperia, Johann Wohlfarter, is a member of its Board of Directors.
- **IEA DHC:** Alperia is a member of the IEA Implementing Agreement on District Heating & Cooling including the integration of CHP, an international grid specialising in research and development on district heating and cooling systems with low environmental impact. The programme is part of the International Energy Agency (IEA), an autonomous agency founded in 1974 with the collaboration of 28 countries.

## Associations {GRI 102-13}

- **Utilitalia:** Through its Deputy General Manager, Paolo Acuti, Alperia is an active member of the Executive Committee and Energy Management Board of Utilitalia, the Italian federation of energy, water and environmental companies. Alperia is also a member of the association's Communication Commission as well as its Corporate Social Responsibility and Sustainability working group. The association comprises more than 500 organisations in the water, environment, electricity and gas sectors. Alperia and the other associated companies have signed the Pact for the Development of the Country, a three-year planning document that involves the Italian state, local institutions, local communities, businesses and citizens. It is based upon four points: management of the energy and environmental transition towards the Green Economy; development of an efficient infrastructure system; economic, social and environmental sustainability; and the enhancement of the territories and communities served.
- **AGAW (Arbeitsgemeinschaft Alpine Wasserkraft):** AGAW's activities aim to encourage the exploitation of hydroelectric resources according to the highest technical and ecological standards. In addition to concrete projects in the hydroelectric field, the goal is to raise the community's awareness regarding the essential contribution of hydroelectric energy, which, being a clean source, is essential to achieve the European climate objectives.
- **Italian National Committee for Large Dams (ITCOLD):** ITCOLD is the Italian national committee headed by ICOLD (International Commission on Large Dams), which works with international partners to ensure that new dams are safe, efficient, economically advantageous and have a lower environmental impact. In addition to Alperia, some of the major national concessionaires are members of the committee, including A2A, Edipower, Edison and Enel.
- **Euroheat:** Alperia is part of Euroheat & Power, an international association representing Europe's district heating and cooling sectors. Euroheat promotes sustainable heating and cooling by bringing together industry players, policymakers and academia.
- **Assoesco:** Italian Association of Energy Service Companies, of which Alperia Bartucci, an Alperia company specialising in energy efficiency, is a member. Bartucci is also a member of Assolombarda and has carried out projects in collaboration with Sparkasse and collaborated on thesis projects with Politecnico di Milano, Politecnico di Torino, Università degli Studi di Padova, Università Politecnica delle Marche, Università degli Studi di Verona and Università Commerciale Luigi Bocconi. Alperia Bartucci is also a partner of numerous Politecnico di Milano observatories (the Energy & Strategy

- group), where it contributes to research in various areas such as energy efficiency in buildings and smart buildings, industrial energy efficiency, energy sector innovation and water management.
- **Elettricità Futura:** Italy's main association of companies operating in the electricity sector, established to form a basis for an efficient electricity market capable of responding to future challenges. Alperia is a member, and its managing director Johann Wohlfarter has been part of the Strategic Committee since 2019. The association is made up of 600 operators that have more than 75.000 MW of installed conventional and renewable electrical power and about 1.150.000 km of lines.
  - **CSR Manager Network:** This national association brings together professionals from a range of organisations (companies, business foundations, professional companies, P.A., non-profit organisations) who work in the management of socio-environmental and sustainability issues related to corporate activities.

## Human Rights

Respect for human rights is fundamental at Alperia. We adopt a system of values based on transparency and respect for the dignity, equality and freedom of each individual. This is a commitment that we make both internally and externally, including in the selection of suppliers, to the extent that purchase contracts and the group's general terms and conditions for contracting include a binding clause of respect for human rights. In line with the UN SDGs, we have identified the following human rights as pillars of the sustainability actions described in this report, connecting them to the key themes of the 2017–2021 Sustainability Plan:

- **Diversity and equal opportunity:** Our employees are our most important asset. We want to create a healthy, stimulating and family-friendly workplace for them. In 2019, we confirmed our Family Audit certification from the Family Agency of the Autonomous Province and Chamber of Commerce. This certificate demonstrates our efforts to improve the work-life balance of our staff. We are working to attract more women into technical professions and to increase the percentage of female managers. An area where we have already made significant progress in the governing bodies. In 2019, the chairman of our Management Board was a woman and the body itself was made up of 50% women. We intend to continue improving this trend in the future, with a focus on reducing the gender pay gap.
- **Employee development:** It is essential to support each of our employees on their path of professional and personal growth. This is why we developed the Talent Programme, which highlights strengths and suggests improvements for candidates. Its goal is to promote targeted personal development and possible career advancement, offering specific training activities in relation to individual needs. In order to encourage efficient and fair generational turnover, we are also working on a succession plan for the replacement of key roles within the group over time. To guarantee the right to leisure and free time, we support activities organised by the employees social club, CRAL, which has always been very active. Every employee is guaranteed the right to privacy and social security; we also protect the confidentiality of their data and information.
- **Inclusive growth, safe and dignified work:** We want to promote and guarantee the highest level of occupational health and safety for our employees and external suppliers. We carry out monitoring and maintenance activities of our offices and plants in compliance with regulations, encouraging the research and development of innovative energy-efficiency solutions. In 2020, we scheduled installation of 30 Red Cross and White Cross semi-automatic defibrillators, both inside and outside of our workplaces. We actively promote initiatives to improve well-being, with targeted initiatives in the Welfare Package, the introduction of water fountains in company workplaces and supplementary health insurance. We have also continued to harmonise union agreements for all employees, in order to establish uniform and fair framework conditions.

## Risks and Opportunities {GRI 102-11, 102-15}

Climate change is one of the greatest environmental, social and economic threats to the modern world. Over the past 150 years, the average global temperature has increased by nearly 0,8°C and by around 1°C in Europe. Unless global action is taken to limit emissions, the Intergovernmental Panel on Climate Change (IPCC) predicts that global temperatures will rise to between 1,8° and 4,0°C higher than pre-industrial times, with an increase of between 6 and 9 metres in average sea levels, the loss of all coral reefs and the Amazon rainforest, and large parts of the planet becoming uninhabitable<sup>2</sup>.

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<sup>2</sup> <https://www.eea.europa.eu/it/themes/climate/about-climate-change>

The impact of these changes can already be seen. Extreme weather events such as heatwaves, droughts and floods are becoming increasingly frequent, with repercussions for natural ecosystems, human health and water resources. In particular, it is estimated that in the five-year period from 2015 to 2019<sup>3</sup>:

- temperatures exceeded those of the pre-industrial era (1850–1900) by 1,1°C, making the last 5 years the warmest on record
- over the last four winters, the Arctic ice cap has declined at the fastest rate ever and there has been the highest loss of glaciers since records began
- sea levels have risen further, and sea water is becoming increasingly acidic
- the levels of two of the main climate-changing gases, methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O) have reached new peaks
- in 2018, global carbon-dioxide emissions increased by 2% (+63% compared to 1990); this continues in 2019

We are therefore at a point of no return, both for the environment and for entire economic sectors such as forestry, agriculture, tourism and construction, as well as for human health itself. An awareness of the global risks of the current development model's unsustainability clearly emerged from the World Economic Forum 2020 Global Risks Report<sup>4</sup>, presented in January 2020. According to the survey of over 750 experts and decision makers in various global economy sectors on the perception of risks at an international level, the following risks took first, second and third place:

- extreme weather events
- failure to mitigate and adapt to climate change
- major natural disasters

Following in fourth and fifth place:

- the loss of biodiversity
- environmental damage caused by humans

Therefore, for the first time in the report's history, all five major global risks in terms of probability related to the environment. Indeed, if the increase in temperatures is not kept below 1,5°C there will be a real global emergency leading to the extinction of entire animal and plant species, an increase in natural disasters with loss of life, serious health problems overwhelming national health systems, especially for the poorest and most vulnerable countries, flooding of entire low-altitude areas due to the progressive glacier melting, a decreasing crop yield and ever-increasing water scarcity, increasing migration and international geopolitical tensions.

This systemic collapse can only be avoided if man-made carbon dioxide emissions decrease by 50% by 2030 compared to 2010, reaching zero by 2050. The 2020 Global Risks Report calls for the largest world powers to work together with determination to face the most deep-rooted risks with the greatest impact. The current data is not comforting. Energy demand continues to grow and is still largely met by fossil fuels. Global energy demand increased by 2,3% in 2018, the highest rate in the last ten years. Driven by population growth, income increase and urbanisation, it is expected to increase by more than 25% by 2040. There is therefore an obvious contradiction between calls for sustainability and the drive, in particular in emerging markets, to stimulate economic growth through investment in high-carbon projects. Suffice to say that coal-fired power plants built in Asia in the last decade accounted for almost a third of the total increase in CO<sub>2</sub> emissions in 2018.

Therefore, the next ten years will be crucial. According to the Emission Gap Report published on 26 November 2019 by the United Nations, CO<sub>2</sub> emissions must decrease by 7,6% per year between now and 2030 to contain global warming within 1,5°C<sup>5</sup>. This reduction must be accompanied by an investment of \$460 billion a year in clean energy.

The fight against climate change has taken on a real urgency, with awareness increasing among people of all ages, genders and social backgrounds. This has been demonstrated by the Fridays for Future movement launched by the young Swede Greta Thunberg, calling for urgent action on climate issues. Global awareness leading to the implementation of adequate sustainability policies is needed to stop climate change. For this reason, in January 2020, Europe approved the Green Deal to invest €1.000 billion in the green economy to achieve specific targets, including the reduction of greenhouse gas emissions by 40% by 2030 and climate

<sup>3</sup> [https://www.agi.it/estero/verita\\_cambiamenti\\_climatici-6242444/news/2019-09-25/](https://www.agi.it/estero/verita_cambiamenti_climatici-6242444/news/2019-09-25/)

<sup>4</sup> <https://www.weforum.org/reports/the-global-risks-report-2020>

<sup>5</sup> <https://www.unenvironment.org/resources/emissions-gap-report-2019>

neutrality by 2050. This is an ambitious mission to respond to a global challenge, to which we at Alperia also want to contribute. We are highly aware of the coming risks, not only for the particular sector in which we operate but also because water is our main resource: an asset increasingly influenced (and threatened) by the current megatrends.

The world of IT also merits some attention. The 2020 Global Risks Report lists IT infrastructure failure as the sixth most impacting risk for the years up to 2030. By 2025, approximately 75 billion devices will be connected to each other and the internet, a market worth \$11 trillion. The vulnerability of critical technology infrastructure is a growing concern. For companies like ours, it is becoming an absolute priority. Attacks on the energy, health and transportation sectors are becoming much more common and odious. The Internet of Things is further amplifying the potential of cyberattacks. It is estimated that there are already over 21 billion IoT devices worldwide (which could double by 2025) and attacks have increased more than 300% in the first half of 2019. In 2021, the cost of cybercrime damage could reach \$6 trillion, an amount equivalent to the GDP of the world's third largest economy. The challenge for both the public and private sectors is therefore to build modern infrastructures and develop safe and reliable systems.

### **The energy challenge for South Tyrol**

According to the Eurac Research Institute climate report, the average annual temperature in South Tyrol has increased by 1,5°C since the 1960s. According to the worst-case scenario, summer months could see an increase of a further 1,5°C by 2050. Such an increase would also have an impact on rainfall by 2100 and at 1.500 metres above sea level there could be 80–90% less snow than today, with even less water available in the summer months. Meanwhile, extreme weather phenomena such as torrential rains will become increasingly frequent.

Although in South Tyrol there are few industries using fossil fuels and the use of renewables is widespread, we produce almost 5,3 tonnes of CO<sub>2</sub> equivalent per year per capita. Transport alone is responsible for 44% of total greenhouse gases, with higher figures than the national average. This is followed by the production of thermal energy, with the heating of a pool of non-energy efficient buildings having an impact of 36%. The agricultural sector ranks third, with our 18% of mainly methane and nitrous oxide emissions being higher than the national average.

In 2011, the province adopted the South Tyrol 2050 Climate Plan, a strategic instrument providing a roadmap to becoming an internationally recognised KlimaLand, with a sustainable approach to the energy issue. The vision of South Tyrol's energy policy for 2050 includes:

- a limit on energy consumption per inhabitant (excluding grey energy)
- the reduction of CO<sub>2</sub> emissions to less than 4t per year per capita by 2020 and to less than 1,5t per year at the latest by 2050
- an increase in the percentage of energy needs met by renewable energy up to at least 75% by 2020, and over 90% by 2050

South Tyrol has an advantage because of its autonomous status and the specificities of its economy, which allow it to further consolidate its pioneering role in energy and climate policy. This is a commitment to which we at Alperia actively contribute by focussing on sustainable water management, reducing emissions, plant maintenance and developing innovations that contribute to the creation of the South Tyrol Green Region.

The South Tyrol 2050 Climate Plan<sup>6</sup>, which is joined by numerous other instruments such as CasaClima certifications and the Green Mobility programme, will be updated in spring 2020 with measures that will:

- increase the energy efficiency of municipalities and production processes
- increase the use of wood products with long life cycles for energy and building renovations
- limit greenhouse gas emissions from the production of equivalent materials from non-renewable raw materials
- introduce integrated public transport climate protection measures
- further develop renewable energy (already today, 70% of energy needs in South Tyrol are met by renewable energy production)
- increase connections to district heating

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<sup>6</sup> [http://www.provincia.bz.it/news/it/news.asp?news\\_action=4&news\\_article\\_id=629959](http://www.provincia.bz.it/news/it/news.asp?news_action=4&news_article_id=629959)

- develop the potential of photovoltaic by identifying new ways to install systems on all suitable public and private building roofs

## Alperia and the SDGs

On 25 September 2015, the United Nations approved the Global Agenda for Sustainable Development and its 17 goals, which are to be achieved by 2030. The European Union took part in the negotiation process that led to the adoption of 2030 Agenda and the Sustainable Development Goals (SDGs), launching a ten-year strategic framework for growth and employment in 2010 (Europe 2020).

Aware of the essential role that energy can play in addressing these global challenges, Alperia is committed to making its contribution to the implementation of some of the 17 SDGs. In particular, we are working on:

### SDG 5 – Achieve gender equality:

- **Target 5.4: Recognise and value unpaid care and domestic work through the provision of public services, infrastructure and social-protection policies, as well as the promotion of shared responsibility within the household and the family as nationally appropriate** → We want to be a family-friendly company for both men and women. For this reason, we promote reduced and flexible hours for our employees. As a result of the measures we've adopted, we've been awarded the Family and Work Audit certification from the Family Agency of the Autonomous Province and Chamber of Commerce.
- **Target 5.5: Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life** → We are working to attract more women into technical professions and to increase the percentage of female managers. We have already made significant progress in this area: in 2019, the chairman of our Management Board is a woman for the first time and the body itself is made up of 50% women. We intend to further improve this trend in the future, and to reduce the gender pay gap.

### SDG 6 – Ensure availability and sustainable management of water and sanitation for all

- **Target 6.5: By 2030, implement integrated water-resource management at all levels, including through transboundary cooperation as appropriate** → We are working on the modernisation of our water infrastructure, in order to ensure that our systems are always reliable and safe. With the development of innovative technology and new products, we are putting in place specific initiatives such as the Smart Land Project designed to promote sustainable water resource management. We also support responsible governance of water through our collaboration with consortia and dedicated public bodies;
- **Target 6.6: By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes** → We want to minimise the impact of our hydroelectric power plants on nature and the environment, actively protecting the biological diversity of waterways. To achieve this, we operate in full compliance with legal provisions on Minimum Vital Flow, building ladders for fish and implementing appropriate compensation measures. We have committed ourselves to the renaturalisation and restoration of the landscape where there are disused plants. We also supervise the reduction of contamination risk from recycled water and from open cycle cooling.

### SDG 7 - Affordable and clean energy

- **Target 7.1: By 2030, ensure universal access to affordable, reliable and modern energy services** → We want to ensure a safe and efficient energy supply, which is why we invest in the development of sustainable energy solutions and in the modernisation of our plants and networks.
- **Target 7.2: By 2030, increase substantially the share of renewable energy in the global energy mix** → We produce 94% of our energy from net renewable sources. We intend to further increase this through targeted investment, adopting new business models, monitoring and reporting on the amount of energy produced, purchased and consumed by source. Full involvement of all stakeholders and suppliers in the supply of clean energy is also important.
- **Target 7.3: By 2030, double the global rate of improvement in energy efficiency** → Because we want to make our energy consumption more efficient, we are using targeted initiatives to reduce energy consumption in our buildings and plants. We are also developing new technology and services that will further improve energy efficiency and reduce energy needs. Furthermore, we are

developing new products, services and business models to help our customers reduce their own energy needs and improve their efficiency.

#### **SDG 8 – Decent work and economic growth**

- **Target 8.5: By 2030, achieve full and productive employment and decent work for all women and men, including young people and persons with disabilities; equal pay for work of equal value** → We have harmonised Alperia's union agreements and HR policies to provide uniform and fair framework conditions for all our employees.
- **Target 8.6: By 2020, substantially reduce the proportion of youth that is neither employed nor undergoing education or training** → We want to support our employees in their development. To achieve this, we have implemented internal training activities and developed our Talent and Pillars of Alperia programmes. We're also developing policies aimed at attracting and training new staff in order to support the generational shift.
- **Target 8.8: Protect labour rights and promote safe and secure working environments for all workers: this includes all migrant workers, women in particular, and those in precarious employment** → We actively promote the health of our employees, guaranteeing the highest level of work safety to protect our staff, the general population and the surrounding area. We have adopted plant monitoring and maintenance measures, promoting wellness initiatives in all of our workplaces. In addition, we scheduled the installation of 30 Red Cross and White Cross semi-automatic defibrillators in 2019, which went operational in 2020 inside and outside of Alperia workplaces and at some customer sites.

#### **SDG 9 - Business, innovation and infrastructure**

- **Target 9.1 and Target 9.4: Develop high-quality, reliable, sustainable and resilient infrastructure, including regional and trans-border infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all // By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities** → We want to ensure a safe and efficient energy supply. To do this, we are developing increasingly modern distribution networks, maintaining and making our plants more efficient and launching specific Smart City and eMobility plans;
- **Target 9.5: Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending** → We want to actively contribute to the energy future and develop new technology with innovative research projects. Our Innovation Board works to develop innovative sustainability-oriented projects and we support innovation-related projects such as the Alperia Startup Factory.

#### **SDG 11 – Sustainable cities and communities:**

- **Target 11.6: By 2030, reduce the adverse per-capita environmental impact of cities by focussing on air quality as well as municipal and other waste management** → We invest in research and innovation to encourage the development of greener, less energy-consuming, traffic-free and smarter cities. Some examples of our work in this area include: investments in green mobility, the Smart City project, which transforms cities into more sustainable and integrated environments with advanced digital sensors, and the expansion of the district heating network, which is understood to be the most ecological form of heating, to include Merano and Bolzano.

#### **SDG 12 – Sustainable consumption and production:**

- **Target 12.6: Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle** → We want to anchor ecological, social and economic sustainability to our governance and management processes. We have set up a sustainability plan and implemented a new sustainability policy; we have integrated at least one sustainability objective into the MBO scheme for group executives; and from 2020, sustainability will take an even more central role in the new business plan. Furthermore, we want to make our communications, both external and internal,

increasingly transparent, updated, stakeholder oriented and sustainable from a social and economic standpoint.

- **Target 12.7: promote public procurement practices that are sustainable in accordance with national policies and priorities** → We want to make our procurement as local, environmentally sound and socially sustainable as possible. Our supplier selection process ensures that all our suppliers maintain sustainability standards and that purchased products also meet these standards.

#### **SDG 13 – Climate action:**

- **Targets 13.1, 13.2, 13.3: Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries // Target 13.2: Integrate climate change measures into national policies, strategies, and planning // Target 13.3: Improve education, awareness raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction, and early warning** → We want to support the Autonomous Province of Bolzano Climate Plan 2050 and reduce our greenhouse gas emissions. For this reason, we assess the risks and opportunities of climate change (water scarcity, storms, regulation, etc.). We are also investing in the production and use of products with lower greenhouse gas emissions and encouraging the development of internal and external e-mobility. We are working hard to ensure that citizens and our stakeholders are more aware of environmental issues.

#### **SDG 15 – Life on land:**

- **Targets 15.1, 15.4, 15.5, 15.6: By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements // Target 15.4: By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits essential for sustainable development // Target 15.5: Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species // Target 15.6: Ensure fair and equitable sharing of the benefits arising from the utilisation of genetic resources, and promote appropriate access to genetic resources** → We strive to protect the environment and its biodiversity in compliance with the compensation measures laid down by the Autonomous Province of Bolzano. For this reason, we carry out various activities to consolidate fish stocks, build ladders for fish in intake works, improve water courses and oversee the monitoring and management of Minimum Vital Flow. In addition, we have begun to implement measures to promote sustainable water use in collaboration with local farmers and municipalities.

### **Management of risks and opportunities**

Since it began activity in 2016, Alperia has been developing a business risk management system, with the aim of making it an essential, systematic component of decision-making processes.

There are two main risks for the group: volatility in energy prices, an issue that led to the development of an ad hoc hedging system, and the volatility of production which, being mostly linked to hydroelectric power, is affected by weather and rainfall trends. Alongside these are regulatory risks, given that the energy sector in Italy is heavily regulated. All these risks require constant monitoring by the Enterprise Risk Management function and others.



\***ESG** = Environmental, Social, Governance

## RISK TYPE

### STRATEGIC

Risks connected to high-level corporate strategies that top management must try to anticipate and govern: business changes, context changes, business and corporate development, sustainability plans

### OPERATIONAL

Risks connected to the energy sector, business operations, organisational structure, IT systems and control and reporting processes

### COMPLIANCE

Risks connected to a failure to comply with the laws and regulations applicable to the business

### FINANCIAL

Risks connected to the group's financial management

In 2019, in addition to measures to detect financial and plant risks, Alperia developed a project to assess the group's non-financial risks (with the exception of reputational risks). The process led the group to identify 58 risks and establish a corresponding framework. Non-financial risks (ESG) were assessed in relation to the action areas set forth in the Sustainability Plan (Employees, Green Mission, Community, Customers, Development and Innovation) and the identified objectives. Each risk was classified by type (Compliance, Operational, Strategic) and assessed by impact (insignificant, minor, moderate, serious, critical) and by probability of occurrence (remote, unlikely, moderately probable, probable, highly probable). We then went on to identify the inherent risk (i.e. without mitigation) and residual risk level (i.e. the level of risk remaining after the introduction of measures to reduce the impact and probability of the event occurring). Monitoring adequacy was assessed for each inherent risk as low, medium, medium-high or high.

The assessment revealed that 47 out of 58 risks could be classified as moderately probable or highly probable, with an impact between moderate and critical. Half of these risks were classified as "significant." These risks had already been identified and included in the 2017–2021 Sustainability Plan; specific management and containment measures had therefore already been envisaged. With the introduction of measures adopted by the group, most of the inherent high or significant risks have been reduced to medium or low relative risks. Following the analysis carried out, there are three remaining significant risks for Alperia:

- Ageing workforce: Alperia and its Human Resources department are preparing for this issue through an appropriate succession and talent-development plan.
- Development of electric mobility: Following the establishment of the new company Neogy Srl, with Dolomiti Energia SpA, the objectives in this area will be revised and no longer managed through the Alperia Sustainability Plan.
- Stakeholder engagement on sustainability issues: This is an area where Alperia is strengthening its efforts.

Alperia has also set itself the objective of defining a system for reporting to top management in order to facilitate the monitoring of corporate risks through the identification of specific indicators. This detailed analysis will also be extended to other group companies to ensure sustainability is approached with an organic and integrated vision. In 2018, structured analysis of HSE Health, Safety & Environment risks began for Alperia Greenpower Srl, with particular reference to the Top ESG (Environmental, Social, Governance) risks.

Finally, it should be noted that Alperia is part of the CSR Manager Network association ERM working group, established to respond to the increasingly pressing need of companies to manage risks with an integrated approach. For this reason, the ERM working group aims to: share sustainability experience and best practices, define guidelines and risk-management methodologies related to ESG issues, and experiment with these guidelines.

**Strategic objective:** We want to identify and actively manage our sustainability risks.

Operational objectives	Measures implemented in 2019	Measures planned in 2019	Deadlines (new)	KPI	Target value	Value in 2019
Implementation of a structured analysis and assessment of sustainability risks, followed by monitoring and risk control within the framework of sustainability and risk management	* Assessment of sustainability risks: Top ESG (Environmental, Social Governance) risks for the Alperia Group and Environmental, Health & Safety (EHS) risk analysis for Alperia Greenpower	Establishing a periodic monitoring and integrated reporting process for risk management at group level - In-depth analysis of reputational, climate and cyber risks	2023 (ongoing)	-	-	-

## Green Bond

In June 2016, Alperia SpA approved the establishment of a Euro Medium Term Note programme (EMTN programme) up to a total amount of €600 million. In the period between June 2016 and October 2017, it issued four tranches under the EMTN programme for a total nominal amount of €475 million, placed privately with qualified Italian and foreign investors and listed on the regulated market of the Irish Stock Exchange. In October 2017, Alperia placed a Green Bond on the European market for a total amount of €100 million with a 10-year maturity at a yield of 2,20% (the same as government bonds with the same maturity), destined exclusively for a Norwegian institutional investor. This issue represents the fourth tranche of Alperia's EMTN Programme and the first in Italy in Norwegian currency, thus consolidating its presence as an issuer on the European capital market. No new Green Bonds were issued in 2018. Alperia has used the proceeds of the Green Bond to:

### 1. Refinance debt used for the acquisition/creation of a portfolio of:

- hydroelectric plants in Northern Italy: 249 MW, generating about 0,9 TWh per year of energy. A similar amount of energy generated from conventional sources would have resulted in 0,76 Mton of CO<sub>2</sub> pollution per year in the case of coal plants and in 0,33 Mton of CO<sub>2</sub> pollution per year in the case of natural-gas plants (combined cycle)
- photovoltaic systems in central Italy: 1 plant for 4,3 MW of installed power, generating about 4,4 GWh per year of energy. A similar amount of energy generated from conventional sources would have resulted in 3,74 Mton of CO<sub>2</sub> pollution per year in the case of coal plants and in 1,62 Mton of CO<sub>2</sub> pollution per year in the case of natural-gas plants (combined cycle)
- biomass power plant (wood chips) in Northern Italy: 1 plant of 9,5 MW of installed power, generating about 20 GWh per year of energy. This plant has replaced a total system of equal power from domestic heating boilers powered by heating oil. According to the declaration verified and accepted by EMAS (Ecomanagement and Audit Scheme — the European Community Ecomanagement System and Audit), this plant saved about 5,1 Kton per year of CO<sub>2</sub> emissions in comparison with the previous diesel-fuelled heating system

According to the report released by ISPRA (Istituto Superiore per la Ricerca Ambientale), the Italian institute for environmental research, combustion of vegetable oil biomass is considered to have zero impact on CO<sub>2</sub> emissions; a similar amount of energy generated from conventional sources would have resulted in 0,22 Mton of CO<sub>2</sub> pollution per year in the case of coal plants and in 0,1 Mton of CO<sub>2</sub> pollution per year in the case of natural-gas plants (combined cycle);

### 2. Refinance debt used to purchase a section of the electricity distribution grid from another network operator served by the company in Northern Italy.

These investments have allowed the connection of 265 renewable energy production plants (hydroelectric, photovoltaic, biomass) to the electricity grid, with a total capacity of 51 MW and an average annual production of 91,5 GWh. As a result, there were 32.000 tonnes of CO<sub>2</sub> saved from being released into the environment.

### 3. Finance the modernisation of hydroelectric power stations and the electricity distribution grid, and continuing in 2019.

These investments made it possible to:

- achieve a significant reduction in grid losses by increasing the efficiency of the entire power management system
- increase the technological level of the grid by introducing several devices for "smart" solutions aimed at optimising power flows into the grid and minimising the need for further grid extensions
- increase the production of hydroelectric power by increasing the efficiency of the plant infrastructure

Alperia has commissioned DNV GL Business Assurance Italia S.r.l. to provide a Green Bond eligibility assessment. The scope of the DNV GL opinion is limited to the Green Bond Principles 2017. In the course of the assessment, DNV GL also took into account the requirements of Version 2.1 of the Climate Bond; however, at the time of review, no Technical Criteria for Hydropower was available for Issuer use.

## Overview of green bond issues

	<b>Issue date</b>	<b>Maturity date</b>	<b>Amount (EUR)</b>	<b>Placed amount (EUR)</b>	<b>% of the amount placed (end of 2018)</b>	<b>% used for refinancing</b>	<b>% used for new projects</b>	<b>Description of the project</b>
1.	June 2016	July 2023 (7 years)	100.000.000	100.000.000	100%	100%	0%	Refinancing of the debt used to acquire a portfolio of hydroelectric plants in Northern Italy
2.	June 2016	June 2024 (8 years)	125.000.000	125.000.000	100%	100%	0%	Refinancing of the debt used to acquire a portfolio of hydroelectric plants in Northern Italy
3.	December 2016	December 2026 (10 years)	150.000.000	150.000.000	100%	100%	0%	Refinancing of the debt used to acquire a portfolio of hydroelectric plants in Northern Italy
4.	October 2017	October 2027 (10 years)	100.000.000	100.504.681	100%	54%	46%	See below
			<i>Thereof</i>	18.793.436				Refinancing of debt used for the acquisition of a portfolio of hydroelectric and photovoltaic plants in Northern Italy
				35.480.450				Refinancing of the loan used to acquire a section of the electricity distribution grid in Northern Italy
				46.230.795				Finance for the modernisation of hydroelectric plants and of the electricity distribution grid

## CORPORATE STRATEGY

Alperia is already working on its 2020–2024 Strategic Plan, which will be presented in 2020. The document will see sustainability become an increasingly central issue, with the integration of the UN SDG into the planning for each business unit. This approach will make the group's commitment to CSR increasingly strategic and concrete. All investments, core and acceleration, will consequently be in line with the adopted business strategy to further modernise plants, increase the sale of energy and green gas with a specific marketing strategy and prioritise the development of innovation and energy-efficiency projects in the Smart Region.

In 2019, Alperia was involved in some significant corporate operations, namely: Dolomiti Energia Holding's entry into the share capital of Neogy (formerly Alperia Smart Mobility) – with a 50% share – to proceed with the joint development of the electric mobility sector; the acquisition of 86,53% of the shares of Gruppo Green Power SpA, a company based in Mirano (Venice) and active in providing services for the domestic energy-efficiency sector; and the acquisition of 70% of the shares of SUM – Unindustria Multiutilities Services SpA, operating in the market for electricity and gas sales to SMEs.

Figure 1: Financial Indicators {GRI 102-7}

	Unit	2019	2018	2017	2016	YtY variation (%)
<b>Revenue (EUR)</b>	<b>EUR</b>	1.562.756.371	1.272.182.146,00	1.123.490.760,00	1.198.192.638,00	23%
<b>Net financial position</b>	<b>EUR</b>	-395.815.750	-387.653.511,00	-421.765.304,00	-525.067.000,00	2%

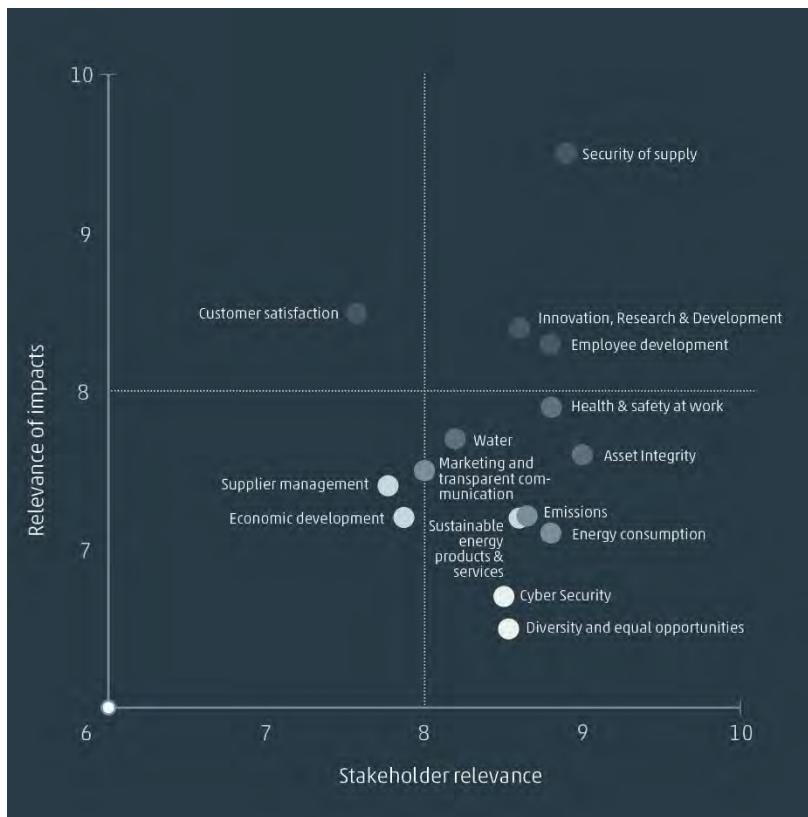
## Materiality Analysis {GRI 102-46}

To improve sustainability performance within the company, Alperia has created a group-wide sustainability reporting system. Through materiality analysis carried out in line with the Sustainability Reporting Standards defined by the Global Reporting Initiative (GRI), we have defined the relevant issues where Alperia is committed to developing concrete and coherent actions and initiatives. This materiality analysis ensures that the topics and sustainability indicators essential for Alperia are identified, managed and reported. The process to identify relevant topics was as follows:

- Preparation of a "long list" of relevant sustainability topics based on competitor analysis, relevant megatrends, the media, stakeholders' feedback and Alperia's activities. Thirty topics were identified in this analysis.
- Assessment of the potential impact of Alperia's activities on the topics selected, during an internal workshop with the departments and subsidiaries involved (ranked on a scale of 1 to 10, depending on the extent of the impact). Twenty main topics resulted.
- Definition of priorities with stakeholders in relation to the 20 selected topic blocks, as part of an anonymous online survey which 176 participants answered.
- Preparation of the materiality matrix through the selection and classification of topics based on relevance. A topic is considered essential if: it is among the 10 main topics in the stakeholder survey or among the top 10 significant impacts and/or scored more than 7 points in both the stakeholders survey and impact assessment.

The 15 most relevant topics, classified in the materiality matrix by relevance, are: supply security; innovation, research and development; employee development; customer satisfaction; occupational health and safety, asset integrity; emissions; energy consumption; water; marketing and transparent communication; cyber security; diversity and equal opportunity; sustainable energy products and services; supplier management; economic development.

## Materiality Matrix {GRI 102-47}



## Strategy and Action Areas

Employees, Green Mission, Community, Customers, Development and Innovation: these are the five action areas upon which we are developing our sustainability programme. Our aim is to reduce energy consumption and greenhouse gas emissions, develop the Smart Region of South Tyrol, increase customer and employee satisfaction, increase the share of turnover from the sale of sustainable products and services and create an added value of €1,2 billion for the whole province over a period of five years. It is a programme implemented by Alperia through the reconciliation of economic objectives with ecological and social goals. Being sustainable not only means looking after the province, but also thinking about the well-being and satisfaction of the people who work with us, as well as promoting the development of an increasingly smart and green South Tyrolean community. One of the ways this can be done is investing in research and development that will allow us to develop cutting-edge energy models capable of reducing consumption, waste and emissions. To make our efforts more concrete and coherent, the 2020–2024 Strategic Plan will be fully integrated with our sustainability strategy. According to the results of the annual review, 78% of the operating objectives planned for 2019 were achieved. The degree to which objectives are achieved affects company bonuses and, from this year forward, our executive MBO scheme. In 2019, we achieved 25 of the 32 objectives we set for ourselves. The seven that we did not achieve are:

- Reduce the duration of interruptions: In 2019, the duration of customer-supply interruptions recorded was 28,07 minutes with a 3% increase in SAIDI (power outage duration per customer) compared to 2018.
- No accidents involving employees and those of external firms: In 2019 we had 14 accidents which involved employees and two which involved external firms.
- 100% of significant tenders contain minimum sustainability requirements: In 2019, we reached 80%.
- Increase in the number of customers receiving e-bills to 90%: In 2019, we reached 27%.
- Organise regular feedback interviews with 100% of employees: In 2019, we reached 51%.
- Reduction in the rate of absence: In 2019, the rate of absence increased from 5,5% (2018) to 6,01%.
- Improvement of staff data quality: The development of an IT dashboard is still ongoing.



**Strategic objective:** We want to integrate sustainability into our business strategy in a structured way.

Operational objectives	Measures implemented in 2019	Measures planned in 2019	Deadlines (new)	KPI	Target value	Value in 2019
Integration of the sustainability strategy in the 2017–2021 Strategic Plan	<ul style="list-style-type: none"> <li>* First integration of the sustainability strategy in the 2017–2021 Strategic Plan as part of the 2018/2019 updates</li> <li>* Begin full integration of the sustainability strategy in the new 2020–2024 Strategic Plan</li> </ul>	<ul style="list-style-type: none"> <li>* Publication of the new 2020–2024 Business Plan with sustainability integrated in a structured way</li> <li>* Alignment of the sustainability plan timeline with the business plan</li> </ul>	2020 (ongoing)	-	-	-

## Alperia Outreach {GRI 102-40, 102-42, 102-43, 102-44}

We want to contribute significantly to the growth of the province in which we operate. To do this, we reach out to all our stakeholders, including shareholders and investors, customers, employees, the riparian municipalities and other municipalities in whose region our plants are located, suppliers, research institutes and interest groups, such as environmental, business and fishing associations, trade unions and consumer associations. We engage with them through different channels and on numerous topics, from environmental plans to innovation, working together to create a sustainable future for Alperia and the whole of South Tyrol.

- **Customers:** Between 2020 and 2024, Alperia's energy distribution company, Edyna, will replace the meters of its more than 200.000 customers with new generation Smart Meters. To prepare customers for this change, Alperia organised an event at the via Lungo Isarco Sinistro headquarters in Bolzano. During the evening, the advantages, features and the progressive replacement plan for Smart Meters were presented. Further communication activities are planned for 2020. The two-year user satisfaction survey will be repeated in 2020. In 2019, Alperia carried out a survey on brand perception, which showed Alperia's Net Promoter Score was clearly higher than the average Italian utility company.
- **Workforce:** During 2019, we launched a survey to assess employee propensity to green mobility. It emerged that, at the time, more than half of respondents used their own means of transport to get to work: 40% used cars or motorbikes and 38% went by bicycle or on foot. Only 1 in 25 used public transport. However, 71% said they would consider using a bike if they were given one or received a contribution towards buying one; 67% said they would consider using public transport (but more than half, only occasionally or for temporary needs) and more than half of employees would be willing to take part in carpooling for their home-work journey. But that's not all: training activities continued in 2019, including a specific safety day for each business unit, and a digitisation initiative for group managers. In 2020, a new Communications Day is scheduled for the presentation of the new business plan.
- **Suppliers:** Alperia continued to involve its suppliers in the search for more sustainable solutions in 2019. One example of this is the replacement of plastic coffee cups and spoons with biodegradable cups and wooden spoons in hot drink vending machines. Furthermore, as part of the cleaning tender, the request was made that all products comply with EC Regulation 648/2004 of the European Parliament and Council and with the minimum environmental criteria identified in chapter 6 points 6.1 and 6.2, relating to detergents for sanitation services, window cleaning and multi-purpose super-concentrated detergents. This commitment will continue in 2020, with the new tender for drink and snack vending machines including specific criteria for products such as organic, fair trade, wholemeal, vegan, and non-PET bottles.
- **Owners and Investors:** Through the shareholders' meeting, Alperia's sustainability strategy is approved by its owners and supported by investors who are presented with the set and achieved objectives. Dialogue is developed across different channels, including shareholders' meeting, the Supervisory Board report and periodic meetings with the owners.
- **Interest groups:** In 2019, Alperia signed various union agreements to harmonise working conditions of employees and ensure full fairness of treatment for all. Alperia is also involved in organisations and associations that deal with energy and innovation issues.
- **Citizens:** In 2019, Alperia organised several Open Days for the public, giving them the chance to find out how the plants are run. The days were certified as Green Events, a standard that Alperia has used since 2018 to endorse the organisation of sustainable events.
- **Research institutes:** Alperia invests in research and innovation in collaboration with some of the most important research institutes in the Alpine area, including the Free University of Bozen-Bolzano and Eurac Research Institute, its partner in the LIFE4HeatRecovery project. The project, which involves Alperia's Engineering & Consulting department, aims to develop a new generation of smart district-heating networks in which a large number of low-temperature heat sources (10–40°C) available within the urban circle can be effectively integrated. Collaboration with the Free University of Bozen-Bolzano was further strengthened in 2019, with Alperia taking part in a series of events and conferences such as the Sustainability Festival 2019, where it presented its commitment to climate change, and the "Energy Day – Synergies between economic and technical aspects" conference.

- **Community:** Alperia is contributing to the Protection System for Asylum Seekers and Refugees (SPRAR) project, which provides facilities for asylum seekers and refugees in small housing units in South Tyrol by making two of its buildings available. The first is located in Barbiano, which welcomed 17 people in March 2019 (a couple, a family with two small children and 11 single people, from Egypt, Libya, Morocco, Senegal, Sierra Leone, Guinea and Ivory Coast). The target is to provide support for 25 asylum seekers in total. The second is in Naturno, where Alperia Greenpower has given a building on lease to the Burgraviato District Community to use for the temporary reception of small immigrant communities. The lease is in place until 31 December 2020.

## Complaint Mechanism

**Strategic objective:** We want to proactively manage complaints, in order to prevent reputational and operational risks.

Operational objectives	Measures implemented in 2019	Measures planned in 2019	Deadlines (new)	KPI	Target value	Value in 2019
Introduction of a standardised, group-wide system for handling complaints	-	* Introduction of a standardised, group-wide system for handling complaints (e.g. riparian and hosting municipalities) with clear processes and responsibilities	2018-2021 (ongoing)	-	-	-



# Territory

We are a South Tyrolean Group and as such we are committed to actively contributing to the sustainable development of the environment and community in which we operate. Every choice we make is based on creating added value for the territory in the form of clean energy, jobs, support for the local economy and infrastructure safety.

7 AFFORDABLE AND CLEAN ENERGY



Ensuring access for all to affordable, reliable, sustainable and modern energy systems

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



Building a resilient infrastructure and promoting innovation and equitable, responsible and sustainable industrialisation

11 SUSTAINABLE CITIES AND COMMUNITIES



Making cities and human settlements inclusive, safe, durable and sustainable

12 RESPONSIBLE CONSUMPTION AND PRODUCTION



Ensuring sustainable patterns of production and consumption

## Sustainability Development Goals promoted by Alperia

<b>SDG 7 Affordable and clean energy</b>	<b>Ensuring access for all to affordable, reliable, sustainable and modern energy systems</b> → We invest in the development of sustainable energy solutions as well as in the modernisation of our plants and networks. We plan to invest €400 million over a period of five years, in order to make our structures even more resilient and reliable, even in the event of emergency or disruptions. It is our aim to primarily generate our energy from renewable sources (we are already at 94% today). We involve our suppliers in promoting sustainability and are developing new products such as green gas, services and business lines to help our customers be more energy efficient. Together with Edyna, our distribution subsidiary, we have planned to replace the meters of more than 200.000 customers with new-generation Smart Meters, which will allow more efficient management of energy resources. This activity involves an investment of over €41 million.
<b>SDG 9 Business, innovation and infrastructure</b>	<b>Building a resilient infrastructure and promoting innovation and equitable, responsible and sustainable industrialisation</b> → We have planned €88 million in investments for the Smart Region, which will be self-financed until 2021. Further projects will digitise assets and processes, backed by an investment of €18 million. We develop modern distribution networks, maintain and improve our systems, promote Smart City and eMobility projects and support innovative research projects with our Innovation Board and dedicated initiatives such as the Alperia Startup Factory.
<b>SDG 11 Sustainable cities and communities</b>	<b>Making cities and human settlements inclusive, safe, durable and sustainable</b> → We have launched projects that will encourage the development of more energy-efficient and sustainable cities. Examples include the Smart City project, investments in green mobility and expansion of the district heating network in Merano and Bolzano.
<b>SDG 12 Sustainable consumption and production</b>	<b>Ensuring sustainable patterns of production and consumption</b> → Through targeted marketing measures and information campaigns, we aim to raise our customers' awareness of more sustainable consumption patterns and we strive to continuously develop our green product and service portfolio. Our commitment to more responsible consumption also involves our suppliers, making sure that products meet sustainability standards. Lastly, we ensure that our communication is increasingly transparent, socially and economically sustainable and even more central to the new business plan.

Value generated for South Tyrol	<b>€ 235.822.778</b>	Duration of interruption per customer (min)	<b>28,07</b>
Net energy produced from renewable sources	<b>94%</b>	Energy availability index (hydro plants)	<b>86,43%</b>
Underground lines	<b>71%</b>	Total investments	<b>€ 104.700.000</b>
Number of interruptions per customer	<b>- 12% (1,51)</b>	Percentage of contracts awarded locally (based on number of contracts)	<b>62%</b>

## Economic Development

### Risk management

Risk	Management Approach
Risk of not including objectives aligned with climate change forecasts in Strategic Plans, increasing the Alperia Group's resilience for possible future scenarios.	We want to be ready to face climate change, increasing the group's resilience. For this reason, we include objectives directly related to this topic in our Strategic Plans and we are diversifying the business by increasingly focusing on sustainable products and services.
Risk of failure to achieve the strategic objectives of infrastructure evolution and development of the Smart Region, due to inadequate management of partnerships for innovation and technological development.	To contribute to the creation of the Smart Region of South Tyrol, we collaborate with important research bodies to develop new smart-grid solutions.
Risk of not creating added value for all stakeholders and communicating environmental and social performance in an ineffective way with a consequent unfavourable consumer, investor and other stakeholder perception on sustainability issues.	We want to effectively communicate with stakeholders and customers so as to avoid any type of unfavourable perception related to sustainability.
Risk of failure to implement both the environmental obligations of the concession contract and spending commitments with potential impact on the failure to improve the surrounding environment and the degree of satisfaction of riparian municipality communities.	We want to ensure the well-being of the riparian municipalities. For this reason, we build public works to support the environment and implement dedicated projects, directly involving the riparian municipality communities and respecting all the obligations laid down by provincial legislation.
Risk of failure to create added value for South Tyrol in the areas envisaged by the corporate strategy, such as: jobs, local taxes and social commitment.	We want to create €1,2 billion of added value for South Tyrol over a period of five years. For this reason, we take strategic action to support the local economy with taxes, job creation and social commitment.

As indicated in the 2017–2021 Strategic Plan, Alperia pursues sustainable economic growth, characterised by a moderate level of indebtedness, stable valuation and cash-flow generation that allows for significant investment and the annual distribution of dividends to shareholders. In 2019, we continued to diversify our activities, both economically and geographically, particularly as regards expansion in Northern Italy and strengthening green aspects of our business. In this way, we intend to increasingly shelter the group financially from the fluctuations in price and production that characterise the hydroelectric power market. This will result in significant financial value for South Tyrol in the medium and long term. In addition, there will be indirect effects from planned investments, as outlined in the strategic plan for the next few years. These include infrastructure development and the Smart Region, with which Alperia aims to make a significant contribution to creating an innovative and digital South Tyrol. To achieve these objectives, Alperia is planning numerous investments aimed at modernising its infrastructures and increasing the sale of green gas and energy.

Measures implemented in order to achieve the objectives of the 2017–2021 Strategic Plan, together with related updates, are available on the company's website at [www.alperia.eu](http://www.alperia.eu) in the News area.

## Economic Value {GRI 201-1}

Figure 2: Direct economic value generated and distributed {GRI 201-1}

Direct economic value generated and distributed	2019		2018		2017		2016		YtY variation (%)
	EUR	%	EUR	%	EUR	%	EUR	%	
Direct economic value generated:	1.562.756.371		1.272.182.146		1.123.490.760		1.198.192.638		23%
Revenue:	1.562.756.371		1.272.182.146		1.123.490.760		1.198.192.638		23%
Economic value distributed:	1.506.123.515		1.228.491.345		1.121.559.780		1.171.198.449		23%
Operating costs <sup>1</sup>	1.343.472.741	86,0%	1.067.875.802	84%	962.787.064	85%	1.016.056.476	85%	26%
Employee wages and benefits	73.093.184	4,7%	68.525.722	5%	67.720.277	6%	66.766.390	6%	7%
Payments to providers of capital	9.250.687	0,6%	13.443.507	1%	19.524.556	2%	18.606.436	2%	-31%
Payments to government <sup>2</sup>	78.524.074	5,0%	76.939.902	6%	69.869.747	6%	67.718.880	6%	2%
Community investments <sup>3</sup>	1.782.828	0,1%	1.706.412	0,1%	1.658.137	0,1%	2.050.267	0,2%	4%
Economic value retained:	56.632.857	3,6%	43.690.801	3%	1.930.980	0,2%	26.994.189	2,3%	30%

<sup>1</sup>The purchase of energy for trading purposes account for about 90% of the operating costs.

<sup>2</sup>This item includes taxes (IRES, IRAP, IMU, etc.) and other payments such as *canoni idrici, demianali, rivieraschi, energia gratuita, fondi ambientali*

<sup>3</sup>This item includes sponsoring costs and donations.

The revenue Alperia generated in 2019 was around €1,5 billion (+23% compared to 2018) with about €1,3 billion of the total covering operating costs. Around €235 million was allocated to South Tyrol in terms of direct added value (+6% compared to 2018); €78 million was paid to public bodies in the form of taxes, environmental funds, concession fees and electricity supplied free of charge to the province; €69 million was for wages and social security contributions paid to employees; €1,7 million was provided in the form of sponsorships with benefits for the local community and donations. The owners received €26 million in dividends in 2019 (+8% compared to 2018). Finally, procurement contracts with South Tyrolean companies amounted to around €60 million (+12% compared to 2018). The economic value distributed indirectly benefits the whole province; through collected taxes and distributed dividends, political institutions can fund numerous public initiatives that benefit the population.

Figure 3: Value for South Tyrol {GRI 201-1}

Value created for South Tyrol:	Unit	2019	%	2018	%	2017	%	YtY variation
Employee wages and benefits	EUR	69.682.656	30%	66.384.082	30%	67.720.277	37%	5%
Payments to government	EUR	78.524.074	33%	76.939.902	35%	69.869.747	39%	2%
Dividends to local governments	EUR	26.000.000	11%	24.000.000	10%	15.200.000	8%	8%
Community investments	EUR	1.782.828	1%	1.706.412	1%	1.658.137	1%	4%
Local procurement	EUR	59.833.219	25%	53.343.496	24%	26.501.483	15%	12%
<b>Total</b>	EUR	<b>235.822.778</b>	100%	<b>222.373.892</b>	100%	<b>180.949.643</b>	100%	6%

## Social responsibility

In 2019, Alperia again earmarked €100.000 for charitable donations. The Management Board chose recipients at two different points during the year. At Christmas, employees gave up their company gifts, providing South Tyrolean associations and organisations with €25.000 in total. The employees themselves nominated the charities to receive donations. Among the 50 nominated, management selected the following four associations, which had never before received support from Alperia:

- **Puppy Walker ODV** ([www.puppywalkerselvazzano.it](http://www.puppywalkerselvazzano.it)): selects, raises and trains guide dogs for the blind and assistance dogs for various types of disability, such as diabetic alert dogs, those for autistic people or for those with motor disabilities
- **Fondazione IEO-CCM**: supports research by the European Institute of Oncology and Cardiology Centre
- **Onlus Kinderkrebshilfe Südtirol Regenbogen**: provides support for minors affected by tumour pathologies and their families ([kinderkrebshilfe.it](http://kinderkrebshilfe.it))
- **Tierheim Obervintl** (Animal shelter in Vandoies): provides shelter and care for abandoned, stray or sick pets ([www.tierheim-obervintl.it](http://www.tierheim-obervintl.it))

The associations thanked Alperia and its employees for the donations, which enabled them to support various voluntary initiatives.

## Investment in infrastructure {GRI 203-1}

To ensure a safe and reliable energy supply, we continued with our investment programme for infrastructure modernisation in 2019. Alperia has planned investments of €400 million over a five-year period, to make our infrastructure more resilient and reliable, even in the event of an emergency or disruption. In 2019, €104 million was invested. This figure follows the €216 million invested over the previous three years. Of these funds, 40% was invested in distribution networks; 28% in production; 13% in district heating; 9% in the Smart Region and 10% in IT infrastructure, facilities, supply and trading and other areas.

Figure 4: Infrastructure investments and services supported {GRI 203-1}

Type of significant infrastructure investment projects	Unit	2019	%	2018	2017	2016	YtY variation
Energy distribution	EUR	41.571.000	40%	36.520.000	29.663.000	32.500.000	14%
Teleheating & services	EUR	13.059.000	13%	6.866.000	8.596.000	18.400.000	90%
Energy production – mandatory	EUR	19.078.000	18%	17.147.000	13.663.000	8.083.000	11%
Energy production – stay in business	EUR	10.777.000	10%	9.009.000	3.420.000	3.733.000	20%
Smart Region	EUR	9.235.000	9%	7.718.000			20%
IT infrastructure	EUR	7.836.000	7%	4.294.000	1.135.317	2.235.000	82%
Supply & trading	EUR	1.430.000	1%	412.000	825.000	1.059.000	247%
Facility investments	EUR	588.000	1%	1.587.000	1.646.225	1.823.000	-63%
Other investments	EUR	1.126.000	1%	828.000	2.751.106	2.756.000	36%
<b>Total</b>	EUR	<b>104.700.000</b>	100%	<b>84.381.000</b>	<b>61.699.648</b>	<b>70.589.000</b>	24%

## Investments in the electricity grid

Alperia's subsidiary Edyna manages a low, medium and high-voltage electricity grid. The grid covers 8.736 km with related plants and infrastructure. In order to ensure widespread and efficient coverage and reduce power interruptions, investment is made every year to modernise and upgrade the networks. The main projects in 2019 included:

- purchase of vegetable-oil transformers for secondary substations and low noise-impact transformers for primary substations
- overhead line inspections and plant cutting where necessary (31 plant-cutting operations per 20,35 km and 55 line inspections)
- burying of cables or use of helicopter cables which, even if affected by an adverse weather event, do not result in a power failure (in particular, 2 km of helicopter cables have been put in place)
- dismantling of the lines in Brunico and Sarentino, followed by those of Colma and Marlengo
- installation of three primary substations in 2019 and five new ones planned for 2020
- merger of the medium voltage grid from 16 kV to 20 kV, completed and already operational in Laives, to be followed by Bolzano and Merano
- gradual transition of grid operation from isolated neutral to compensated neutral via a Petersen coil in Cardano and the Resia station
- expansion of Petersen coils in Dobbiaco
- implementation of new automations on the network for better fault selectivity

Furthermore, the meters of over 200.000 customers will be replaced with new-generation Smart Meters in 2020. Meters will be replaced across Edyna's entire distribution area, which includes 96 South Tyrolean municipalities. Smart Meters will render the electricity grid even more intelligent and digital, with more efficient energy distribution. The new meter is capable of detecting energy consumption in greater detail, allowing customers to keep their energy use under control by viewing their home's consumption curve, which is updated every 15 minutes. This information will facilitate more rational energy use, opening the way for new technology developments in energy savings and home automation. The first municipalities to have their meters replaced will be Ora, Egna and Cardano. Edyna took on six new employees in 2019 to install Smart Meters, and foresees a savings of more than €41 million.

## Investments in district heating

In 2019, investment in the district heating sector, which has around 2.250 exchangers in South Tyrol, amounted to over €13 million (91% more than in 2018):

- extension of the district heating network to Merano
- extension of the district heating network in Bolzano
- the extraordinary replacement of Merano's gas turbine
- connection of a gasification plant in Merano, joining the network of energy from renewable sources

Construction of a biomass district heating plant in Merano also continues, involving an area of 13,000 square metres. The project will be completed in 2020.

## Investments in the hydroelectric sector

Hydropower is one of the major sources of renewable energy. It is ideal for electricity production, especially in a region such as South Tyrol. Alperia invests in the upgrading and modernisation of existing plants to ensure the safe and efficient management of this resource. In 2019, investment in the hydroelectric production sector amounted to €30 million. The most significant projects include:

- development of dredging systems in Monguelfo and Vizze
- asset integrity activities with monitoring and installation of specific equipment to improve the safety of hydraulic works (tunnels, penstocks etc.) in compliance with current legislation
- renovation of the Santa Valburga hydroelectric plant in Val d'Ultimo, with the replacement of the two hydroelectric power production units (turbine and alternator) of the power plant's electromechanical equipment and the machine transformer

- modification of cooling systems from open cycle to closed cycle as the new Santa Valburga plant went into operation and the works started in Cardano

During the year, the following activities were also carried out:

- management of intake works on rivers
- removal of sediment from the Rio Pusteria basin
- monitoring of the Minimum Vital Flow in five plants

### **Investments in the Smart Region {GRI 302.4, 203.1, 102.12}**

Building a Smart Region means creating digital highways that allow people, things and means of transport to communicate and interact. The goal is to apply maximum energy-efficiency principles so as not to waste our renewable energy and to reduce CO<sub>2</sub> emissions as much as possible. A Smart Region has an infrastructure that promotes development of digital and connected communities; mobility is electric and consumption of primary sources is reduced and efficient. The transformation of South Tyrol into a modern, sustainable and innovative region is an ambitious programme to which Alperia is contributing with its investment programme.

According to the Strategic Plan, €88 million in investments are planned for the Smart Region. This will be self-financed until 2021, with a further €18 million earmarked for other projects and digitalisation of assets and processes. In 2019, Alperia Bartucci received €3,5 million (€2,1 million in 2018), Alperia Fiber received €4,3 million (€4,6 million in 2018) and Neogy €1,4 million.

The main 2019 activities included:

- energy efficiency consultancy for over 150 companies, including Pirelli factories worldwide
- creation and development of an artificial-intelligence system for building air conditioning (Sybil)
- development and launch of a new business model for building energy efficiency
- completion of the connection of 3.500 homes in the municipalities of Sesto, Chiusa and Tirolo to the broadband network, bringing more than 500 service users online
- creation, development and launch of an IoT (Internet of Things) network in South Tyrol
- launch of pilot project for prototype-connected sensors in the agricultural sector, in order to render water consumption more efficient
- launch of pilot project to create an Energy Community in collaboration with the Suedtiroler Bauernbund Union of Direct Farmers and Growers

### **eMobility {GRI EU7}**

Alperia Smart Mobility, the company responsible for developing electric mobility, saw Dolomiti Energia Holding, energy provider of the Autonomous Province of Trento, enter into its share capital with a 50% stake, leading to the establishment of the Neogy joint venture. For this reason, eMobility-related activities are no longer consolidated. The aim of the merger is to encourage electric-mobility development by taking advantage of the infrastructure already developed by Alperia and Dolomiti Energia. Through the merger of the two existing networks, Neogy has more than 800 charging points and plans significant investment to expand the charging station infrastructure to other areas of the country, with public charging stations and dedicated charging points at commercial and accommodation facilities and a wide range of services.

All Neogy charging stations are powered by 100% renewable energy, produced in the hydroelectric power plants belonging to Alperia and Dolomiti Energia groups. The infrastructure guarantees the widest interoperability between different systems and circuits, as well as easy accessibility. All charging points will be available both to customers who have a contract with the company or its other partners, and to occasional customers. Similarly, Neogy customers will be able to charge their vehicles across Italy and Europe by using other affiliated operators' infrastructure. The estimated potential market, in a border area such as Trentino-Alto Adige, is 400 thousand users, with 30% of monthly charging today already on a roaming basis. To this end, an agreement has been finalised with Enel X, an Enel group company for the development of electric mobility and digital services, and with the partners of the European roaming platform Hubject, to allow Neogy customers to access over 70 thousand charging stations across Europe. Neogy's chargers will be reciprocally available to 300 e-mobility providers. Agreements have also been

signed with local cooperatives in Trentino and Emilia-Romagna that will allow further infrastructure to be built regionally.

The most important agreements include one with Jaguar Italia for the installation of ten hyperchargers. These are high-speed charging columns developed by the South Tyrolean company alpitronic. They have a potential power of up to 150 kW, three times that of normal FAST columns and in the future could reach up to 300 kW, charging a vehicle in less than half an hour. The advantage of the hypercharger is its modularity. It can initially be configured at a lower power level and subsequently modules can be added to add more power. To charge a vehicle, customers simply use their card or smartphone app. The charging station can also be accessed by paying directly on-site with a credit card or PayPal, through an innovative software system developed with Siemens Italia. Some trial collaborations have also begun with UniCredit, for the development of the company's internal mobility, and with the multi-utility company Acea Roma, which acquired 20 Neogy chargers.

Neogy is also participating in three European projects:

- **Storage4Grid:** A research and innovation project funded by the European Union's Horizon 2020 programme, a collaboration between Alperia's Engineering Service and Edyna. By using a real scenario, the project aims to assess future demand for the domestic and commercial/industrial use of electric mobility, by increasing the spread of storage technology at the distribution-network and end-user level. It does this through the development of a new holistic methodology for modelling, planning, integration, management and evaluation of distributed energy-storage systems. There are already two storage systems installed in Edyna's car park.
- **Mobster:** This project, funded by the European Union and headed by Italy's Eurac Research Institute in Bolzano, aims to increase the attractiveness of cross-border locations with strong tourist appeal. The expected impact is an increase in energy produced from renewable sources, the reduction of CO<sub>2</sub> emissions and the development of a charging network to encourage the use of electrically powered vehicles. Mobster focuses on three areas: South Tyrol, Verbano-Cusio-Ossola and the Canton of Ticino.
- **LIFE:** This European project aims to increase the use of zero-emission cars and vehicles by 2025. The LIFE project is structured into five activity areas. The first relates to the diffusion of zero-emission vehicles, for private and public mobility alike. The second area relates to the supply infrastructure with 33 new charging stations for electric cars and five hydrogen distributors between Bolzano, Merano, Brunico, Val Venosta and the A22. Bolzano, Brunico, Merano and Val Venosta will also be the first areas chosen to test a fleet of zero-emission vehicles for private and public mobility. The final two project areas will relate to marketing initiatives and the dissemination of know-how. The LIFE project partners are Alperia, the energy consortium of Val Venosta, the Brunico public service company, STA (Strutture Trasporto Alto Adige SpA), Eurac, the A22 highway and SASA, with the latter being responsible for coordinating all the initiatives. In total, the planned investment in South Tyrol is around €22,6 million. With €7,9 million from European funds, around €7 million is being made available by the Province of Bolzano, with the remaining €7,8 million divided among the partners. The project officially launched on 1 January 2019 and will continue for eight years.

Around 230 public charging stations are currently installed within South Tyrol; that's 130 more than the previous year. At the end of 2019, 400.000 kWh had been drawn (double compared to 2018), with 2.273.000 km travelled and 400.000 kg of CO<sub>2</sub> saved (1.100.000 km and 200.000 kg in 2018, respectively).

A co-marketing campaign with Car-Server was also developed to promote electric mobility through e-test-days.

Finally, there is continued participation in Motus-E, an association made up of industrial operators and academia, together with environmental and consumer associations. The aim is to accelerate the development of electric mobility in Italy through dialogue with institutions, public involvement and the spread of training and information programmes.

**Strategic objective:** We want to create added value for South Tyrol in various areas, including jobs, local taxes and social commitment.

Operational objectives	Measures implemented in 2019	Measures planned in 2019	Deadlines (new)	KPI	Target value	Value in 2019
Investments of 400 million euro over 5 years in the core business	Investments in measures to improve plant performance in terms of availability, reliability and efficiency	Investments in measures to improve plant performance in terms of availability, reliability and efficiency	2017–2021 (ongoing)	Investments (EUR)	400 mln	105 mln
1,2 billion value added for South Tyrol in 5 years	* Creation of local added value (payments to public bodies e.g. environmental funds, staff remuneration and benefits, contracts with local companies, sponsorships and donations, dividends to local shareholders)	* Creation of local added value (payments to public bodies e.g. environmental funds, staff remuneration and benefits, contracts with local companies, sponsorships and donations, dividends to local shareholders)	2017–2021 (ongoing)	Local economic added value (EUR)	1,2 billion	236 million
Assessment of cooperation opportunities for the inclusion of migrants in South Tyrol.	* Meetings with social associations to explore opportunities for collaboration (e.g. Corporate Volunteering, traineeships)	* Collaboration in the Protection System for Asylum Seekers and Refugees (SPRAR) project, which provides reception facilities for asylum seekers and refugees in small housing units in South Tyrol with two buildings made available - one in Barbiano, which welcomed 17 people in March 2019 and aims to support 25 asylum seekers in total - a second in Naturno, where Alperia Greenpower has given a building on lease to the Burgraviato District Community to use for the temporary reception of small immigrant communities. The lease is in place until 31 December 2020.	2020 (ongoing)	-	-	-
Expansion of the ultrabroadband network and creation of a network that enables access to the internet of things in South Tyrol	* Expansion of fibre-optic internet: - connection of the Alperia Greenpower and Edyna plants - connection of 3.500 homes in the municipalities of Sesto, Chiusa and Tirolo to the broadband network,	* Further expansion of fibre-optic internet	2017–2021 (ongoing)	Number of households reached by the ultrabroadband network	3.500	526 (ongoing)

	bringing more than 500 service users online				-	
Promotion of cooperation for the development of an innovative and smart infrastructure	* Implementation of the Smart Edyna Project with activation of the Smart Water, Smart Vehicle, Smart Lighting and Smart Access areas; * Development of the Smart Land pilot project with the installation of 100 moisture sensors in the fields of 60 South Tyrolean fruit and vine growers	* Continuation of the Smart Edyna Project with activation of the Smart Waste area; * Continuation of the Smart Land Project with results monitoring	2017–2021 (ongoing)	Number of installed Sensors	-	100 (ongoing)
Active collaboration in research projects for the development of new solutions for smart grids	* Conclusion of the SmartNet project for the networked storage of electricity produced from renewable sources and of the Smart City project (ended in 2018) * Implementation of the STORAGE4GRID project (ends 2020), for electric mobility, and the FLEXIGRID project (launched 2019), with the objective of making the electricity grid safer, more reliable, sustainable and innovative. The latter project involved a test site in the Sarntal Valley.	* The European research STORAGE4GRID project continues, through which we intend to assess future demand for domestic and commercial/industrial use of electric mobility, by expanding storage technology at the distribution-network and end-user level, through development of a new holistic methodology for modelling, planning, integration, management and evaluation of distributed energy storage systems. There are already two storage systems installed in Edyna's car park; * Continuation of the FLEXIGRID research project, which will lead to the development of future secondary electrical substations with the use of new generation smart meters.	2017-2021 (ongoing)	Number of completed projects	3	2

## Security of Supply

### Risk management

Risk	Management Approach
Risk of inadequate measures/failure to manage long-term climate change with potential variable demand of various stakeholders determined by different weather scenarios (e.g. expansion of the heating network vs. global warming)	We want to be ready for climate-change forecasts, which is why we are diversifying our portfolio.
Risk of inadequate investment in measures to improve plant performance in terms of availability, reliability and efficiency	To improve plants in terms of availability, reliability and efficiency, we have planned investment of €400 million over a period of five years in the core business (Strategic Plan 2017–2021). We are also expanding the district heating network in Bolzano and Merano.
Risk of potential malfunctions/interruptions in the distribution of energy, gas and district heating due to: - inadequate activities to prevent damage from adverse weather events - inadequate inspections, maintenance and planning of new connections	To avoid the risk of potential malfunctions in electricity distribution and with the aim of reducing both the frequency and duration of power interruptions themselves, we have created a portal for businesses where they can register to view the status of underground lines. In addition, we've taken out insurance policies in order to mitigate the potential damage of adverse weather events.
Risk of potential malfunctions/interruptions in the distribution of electricity due to: - infrastructure inadequacy of the electricity grid (e.g. availability, reliability, efficiency) - inadequate level of automation (e.g. detection of faults and malfunctions) - inadequate new connection planning	To improve service quality and grid-infrastructure modernisation, ensuring greater stability, we have provided for the progressive burial of cables to ensure greater stability of the distribution infrastructure.
Risk of inadequate connection expansion measures in the Bolzano district heating network with potential impact on customer satisfaction	We are expanding the district heating network in both Merano and Bolzano and have also connected Edyna with district heating.

Responsible infrastructure management means not only preventing faults and disruption for users, but also eliminating all inefficiencies that require the use of resources and energy. For this reason, Alperia ensures the resilience of its plants every day with constant monitoring and maintenance activities, in addition to a structured investment plan.

### Green energy supply {GRI EU2; GRI EU10; GRI EU30}

Alperia supplies sustainable energy to the whole of South Tyrol through the 34 power plants it manages. About 90% of the energy produced comes from local hydroelectric resources; the quantity produced is higher than the province's annual energy consumption. South Tyrol's average annual electricity consumption is around 3 TWh. In 2019, Alperia produced 4.044 GWh of hydroelectric power, around 2% more than the previous year.

In addition, we produced 22 GWh from photovoltaic systems, 47 GWh from cogeneration (compared to 53 in 2018) and 260 GWh from biomass (221 in 2018). Given the upward trend in electricity consumption, evidenced by data collected by TERNA (2008–2017), and assuming that the average production volumes do not change significantly over time, it is considered that Alperia's hydroelectric production can cover electricity demand in South Tyrol up to 2050.

Figure 6: Net energy output broken down by primary energy source<sup>1</sup> {GRI EU2}

	Unit	2019	% of total energy output	2018	2017	2016	YtY variation
<b>Total net electric energy produced</b>	Gwh	<b>4.373</b>		<b>4256</b>	<b>3712</b>	<b>4043</b>	3%
Thereof	Hydro	Gwh	4.044	88%	3.961	3.344	3.681
	Photovoltaic	Gwh	22	0%	21	24	22
	Cogeneration (gas/gasoline)	Gwh	47	1%	53	66	66
	Biofuel	Gwh	260	6%	221	278	274
Total net energy produced for heating <sup>2</sup>	Gwh	<b>217</b>	5%	<b>199</b>	<b>195</b>	<b>182</b>	9%
<b>Total net energy output</b>	Gwh	<b>4590</b>		<b>4455</b>	<b>3907</b>	<b>4225</b>	3%

<sup>1</sup>Net energy output includes energy produced in our consolidated plants (34 hydroelectric plants, 5 heating plants, 3 photovoltaic parks, 7 photovoltaic plants, 1 biofuel plant) at 100%

<sup>2</sup>Includes thermal energy produced by biomass, gas, gasoline and energy acquired from waste plant. Heat acquired from waste plant accounts for approximately ¼ of produced thermal energy.

Net energy produced from renewable sources	Unit	2019	2018	2017
	Gwh	4326	4203	3977
	%	94%	94%	94%

Figure 7: Quantity of products provided {GRI 102-7}

	Unit	2019	2018	2017	2016	YtY-Variation
Electricity sold to end-customers	Gwh	5423	3994	3212	3460	36%
Trading	Gwh	4788	1907	2310	5226	151%
Thermal energy sold to end-customers	Gwh	217	199	195	182	9%
Natural gas sold to end-customers	MSmc	464	367	328	371	19%

#### A secure distribution grid {GRI EU4; GRI EU28; GRI EU29}

Alperia manages a large part of the electricity grid in South Tyrol through its subsidiary Edyna and a 113 km natural gas distribution network in four municipalities. Specifically:

- 8.736 km of electricity distribution lines, of which 71% is underground
- 181 additional km of underground lines
- 96 municipalities supplied out of a total of 116 municipalities in South Tyrol
- 2,6 TWh electricity distributed in South Tyrol
- 233.335 customers connected to Alperia's electricity grid
- 5.169 km low-voltage lines (+1%)
- 3.315 km medium-voltage lines
- 252 km high-voltage lines
- 37 primary AT/MT substations
- 4.121 secondary MV/LV substations
- 46 MV switching substations

Edyna is replacing old meters with new generation Smart Meters, which are able to measure consumption in greater detail and communicate with other devices. This represents a new frontier in Smart Home development. The new meters will allow customers to keep their energy use under control by viewing their

home's consumption curve. With updates every 15 minutes and new features allowing for a connection to other technology and devices, the meters monitor energy consumption in greater detail and show exactly how much energy each individual appliance uses. Once replaced, the old meters will not be treated like normal waste: 96% will be recycled to produce chairs. Each new chair recycles the plastic from 18 replaced meters. This too demonstrates how crucial sustainability and circularity are to our work.

Through Edyna, Alperia is also working on the development of Smart Grids that allow production, storage, grid and consumption to be managed through a single system. The project, developed together with Regalgrid Europe S.r.l., a leader in the digital energy sector, provides a platform that offers users advanced features to monitor, optimise and manage self-produced and consumed energy in real-time, both at the individual user and community level. This is an evolving area, also set up through the European Flexi-grid project. By exploiting digital technologies, smart grids, IoT and blockchain, the intention is to provide a transparent platform for data management, transmitting real-time information on grid conditions to the operator. As a result, grid flows are optimised, ensuring reliability, stability and security along the entire electrical grid of the TSO (Transport System Operator) and DSO (Distribution System Operator).

Edyna is also implementing the Edyna Smart platform in its headquarters, monitoring and managing consumption as follows:

- Smart Water: rainwater collection for irrigation, measurement of water transit and detection of soil moisture, as well as intelligent irrigation based on forecast and/or received weather data
- Smart Vehicle: intelligent parking system at the Edyna headquarters, which identifies free spaces, counts vehicle numbers, provides a parking system for bikes and motorbikes and has electric-charging columns
- Smart Lighting: intelligent lighting system with detection sensors
- Smart Access: automatic access recognition system

Once the development phase is complete, the system will be brought to market to encourage better energy resource management.

## **Monitoring and accountability**

Edyna monitors and manages electricity grids and gas network 24 hours a day, 365 days a year, through a remote monitoring system in Bolzano that guarantees a safe, high-quality distribution service. Edyna oversees the management of these networks and, in the event of malfunctions, has a 24-hour emergency call centre with bilingual staff and a team of experts to promptly repair any faults. All unplanned interruptions of the distribution network are recorded at the remote monitoring system and analysed during monthly meetings. These meetings are attended by the four area managers (East Zone, West Zone, Central Zone and South Zone). Together with the managers of the Technical Area and Network Operation, they identify the worst lines, i.e. the lines that are most affected by issues, and the root causes of the interruptions. In 2019 there were 1,51 supply interruptions per customer. That represents a SAIFI (System Average Interruption Frequency Index) reduction of -12% compared to 2018; the duration was 28,07 minutes, an increase of 3% in SAIDI (System Average Interruption Duration Index) compared to 2018. With careful distribution network planning, expansion of remote monitoring systems, optimisation of service availability and future investments in software, SAIDI/SAIFI indicators can be maintained and even improved, which means better continuity of power supply for Edyna's customers.

**Figure 9: System Average Interruption Duration/Frequency Index (SAIFI/SAIDI)**  
{GRI EU28/29}

	Unit	2019	2018	2017	2016	YtY variation
<b>SAIFI (Frequency of interruptions per customer)</b>	nr	1,51	1,73	1,69	1,59	-12%
<b>SAIDI (Power outage duration per customer)</b>	minutes	28,07	27,36	20,74	23,66	3%

To limit inefficiencies, Edyna has:

- improved the quality of the distribution service and modernised the grid infrastructure
- started remote control on 92 secondary substations already in service and newly built
- continued with high- and medium-voltage connections, through the installation of three primary substations
- merged the medium- and high-voltage grid in Laives
- continued to bury power lines, currently equal to 71% of the grid, reducing environmental impact and improving the grid's resilience. In detail, Edyna now has:
  - Edyna low voltage: 5.169 km – of which 78 are underground
  - Edyna medium voltage: 3.315 km – of which 65 are underground
  - Edyna high voltage: 252 km – of which 8 are underground

Figure 8: Distribution Network<sup>1</sup> {GRI EU4}

Unit	2019					2018					2017				
	Above ground	Under-ground	Total	Percent age of under-ground lines	Above ground	Under-ground	Total	Percent-age of under-ground lines	Above ground	Under-ground	Total	Percent-age of under-ground lines			
Length of transmission and distribution lines															
High tensions	km	233	19	252	8%	211	13	224	6%	198	12	210	6%		
Medium tension	km	1171	2144	3315	65%	1237	2067	3304	63%	1433	2018	3451	58%		
Low tension	km	1126	4043	5169	78%	1155	3945	5100	77%	1301	3816	5117	75%		
Total	km	<b>2530</b>	<b>6206</b>	<b>8736</b>	71%	<b>2603</b>	<b>6025</b>	<b>8628</b>	70%	<b>2932</b>	<b>5846</b>	<b>8778</b>	<b>67%</b>		

<sup>1</sup>Distribution network includes the network of Edyna Srl, Edyna Transmission Srl, the Municipality of Parcines and the Municipality of Laces

Gas distribution network		Unit	2019	2018	2017	YtY variation	
		km	113	113	112	0%	

			Unit	2019	2018	2017	YtY variation
Municipalities supplied with electricity and gas out of a total of 116 South Tyrolean municipalities			No. municipalities	96	98	98	-2%

End-customers connected to the electricity grid		Unit	2019	2018	2017	YtY variation
		No. POD Low tension	233335	232207	229000	0%

Electricity distributed to end-customers in South Tyrol		Unit	2019	2018	2017	YtY variation
		TWh	2,6	2,6	2,5	0%

Substations <sup>1</sup>		Unit	2019	2018	2017	YtY variation
Primary HV/MV substations		No.	37	36	33	3%
Secondary MV/LV substations		No.	4121	4112	4025	0%
MV switching substation		No.	46	48	47	-4%

<sup>1</sup> Includes substations of Edyna Srl, Edyna Transmission Srl, the Municipality of Parcines and the Municipality of Laces

In August, Edyna faced a service interruption following a lightning strike that put two high-voltage lines to Bolzano South out of service. This resulted in blackouts for the municipalities of Bolzano, Laives, Appiano, Settequerce, Vilpiano, Terlano, Andriano, Nalles, Postal, Gargazzone, Lana, Tesimo, Prissiano, Renon, San Genesio and Cornedo all'Isarco. By contacting the Terna Operations Centre, the national transmission grid operator, Edyna restored supply to all the affected areas in four to six minutes.

For even more efficient management of future emergencies, Alperia signed a memorandum of understanding with the Civil Protection Agency, to launch a stable and resilient communication system.

### **Snowfall in November**

In November 2019, heavy snowfall hit South Tyrol and many people were affected by power outages. The areas most affected were Val Pusteria, Val Badia, Val Gardena, Valle Isarco and Val d'Ega, where a state of emergency was declared as a result of the high number of interrupted power lines. Overall, 57 medium-voltage power lines suffered one or more failures. On 13 and 16 November, the peak was reached, with 25.000 users simultaneously disconnected. Edyna took action through its own staff, those from contracted third-party companies and/or those brought in specifically to tackle the emergency, and with companies from the neighbouring provinces. During the work, temporary generators (GE) were installed to restore service as soon as possible. Indeed, most Edyna services were back to normal within 6 days.

### **Capacity market**

Through the tender process managed by Terna, Alperia will make the generation capacity of some of its hydroelectric power plants available to contribute to the stability of the national electricity system, in return for an overall premium of €90,4 million. Alperia was awarded 557 MW for 2022 and 614 MW for 2023, and 46 MW for plants under complete refurbishment, the premium for which amounts to €51,7 million for 15 years. The goal of the capacity market is to lower the costs of the national electricity system, managing peaks in energy demand and avoiding the risk of blackouts, even temporary ones. The Ministry for Economic Development (MiSE) estimates that adoption of the capacity market will reduce market costs for the Italian electricity system by around €3,35 billion. According to the MiSE, if the capacity market were not adopted, it would neither be possible to guarantee the expected 2025 shutdown of the coal-fired power plants still in operation nor to support further expected growth of renewables. With the same systems, Alperia will continue to participate in the dispatching services market with additional remuneration provided through the sale of energy. All this will allow Alperia to make a significant contribution to safely managing the transition to a decarbonised energy system, in line with Pnec (the National Energy and Climate Plan), with expected benefits for the Alperia Group in terms of lower volatility of hydroelectric generation margins, which are exposed to weather and risks associated with market pricing.

### **District heating: safe and sustainable heat**

District heating is now the most environmentally friendly, safest and simplest way of providing buildings with heat and hot water. It is a remote system that works by transporting heat generated by large cogeneration plants through a network of pipelines to individual homes. It is considered particularly safe as it replaces the many smaller gas and diesel fuelled boilers, which can be unstable and are, above all, unsustainable.

Through its subsidiary Alperia Ecoplus, Alperia operates five district heating plants in South Tyrol, located in Bolzano, Merano (where the tender for the construction of a new biomass plant is in progress), Sesto, Chiusa and Lazfons. The heat begins its journey at the production plant and is delivered directly to homes through an underground network that is expanding every year, resulting in annual savings in CO<sub>2</sub> emissions of several thousand tonnes. To produce thermal energy, Alperia uses both biomass and natural gas. In addition, it utilises residual heat from industrial processes as well as heat from Bolzano's waste-to-energy plant, which recycles municipal waste. For demand peaks or in the event of failure of the biomass boiler, district heating plants also have gas or diesel boilers. Three plants are also equipped with co-generators (plants that produce electricity and heat at the same time and therefore ensure extremely high energy-efficiency levels) that are fuelled by natural gas.

In the year 2019, there were 2,250 exchangers providing heat for thousands of South Tyrolean families. Work to expand the network has continued, specifically:

- with an investment of €6.8 million, excavation work began in Bolzano to lay new pipes to connect many more public and private buildings by the autumn of 2020. This further reduced fossil-fuel consumption and CO<sub>2</sub> emissions, as required by the Municipality of Bolzano's Climate Plan. Through the use of this network and waste heat from the incinerator, around 14.800 tonnes of CO<sub>2</sub> emissions were saved in 2019. The expansion works began at the crossroads at via Genova and via Alessandria, stretching along the bike path on the right bank of the Isarco to Druso Stadium, encompassing a part of via Rovigo. The second lot covers viale Europa, via Sorrento, viale Druso, via Amalfi, via Roen, via Gaismair and the remaining part of via Rovigo. For the Bolzano district heating service, Alperia mainly uses the residual heat from the city's waste-to-energy plant. Inside Alperia Tower, a 40-metre high heat-storage tank at the Bolzano South district heating plant, water warmed by the residual heat of the waste-to-energy plant is stored and then fed into the district heating network when necessary. The two expansion lots are a further step forward in Bolzano's plan to expand its district heating network, as envisaged in the Municipality of Bolzano's Masterplan, CO<sub>2</sub> Plan and Sustainable Energy Action Plan (SEAP). Connecting the capital's hospital to the district heating network is strategically important, powered by the heat from the waste-to-energy plant. This is considered an essential part of the district heating expansion plan and the hospital complex will be the largest user of thermal energy, with a supply of approximately 8,300 MWh of energy. The connection will make it possible to save more than 1,500 tonnes of CO<sub>2</sub> emissions every year. It will also be possible to connect the Scuola Superiore di Sanità Claudiana as well as the White Cross and Red Cross buildings to district heating, thereby saving another 700 tonnes of CO<sub>2</sub> every year. It should also be noted that a tax credit is offered to anyone using district heating.
- In Merano and Lagundo, Alperia supplies 475 substations with district heating, providing green heat to more than 5.600 families and approximately 520 additional company, school and office users. Here too, expansion works began in 2019, on the stretch of network between via Cassa di Risparmio and piazza della Rena. As part of this expansion work, the Kurhaus, the symbol of the city on the Passer River, will also be connected to the district heating network and supplied with eco-friendly thermal energy. Alperia is also building a new biomass district heating plant in Merano, in order to guarantee an even more sustainable and reliable heat supply. Currently, the district heating system saves 8.000 tonnes of CO<sub>2</sub> emissions every year, roughly equivalent to the CO<sub>2</sub> absorption of a 5-square-kilometre forest; this represents 1/5 of the Municipality of Merano's surface area.

#### The Bolzano district heating system in detail



Heat created from waste. (1) Steam produced by combustion in the Bolzano waste-to-energy plant drives a turbine (2) to produce electricity. The residual heat (3) is used by the Alperia district heating plant, meeting citizens' needs. In addition to the heat from the waste-to-energy plant, Alperia has a heat storage tank (4) and spare boilers and co-generators (5) which allow it to cope with demand peaks. From the power plant, the heat, in the form of hot water, is fed into the district heating network (6), made up of a closed circuit of underground pipes. The hot water flows into the district heating network then onwards to individual homes. Here, thanks to a heat exchanger (7), energy is used to heat the sanitary water of homes and heating systems. All this happens without the loss of any water. After the heat has been released, the water goes back to the plant through the district heating network (8) to be reheated and resume its cycle. In addition to heating private homes, the district heating system meets the energy needs of many public buildings in the city, including the hospital (9).

**Strategic objective:** We want to guarantee a safe and efficient energy supply.

Operational objectives	Measures implemented in 2019	Measures planned in 2019	Deadlines (new)	KPI	Target value	Value in 2019
Expansion of the district heating network in Bolzano	Expansion of the connections and the network (119 new exchangers)	* Expansion of the connections and network in Bolzano	2017–2021 (ongoing)	Number of exchangers		256 (Bolzano) / 2.250 (South Tyrol)
Reduction in duration of interruptions	* Improvement in service quality and modernisation of the network infrastructure to improve network stability	* Improvement in service quality and modernisation of the network infrastructure to improve stability	2020 (ongoing)	SAIDI (minutes)		28,07
Reduction in duration of interruptions	* Improvement in service quality and modernisation of the network infrastructure to improve network stability	* Improvement in service quality and modernisation of the network infrastructure to improve stability	2020 (ongoing)	High SAIDI concentration (minutes)	28	3,99
Reduction in duration of interruptions	Entry into service of a new primary substation in Brenner, new stalls at the Resia and S. Valburga substations. In addition, 92 secondary substations were remote controlled	* Remote control of secondary substations already in service and newly built	2020 (ongoing)	Medium SAIDI concentration (minutes)	45	21,51
Reduction in duration of interruptions	Commissioning of Petersen coils in Cardano and the Resia station and finally upgrading of Dobbiaco	* Gradual transition of the grid operation from isolated neutral to compensated neutral via a Petersen coil	2020 (ongoing)	Low SAIDI concentration (minutes)	68	52,63
Reduction of power outages	below	below	2020 (ongoing)	SAIFI (number of interruptions per user)		1,51
Reduction of power outages	31 plant cutting operations, 55 line inspections, 20,35 km of plant cutting carried out	* Inspection and tree cutting programme for overhead lines	2020 (ongoing)	High SAIFI concentration (number of interruptions per user)	1,2	0,17
Reduction of power outages	Increased underground MV lines by 76 km, reduced naked overhead lines by 76 km. 2 new HV lines at the Brennero primary substation	* Replacement of sections of overhead lines with underground cables and construction of new HV and MV connections	2020 (ongoing)	Medium SAIFI concentration (number of interruptions per user)	2,25	1,14

Reduction of power outages	* Adoption of 2 km of helicopter cables	* Implementation of new automations on the network for better fault selectivity	2020 (ongoing)	Low SAIFI concentration (number of interruptions per user)	4,3	2,89
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## Asset Integrity {GRI EU21}

### Risk management

Risk	Management Approach
Risk of failure to manage inspection and maintenance activities for dams and other hydraulic works (e.g. pipelines, tunnels etc.) to guarantee their structural integrity and avoid potential total or partial collapses, which have the potential to impact on the surrounding environment and result in penalties from the authorities	We want to guarantee the maximum safety of our infrastructure, dams and hydraulic works in order to protect personnel, the population and the surrounding area. For this reason, we have introduced an accurate internal control system, developed constant monitoring and maintenance activities in compliance with legal obligations and manage penstocks in compliance with regulatory obligations. We also want to ensure the resilience of our works and plants even in the event of flooding. For this reason, we have developed immediate action plans and signed a memorandum of understanding with the Civil Protection Agency of the Autonomous Province of Bolzano for the management of emergencies including flooding.
Risk of damage to local communities due to accidents at plants in locations potentially sensitive to natural disasters or terrorist attacks	We want to ensure business continuity of all IT systems and plants and minimise risks associated with sensitive terrorism targets (e.g. cyber security and sensitive locations). To this end, we have developed a special Business Continuity and Disaster Recovery plan.

Alperia operates 34 hydroelectric plants with large and small branches, 14 dams and 17 smaller sites, with which it produces an average of around 4.000 Gwh of clean energy every year. Hydropower is one of the most important renewable energy sources. It has no negative impact on the climate, is efficient and is particularly suited to a mountainous region such as South Tyrol. Alperia is committed to ensuring its sustainable use and minimising plant management risks. These are complex infrastructures, in potentially sensitive locations in terms of accidents, natural disasters and terrorist attacks. A responsibility taken on by both individual business units and the entire group. Planning monitoring and maintenance activities is essential to reducing faults and ensuring increased system availability. This value was 86,43% in 2019 (87,67% in 2018) compared to a target of 85,31%. The target for 2020 is 86,90%.

### Vegetable oil

In the event of non-operation, Edyna plants could be at risk of environmental accidents. Edyna assesses this risk and adopts possible corrective actions. An example of such an action is replacing mineral oil transformers with vegetable oil transformers. This activity was developed in 2019 and is considered essential in reducing environmental impact. Vegetable oil has a combustion point twice as high as mineral oil and therefore significantly reduces fire risk compared to currently used mineral oils. In addition, vegetable oils are not dangerous for human health and the environment; they are a renewable substance, can be reused and have a high degree of biodegradability. The vegetable oil transformers used by Edyna are purchased in Italy and must meet certain technical specifications. Priority is given to substituting transformers in protected areas such as nature parks or areas crossed by rivers and/or streams within 15 metres.

### Dam safety

More than 200 employees work in the hydroelectric power stations, overseeing the control and maintenance of both the dam works and all the components of each hydroelectric plant. Dams are equipped with an extensive monitoring system that detects the hydraulic and structural behaviour of the structures and the reservoirs to ensure hydraulic safety. The main operating data is transmitted to the remote centre in Bolzano, which monitors it in real time. The monitoring data as a whole are managed remotely by technicians from the hydro-civil service of Bolzano. Twice a year, representatives of the Ministry of Infrastructure and Transport's Technical Office for Dams visit the plant and carry out thorough inspections together with the responsible engineer appointed by Alperia Greenpower or their designated representative. The Hydrology and Dams Office of the Autonomous Province of Bolzano is responsible for checking smaller dams. Its officials, accompanied by the appointed Alperia Greenpower technician, carry out annual or semi-annual inspections.

Each large dam with a reservoir of more than one million cubic metres of water and/or a barrier height of more than 15 metres has a Civil Protection Document drawn up by the Autonomous Province of Bolzano and an internal procedure for employee actions in the event of significant weather events. Supervisory staff at the dam are qualified and authorised to carry out operations on the discharge units, even in the absence of telephone communications. Alperia periodically trains the staff in charge of large-dam management; in the event of major weather events, it ensures closer monitoring of the dams by specialist technical staff.

The first phase of flooding is not considered an emergency because the presence of dams can delay or reduce the discharged flow rates compared to the incoming flow rates. Through this management, Alperia has the opportunity to retain the volume of water that flows downstream during floods (lamination), reducing its disruptive force. As a result, greater safety can be ensured for the population. In addition, any destructive effect on the ecosystems immediately beneath can be contained.

**Strategic objective:** We want to guarantee maximum safety of our systems, to protect employees, the population and the surrounding areas.

Operational objectives	Measures implemented in 2019	Measures planned in 2019	Deadlines (new)	KPI	Target value	Value in 2019
Definition of a KPI at group level for Asset Integrity	-	-	- (achieved)	Environmental accidents	-	0
Development of a secure and stable communication network with the Provincial Civil Protection in the event of serious emergencies.	* Informational visits were carried out with a particular focus on staff in operating rooms of remote monitoring centres for the management of distribution and production and for 112 and 118 staff.	-	- (achieved)	-	-	-

## Supplier Management {GRI 102-9, GRI 204-1; GRI 308-1 and 2; GRI 414-1 and 414-2}

### Risk management

Risk	Management Approach
Risk of failure to identify specific criteria/requirements to ensure corporate purchases are made as locally and sustainably as possible; risk of inadequate choice and selection of suppliers	To help create local value and select suppliers of raw materials suitable for our business, we strategically set ourselves the objective of making our purchases as locally and sustainably as possible from an ecological and social perspective. 100% of our new suppliers are screened according to environmental and social criteria. To achieve the target objectives that we have set ourselves for the selection of new suppliers on the basis of social and environmental requirements, we have adopted the BravoSolution system, assessing sustainability criteria by goods category (high, medium, low criticality).
Risk of potential non-ethical conduct by suppliers	To avoid the risk of a lack of transparency in the supplier selection process, in particular in relation to active/passive corruption issues, we are committed to ensuring responsible supply-chain management. We achieve this by checking that suppliers meet the requirements of integrity, professionalism, technical standards and good reputation. Furthermore, to avoid the risk of non-ethical conduct on the part of suppliers, employees, customers and other stakeholders, a respect for human rights clause is included in the group's General terms and conditions.

Alperia purchases made centrally are the responsibility of the Procurement Service which seeks, where possible, to favour local, green and socially responsible purchasing.

In 2019, Alperia invested heavily in the search for sustainability in the purchasing process, integrating this requirement in its tenders. As for the origin of purchases, 62% of Alperia's 2019 purchase orders were to suppliers with residency in South Tyrol (60% in 2018). Working with local suppliers to the extent commercially possible is a way for Alperia to contribute to the local economy and make a solid contribution through its activities. In detail, the percentage of products and services purchased locally made up 35% (27% in 2018) of total expenses. Amongst these:

- origin of works suppliers: 42% local in 2019 (36% in 2018)
- origin of service suppliers: 39% local in 2019 (22% in 2018)
- origin of product suppliers: 18% local in 2019 (19% in 2018)

Figure 12: Proportion of spending on local suppliers<sup>1</sup> {GRI 204-1}

	Unit	2019	2018	2017 <sup>2</sup>
Percentage of products and services purchased locally (based on expenditure in EUR)	% %	<b>35%</b>	27%	34%
Percentage of works purchased locally (based on total works expenditure)	% %	<b>42%</b>	36%	41%
Percentage of services purchased locally (based on total service expenditure)	% %	<b>39%</b>	22%	51%
Percentage of products purchased locally (based on total products expenditure)	% %	<b>18%</b>	19%	15%
Percentage of contracts awarded locally (based on number of contracts)	% %	<b>62%</b>	60%	59%

<sup>1</sup>The organisation's geographical definition of 'local' is defined as the Province of South Tyrol. Data does not include procurement data for Alperia Bartucci and Alperia SUM as these are located outside of the Province of South Tyrol.

<sup>2</sup>164 orders for Edyna were not yet included in the calculation due to different reporting systems and the ongoing process of centralisation.

The total volume of purchases made by Alperia went from €197 million in 2018 to almost €169 million in 2019, of which around €60 million went to local suppliers, an increase compared to €53 million in the previous year. 100% of our new suppliers are screened according to environmental and social criteria.

It should be noted that the majority of Alperia's purchases pertains to the group's core business, and therefore comprises technical equipment (cables, transformers and turbines) and raw materials (natural gas, wood, oil, lubricants and chemical products for the production and distribution of electricity and for district heating). Office supplies make up a smaller percentage of the total volume of purchases.

All Alperia suppliers must accept the principles of the group's Code of Ethics and uphold them, beginning with the respect and protection of human rights (included in all tenders and purchase orders managed by Procurement), occupational health and safety, as well as respect for the environment and sustainability. To ensure purchase procedures follow these criteria a new organisational system was implemented during 2019, to keep track of information requested and received by suppliers. It includes the 231 Model, registration on the White List according to the provisions of the Anti-Mafia Code and certifications held.

In addition, the BravoSolution system was put in place to manage tenders, making document management with suppliers more efficient.

Alperia uses a variety of tools to verify that our suppliers comply with precise environmental and social standards:

- **Register of suppliers:** Alperia created a structured register of suppliers in 2017. To be included on the register, suppliers must complete a questionnaire and document actions taken in certain areas, such as occupational health and safety. Suppliers are subject to three-year qualification and must demonstrate that they have specific social/environmental certifications (e.g. ISO 14001, ISO 45001, EMAS) or equivalent measures in place. The register is updated continuously; additional requirements were added in 2019.
- **Tenders:** Alperia has established a process for assessing the minimum sustainability requirements associated with a given product for the group's supply tenders. In 2019, a check list was also added to contracts; it is attached to the RDA (Purchase Request) and all the individual units must complete it. This list contains factors to be applied for both tender management and contract drafting.
- **Vendor Rating System:** The Vendor Rating System is an instrument that guarantees the quality of suppliers and minimises the risk of loss and dependence. The system provides that the collaboration of suppliers of strategic importance is evaluated internally on the basis of a standard questionnaire, in which the quality of services provided, safety standards and commitment to environmental sustainability are considered. These criteria allow the performance of individual suppliers to be assessed. This application will be implemented through the introduction of dedicated software.
- **Supplier audits:** Alperia can carry out supplier audits for all suppliers, verifying information received and carrying out on-site visits and interviews.

Alperia is also taking action to improve consumption sustainability in its workplaces. It eliminated plastic water bottles by replacing them with company glass dispensers; organic and Fair Trade products are to be stocked in drinks and food-vending machines. These measures can lead to greater awareness about sustainability issues among employees and make a solid contribution to the group's green evolution.

### **Vendor Rating System**

*During the bidding phase, did the supplier impose penalty clauses for the Alperia Group? Were penalties applied? Was the contract terminated for reasons attributable to the supplier? Were invoices issued within the agreed times? Did machines comply with the required performance standards? And did they comply with current safety regulations? Were safety emergencies managed properly? Did the supplier manage waste in accordance with current legislation? Were suitable measures taken to reduce environmental impact? Does the relationship with the supplier contribute to the creation of value for South Tyrol?* These are some of the Vendor Rating questions that ensure suppliers meet Alperia's requirements, with a focus on economic, social and environmental sustainability issues.

**Strategic objective:** We want our purchases to be as local and sustainable as possible from an environmental and social point of view.

Operational objectives	Measures implemented in 2019	Measures planned in 2019	Deadlines (new)	KPI	Target value	Value in 2019
100% of purchase contracts and the group's general terms and conditions contain a human-rights clause	* Implementation of new general terms and conditions		(achieved)	Share of purchase contracts that contain a clause for the protection of human rights	100%	Introduced May 2019
100% of significant tenders contain minimum product-related sustainability requirements	<ul style="list-style-type: none"> <li>* Analysis of main product categories according to sustainability criteria</li> <li>* Definition and implementation of a process to assess minimum product-related sustainability requirements by the Requesting Units</li> <li>* Introduction of biodegradable cups and glass bottles</li> <li>* Introduction of water dispenser</li> <li>* Introduction of minimum sustainability requirements for office materials and cleaning products</li> </ul>	<ul style="list-style-type: none"> <li>* PRO 204 and RDA check list updated to request the assessment of the sustainability requirements related to the product</li> <li>* Checklist introduced on the new supplier management platform</li> </ul>	2020 (ongoing)	Share of significant tenders containing minimum product-related sustainability requirements	100%	80%
100% of new suppliers are assessed according to specific social and environmental requirements (e.g. information on accidents at work)	* Verification and selection of suppliers included in a list of those with specific certifications (for example ISO 14001, ISO 45001, EMAS) depending on the product category		(achieved)	Share of new suppliers assessed on the basis of specific social and environmental requirements	100%	100%
The Vendor Rating System contains sustainability criteria	* Vendor Rating System updated to include complete sustainability criteria that make up 25% of the rating		2020 (ongoing)	-	-	-



# Green Mission

The nature of South Tyrol is the source of our energy. We treat it with respect, ensuring the best possible balance between economic activities and environmental protection, and we are committed to researching and developing innovative solutions for sustainable development.

12 RESPONSIBLE CONSUMPTION AND PRODUCTION



Ensuring sustainable patterns of production and consumption

13 CLIMATE ACTION



Take urgent action to combat climate change and its consequences

## Sustainability Development Goals promoted by Alperia

<b>SDG 12 Sustainable consumption and production</b>	<b>Ensuring sustainable patterns of production and consumption →</b> Through targeted marketing measures and information campaigns, we aim to raise our customers' awareness of more sustainable consumption patterns and we strive to continuously develop our green product and service portfolio.. We also launched several projects for sustainable water resource management, and are implementing an action plan for the improvement and conservation of the landscape. Investments equal hundreds of millions of euros; a duration of thirty years was agreed with the Autonomous Province of Bolzano. We are committed to conserving the biodiversity of the region through activities such as the management of basin sediments, constructing fish ladders and other landscape improvement activities.
<b>SDG 13 Combat climate change</b>	<b>Take urgent action to combat climate change and its impacts →</b> We support the Autonomous Province of Bolzano's 2050 Climate Plan and are reducing our greenhouse gas emissions. To this end, we have begun reporting activities related to environmental KPIs for the purposes of the Sustainability Report to monitor group emissions and carbon intensity. We assess the risks and opportunities of climate change (e.g. water scarcity, storms and regulation). We also invest in the production and use of products with lower greenhouse gas emissions and encourage the development of internal and external e-mobility. We are working hard to ensure that citizens and our stakeholders are more aware of environmental issues.

## In figures

Energy consumption generated	<b>3.544 TJ</b>
Energy consumption from renewable sources	<b>66%</b>
Electric, hybrid, hydrogen company cars	<b>over 100</b>
GHG Intensity (tCO2e/Mwh of produced energy)	<b>0,03</b>

## Water {ALP6; ALP7}

Risk	Management Approach
Risk of failure to manage climate change and the growth of weather phenomena (e.g. floods and droughts) with impact on the water cycle and reservoirs with related implications for plant productivity	We invest in the safety and resilience of our plants to make sure we are prepared for the possible impact of climate change. Furthermore, we promote research and development activities (for example, with the Alperia Startup Factory project and in collaborations with universities and innovative companies across the world) to improve the safety of our infrastructure.
Risk of non-compliance with regulatory provisions	We want to guarantee the highest level of compliance with environmental legislation. For this reason, we comply with all provisions and seek all the necessary authorisations from the relevant bodies. We comply with regulatory provisions on Minimum Vital Flow so as not to cause damage to local flora and fauna. We also have ISO 45001, 14001, 9001 certification and EMAS registration.
Risk of possible contamination from water from open cycle cooling systems	We want to minimise the environmental impact of the water our plants return to rivers. We're gradually replacing open cycle systems with closed cycle systems, among other things, for this reason.

Risk of not implementing compensation measures (e.g. fish ladders, renaturalisation or restoration of the original landscape when plants are decommissioned) and loss of biodiversity

We actively protect the environment as well as the biological diversity of waterways. We do this by using funding provided by the environmental fund to implement various morphological improvement measures for waterways affected by hydroelectric shunts. Furthermore, we organise working groups involving various stakeholders in order to define the most suitable compensation measures.

Hydropower is one of the most important renewable energy sources. Alperia produces energy through 34 hydroelectric plants, 14 large dams and 17 smaller sites, all located in South Tyrol. By generating an average of around 4.000 GWh of clean energy per year, we guarantee a sustainable energy supply. With hydroelectric energy, we can avoid producing energy with thermal power plants and CO<sub>2</sub> emissions are significantly reduced.

Although it is a clean energy source, hydroelectricity can still impact the environment. A hydroelectric plant can interfere with the normal modelling action of a watercourse, specifically:

- barrier structures and the tanks retain a portion of the solid material transported by water, which must be managed properly and, as far as possible, returned to the downstream riverbed
- through dams, which allow us to guarantee production in times of greatest need, we also regulate the volume of water flowing downstream during floods, reducing the maximum flow rate and the destructive force of the water and guaranteeing, within certain limits, the availability of water resources for other uses during dry periods
- by building fish ladders for intake works and consolidating fish stocks, we mitigate the impact of the derivation works of our plants
- we implement numerous measures to improve the waterways through the compensation funds, in collaboration with the Autonomous Province of Bolzano, with the coastal municipalities and with the fishing associations, including consolidating fish stocks, building fish ladders for intake works and conservation and improvement of the landscape

### A primary resource: Water and its sustainable management

Water is an essential asset and the basis of most of our activities. That is why we have developed a way of sustainably managing this primary resource. In addition to participating in a working group with the provincial offices and working on the protection of the aquatic environment, fish and regular river cleaning, we are developing new initiatives. At the end of 2019, we signed an agreement with the Venosta Valley Reclamation Consortium. This agreement aims to guarantee the necessary amount of water to protect orchards from night frosts during the spring flowering period, identifying more efficient supply methods and providing for an increase in the quantities of water to be made available. This involves the entire Venosta Valley orchard area, so the numbers are very significant. The protected orchard area is around 1.600 ha and extends to around 2.200 ha. Alperia will guarantee the provision of approximately 20.000 Lt/sec (corresponding to the entire natural flow in April of a large waterway, such as the Adige River, within the province) on nights when there is a solid risk of night frosts (7–8 nights/year on average). This is made possible with the volumes stored in the artificial basins in Resia and Gioveretto and will be provided free of charge. The water will be drained off for an entire night, reducing the company's possible profit margins, to guarantee an alternative use of the water for the region's agricultural economy. A similar agreement has also been entered into with the Piazzadella Consortium of Bolzano.

Through the Smart Land project, Alperia has installed over 120 moisture sensors in the fields of 60 South Tyrolean fruit and vine growers. These sensors are able to record and monitor irrigation process data, giving farmers real-time measurements. We believe that agricultural land irrigation is a key issue in terms of sustainable resource management. The project is being developed with the Laimburg Research Centre and the Fruit and Vegetable Consultation Centre.

Lastly, Alperia Bartucci has developed a project to optimise the Trento aqueduct water network, which will be managed by Novareti. Alperia Bartucci designed and implemented an advanced algorithm based on

predictive models. This allows optimised water pumping from wells to tanks and minimises network pressure, ensuring more efficient management with lower resource loss and waste levels. Implementing the project with the Energy Performance Contract (E.P.C) Saving Sharing formula allowed Novareti to measure and share the benefits actually achieved. This not only allows water resources to be used sustainably, but also generates economic benefits in terms of the kWh of electricity saved per year. Specifically, in energy terms, the savings generated by the project are equal to 240.000 kWh/year (45 toe/year; 74 tonnes CO<sub>2</sub>/year) and water loss savings of 680.000 m<sup>3</sup>/year. On an economic level, savings generated taking into account optimised pumping, loss reduction and fault reduction are approximately €75.000 per year. The project began in the spring of 2019, following structural work on the civil works supported by Novareti in the previous year, and will be monitored by Alperia Bartucci for the duration of the E.P.C. (5 years).

## Sediment Management

Mountain watercourses have a slow but continuous erosion effect on the ground and rocks. The degree of this erosion is influenced by the speed and flow of the water, the chemical-physical nature of the rocks and the adjacent land, as well as the quality and quantity of transported material. The attrition of the material transported against the banks and the bottom of the riverbed can considerably accentuate the erosive action of the stream. A hydroelectric plant can interfere with the normal modelling action of a watercourse as the barrage structures and the reservoirs retain some of the solid materials transported. The solid material (gravel and silt) deposited in the reservoirs can disturb the operational ability of hydraulic works and deep discharge units. Some reservoirs are subject to progressive burying, which reduces their storage capacity. Through management and mechanical removal activities, it is possible to reduce the progressive build up by facilitating the passage of sediment, for example during flooding. In particular, action can be taken with mechanical removal and/or the controlled release of sediment on the bottom of basins by opening the deep discharge components in dams. In small reservoirs, for example in accumulation tanks with relatively small volumes of sediment, work mainly involves mechanical removal. In large reservoirs, the most suitable method to remove sediment build up is controlled release. Periodic basin draining is necessary for various reasons: to allow deposited material to flow downstream, so work can be carried out on interception works, to maintain the basin's useful storage capacity over time and to restore the watercourse. The burying of artificial reservoirs is subject to specific water-protection rules and provisions. The general objective set by the regulations is to ensure hydraulic safety of the barrier works, so that the reservoir capacity is maintained and to safeguard both the quality of the reservoir water and the groundwater. The management plan aims to maintain and gradually restore reservoir capacity and ensure discharge and intake works are functioning correctly.

Based on the approved management project and the further provisions of the Autonomous Province of Bolzano, Alperia removed sediment from the Rio Pusteria hydroelectric basin on the Rienza River through controlled release in 2019. According to the fishing association, this compromised the river ecosystem and harmed fish.

Alperia Greenpower carried out the controlled release work according to authorised methods that were monitored and validated by the relevant provincial offices, with which management projects have been agreed upon since 2013 in order to limit the impact of draining/controlled release on aquatic fauna. This ensured that Alperia Greenpower did not receive any objection from the supervisory authorities again in 2019. That said, there is no doubt that controlled release of sediment has a temporary impact on the watercourse, with the consequent loss of most of the fry born in the year the work is carried out. In light of this, trial works are planned for 2020 at the Fortezza Basin, in order to dredge the sediment and then send it to the Bressanone plant derivation works. The results of this trial will clarify if dredging is suitable as a total or partial replacement for controlled release of sediment.

In 2019, Alperia also removed sediment from the Monguelfo Basin with dredging.

Finally, it should be noted that all sediment-management activities carried out by Alperia Greenpower are subject to EMAS assessments, are ISO 14.001 certified and are improved year on year with increasingly efficient filtering systems. To this end, two new filters were installed in 2019: in Funes on the Isarco River and in Tel on the Adige River.

## Minimum Vital Flow {303-2}

Minimum vital flow (MVF) means the quantity of water that needs to be downstream of a water collection to guarantee the correct functioning and quality of the ecosystems concerned. The MVF is the residual flow rate that protects the natural biocoenosis of the water course in the short and long term. During flooding and when natural flow rates are high, plants, depending on their size, withdraw water up to the maximum flow rate allowed by the concession decrees; in lean periods, meanwhile, there may be a reduction in the significant flow rate in some sections of the riverbeds. In the Autonomous Province of Bolzano, the release of the MVF from a hydroelectric branch is regulated by the new General Plan for the Use of Public Water (PGUAP). In 2019, the MVF (Lt/sec) was 38.926. During the year, the MVF major branch monitoring programme set up with the province was carried out; the programme ended in 2018 for four of these, Molini di Tures, Lappago, Sarentino and San Pancrazio. An external consultant carried out the limnological surveys, analysing the results and supporting the preparation of the final reports. The work ended with the monitoring results being presented to the province.

In this context, the energy enhancement of the MVF discharged at the Tel plant pass is highlighted. Construction of a hydroelectric plant is planned for 2021–2022, in order to further improve the production of electricity from renewable sources.

## Fish Ladders

A further environmental problem is the presence of obstacles for fish fauna that can interrupt migratory flows and interfere with movements to reproduction and feeding areas. Intake works at hydroelectric plants can also be a barrier to fish migration. To encourage the improvement of fish species life, artificial passages (fish ladders) to the intake structures are planned for some plants. In 2019, monitoring of fish movement through the new ladder built in the Sarntal Valley in Rabenstein (Corvara) was carried out. The ladder, built in agreement with the Hunting and Fishing Office and Water Protection Office under environmental plans, is uniformly divided into 16 small tanks, allowing fish and other aquatic species to easily overcome the water level difference.

## Environmental Plans

In agreement with the competent authorities, Alperia has defined an improvement and conservation plan for the landscape, involving a total investment of hundreds of millions of euros over thirty years (in 2019 alone this amounted to around €18 million). These environmental plans are a key element of the concessions for large hydroelectric plants awarded in 2011. The types of measures for which compensation funds can be used, as defined in Provincial Resolution No. 199/2017, are:

- measures in favour of the aquatic ecosystem
- measures to improve the environmental and social sustainability of energy supply
- measures in support of nature, the landscape and the ecosystem
- measures to prevent and protect against natural disasters and to secure rural infrastructures
- measures to prevent and adapt to climate change
- measures to improve energy efficiency
- measures in the field of technical protection of the environment

A part of these investments is directly allocated to individual municipalities. So far, 43 riparian municipalities have received environmental funding and completed several projects, including: wastewater treatment system improvements, natural environment restoration or improvement, energy-saving measures, reducing pollution and preserving the alpine landscape. A portion of the investment goes to the Province of Bolzano, which uses it to implement activities to improve the aquatic habitat, such as the redevelopment of the Talvera River and the restructuring of the banks of Bolzano's Isarco River. Added to these are the measures implemented by the concessionaire with the objective of improving the environmental impact of hydroelectric production plants, such as the construction of fishways and the environmental monitoring of water sections to ensure and optimise minimum vital flow.

In addition to works already carried out in the large hydroelectric plants of Santa Valburga-Pracomune, San Pancrazio, Lana, Sarentino, Cardano, Ponte Gardena, Bressanone, Lappago, Molini di Tures, Brunico, Marlengo, Tel, Vizze, Glorezza, Castelbello, Lasa and San Floriano, activities were financed for the Barbiano plant in 2019. In addition, as part of the activities set out in the environmental plans, Alperia Greenpower installed a new filter in Funes, on the Isarco River, and is installing two more in Tel, on the Adige River. It

implemented sediment dredging works in Monguelfo and Vizze and continued to directly and indirectly support the repopulation of fish species.

**Strategic objective:** We want to minimise the natural and environmental impact of our hydroelectric plants and actively protect the biological diversity of watercourses.

Operational objectives	Measures implemented in 2019	Measures planned in 2019	Deadlines (ew)	KPI	Target value	Value in 2019
Renaturalisation and restoration of the original landscape in disused facilities	* Demolition of the Foltin intake (Lasa plant) – partial implementation; to be completed in 2020 * Demolition of decommissioned intakes at other plants and consequent environmental restoration works carried out by the Mountain Basin service and financed by Alperia Greenpower under the Environmental Plans – completion of works in 2020	* Demolition of the Foltin intake (Lasa plant) – partial implementation; to be completed in 2020 * Demolition of decommissioned intakes at other plants and consequent environmental restoration works carried out by the Mountain Basin service and financed by Alperia Greenpower under the Environmental Plans – completion of works in 2020	2020 (ongoing)	-	-	-
Reducing the danger of contamination from recycled water derived from open-cycle cooling	* Modification of cooling systems from open cycle to closed cycle, as the new Santa Valburga plant went into operation and the works in Cardano started up	-	- (achieved)	-	-	-

**Strategic objective:** We want to promote the efficient and responsible use of water resources.

Operational objectives	Measures implemented in 2019	Measures planned in 2019	Deadlines (new)	KPI	Target value	Value in 2019
Be in continuous dialogue with stakeholders (e.g. in the areas of agriculture, artificial snow, fishing) regarding multiple uses of water resources	-	- Continuous dialogue with stakeholders (e.g. in the areas of agriculture, artificial snow, fishing) regarding multiple uses of water resources	2023 (new)	-	-	-
Introduce new projects and services to promote responsible use of water resources	Implementation of the SMART LAND pilot project to manage irrigation, leading to 50% water savings and CO <sub>2</sub> savings with lower use of water pumps with oil-gas generators	Marketing of the pilot project	2020 (new)			
Introduce new projects and services to promote responsible use of water resources		Smart watering: trial digital water consumption detection systems to offer municipalities control over any network loss	2020 (new)			

### Energy Consumption {GRI 302-1}

## Risk management

Risk	Management Approach
Risk of inadequate monitoring of energy consumption and energy-efficiency levels of buildings and systems with potential impact on the design of energy efficiency measures	We want to reduce energy consumption in buildings and plants through targeted energy-efficiency initiatives. We also do this through Alperia Bartucci SpA, the ESCo that oversees the implementation of energy-efficiency projects and innovative energy services, in line with the efficiency objectives of the group's Strategic Plan. Our objective is to use, wherever possible, renewable energy sources to run our plants and buildings.

Alperia consumes energy directly and indirectly. Direct consumption includes the use of fuel for the production of electrical and thermal energy in plants (cogeneration, thermal power stations, boilers) as well as non-renewable primary-energy flows not directly related to energy production (e.g. heating and transport fuels), used in carrying out activities. Indirect energy consumption relates to the energy that the group buys and uses for its plants and offices. This energy is partly self-produced, and the associated data are included in direct fuel consumption. If more energy is needed, Alperia purchases it from third parties and accounts for it in the group's indirect energy consumption. In 2019, Alperia's direct and indirect energy consumption – defined as that of the operating companies, customer offices and group's representative offices – amounted to around 3.544 TJ. Of total energy consumption, 34% comes from non-renewable sources and 66% from renewable sources. In particular, among non-renewable sources, there was a significant increase (+117%) in the use of diesel fuel connected to heavy snowfall in November, which isolated many areas of South Tyrol. Among renewable sources, on the other hand, there was an increase in electricity for self-consumption (+61%) determined by more refined data measurements in 2019. In 2018, total energy consumption was 3.099 TJ, with 36% from non-renewable sources and 64% from renewable sources.

Figure 16: Energy consumption within the organization<sup>2</sup> {GRI 302-1}

	Unit <sup>1</sup>	2019	Proportion (%)	2018	Proportion (%)	YtY Variation
<b>Total energy consumption within the organization from non-renewable sources</b>	<b>TJ</b>	<b>1.204</b>	<b>34%</b>	<b>1.117</b>	<b>36%</b>	<b>8%</b>
Gasoline	TJ	78	2%	36	1%	117%
Natural gas	TJ	751	21%	741	24%	1%
Electricity for self-consumption (produced and acquired)	TJ	375	11%	340	11%	10%
<b>Total energy consumption within the organization from renewable sources</b>	<b>TJ</b>	<b>2.340</b>	<b>66%</b>	<b>1.981</b>	<b>64%</b>	<b>18%</b>
Palm oil	TJ	1.997	56%	1.708	55%	17%
Wood chips	TJ	173	5%	167	5%	3%
Electricity for self-consumption (produced)	TJ	170	5%	106	4%	61%
<b>Total energy consumption within the organization</b>	<b>TJ</b>	<b>3.544</b>	<b>100%</b>	<b>3.099</b>	<b>100%</b>	<b>14%</b>

<sup>1</sup>Conversion factors are based on the IPPC Guidebook 2006

<sup>2</sup>Data for 2018 is restated due to an update in calculation method

Alperia prefers to use energy from renewable sources, both in production and in its offices. Two out of five district heating systems have installed photovoltaic panels. Through Alperia Bartucci, it furthermore promotes the energy efficiency of buildings, plants and the entire system with a group-level reporting system and integrated management approach. During 2019, an audit was carried out at all locations, from which an energy-efficiency intervention plan was defined which includes, among the various measures:

- replacement of fixtures and fittings in the Via Dodociville office in Bolzano (carried out in 2019)
- connection of Edyna to district heating (carried out in 2019)

- renovation of two Edyna lighting towers and the car park (carried out in 2019)
- implementation of an ISO 50001 system
- installation of energy-efficient motors (in 2021 the complete replacement of pumps for two production groups and in 2022 the complete replacement of pumps for three production groups)
- installation of LED bulbs
- replacement of a tunnel fan at the Bressanone plant (scheduled for 2021–2022)
- installation of an advanced control system for thermal generation and on biomass boilers
- review of the control logic of the heating and cooling system
- reduction of losses with elevator transformers and potential heat recovery (one transformer is already in service, a second transformer will be replaced in early 2020, and a third transformer will be replaced by 2021)
- assessment for the replacement of oil and electric boilers (in 2020)
- other measures still being studied

Once the potential for energy savings has been identified, we will proceed with carrying out the requirements set forth in Legislative Decree 102/2014 Energy Diagnosis Obligation and send the diagnostic data to ENEA. Alperia also obtained UNI 11352 certification, which verifies the results achieved in terms of energy savings by companies that provide energy services to the industrial sector.

Alperia also has two storage tanks, one in Sesto and the other in Bolzano. The Bolzano tank has a capacity of 5.800 m<sup>3</sup> and uses thermal energy from the local municipal solid waste incinerator, reducing the consumption of fossil fuels and CO<sub>2</sub> emissions in the city. Alperia has achieved savings of 11.000 tonnes of CO<sub>2</sub> in this way since 2015 (up to 5.000 in 2018), using energy from secondary raw materials (waste). It should be noted that changes compared to the previous year are due to data-collection refinement, which has given a broader and more complete overview.

**Strategic objective:** We want to make our energy consumption more efficient.

<b>Operational objectives</b>	<b>Measures implemented in 2019</b>	<b>Measures planned in 2019</b>	<b>Deadlines (new)</b>	<b>KPI</b>	<b>Target value</b>	<b>Value in 2019</b>
Energy management at the group level	* Improvement to periodic energy monitoring and energy management	* Improvement to periodic energy monitoring and energy management	2021 (ongoing)	-	-	-
Reduction of energy consumption in buildings and plants through targeted energy efficiency initiatives	<ul style="list-style-type: none"> <li>* Performing an energy audit and identifying savings opportunities in plants</li> <li>* Launch of energy efficiency projects at the Dodiciville and Resia offices and at the Cardano plant with the Generation, Networks and Corporate BUs (facility management)</li> </ul>	<ul style="list-style-type: none"> <li>* Performing an energy audit and identifying savings opportunities in plants</li> <li>* Setting up a consumption monitoring system in Facility Management</li> <li>* Installation of measuring instruments at all consumption-data collection points</li> <li>* Launch of energy-efficiency projects</li> </ul>	2018-2021 (ongoing)	Energy consumption (TJ)	tbd	3.544

## Emissions {GRI 305-1; 305-2; 305-3; 305-4; 305-7}

### Risk management

Risk	Management Approach
Risk of failing to optimise eco-sustainable technology and define monitoring instruments for greenhouse-gas emissions (e.g. establishment of a group level report)	We support the South Tyrol 2050 Climate Plan by reducing our greenhouse gas emissions. To this end, we have begun reporting activities related to environmental KPIs for the purposes of the Sustainability Report to monitor group emissions and carbon intensity.
Risk of non-compliance with mobility plans developed for the company vehicle fleet in relation to reducing emissions	We want to reduce emissions related to mobility, making 50% of the fleet green in three years. We already have over 100 electric or hybrid vehicles.
Risk of non-compliance with activities to reduce pollution generated by the group's plants (e.g. air emissions, discharges into water, waste, etc.)	We want to minimise the pollution caused by our plants, which is why we used part of the proceeds of the Green Bond to finance the modernisation of the hydroelectric plants and the related distribution network.

The Alperia Group's activities generate emissions both directly and indirectly: the former being from production and the latter through procurement of electricity from third parties. In particular:

- Scope 1: direct emissions of greenhouse gases produced by sources owned by the group (the CO<sub>2</sub> emissions generated by fuels burnt in energy production plants and those produced by the company owned fleet/vehicles)
- Scope 2: CO<sub>2</sub> emissions originating from the group's indirect consumption (emissions generated by the purchase of electricity from third-party suppliers and consumed both in plants and in sites)
- Scope 3: emissions that, although connected to the core business and the business in general, are not directly controlled by the group (the rental car fleet; emissions from the well to tank associated with extraction; refining and transport of raw fuel sources such as palm oil and natural gas)

Alperia is committed to reducing its emissions to contribute to the South Tyrol 2050 Climate Plan. Currently, European emissions amount to 9 tonnes of CO<sub>2</sub> per capita annually; in South Tyrol, that amount is 5 tonnes. We intend to further reduce that figure to 1,5 tonnes of CO<sub>2</sub> per year, per capita, in accordance with the plan. CO<sub>2</sub> emissions, largely attributable to the energy sector, contribute significantly to the increase in the greenhouse gases responsible for climate change. Alperia has therefore implemented regular monitoring of greenhouse gases, and has set a group-level target for reducing emissions and identified possible corrective actions. In 2019, we further improved the emissions monitoring system in order to provide a more structured analysis, with a view towards digitalisation as well. Specifically, we estimated the generation of 127.749 t of direct and indirect (market-based) CO<sub>2</sub>e, of which 13,08 are SOx and 46,58 NOx. Direct gross greenhouse gas emissions (Scope 1, which also includes SF6) merit special attention: in 2019 they were 52.709 t CO<sub>2</sub>e, while in the previous year they were 45.019 t CO<sub>2</sub>e, an increase of 17%. This is a physiological change, the result of data-collection refinement which has led to a broader and more complete view of the situation. The Edyna company SF6 values were included and the Alperia Green Power Marlengo plant was topped up, which also increased the figures. The increase in emissions was also attributable to the higher use of diesel fuel during the exceptional snowfall in the previous November.

NOx and SOx have adverse effects on climate, ecosystems, habitat, agriculture as well as human and animal health; they lead to deterioration in air quality and acidification. These emissions come from combustion processes, which relate to a small part of the Alperia business. A detailed analysis of the group's activities has also shown that there are no activities that involve the emission of other climate-altering gases. Considering the large proportion of renewable energy used by Alperia, the overall GHG Intensity is 0,03 tCO<sub>2</sub>e/Mwh. Even if emissions in absolute terms have increased, the intensity has therefore remained unchanged compared to 2018 values (0,03 tCO<sub>2</sub>e/Mwh).

Finally, we connected our distribution company Edyna to district heating in 2019. It was the first company within the group to be connected to this innovative and ecological form of heating.

Figure 17: GHG Emissions<sup>1</sup> {GRI 305}

	Unit	2019	2018	YtY Variation
Gross direct (Scope 1) GHG emissions	tCO <sub>2</sub> e	52.709	45.019	17%
Biogenic CO <sub>2</sub> emissions	tCO <sub>2</sub> e	3.551	3.368	5%
Gross location-based energy indirect (Scope 2) GHG emissions <sup>2</sup>	tCO <sub>2</sub> e	34.622	34.559	0%
Gross market-based energy indirect (Scope 2) GHG emissions <sup>2</sup>		39.393	44.538	-12%
Gross other indirect (Scope 3) GHG emissions <sup>3</sup>	tCO <sub>2</sub> e	32.096	27.931	15%
Total GHG emission location based	tCO <sub>2</sub> e	<b>122.978</b>	<b>110.877</b>	11%
Total GHG emission marked based	tCO <sub>2</sub> e	<b>127.749</b>	<b>120.857</b>	6%
GHG emissions intensity(location) ratio for the organization <sup>4</sup>	tCO <sub>2</sub> e /Mwh of produced energy (gross)	0,03	0,02	
GHG emissions intensity(marked) ratio for the organization <sup>4</sup>	tCO <sub>2</sub> e /Mwh of produced energy (gross)	0,03	0,03	

<sup>1</sup>The main gases included are CO<sub>2</sub> and SF<sub>6</sub>; emission factors used according to DEFRA (car fleet, biogenic emission) and ISPRA (gas, gasoline); data consolidated according to financial control; data aggregated based on the GHG Protocol

Biogenic emission from wood-chip biomass are calculated using the IPPC Guidebook (2006); palm oil with DEFRA.

Data for 2018 restated due to an update in calculation method.

<sup>2</sup>Location-based emission factor used for purchased electricity: TERNA (2017) based on the Italian energy mix; emission factor used for purchased heat: EURAC. Market-based emissions have been calculated considering all renewable certified electricity an emission factor equal to 0. The remaining, non-renewable certified electrical energy, has instead been multiplied by the residual mix as per the European Residual Mix provided by AIB.

<sup>3</sup>Includes rental car fleet and well-to-tank associated emissions (emissions associated for the extraction, refining and transport pf raw fuel material sources)

<sup>4</sup>Scope 1,2 and 3 emissions are included in the intensity ratios. Biogenic emissions are included in ratio.

Proportion of emissions	
Scope 1	46%
Scope 2	28%
Scope 3	26%

### Green mobility to reduce emissions

In 2019, Alperia developed a study on mobility to understand how best to promote green mobility to its employees. A questionnaire distributed on the intranet was completed by 30% of the total Alperia population. The analysis of the data collected revealed that: 50% of employees travel to work by car (40%) or motorbike (10%); 40% by bike (32%) or on foot (8%); and 10% by bus (6%) or by train (4%). In addition, 71% responded that they would consider using a bike if given one, or if a contribution towards buying one existed; 67% said they would consider using public transport more; 26% would be willing to take part in carpooling. Numerous suggestions came from employees completing the questionnaire, including: e-bike charging stations at offices; kits/tools for minor maintenance and inflating tyres at offices; contributions to the purchase/rental of electric bikes; contributions to public transport costs; car and/or bike sharing. Alperia had already started to add electric and hybrid vehicles to the company car fleet in 2018. In December 2019 it reached the symbolic number of 100 electric vehicles, with which employees can travel creating zero emissions. Among these, 91 vehicles are electric, 11 are hybrids and one is a hydrogen car. The target is to reach 120 electric/hybrid vehicles by the end of 2020 and 170 by 2021, equivalent to 50% of Alperia's potentially electric fleet. All these vehicles will be charged with 100% renewable energy produced in the group's hydroelectric plants. Given the numbers, it is possible that the target set will be achieved even earlier than expected. This will mean a significant reduction in the environmental impact of transport, both in terms of air quality and noise. And from 2020, new measures of various kinds will be put in place to develop green mobility for home to work journeys. Finally, it should be remembered that Alperia already provides traditional bicycles and e-bikes for service journeys.

## **Merano: the new Alperia headquarters focussed on emissions**

A focus on sustainability principles is an integral part of the tender process for the construction of the new Alperia headquarters in Merano. Alperia held a public international design competition, with the patronage of Fondazione Inarcassa, the foundation of the National Engineers and Architects Fund. A temporary association of companies won: Studio Cecchetto di Mestre for construction and design; engineering firm Von Pfösl & Helfer Srl of Lana (BZ) for structural design; Steam Srl of Padua for systems design; Paolo Ceccon of Laura Zampieri Architetti CZ for landscape design. The competition, in which more than 50 local, national and international teams took part, focussed on building energy efficiency and aiming to acquire the highest levels of existing energy and wellness certifications (LEED Platinum/Gold, CasaClima, WELL and CasaClima Work and Life). The buildings will be designed with a focus on sustainability, home automation and smart living. The spaces will be flexible and integrated into the existing and future urban context. The architecture will be inspired by the landscape, incorporating essential elements such as water and nature, key elements in Alperia's corporate philosophy. The tender specified the construction of iconic buildings, recognisable and in some way representing the essential elements, such as water and the roof garden. The goal is to build the first part of an urban park that will redesign the surrounding area from a green perspective.

The project sees the Alperia and Edyna buildings separated but linked to each other via the underground parking lot. Above this will be a large water pool mirroring the buildings which will appear to float. The Alperia offices will be located in the centre, in a 22-metre high elliptical building that will be connected by means of a walkway that will cross the water pool. The Edyna building will be much lower and partially underground, with a pedestrian entrance from the park-road. It will have a roof garden for collective use, creating a green cover with typical shrubs from the subalpine belt, such as juniper and mountain pine, alternating with a meadow and rock garden.

Construction will begin in 2021 and the buildings are scheduled to be ready for 2023. The new headquarters will host about 300 employees from various Alperia Group companies, as well as Edyna offices, technical areas and warehouses. The approved budget for the entire project is around €25 million (excluding VAT). During 2019, Alperia also awarded the project for the design of the new Alperia Greenpower headquarters in via Claudia Augusta, Bolzano. Again here, there was an intense focus on the issue of energy efficiency and well-being, with the aim of gaining certifications similar to those for the Merano office.

## **Noise pollution**

Alperia is not only committed to reducing the CO<sub>2</sub> emissions deriving from its activities, but also to limiting environmental noise produced by its plants. To this end, a transformer was changed in Cardano in 2019, replacing it with one with a lower noise impact. More information about these issues can be found in the Alperia Greenpower and Alperia Vipower EMAS declarations, updated in 2019 and available on the [www.alperiagroup.eu](http://www.alperiagroup.eu) website. The noise levels measured at district heating plants fall within the limits set by current regulations.

**Strategic objective:** We want to support the Province of Bolzano's 2050 Climate Plan and reduce our greenhouse-gas emissions.

Operational objectives	Measures implemented in 2019	Measures planned in 2019	Deadlines (new)	KPI	Target value	Value in 2019
Set up a reporting on greenhouse-gas emissions at group level	*Project launched to improve reporting on greenhouse-gas emissions at the group level	* Implementation of regular greenhouse gas monitoring * Definition of a target for reducing emissions at group level	2017–2021 (ongoing)			
Reduce emissions within the company	* Create green mobility survey for employees and collect emerging suggestions to implement the company's commitment to reduce emissions	Implement measures to promote greener mobility use among employees	2020–2023 (ongoing)	-	-	-
Reduce emissions within the company	* Feasibility study for biogas	* Assess possibility of using biogas	2021 (ongoing)			
Reduction of emissions in the heat and services sector through the application of environmentally sustainable technologies and optimisation measures	* Construction of a biomass plant in Merano and reduce emissions through the transition from gas to biomass * Connect Edyna to district heating	* Construction of a biomass plant in Merano and reduce emissions through the transition from gas to biomass * Heat recovery from a biomass plant in Merano	2017–2021 (ongoing)	CO <sub>2</sub> – Intensity (t CO <sub>2</sub> eq/MWh) of energy produced (gross)	-	0,03
In three years, 50% of the vehicle fleet will be electric and operate with zero emissions	* Reach 100 corporate electric or hybrid vehicles	* Acceleration of the e-mobility plan: fleet turnover accelerated to achieve 120 electric/hybrid vehicles by the end of 2020 and 170 by 2021	2017–2021 (ongoing)	Number of electric vehicles in fleet	120 electric/hybrid vehicles by 2020 and 170 by 2021	110



# Customers

We work hard to make our sector more transparent and efficient, to offer a quality service in close partnership with the local population, and to build relationships with our customers based on respect and trust.



Ensuring access for all to affordable, reliable, sustainable and modern energy systems



Building a resilient infrastructure, promoting innovation and equitable, responsible and sustainable industrialisation



Making cities and human settlements inclusive, safe, durable and sustainable



Ensuring sustainable patterns of production and consumption

## Sustainability Development Goals promoted by Alperia

<b>SDG 7 Affordable and clean energy</b>	<b>Ensuring access to affordable, reliable, sustainable and modern energy for all</b> We invest in the development of sustainable energy solutions through modernisation of our plants and networks. Our aim is to primarily generate our energy from renewable sources (we are already at 94% today). To improve on this, we also hold our suppliers accountable to sustainability. We are also developing and promoting new products such as green gas, and new services and business lines that help our customers be more energy efficient. In addition, we provide our customers with automatic estimates; we will replace traditional meters with Smart Meters for more efficient consumption management.
<b>SDG 9 Business, innovation and infrastructure</b>	<b>Building a resilient infrastructure and promoting innovation and fair, responsible and sustainable industrialisation</b> We develop modern distribution networks, maintain and improve our systems, promote Smart City and eMobility projects and support innovative research projects with our Innovation Board and dedicated initiatives such as the Alperia Startup Factory.
<b>SDG 11 Sustainable cities and communities</b>	<b>Making cities and human settlements inclusive, safe, durable and sustainable</b> We have launched projects that will encourage the development of more energy-efficient and sustainable cities. Examples include the Smart City project, investments in green mobility and the expansion of the district heating network in Merano and Bolzano.
<b>SDG 12 Sustainable consumption and production</b>	<b>Ensuring sustainable patterns of production and consumption</b> Through targeted marketing measures and information campaigns, we aim to raise our customers' awareness of more sustainable consumption patterns and we strive to continuously develop our green product and service portfolio.

## In figures

Total customers	<b>323.772</b>	Complaints per 100 customers	<b>-28% (0,13)</b>
New customers in 2019	<b>+9%</b>	Resolved complaints	<b>99,5%</b>
Paperless bills	<b>27%</b>	Total number of identified leaks, thefts, or losses of customer data	<b>0</b>

## Customer Satisfaction {EU3}

### Risk management

Risk	Management Approach
Risk of inadequate management, in terms of speed and efficiency, of customer/user service and complaints with possible impact on customer satisfaction and loss	To limit the risk of inefficient management and offer our customers rapid and solution-oriented service, we use many communication tools such as a bilingual toll-free phone number, supported by an external call centre to cope with peaks in requests. This is how we meet all the service SLAs.

In 2019, Alperia supplied electricity, natural gas and district heating to 323.772 customers, including families, businesses of all sizes and public institutions. Eighty percent of customers have signed contracts for electricity, 19% for gas and 1% for heat.

Figure 18: Number of customer accounts<sup>1</sup> {GRI EU3}

Type	Unit	2019	2018	2017	YoY-Variation
Electricity customer accounts	nr.	261.000	236.000	193.000	11%
Heating customer accounts	nr.	1.722	1.716	1.674	3%
Gas customer accounts	nr.	61.000	60.000	59.000	2%
<b>Total customer accounts</b>	nr.	<b>323.772</b>	<b>297.716</b>	<b>253.674</b>	9%

<sup>1</sup>customer accounts = connections to the grid (POD) as per 31.12.

### Close to our customers {ALP1, ALP2}

Being close to customers means communicating with them in a transparent, efficient and reliable way. Alperia engages with its customers through the [www.alperia.eu](http://www.alperia.eu) website, which can also be accessed via apps and contains all sustainability information. There is also a call centre and nine Energy Points: three in Bolzano, two in Merano, one in Ora, one in Ortisei, one in Brunico and one in Bressanone. Customers can use the website or app to check how many people are waiting at each Energy Point, in order to reduce their waiting time. Alperia also has a toll-free phone number, which is active at least 35 hours a week and subject to service-quality criteria imposed by the authority (ARERA).

The Alperia call centre has bilingual workers who answer customer inquiries from Monday to Thursday, from 8 a.m. to 4 p.m., and on Friday from 8 a.m. to 12 noon. The authority requires an 85% monthly response rate for calls received. Alperia has far exceeded this percentage, effectively responding to 97% of calls received every month. Performance in complaints management was equally positive: Alperia deals with and resolves them within ten days, even though legislation requires only that the company respond within 30 days. The goal is to improve even further by increasing monthly call-response rates to 100% and reducing complaint handling to seven days. For this reason, Alperia has renewed its partnership with an external call centre to cover peak call periods. Furthermore, Alperia promotes training days for front-office staff to maintain service quality, and provides them with the myRetail service available in the myAlperia space.

One project dedicated to customer satisfaction stands out among the Innovation Board's 2019 projects: the implementation of ELISA, a chatbot capable of learning independently and interacting with customers fully and efficiently. ELISA is a useful tool for freeing up staff while continuing to ensure the highest service quality.

As required by law, Alperia monitors and classifies complaints received. There were 403 complaints registered in 2019, down from 533 in 2018. They were divided according to the reference categories envisaged by the legislation: contracts, arrears and line suspension, market, billing, measurement, connections, works and technical quality, social bonus, commercial quality and more. In 2019, 40% of complaints fell into the billing category. No complaints were escalated to the conciliation service. The next customer satisfaction survey on Alperia's service will be carried out in 2020. These surveys are carried out every two years. In 2018, Alperia had an 87,2% satisfaction rate.

Figure 20: Customer complaints {ALP2}

	Unit	2019	2018	2017	2016	YoY-variation
Number of complaints within the reporting period	Nr	403	533	587	385	-24%
i. number of complaints thereof that were addressed within the reporting period	Nr	402	533	587	385	-25%
ii. number of complaints thereof that were solved within the reporting period	Nr	401	533	587	385	-25%
Number of unsolved complaints, including prior periods <sup>1</sup>	Nr	2	0	0	0	
Resolution rate for customer complaints within the reporting period	%	99,5%	100%	100%	100%	
Number of customer complaints within the reporting period, addressed within 40 days	%	100%	100%	100%	100%	
Complaint rate (no. of complaints per 100 clients)		0,13	0,18	0,23	-	-28%

<sup>1</sup> These complaints were solved in 2020.

**Strategic objective:** We want to offer our customers fast, solution-oriented customer service.

Operational objectives	Measures implemented in 2019	Measures planned in 2019	Deadlines (New)	KPI	Target value	Value in 2019
99% of calls to the freephone number answered	* Consolidation of an additional external hotline	* Consolidation of an additional external hotline	2020 (ongoing)	Percentage of telephone calls answered	99%	97%
100% of complaints received from customers are processed within 30 days	* Ensure timely handling of complaints within 10 days (where possible) * Continuation of the complaints service	* Ensure timely handling of complaints within 10 days (where possible) * Continuation of the complaints service	2020 (ongoing)	Percentage of complaints promptly processed	100%	100%
100% of customer complaints are solved	* Ensure timely handling of complaints within 10 days (where possible) * Continuation of the complaints service	* Ensure timely handling of complaints within 10 days (where possible) * Continuation of the complaints service	2020 (ongoing)	Percentage of timely solutions	100%	99,5%
For a better understanding of the causes, all complaints were divided into subgroups and analysed, starting in 2018			2018 (achieved)	Percentage of complaints analysed	100%	
Improvement of customer satisfaction	-	* Scheduling of a new customer satisfaction survey to be carried out in 2020	2018–2021 (ongoing)	Customer satisfaction index	-	87,2% (2018)

## Transparent Marketing and Communication

{GRI 102-43; GRI 417-1; GRI 417-2; GRI 417-3; ALP 8}

### Risk management

Risk	Management Approach
Risk of inadequate or no information transparency and communication that is not stakeholder oriented (e.g. communication of the group's environmental and social performance, extended website content, round tables, stakeholder surveys) with a possible impact on customer satisfaction/increased complaints, customer loss or non-compliance with provisions and codes of conduct	We are committed to implementing transparent, up-to-date and stakeholder-oriented marketing and internal communication. We provide consistent information through our various media channels (e.g. energy points, call centres). In 2019, we began to introduce CRM – Customer Relationship Management, focussing on lead management.
Risk of failure/non-definition of motivational measures for customers to increase the number of customers receiving paperless bills	We want increasing numbers of customers to take up paperless billing. We are promoting this choice through consumer behaviour activities to stimulate the take-up of green products.
Risk of procuring unsustainable advertising material	We want to make our marketing and communication initiatives socially and economically sustainable. For this reason, all our events are certified Green Events.

To ensure an open and transparent dialogue with stakeholders, Alperia developed numerous marketing and communication activities during 2019. The most important include:

- **Press and online:** Announcements, PR articles, customer website ([www.alperia.eu](http://www.alperia.eu)) and institutional website ([www.alperiagroup.eu](http://www.alperiagroup.eu)), social media, online portal and customer apps. During the year, in total there were 1.936 print and online articles relating to Alperia, of which 1.343 were in the local press, 572 in the national press and 21 in the international press. These articles covered important Alperia events (e.g. mergers and new acquisitions). Only two were negative in tone. This coverage related to complex situations for Gruppo Green Power (*Striscia la Notizia*, covered on page 16), and PVB Power Bulgaria (covered on page 16). Alperia responded quickly with press releases and interviews to clarify the situations. All emissions resulting from the [www.alperia.eu](http://www.alperia.eu) website and the group's websites were offset. In fact, Alperia takes part in the CO<sub>2</sub> Neutral Websites climate initiative. The initiative aims to neutralise carbon-dioxide emissions of both websites and users, through setting up new projects based on renewable energy, CO<sub>2</sub> reduction projects and purchasing of CO<sub>2</sub> offsetting certificates.
- **Energy Points:** Energy Point activities continue with qualified consultants and call-centre staff, brochures, information leaflets and TV channels in waiting rooms
- **Events and Sponsorships:** Alperia has organised numerous Open Days and Green Events. The company has also sponsored events in the sports, culture, environment and safety sectors. The Open Days organised for the Bolzano and Cardano plants attracted hundreds of visitors of all ages.
- **Surveys:** Alperia also conducted a survey on brand perception in 2019. The survey revealed that 93,4% of the population of South Tyrol knew about the Alperia brand. In 2018, a customer survey was conducted, confirming an 87,2% customer satisfaction level. This survey is conducted every two years and will be repeated in 2020.
- **Information evenings:** Alperia organised an early evening presentation for new Smart Meters and put together a communication plan for the municipalities where they were to be installed.

- **Information material:** All the material Alperia uses for our communications to customers and internal use is printed on 100% Forest Stewardship Council-certified paper; we offset the CO<sub>2</sub> emissions. Every year, we scrutinise our advertising materials to ensure we are making the most sustainable choices. In 2019, we reduced printed brochure numbers from 35.000 to 17.250. In addition, during the year, we also certified a new fully digital consulting system that further reduces paper use.
- **Gadgets:** The gadgets and small gifts that Alperia gives customers are in line with brand values. New customers also receive a basket of sustainable local products, assembled in collaboration with Pur Südtirol.
- **Paperless bills:** All new contracts signed outside of South Tyrol include the adoption of paperless bills, 100% CO<sub>2</sub> neutral. Those who are already Alperia customers in South Tyrol have the option to choose. Alperia is promoting the transition to paperless billing by offering tickets for events (e.g. tickets for hockey games) to incentive the change. Currently, 27% of Alperia's total customers receive paperless bills, 3% more than the previous year (equal to 100.000 less DIN A4 pages printed a year. This percentage includes energy and gas contracts on the open and protected market. Reseller contracts, where Alperia does not manage billing are not considered).
- **Monitoring complaints:** Customer complaints are handled by Alperia Smart Services. In 2019, a content-response procedure was defined for the first time, with Q&As available for more complex questions. Domestic users were also given a monthly estimate, making use-management even more transparent for customers. All packages, as presented on the website [www.alperia.eu](http://www.alperia.eu), were subjected to independent verification and found to comply with the consumer code.
- **Online Reviews:** Alperia is the only utility company that allows Facebook reviews to be left freely and openly. It is established as a Facebook partner and currently has a rating of 4 out of 5.
- **Intranet:** Alperia uses its. Intranet to communicate with its employees and strengthen corporate cohesion.

## The energy market

According to Terna, the Italian high-voltage transmission grid operator, the cumulative value of electricity demand was 319,6 TWh in 2019, down 0,64% compared to 2018<sup>7</sup>. Natural gas consumption was 73,8 billion m<sup>3</sup>, up 1,6 billion more in relation to 2018 but well below the 86,1 billion m<sup>3</sup> historical high of 2005<sup>8</sup>.

Both gas and electricity prices fell in 2019. In relation to the trend in the average purchase price of electricity, there was a significant decrease during 2019 (-14,7%). The average purchase price (PUN) fell from an average of about €61/MWh in 2018 to about €52/MWh in 2019.

As certified by ARERA, the Italian Regulatory Authority for Energy, Networks and Environment:

- In the first quarter of 2019, there was a slight drop in the cost of electricity for the average household, with a change in overall spending of -0,08% compared to the previous quarter. In the same period, the cost of natural gas for the average household increased, with a change in overall spending of +2,3% compared to the previous quarter.
- In the second quarter of 2019, there was a significant drop in the cost of electricity, with a change in overall spending of -8,5% compared to the previous quarter. Similarly, the cost of natural gas also fell, with a change in overall spending of -9,9% compared to the previous quarter.

<sup>7</sup> <https://www.terna.it/it/media/comunicati-stampa/detttaglio/Consumi-di-energia-elettrica-in-Italia--a-novembre>

<sup>8</sup> <https://www.e-gazette.it/sezione/energia/gas-2019-sono-ripartiti-consumi-italia-23>

- In the third quarter of 2019, there was a slight increase in the cost of electricity, with a change in overall spending of +1,9% compared to the previous quarter. The cost of natural gas fell again, with a change in overall spending of -6,9% compared to the previous quarter.
- In the fourth quarter of 2019, there was an increase in the cost of electricity, with a change in overall spending of +2,6% compared to the previous quarter. Similarly, the cost of natural gas also rose, with a change in overall spending of +3,9% compared to the previous quarter.

In relation to natural gas prices, the annual quote on the PSV reversed the trend of the previous two years and fell to €16,28/MWh, down by more than €8/MWh compared to 2018 and just above the historic low in 2016 (€15,85/MWh), in line with the trends recorded by the main European bodies of reference.

The drop in electricity and gas prices during 2019, a trend we expect to see continue in 2020, was caused by a number of factors, including a slowdown in global growth (partially resulting from a US/China tariff war), an agreement between Russia and Ukraine that stabilised gas prices and reduced uncertainty around French nuclear power. Supply of raw materials remains significantly higher than demand, leading to a fall in prices. Mild temperatures in the second half of the year also reduced demand for gas, which Italy sources mainly from the USA, Russia, the Middle East and Northern Europe. On the other hand, there was a significant increase in renewable sources, hydroelectric power in particular, due to heavy snowfall in the previous autumn.

In June 2019, the Capacity Market decree was approved, followed by tendering for 2022–2023. With the changes to the capacity market regulations endorsed by the European Commission, it is possible to integrate new environmental emission requirements for operators into the system, to prepare for implementation of the new European standards for decarbonisation adopted within the framework of the Clean Energy Package for All Europeans. This is considered to be an essential tool in making electricity markets more efficient, opening them to renewable sources and increasingly integrating them at the European level.

Again in 2019, the integrated text on electricity market dispatching was published. This document lays down the plans for a radical change in the Italian electricity market infrastructure. The main action lines for developing the new dispatching services market are identified and the steps to complete the integration of Italian markets with those of other European countries.

According to ARERA, the indicators for 2020 are that electricity bills will begin to fall, and gas bills will be substantially stable. The sharp fall in general charges, containment of regulated network tariffs (transport and distribution) and low raw-material prices on wholesale markets will bring a 5,4% reduction for electricity and a slight adjustment for gas, +0,8% for the average household. These numbers translate into average household spending of €544,20 for electricity (-2,9% per year) and €1.040 for gas (-9,5%). This amounts to a total saving of €125 on an annual basis compared to 2019 (€109 on gas and €16 on electricity)<sup>9</sup>.

Domestic tariff reform set out by the authority in implementation of Legislative Decree 102/14 was also completed. It removed progressive tariffs for network services (transmission and distribution), in compliance with sustainable environmental objectives and to align the tariff structure with service costs. The completion of this reform means the spread of more efficient electrotechnology solutions, such as heat pumps, induction hobs and electric vehicles, will no longer be penalised. In the same context, incentives to change the power of electricity meters, offering reduced costs, have also been extended to 2020.<sup>10</sup>

The data is provided by the Italian Regulatory Authority for Energy, Networks and Environment (ARERA). ARERA, an independent body that regulates and controls the electricity and gas sector to protect consumer interests, updates the valid energy prices for customers every three months. Alperia's family packages are based on these prices. Expenditure includes the price of energy and the sales and marketing components. For electricity to actually reach the customer, a fee must be paid to the operator for the use of the distribution networks. This includes transport, distribution and metering costs. The system charges are set by law, and are designed to cover the costs of activities in the public interest; these include research and development, the decommissioning of nuclear power plants and the promotion of renewable energies. Taxes consist of excise duty and value-added tax (VAT). VAT is currently levied at 10% on domestic customers and at 22% on non-domestic customers.

<sup>9</sup> [https://www.arera.it/it/com\\_stampa/19/191227agg.htm](https://www.arera.it/it/com_stampa/19/191227agg.htm)

<sup>10</sup> <https://www.arera.it/allegati/schede/191227st.pdf>

### The last decade

In the period from 2007 to 2018, global energy consumption increased by over 2 billion tonnes of oil equivalent (toe) – from 12toe in 2007 to 14,3toe in 2018 – with an average annual growth rate of 1,6%. Fossil sources remained central and did not fall below 80% of the energy mix in that period (2007–2018). However, the power ratios are changing. Coal is the source most affected by climate policies and will lose ground, reaching a low of 21% of the energy mix by 2040. Even oil, while maintaining its leadership, will follow a decreasing trend, in part due to the demand for electric mobility and motoring efficiency; natural gas is the only fossil source to maintain growth, representing a quarter of energy consumption by 2040. Renewables will see constant growth, mainly driven by the diffusion of photovoltaic solar in electricity generation. The WEO World Energy Outlook 2019 predicts renewable energy sources (including solid biomass) will meet 21% of the world's energy demands by 2040, equalling the share of coal. However, these figures are not considered sufficient to guarantee achievement of the climate objectives envisaged by sustainable development (source: GME newsletter, December 2019).

### Sponsorship {GRI 102-12}

In 2019, Alperia supported South Tyrolean projects and organisations in the fields of sport (youth and popular sports and professional sports associations), culture (music, theatre and dance), environmental protection and safety. All sponsorship is in full compliance with the guidelines published on the company website ([www.alperiagroup.eu](http://www.alperiagroup.eu)). Applications for sponsorship must be made through the online portal. After checking that the documentation is correct and that the required conditions have been met, applications are submitted to Alperia SpA's Management Board, which decides whether to accept or reject the application and, if accepted, the amount of sponsorship. As a result of sponsorships, Alperia was the most recognised South Tyrolean brand in the sports sector for the first time in 2019.

### Communicating the value of sustainability

Many of Alperia's 2019 communication and marketing activities focused on promoting sustainable products and services. Alperia intends to focus more on green-gas and green-energy products in the coming years, implementing a communications strategy to highlight their importance. The goal is to significantly increase the number of companies that completely adopt green energy and gas. The climate-neutral nature of Alperia's green gas is officially confirmed year by year by TÜV NORD, a renowned independent certification body.

Alperia customers are therefore guaranteed that all greenhouse gas emissions generated are offset by a certified climate-protection project. Specifically, Alperia offset 34 tonnes of CO<sub>2</sub> in 2019. ACT Commodities B.V. – a world leader in the trade of raw energy materials, with particular reference to energy-efficiency certificates, certificates for renewable energies and carbon emissions quotas – took out 34 GS VERs (GS1230) on behalf of Alperia Smart Services Srl. On 6 November 2019. They were taken out on the Gold Standard platform with the serial number GS1-1-TR-GS1230-12-2016-6483-367-400.

In addition, during 2019, Alperia carried out numerous communications initiatives for Bolzano residents to inform them about the district-heating expansion, a particularly ecological and sustainable form of heating. This included condominium meetings and editorial articles. Next year the campaign will also include one-to-one meetings.

Also in its internal communication, Alperia intends to focus on the values of sustainability, involving employees to ensure everyone understands how important the green heart of the company is. It will also be the central theme of the next business plan.

### Green Events {GRI 102-12}

All the events organised by Alperia are certified Green Events. The Autonomous Province of Bolzano Waste Management Office gives this certification only where the planning, organisation and implementation of the events is carried out in line with sustainable criteria. The assessed criteria include use of ecological products, energy efficiency, waste management, promotion of local products and social responsibility. To be a Green Event, more than half of the criteria required by the plan must be adopted. This is an additional tool with which Alperia contributes to the long-term climate strategy defined by South Tyrol's province government to reduce annual CO<sub>2</sub> emissions per capita to below 4 t by 2020, and to below 1,5 t by 2050. For an event to be certified green, suppliers must be fully involved and must commit themselves to adopting sustainable solutions in terms of resources, waste, mobility, catering, energy, communication, acoustics and ancillary areas (alcohol

consumption and taking down of barriers). In 2019, Alperia held four Green Events, including Open Days organised at:

- Cardano: More than 200 students visited the Alperia hydroelectric power station in Cardano on World Environment Day, 5 June 2019. Equipped with safety helmets, the students took guided tours and a virtual journey through the impressive Martello Dam. The event was organised for German and Italian middle schools in collaboration with the South Tyrol Ökoinstitut; the goal was to provide information on sustainable hydroelectric exploitation, the water cycle and the history of the plant. There were interactive games and quizzes on energy, in addition to other activities. Students were made aware of how energy is wasted through a series of experiments, such as making popcorn with a solar cooker or playing music on an electric bicycle. Latest generation e-bikes were also made available for test rides; drinks were offered in glass bottles, avoiding the use of plastic.
- Bolzano: On 22 September 2019, hundreds of people took part in the Open Day organised at the district heating plant on Bolzano Bike Day 2019. The guided plant visits were managed by Alperia Ecoplus and allowed visitors to see the capital's district-heating system in operation and get close up to its storage tank. They were also given information on network-expansion projects. More than 300 people took the opportunity to get there by bike, thanks to the cooperation of the Province of Bolzano mobility office, which completely closes the city to traffic twice a year. Alperia rented electric bicycles, thereby helping to reduce CO<sub>2</sub> emissions and improve air quality for a day. Participants visited the plant in groups of 20 and received brochures printed on FCS paper with a climate-neutral sign. In addition, at the plant entrance, apples were offered as a snack in cooperation with VOG, thereby promoting local and seasonal products. Visitors also took part in various sports activities organised in the main square in collaboration with the Sportcity association and STS Volleyball.
- Sesto: On 1 June 2019, the local district heating plant opened its doors to numerous visitors, with guided tours led by specialised staff. This offered visitors an overview of how the plant's heat is produced mainly using locally supplied wood chips. There was also an entertainment corner for children, with ecological games from Kinderfreunde Südtirols. The goal was to raise awareness about using recyclable materials, even among small children. Catering, organised by the Drei Zinnen sports association, was based on Kilometre Zero products served on cardboard plates with wooden cutlery. Participants could also make an optional contribution to the association in addition to that made by Alperia Ecoplus. All waste from the event was processed using differentiated waste management.
- Bressanone: On Saturday 29 June an Open Day was organised at the Bressanone plant in cooperation with the South Tyrol Jazz Festival. To encourage sustainable mobility, Alperia provided a free shuttle to take visitors from Bolzano to the plant. Fifty people took the shuttle, reducing the use of polluting vehicles, while a total of 100 people attended the event. At the plant entrance, the measures that made it a Green Event were highlighted, to raise awareness with both visitors and initiative partners. Catering was sourced regionally, featuring appetisers and finger food that require no plates. Waste was also kept to a minimum and processed using differentiated waste management.

Alperia also partnered with Klimamobility at South Tyrol's main conference on sustainable mobility, in which CEO Johann Wohlfarter took part. The meeting focused on the future possibilities for mobility technology and the key role it plays for urban development. This was a theme to which Alperia brought its extensive experience, having long worked on sustainable mobility and pollution-free cities.

**Strategic objective:** We want to make our marketing communication and internal communication transparent, up to date and stakeholder oriented.

Operational objectives	Measures implemented in 2019	Measures planned in 2019	Deadlines (new)	KPI	Target value	Value in 2019
Expansion of website content dedicated to sustainability			- (achieved)	-	-	-
Regular meetings between stakeholders on sustainability issues	Dialogue with different stakeholder groups: * customers: presentation evening for new Smart Meters, information material, call centres, brand-perception survey * employees: staff-satisfaction survey * citizens: Open Days in plants, with a particular focus on schools * owners and investors: shareholders' meeting, Supervisory Board report, periodic meetings with the owners * Research institutes: strengthening collaboration for research projects with the Free University of Bozen-Bolzano and Eurac Research Institute	* Conducting discussion panels and stakeholder surveys * Strengthening internal sustainability communication (e.g. My Alperia)	2017–2021 (ongoing)	-	-	-
Reduction of complaints about the transparency of marketing and communications	* The customer-satisfaction survey was conducted in 2018. Conducted every two years, it will be repeated in 2020. * Conducting a survey on sponsoring activities perception * Joining up and customer communication channels	* Assess the possible implementation of a system to monitor complaints about the transparency of marketing and communications; * Define procedures for proactive stakeholder involvement in order to prevent complaints (e.g. informative events for major projects)	2018–2021 (ongoing)	Number of complaints about the transparency of marketing and internal communications	-	-
Full compliance with voluntary guidelines and codes of conduct on transparency of marketing communications	-	-	- (achieved)	Compliance with voluntary guidelines and codes of conduct on the transparency of marketing communications	100%	100%
Consider aspects related to sustainability in the sourcing of	* FSC certification of 100% of printed matter and C02 emissions offsetting	* FSC certification of 100% of printed matter and C02 emissions offsetting	2020 (ongoing)	-	-	-

advertising material	* Annual screening of advertising materials for more sustainable alternatives * Introduction and certification of a new fully digital consulting system that further reduces paper use	* Annual screening of advertising materials for more sustainable alternatives				
Consider aspects related to sustainability in customer documents and advertising materials	* FSC certification of all paper used (billing and contracts) * Annual screening of advertising materials for more sustainable alternatives	* FSC certification of all paper used (billing and contracts) * Annual screening of advertising materials for more sustainable alternatives	- (achieved)	-	-	100%
Certification of open days as "Going green events"	-		- (achieved)	-	-	-
Increase in the number of customers receiving paperless bills	* Adoption of incentives to encourage customers to switch to paperless bills * Adoption of the 100% CO <sub>2</sub> neutral paperless bills for all new contracts signed outside South Tyrol * Promoting the transition to paperless billing by offering tickets for events (e.g. tickets for hockey games) to incentive the change	* Adoption of incentives to encourage customers to switch to paperless bills	2020 (ongoing)	% of customers receiving paperless bills	90%	27%

## Cyber Security {GRI 418-1}

### Risk management

Risk	Management Approach
Risk of non-compliance with privacy law provisions in relation to the protection of sensitive data.	We want to guarantee compliance with privacy regulations, which is why we continuously monitor security systems, updating them on an ongoing basis to ensure they are the most up to date and we have implemented all measures envisaged by the GDPR.
Risk of security incidents and failure to manage information, as well as failure to protect sensitive data and intellectual property due to the infrastructure inadequacy with possible data loss or disclosure. Risk of possible OTT infrastructure malfunctions with possible impact on the service delivery continuity due to the failure/inadequate development of IT infrastructure and preparation of emergency plans.	We want to guarantee that all data is protected from security incidents and guarantee Business Continuity in case of IT incidents (e.g. server failures, power outages). For this reason, we use efficient protection systems against internal and external attacks and incursions. We also renewed our ISO 27001 certification and developed business continuity plans (INS-212.01 Business Continuity – Disaster Recovery IT).

According to the World Economic Forum's Global Risks Report 2020, cyber-attacks are ranked sixth among the risks with most impact for the coming years. For this reason, Alperia, which as an energy service provider manages a large amount of data (including the personal data of customers, collaborators and partners, technical data relating to customer consumption, distribution infrastructure, electricity and heat production plants), has adopted a solid defence strategy. Controlling access to information and its correct management in terms of confidentiality, privacy and consistency will be increasingly important.

Cyber security is dealt with by a dedicated structure that defines and supervises cyber security architectures and systems, deals with identity management and access control systems and intervenes in the event of any attacks.

In 2019, new and better performing management systems both inside and outside the Alperia world were introduced, also including Artificial Intelligence (AI) platforms. Attacks are becoming more frequent and high risk. Most are perpetrated by extremely sophisticated AI software, which is why it is necessary to use the same language in defence. In 2019, Alperia did not suffer from any significant cyber security incidents, but is aware of how important it is to protect yourself with increasingly sophisticated barrier systems. This is why we have introduced a double layer antivirus system for email and all the documents are classified according to a specific confidentiality level (public, restricted, confidential). Updating activities continue with trials of the disaster recovery plan and adoption of protection systems against ransomware threats.

In 2019, we also renewed the ISO 27001 certification, which was extended to include even more stringent checking. This international standard recognises the group's adoption of a secure system for the management of company information systems (IT and documentary), to monitor and reduce management costs, ensure adequate service levels and monitor and reduce the risk of possible outages. The certification is subject to an annual audit, with additional checks carried out by the group's Internal Audit.

During 2019, the business continuity plan was also developed to be activated in the event of attacks. In compliance with the requirements of Europe's GDPR regulation, a Data Protection Officer (DPO) was appointed external to the IT department. A new privacy-by-design procedure was developed, to be carried out at the start of each new project in order to check if it meets the standards set by privacy and GDPR legislation.

Technological innovation is accompanied by training. After activities involving the IT team, a training course on cyber security will be launched in 2020 for all employees, in order to raise awareness of cyber risks. More often than not, critical issues can in fact be traced back to human error. To remain up to date, Alperia plays an active role in important associations such as CLUSIT (Italian Association for IT Security); it has also taken part in specialised security events such as the ITASEC (Italian Conference of Cybersecurity).

## Security figures

In 2019, Alperia's protection systems blocked an average of 4.000 spam emails and 6.000 malicious connection attempts every day, the latter falling by 73% compared to 2018. This reduction resulted from a change to the measurement paradigm: since 2019, only attempts to access Microsoft systems outside the Alperia (Bolzano office) perimeter are identified, avoiding the inclusion of user password errors. Spam emails, on the other hand, were up 33% compared to 2018 (around 1.000 more). This increase is the result of greater Cloud openness and new internet applications.

Each month, Alperia identifies and blocks an average of:

- **2.930 viruses:** This figure is significantly higher than 2018 (70 viruses) resulting from two internally blocked episodes of targeted attacks over the course of two months.
- **31 pieces of spyware** (software that collects information about a user's online activity): The figure went down 23% due to more efficient internal security systems and greater user awareness.
- **2 million malicious, suspicious or prohibited internet use incidents** (activities related to suspicious or prohibited browsing): exactly 100% more than in 2018, also here attributable to more open access/exposure to the cloud and new internet applications;
- **200 malicious or unauthorised applications:** a 67% increase compared to 2018, due to more open access/exposure to the cloud and new internet applications
- **250.000 malicious or prohibited items of content:** in line with 2018 numbers

The figures show that the threat is constantly growing. Defence systems must always be up to date to ensure they are able to fight off attacks effectively, guaranteeing the necessary security for company systems.

Figure 25: Other indicators related to cyber security

	2019	2018	2017	YtY variation
During the year Alperia's protection systems blocked (daily average):				
spam e-mails	<b>4.000</b>	3.000	5.000	33%
malicious connection attempts	<b>6.000</b>	22.000	20.000	-73%

	2019	2018	2017	YtY variation
Each month Alperia identifies and blocks an average of:				
viruses	<b>2.930</b>	70	17	4.086%
pieces of spyware (software that collects information about a user's online activity)	<b>31</b>	40	22	-23%
malicious, suspicious or prohibited internet activities	<b>2.000.000</b>	1.000.000	600.000	100%
malicious or unauthorised applications	<b>200</b>	120	80	67%
malicious or prohibited items of content	<b>250.000</b>	250.000	300.000	0%

## Digitisation

Alperia must complete its digital transformation in order to become a modern, fully efficient and intelligent company. This change will not only streamline daily activities, but also contribute significantly to reducing energy consumption. By increasing the interconnectivity of buildings, equipment, facilities and transport systems, digitisation offers advantages for energy efficiency that are clearly superior to analogue management. In addition, digital systems make it possible to analyse available data in order to make improvements and efficiencies in activity management. Alperia has an extensive plan for this process, supported by cutting-edge technology solutions, such as sensors, meters, distributed registers and interfaces. The group's digitisation process is divided into twelve areas. Marketing was the first area to be completed in 2019, which will be followed by sales in 2020, with integration of the billing and accounting processes. We will then bring together the ERMs covering the corporate and Edyna worlds into a single application, to provide common procedures

for all group structures. The key processes to be harmonised include planning, purchasing, budgeting and controlling. Billing systems will also be reviewed between 2020 and 2021, with a distinction made between commodities (which will undergo a total revision in billing) and non-commodities. Two other areas dedicated to data analysis and its integration will follow. Monitoring dashboards will be put in place to analyse data and produce clear and effective end-reports. This data will be checked and integrated into processes through a new interface system.

In addition, Alperia began to conduct surveys on the condition of assets in 2019. This will continue throughout 2020, with the aim of defining a series of gradually built-up data, which will be used to set up predictive maintenance processes. Cognitive analysis, machine learning and data-mining processes are used to detect anomalies that could cause imminent faults in plants and machinery. All this will reduce labour costs and limit loss of production time from faults, as well as increase efficiency and safety.

At the same time, a series of activity-related working-method changes were developed with an increasing focus on remote working. A census was taken of all company PCs, key drives, mobile phones and tablets and support applications were created in the cloud. Currently, software solutions are being tested by some user groups to check their usability, before they are extended to all employees.

Fleet cars will also see changes, with black boxes installed that record information in order to make fleet management easier and timelier.

All these changes require a change in corporate language and ways of working; it is therefore essential that staff be adequately trained. This training began in 2019 with several digital-transformation and change-management days; it will continue in 2020. The objective is to develop an innovative common culture, ensuring everyone that works at Alperia is aware of the benefits of digitisation at a professional and social level.

**Strategic objective:** We want to ensure the protection of all data and compliance with applicable safety standards.

Operational objectives	Measures implemented in 2019	Measures planned in 2019	Deadlines (new)	KPI	Target value	Value in 2019
Total compliance with privacy laws	* Adoption of a software application for the management of GDPR issues and compliance control		2020 (ongoing)	Percentage compliance	100%	100%
No security incidents involving information management and data protection	* Renewal of ISO 27001 (Information Security Management) certification for 2019 * Assessment of suppliers certified according to ISO 27001	* Renewal of ISO 27001 * Assessment of suppliers certified according to ISO 27001	2020 (ongoing)	Security incidents	0	0
Ensure business continuity in the event of computer incidents (such as server or power failures)	* Test and execution of the disaster recovery plan * Development of a business continuity plan in case of attack (INS-212.01 Business Continuity – Disaster Recovery IT) * Adoption of systems to reduce ransomware threats * Update to ensure entire security system is state of the art	* Update to ensure entire security system is state of the art	2017–2021 (ongoing)	Preparation percentage	100%	80%
Create a culture of information security among our employees to reduce risks	* Development of an online cyber-security course for the IT team	* Preparation of a cyber-security training course on safe use of digital media for all group personnel	2017–2021 (ongoing)	Preparation percentage	100%	50%



# Employees

We put our employees at the centre of everything we do, because they are our real source of energy. Only with their commitment, trust and skills, can we do our job well and pursue our mission. Together contributing not only to the development of the Group, but also to that of the entire South Tyrol area.

5 GENDER EQUALITY



Achieving gender equality and women's empowerment, generating increased strength, self-esteem and self-awareness

8 DECENT WORK AND ECONOMIC GROWTH



Promoting sustainable, inclusive and sustainable economic growth, full and productive employment and decent work for all

## Sustainability Development Goals promoted by Alperia

<b>SDG 5 Gender equality</b>	<b>Achieve gender equality and empower all women and girls</b> We are working to attract more women into technical professions, increase the percentage of female managers and analyse and reduce the pay gap. To achieve this, we are adopting conciliation measures and have been awarded Family and Work Audit certification from the Family Agency of the Autonomous Province and the Chamber of Commerce. Currently, 23% of Alperia workers are women and the gender pay gap is 5% for female employees
<b>SDG 8 Decent work and economic growth</b>	<b>Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all</b> We have harmonised Alperia Group union agreements and HR policies. We're also supporting employees in developing their careers through the Talent and Pillars programmes, and are dealing with generational transition with the development of ad hoc policies to attract and train new staff. In addition, we promote healthy and safe work through the ongoing maintenance of our offices and plants as well as by promoting wellness initiatives.

Permanent employees **94% (961)**

Turnover rate **6%**

Female staff **+18% (230)**

Training hours carried out in 2019 **+9%**  
(on average 20,3h per person)

Gender pay gap **5%**

Female employees in middle management **17%**

Parental leave for men **84%**  
(21 out of 25 entitled)

Absentee rate **6,01**  
(per 1.000h)

Incident rate **8,68**  
(per 1.000.000h)

Incident severity rate **0,26**  
(per 1.000h)

## Employee Development {GRI 102-8; GRI 401-1}

### Risk management

Risk	Management Approach
Risk of inadequate implementation of staff training plans for the development of specific skills (e.g. development plans for management, high-potential programme, digital skills, e-learning courses)	We have created individual career-development plans for our employees and organise specific internal and e-learning courses according to needs (e.g. workplace safety, change management, cyber security, etc.).
Risk of inadequate group level human resources policies and procedures with potential impact on recruitment, management and development	We want to ensure the presence of and compliance with group-wide policies and procedures for the recruitment, management and development of staff. To achieve this, we apply the measures required by the 231 Model, pursuant to Legislative Decree 231/01 (segregation of duties, powers of attorney and proxies, traceability, objective definition and selection, performance measurement, etc.).
Risk of non-compliance in relation to staff-training activities ensuring compliance with specific regulatory requirements (e.g. SSL, Legislative Decree 231/01)	We want to ensure compliance with regulatory obligations relating to staff training, updating training plans in accordance with the quality system and monitoring their actual performance in the area of compliance (e.g. SSL, Legislative Decree 231/01).
Risk of employee dissatisfaction leading to potential inefficiency in the management of company activities	We want to increase our employee satisfaction. For this reason, we carry out periodic surveys, including in consultation with external bodies (e.g. Great Place to Work® Institute Italia). The 2019 survey showed a 50% satisfaction rate and therefore an increase of 9 points compared to the survey carried out in 2016.
Risk of inadequate definition of retention measures and new recruitment planning to replace retiring key staff with a potential impact from loss of know-how, expertise and highly specialised technical operators	<p>We want to create a stable and efficient company that has long-term economic success and is capable of consistently addressing the retirement plans of its key staff. To do this we have taken the following measures:</p> <ul style="list-style-type: none"> <li>- We carry out promotional activities at the main schools and universities in the area to attract young talent, in particular in the technical professions.</li> <li>- We launched the Talent project, which identifies employees with growth potential among internal staff.</li> <li>- We continue to create career-development plans for Pillar employees who want to get involved and who have the skills Alperia needs.</li> </ul>
Risk of conflicting relationships between parties with the consequent impossibility of developing effective personnel policies	We establish relationships with employees and their respective unions based on dialogue, limiting conflict and generating development opportunities in the mutual interest of all parties.
Risk of lack of motivational systems (e.g. team building) for employees, with potential inefficiencies in the management of company activities due to the lack of dissemination of a communication culture to ensure performance feedback and internal awareness through targeted workshops	We want to establish a culture of transparent communication to avoid potential inefficiencies in the management of company activities. We do this with motivational and team-building activities, for which we have allocated a budget of €50/year per person; training and career-development activities are also important.

Alperia Group employs 1.017 people in all areas of the energy sector: power generation in hydroelectric power plants, electricity distribution, district heating network management, energy sales and customer service, electric mobility, ultrabroadband network and management. Ninety-four percent of the group's employees are hired on permanent contracts and 90% are full time; these numbers are in line with the previous year. There were 75 new recruits during the year, including 21 women. The new recruitment rate is therefore +7%.

Figure 26: Information on employees and other workers<sup>1 2 3</sup> {GRI 102-8}

		Total number of employees				Employment contract								Employment type							
						Permanent				Temporary				Full-time				Part-time			
		2019	2018	2017	2016	2019	2018	2017	2016	2019	2018	2017	2016	2019	2018	2017	2016	2019	2018	2017	2016
Women	Head-count	230	195	193	188	211	182	189	188	19	13	4	0	147	121	119	117	83	74	74	71
Percentage of total employees	%	23%	21%	21%	20%	21%	19%	20%	20%	2%	2%	0%	0%	14%	13%	13%	12%	8%	8%	8%	8%
Men	Head-count	787	750	747	758	750	708	730	756	37	42	17	2	769	729	726	734	18	21	21	24
Percentage of total employees	%	77%	79%	79%	80%	73%	75%	78%	80%	4%	4%	2%	0%	76%	77%	77%	78%	2%	2%	2%	2%
Total <sup>1</sup>	Head-count	1017	945	940	946	961	890	919	944	56	55	21	2	916	850	845	851	101	95	95	95
Percentage of total employees	%	100%	100%	100%	100%	94%	94%	98%	100%	6%	6%	2%	0%	90%	90%	90%	90%	10%	10%	10%	10%

<sup>1</sup> Alperia Bartucci was not included in the 2018 data. Gruppo Green Power, Bluepower Connection Srl, Green Energy group, and Unix group Srl are not included in 2019 data. The total number of 2019 Alperia Group employees (with the exception of Bartucci) – equal to 970 – cannot be compared to the total number of employees indicated for 2018 – equal to 945 – net of employees leaving plus new hires in 2019, excluding Alperia Bartucci. The appropriate 2018 figure in order to make this comparison is 961, not 945. This misalignment is due to a different scope of reporting for 2019 compared to 2018 (entry of Alperia Sum and Alperia Trading) and a switch from the TPC to Zucchetti application (incorrect counting of terminated employees).

<sup>2</sup> Employees who left the organisation on 31.12 are not included in the total number of employees per 31.12.

<sup>3</sup> Directors are included in employee numbers.

<sup>4</sup> The percentages communicated in 2019 are calculated on total employees whereas in the 2018 Sustainability Report they were calculated on employment contract/type.

Figure 27: New employee hires and employee turnover<sup>1</sup> {GRI 401-1}

New employee hires		Total				under 30	31-40	41-50	51+	YtY variation
		2019	2018	2017	2016	2019				
Women	Headcount	21	13	9	8	6	12	2	1	62%
Percentage of new employee hires	%	28%	22%	26%	24%					
Men	Headcount	54	46	25	26	22	21	8	3	17%
Percentage of new employee hires	%	72%	78%	74%	76%					
Total new employee hires	Headcount	75	59	34	34	28	33	10	4	27%
Total headcount per 31.12	Headcount	1017	945	940	946					8%
New employee hire rate	%	7%	6%	4%	4%					

<sup>1</sup> Gruppo Green Power, Bluepower Connection Srl, Green Energy Group, and Unix Group Srl are not included in 2019 data. The total number of 2019 Alperia Group employees (with the exception of Bartucci) – equal to 970 – cannot be compared to the total number of employees indicated for 2018 – equal to 945 – net of employees leaving plus new hires in 2019, excluding Alperia Bartucci. The appropriate 2018 figure in order to make this comparison is 961, not 945. This misalignment is due to a different scope of reporting for 2019 compared to 2018 (entry of Alperia Sum and Alperia Trading) and a switch from the TPC to Zucchetti application (incorrect counting of terminated employees).

Most of the group's employees are subject to the provisions of the National Collective Bargaining Agreement for Employees in the Electricity Sector. At a local level, Alperia engages in dialogue with trade-union representatives in South Tyrol. In 2018 and 2019, it harmonised the contract conditions (relating to travel, availability, meal voucher conditions, supplementary pension fund, energy discount for retired former employees and result bonuses) agreed upon by company directors and unions.

Alperia focuses strongly on training. In 2019, there were 20.656 training hours carried out, mainly relating to digitalisation, MS Office courses – D3 courses, workplace safety, 231 legislation and soft skills (conflict management and time management). These are areas that will be further investigated in the coming years as they are considered essential for a modern company.

For Alperia SpA, Alperia Smart Services and Alperia Trading, an Italian e-learning platform on the 231 Model was also set up and is already available to employees; the German platform will be available soon. The same activity is also under way for Alperia Ecoplus.

Finally, an IT dashboard will be made available to managers where staff reporting data can be consulted (e.g. overtime, holidays, illnesses, etc.). This tool will allow management and HR management to improve personnel management.

Figure 28: Average training hours {GRI 401-1}

Average training hours per employee – gender		Total				YtY variation
		2019	2018	2017	2016	
Women	hours	15,9	14,9	not available	not available	7%
Men	hours	21,6	19,7	not available	not available	10%
Total	hours	20,3	18,7	not available	not available	9%

Average training hours per employee – employee category		Total				YtY variation
		2019	2018	2017	2016	
Top Management (directors and direct reports)	hours	28,2	31,5	not available	not available	-10%
Middle Management (2° and 3° level)	hours	25,3	28,4	not available	not available	-11%
Employees	hours	19,2	16,5	not available	not available	16%

### Talent and Pillars: the evolution of leadership and staff {GRI 404-2, 404-3, GRI 401-1}

One of the greatest risks for Alperia is its ageing workforce. As more staff get closer to retirement, it is essential to develop an effective succession plan. This is an objective the group is pursuing with a series of joint activities. In addition to continuous learning activities, plans for the group's Talent, or high performers, and Pillars are being developed. In 2019, there were 67 employees up to age 42 who either applied to participate in the Talent project or were nominated by their managers. Thirty were selected and underwent an assessment stage. Factors considered included: motivation, commitment, above-average willingness to learn, propensity to role change, assumption of responsibility, loyalty to the company and willingness to learn in other languages. The assessment included individual interviews and psychometric tests. This led to the selection of a class of High Performers who would take part in individual development programmes. Alongside them are a group of ten others defined as Alperia Pillars, with higher skill levels than the Talent group. The assessment plan for these individuals will begin in 2020, and specific development plans will also be defined for them. The objectives are:

- to contribute to the personal development of interested parties
- to map out a possible career path
- to motivate employees

Motivation is a key factor for employees. As such, it is an area where Alperia will continue to invest heavily and link to sustainability. In 2020, the MBO scheme was also changed to include individual sustainability objectives for all executives.

At the end of 2019, Alperia also launched a corporate-climate survey carried out with the Great Place to Work® Institute Italia. The goal was to increase employee satisfaction by 3%, from 41% to 43%. This goal was largely achieved, given that the group achieved a Trust Index level of 50%. The feedback interviews organised by Human Resources for all business units were also extended. In 2019, career-development plans were agreed upon with 19% of the staff within the first level of the reporting structure and with 16% of those in the second and third. Related development plans were also implemented. Compared to 2018, this number fell in percentage terms, even though there were 26 actual agreed-upon plans in 2019, and 16 in 2018. This percentage reduction was due to a growth in manager numbers due to the addition of the Alperia Bartucci

company. In 2019, the number of annual interviews rose to 50%; this will increase as other employees become involved over the coming year. These initiatives, combined with leadership and soft- and hard-skill courses, can strengthen team spirit and company loyalty. Consequently the turnover rate (6% in 2019) remained stable compared to 2018, equal to 59 people.

**Strategic objective:** We want to be an attractive employer for motivated employees.

Operational objectives	Measures implemented in 2019	Measures planned in 2019	Deadlines (New)	KPI	Target value	Value in 2019
Increase employee satisfaction to 43% (+3%)	* Employee satisfaction survey with advice from external bodies (e.g. Great Place to Work® Institute Italia) which showed a 50% satisfaction rate	* Assess data collected through the satisfaction survey	(achieved)	Employee satisfaction index	43%	50% (2019)

**Strategic objective:** We want to support and challenge our employees in their further development.

Operational objectives	Measures implemented in 2019	Measures planned in 2019	Deadlines (new)	KPI	Target value	Value in 2019
Continuation and further development of individual development plans for future managers	* Extend individual development plans to other categories of employees	* Extend individual development plans to other categories of employees * Also offer training courses for employees on leave	2017–2021 (ongoing)	Individual development plans (no.)	-	26
Creating a High Potential Programme	In 2019, we launched the Talent programme. We received 63 applications; 30 potentially talented employees were identified and assessed in 2019. Among those employees put forward, more mature talented employees were also identified and included in a group identified as Pillars.	* Implement the talent management programme for the High Performer group and development of assessment activities for the Pillar group	2018–2021 (ongoing)	Number of talents	30 talents	30
Expanding e-learning programmes	* The Italian-language platform was built and made available for employees of Alperia SpA, Alperia Smart Services and Alperia Trading. We are waiting for the German version. The activity is ongoing for Alperia Ecoplus. Alperia Fiber and Alperia Smart Mobility have not yet implemented a 231 Model, upon which the e-learning course is based.	Extend e-learning measures to include the company's manual workers	2018–2021 (ongoing)	-	-	-

**Strategic objective:** We want to establish a culture of open, transparent communication.

Operational objectives	Measures implemented in 2019	Measures planned in 2019	Deadlines (new)	KPI	Target value	Value in 2019
Organising regular employee feedback interviews	*Implement interviews and training activities for employees and managers of all companies	*Extend annual interviews to the whole group	2020 (ongoing)	% of employees who regularly conduct feedback interviews	100%	51%
Raising managers' awareness of their importance as role models, with targeted workshops	* The leadership programme was launched in December 2019 and will continue until 2020	Put together measures based on leadership programme results	2020 (achieved)	Number of workshops for managers	-	2

**Strategic objective:** We want standardised, fair conditions at the group level.

Operational objectives	Measures implemented in 2019	Measures planned in 2019	Deadlines (new)	KPI	Target value	Value in 2019
Standardising Alperia Group trade-union agreements	*Execution of union agreements to standardise employee contracts (for travel, availability, meal voucher conditions, supplementary pension fund, energy discount for retired former employees and result bonuses) and to develop teleworking activities, if necessary remote working. In 2019, the harmonisation agreement for the complementary negotiation pension was signed.	* Development of further union agreements for contractual standardisation also in view of the introduction of remote working	2020 (ongoing)	Number of new standardised union arrangements for the whole group	4	1

## Diversity and Equal Opportunity {GRI 405-1; GRI 405-2; GRI 401-3}

### Risk management

Risk	Management Approach
Risk of failure to define/extend measures (e.g. round tables, workshops) to involve stakeholders (e.g. educational institutions) in raising public awareness about the issue of women in technical professions	We want to attract more women to technical professions. This is why we promote our company at the main local schools and universities, setting up meetings with professional women who already work in Alperia. Our communications department has also produced a video on gender equality.
Risk of work/life imbalance	We want to be a family-friendly company for both men and women. For this reason, we promote reduced and flexible hours for our employees. As a result of the measures we've adopted, we've been awarded the Family and Work Audit certification from the Family Agency of the Autonomous Province and Chamber of Commerce.

We are aware of how important it is for a modern, efficient and sustainable company to encourage the employment of women. Currently, 23% of our people are women (+18% compared to 2018). During the year, some important steps were taken in relation to closing the gender gap. For the first time, a woman was appointed chairperson of the Management Board; we have achieved an equal gender balance in the same body. However, we are convinced that more can be done. Although gender imbalance in a company like Alperia is partly attributable to the particular sector in which we operate, with specific planning and measures, there is still room for the percentage of women employed to be increased. Again this year, the Family Agency of the Autonomous Province and Chamber of Commerce awarded us the Family Audit certification, which is a testament to our efforts to harmonise the work/life balance of our staff. We are increasingly developing conciliation and flexibility activities, including through the use of parent-support tools. From 2019 forward, for example, parents receive a grant for children aged 3 to 10 to be used during school holidays. In addition, we extended our contribution to nursery schools, including those in the municipal sector. By doing this, we increased potential beneficiary numbers from 9 to 90 people. There are also measures for working hour flexibility, including for part-time staff, and teleworking. Teleworking and remote working are two central components of the digitalisation process, which is already underway.

In order to attract more women into the technical professions and increase the percentage of female managers, Alperia also organised information days at province high schools and invited students to visit its plants, giving them the opportunity to meet professionals already working for Alperia. University Career Days were also organised in Trento, Innsbruck, Vienna and Graz. The communications team also produced a video on gender equality. In 2020, a partnership will be signed with Valore D, an association of companies that promotes gender balance and an inclusive culture within companies.

Figure 30: Diversity of governance bodies and employees<sup>1</sup> {GRI 405-1}

Diversity Governance Bodies		Total				Under 30	31-40	41-50	51+	YtY Variation
2019	2018	2017	2016	2019						
Women	Headcount	5	4	4	4	0	0	1	4	25%
Percentage of total members	%	42%	33%	33%	33%	0%	0%	8%	33%	
Men	Headcount	7	8	8	8	0	0	1	6	-13%
Percentage of total members	%	58%	67%	67%	67%	0%	0%	8%	50%	
Total	Headcount	12	12	12	12	0	0	2	10	0%
	%	100%	100%	100%	100%	0%	0%	17%	83%	

Diversity Employees		Total				Under 30	31-40	41-50	51+	YtY Variation
		2019	2018	2017	2016	2019	2019	2019	2019	
Women	Headcount	230	195	193	188	26	81	64	59	18%
Percentage of total employees	%	23%	21%	21%	20%	3%	8%	6%	6%	
Men	Headcount	787	750	747	758	84	200	191	312	5%
Percentage of total employees	%	77%	79%	79%	80%	8%	20%	19%	31%	
Employees with disabilities	Headcount	23	24	29	30	1	5	6	11	-4%
Percentage of total employees	%	2%	3%	3%	3%	0%	0%	1%	1%	
Total	Headcount	1017	945	940	946	110	281	255	371	8%
	%	100%	100%	100%	100%	11%	28%	25%	36%	

<sup>1</sup>Alperia Bartucci was not included in 2018 data.

To further facilitate parenting, Alperia is also encouraging fathers to take advantage of parental leave to improve the gender balance in the company. In 2019, 100% of women and 84% of men entitled to leave took advantage of this measure. The average length of parental leave is around 9 months for women and around 2.5 weeks for men. After the parental leave concluded, 100% of men and 33% of women returned to work in the company. Of the six who planned to return, two returned regularly while three took voluntary maternity leave and one stopped working for Alperia.

Figure 32: Parental leave<sup>2</sup> {GRI 401-3}

		Men				Women			
		2019	2018	2017	2016	2019	2018	2017	2016
Total number of employees that were entitled to parental leave <sup>1</sup>	Headcount	25	16	42	9	12	7	13	26
Total number of employees that took parental leave <sup>2</sup>	Headcount	21	14	17	9	12	7	13	26
Percentage of employees that took parental leave <sup>3</sup>	%	84%	88%	40%	100%	100%	100%	100%	100%
Total number of employees planned to return to work in the reporting period (2019) after parental leave ended		21	14	17	9	6	7	8	4
Total number of employees who returned to work in the reporting period (2019) after parental leave ended <sup>6</sup>	Headcount	21	14	17	9	2	6	8	4
Return to work rate <sup>4</sup>	%	100%	100%	100%	100%	33%	86%	100%	100%
Total number of employees that returned to work in 2018 after parental leave ended that were still employed 12 months (ending in the reporting period 2019) after their return to work	Headcount	14	15	9	0	6	6	4	0
Retention rate <sup>5</sup>	%	100%	88%	100%	100%	100%	75%	100%	100%

<sup>1</sup>Based on total entitlements known to the employer with starting date after 1.1.2019

<sup>2</sup>Based on the entitlements with starting date after 1.1.2019

<sup>3</sup>Includes compulsory leave (only for mother) and optional leave (usable also by the father). In 2019 out of six women who planned to return to work: Two returned to work, three extended their leave using voluntary entitlement and one left the company.

<sup>4</sup>Total number of employees that did return to work after parental leave/

<sup>5</sup>Retention rate = Total number of employees retained 12 months after returning to work following a period of parental leave/ Total number of employees

<sup>6</sup>Number corrected and restated for 2017

	2019	2018
Average hours per female employees who took parental leave	1422	1184
Average hours per male employees who took parental leave	104	63
Average weeks per female employees who took parental leave	37,4	31,2
Average weeks per male employees who took parental leave	2,7	1,7
Average months per female employees who took parental leave	9,4	7,8
Average months per male employees who took parental leave	0,7	0,4

Another very important issue to be addressed is the gender pay gap between men and women. The gap is 5% for office workers, but rises to 31% for the top management category. Only in middle management do women earn on average 3% more than their male colleagues. Furthermore, the numbers of women in executive and management positions increased compared to the previous year. In top management, the percentage went from 12% in 2018 to 19% in 2019. In middle management, the percentage of new second- and third-level managers rose from 15% to 17%. In relation to average age, 36% of the group's workforce is over 51 years old, equal to 371 employees. As previously mentioned, succession planning is one of the most important challenges facing Alperia.

Figure 31: Ratio of basic salary and remuneration of women to men {GRI 405-1; GRI 405-2}

Ratio of basic salary and remuneration of women to men	Unit	2019 <sup>6</sup>	2018 <sup>5</sup>	2017 <sup>4</sup>
Top management <sup>1</sup>	Ratio	0,69	0,77	0,78
Middle management <sup>2</sup>	Ratio	1,03	0,93	1,06
White-collar employees	Ratio	0,95	0,87	0,83
Blue-collar employees <sup>3</sup>	Ratio	0,78	0,62	0,75

<sup>1</sup>Includes directors and direct reports

<sup>2</sup>Includes 2nd and 3rd level reports

<sup>3</sup>Data not representative, as there is only one women in this category, who is not a specialized worker.

<sup>4</sup>Data was restated, due to a change in calculation methodology

<sup>5</sup>Alperia Bartucci was not included in 2018 data

<sup>6</sup>Calculation methodology was updated for better comparison (i.e. standby duty was removed from calculation)

Percentage of female employees per category	2019	2018
Top management <sup>1</sup>	19%	12%
Middle management <sup>2</sup>	17%	15%
White-collar employees	33%	32%
Blue-collar employees <sup>3</sup>	0,4%	0,4%

Percentage of employees per category based on total number of employees	2019	2018
Top management <sup>1</sup>	8%	6%
Middle management <sup>2</sup>	10%	10%
White-collar employees	57%	57%
Blue-collar employees <sup>3</sup>	25%	26%

**Strategic objective:** We want to promote diversity and equal opportunity in all aspects of our work.

Operational objectives	Measures implemented in 2019	Measures planned in 2019	Deadlines (new)	KPI	Target value	Value in 2019
Formalise diversity-management governance within Alperia	* Renew Family Audit certification * Set up an Equal Opportunities Committee	* Define and publish a diversity policy * Introduce Diversity Manager role * Develop partnership with Valore D association * Implement succession plan * Assess gender pay gap and introduce corrective measures	2021 (new)	-	-	-
Promote measures to encourage female leadership)	-	* Assess new measures to encourage female leadership (e.g. extending part-time work to leadership roles, training focused on female leadership, etc.)	2021 (new)	Percentage of women in middle management	-	15%

**Strategic objective:** We want to attract more women to technical professions.

Operational objectives	Measures implemented in 2019	Measures planned in 2019	Deadlines (new)	KPI	Target value	Value in 2019
Extend targeted marketing measures by personnel to raise public awareness of the issue of women in technical professions	* Hold information days in women's educational institutions * Participation in the Uni Bolzano Career Day and the career days at the Innsbruck, Trento, Vienna and Graz universities * Contacts with the technical secondary schools in Bolzano * Meetings with women employed by Alperia in technical professions * Produce video on gender equality with Alperia's Communications department	Continue with 2019 initiatives and enrolment in VALORE D	2020 (achieved)	Proportion of women in the workforce (%)	-	23%

**Strategic objective:** We want to be a family-friendly company for both women and men.

Operational objectives	Measures implemented in 2019	Measures planned in 2019	Deadlines (new)	KPI	Target value	Value in 2019
Promote flexible and shorter working hours for men and women and managers	<ul style="list-style-type: none"> <li>* Implement remote working tools and start relevant negotiations with trade unions</li> <li>* Participation in a working group promoted by Microsoft to assess experience and remote-working tools</li> </ul>	<ul style="list-style-type: none"> <li>* Implement remote-working tools and start relevant negotiations with trade unions</li> </ul>	2018–2021 ongoing	Proportion of part-time staff (%)	-	10%

## Occupational Health and Safety {GRI 404 -1, 403-2}

### Risk management

Risk	Management Approach
Risk of failure to achieve adequate/maximum levels of occupational health and safety for employees and collaborators (external companies), in relation to injuries, accidents and occupational diseases with potential non-compliance with the legislation on the protection of occupational health and safety in workplaces.	We want to ensure the highest level of safety in the workplace for our employees and external staff (external companies). For this reason, 30 semi-automatic defibrillators will be operational in our workplaces from 2020. We have numerous other tools including a monthly HSE report on health and safety and environment, online information tips on the issue of safety, dedicated training for each group company, partnership with the Civil Protection department and ISO 14001, ISO 45001, ISO 9001 and ISO 27001 certification, revised and renewed every year. We have also introduced an accident, near-miss and environmental incident information collection and reporting system. External companies are also assessed on the basis of safety-related criteria.

Occupational health and safety are two fundamental pillars of our activities. We ensure these through constant maintenance and monitoring activities of our plants, with specific training for our employees and partners.

### Safe working

Each Alperia Group company has an HSE manager, who is also the Head of the Prevention and Protection Service (RSPP). The RSPP is a role required by law, responsible for promoting all procedures to protect workers and maintain a safe and healthy working environment. Alperia has always had a procedure for the management of accidents and near-misses, which makes communication of these events systematic and faster.

Alperia has implemented and certified an integrated Environmental Safety Quality management system, compliant with the ISO 14001, ISO 45001, ISO 9001 and ISO 27001 standards which, as required by the standards, are subject to annual review. Continuous improvement relates to both the management system and its performance. The certification body (third party) carried out external audits of all the integrated management systems in parallel with a complete internal audit cycle to assess general progress.

To raise worker awareness, a monthly report is published on quality, asset integrity, environment and health and safety; any workplace accidents are discussed during periodic meetings. In addition, we scheduled the installation of 30 Red Cross and White Cross defibrillators in 2019 (operational from 2020 forward) both inside and outside of Alperia workplaces and at some customer sites. Emergency teams of workers will be adequately trained in their use. There were also a number of other activities. In order to ensure all employees are aware of the importance of occupational health and safety, Alperia provided 8.984 hours of training for the group companies, in which a total of 707 employees took part.

Awareness-raising also takes place online and on the company intranet, with information tips accompanied by the hashtag #weworksafely. This is also the title of a video made during the year on the issue of working safely. Information about lessons learnt and periodic discussions about workplace accidents are also outlined. From 2019 forward, the HSE monthly report also includes a section called Zero Waste, aimed at further raising awareness about environmental sustainability.

Alperia also continued activities under its agreement with the Civil Protection department for the management of activities, facilitating communications related to critical infrastructures that could potentially cause serious emergency situations. Health-surveillance management was also digitalised, using a dedicated IT system.

The Alperia Group's workplace accidents remained almost unchanged compared to 2018, equal to 14 events (13 in the preceding year). Absence days increased significantly, from 293 to 427. This increase was the result of a very serious accident at Edyna, which forced employees to stay at home for several days. The Frequency Index (FI) subsequently went from 8,94 to 8,68 and the Severity Index (SI) from 0,20 to 0,26.

### Health and safety for our contractors

We introduced a data-collection system relating to activities carried out by staff (e.g. hours worked) and an accident-reporting procedure. Our accident performance assessment is not limited to the Alperia Group, but also encompasses that of external companies working at our offices. The data collected is disseminated in-house through the monthly HSE report. The contractual conditions also include specific clauses on employee health and safety. Work performance of contracting companies is assessed through a dedicated rating system. In 2019, the process of qualification and evaluation of suppliers was further perfected. According to collected data, 2 accidents occurred during the year, leading to 86 days of absence from work. This led to an increase in both the FI accident rate index for contracted companies, from 1,71 to 3,05 and the SI index on work absences, from 0,02 to 0,13.

**Figure 34: Types of injuries and rates of injury, lost days, and number of work-related fatalities {GRI 403-2}**

Employees	2019	2018	2017	YtY variation
Fatalities	0	0	0	0%
Lost workday incidents	14	13	13	8%
Lost days <sup>1</sup>	427	293	192	46%
Hours worked	1.613.516	1.454.474	1.396.937	11%
<b>Incident rate (per 1.000.000 h)<sup>2</sup></b>	<b>8,68</b>	8,94	9,31	-3%
<b>Lost day rate (per 1000h)</b>	<b>0,26</b>	0,20	0,14	31%

<sup>1</sup>When calculating 'lost days', 'days' means 'calendar days'; 'lost days' count begins the day after the accident

<sup>2</sup>Minor (first-aid level) injuries are not included in the injury rate (IR); fatalities are included in the injury rate (IR)

Contractors	2019	2018	2017	YtY variation
Fatalities	0	0	not available	0%
Lost workday incidents	2	1	not available	100%
Lost days <sup>1</sup>	86	13	not available	562%
Hours worked	656.616	584.353	not available	12%
<b>Incident rate (per 1.000.000 h)<sup>2</sup></b>	<b>3,05</b>	1,71	not available	78%
<b>Lost day rate (per 1000h)</b>	<b>0,13</b>	0,02	not available	489%

<sup>1</sup>Calculating 'lost days', 'days' means 'calendar days'; 'lost days' count begins the day after the accident

<sup>2</sup>Minor (first-aid level) injuries are not included in the injury rate (IR); fatalities are included in the injury rate (IR)

## Focus on employee health

We want to create a healthy and wellness-focussed workplace for our employees. For this reason, we give each employee the opportunity to use part or all of their production bonus for benefits under a welfare programme (reimbursement of school expenses for a family member or reimbursement of expenses for assistance for dependent family members). We also provide them with supplementary health insurance and insurance against accidents at work and outside work in the event of permanent disability. Inside our offices, following suggestions received through the myideas tool for employees, we introduced glass water bottles, drinking water dispensers, free apples and sanitisers at office entrances and all bathrooms. We continue to support CRAL, which organises after-work social activities for our employees. We also renewed agreements with various sport centres in Bolzano and with other organisations in the area. The same factors were taken into account when designing the new Alperia headquarters in Merano, which will also be focussed on the well-being of the people who use it on a daily basis, including by building in-house fitness and relaxation rooms.

All these measures have a direct impact on the absenteeism rate, which was 6,01 per 1.000 hours at the group level in 2019, about 9% more than the previous year. There were zero cases of occupational disease in 2019, as was the case in 2018.

**Figure 33: Types of occupational diseases, occupational disease rate, and absenteeism {GRI 403-2}**

Employees	2019	2018	2017	2016
Incidents of occupational diseases	0,00	0,00	0	0
Lost workdays due to occupational diseases	0,00	0,00	0	0
Lost workdays due to absentees of all kinds <sup>1</sup>	11.728,85	10.033,00	10.717	7.633
Hours worked	1.613.515,90	1.454.474,01	1.396.937	1.194.147
Hours scheduled to be worked	1.950.014,96	1.822.583,74	1.824.863	1.511.618
<b>Occupational disease rate (per 1.000.000 h)</b>	<b>0,00</b>	0,00	0,00	0,00
<b>Absentee rate (per 1000 hours)</b>	<b>6,01</b>	5,50	5,87	5,05

<sup>1</sup>Absentee excludes permitted leave absences such as holidays, study, maternity or paternity leave and compassionate leave. The count of 'lost days' begins the day after the absence

**Strategic objective:** We want to ensure the highest level of safety in the workplace for our employees and external staff (external companies).

Operational objectives	Measures implemented in 2019	Measures planned in 2019	Deadlines (new)	KPI	Target value	Value in 2019
Monitor all incidents of major external firms	* Build a data collection system for accidents of significant external firms to be disseminated in-house through the monthly HSE report		2019 (achieved)	Frequency and severity of accidents of external firms	tbd	-
No accidents involving employees and those of external firms	<ul style="list-style-type: none"> <li>* Accident analysis and distribution of information and Lessons Learnt to all employees;</li> <li>* Safety training;</li> <li>* Distribute monthly HSE periodic reports;</li> <li>* Discuss accidents at work at regular meetings;</li> <li>* Distribute information tips on the group's intranet accompanied by the hashtag #weworksafely</li> <li>* Health and safety days involving all group company staff were carried out</li> <li>* Follow-up and implementation of the Internal Audit recommendations</li> </ul>	<ul style="list-style-type: none"> <li>* Accident analysis and distribution of information and Lessons Learnt to all employees</li> <li>* Safety training</li> <li>* Distribution of monthly HSE periodic reports</li> <li>* Discussion of accidents at work at regular meetings</li> <li>* Follow-up and implement the Internal Audit recommendations</li> <li>* Plan preparation for installing 30 Red Cross and White Cross defibrillators inside and outside of Alperia offices and workplaces</li> </ul>	2020 (ongoing)	Number of accidents with days lost	0	14 (employees) 2 (external firms)

**Strategic objective:** We want to actively promote the health of our employees.

Operational objectives	Measures implemented in 2019	Measures planned in 2019	Deadlines (new)	KPI	Target value	Value in 2019
Reduction in the rate of absence	<ul style="list-style-type: none"> <li>* Planning for fitness and relaxation rooms at the new company headquarters in Merano</li> <li>* Various agreements signed by CRAL Alperia with fitness clubs</li> <li>* Reduced performance bonus in the event of certain types of absence</li> <li>* Provide free apples for employees</li> </ul>	<ul style="list-style-type: none"> <li>* Continue measures introduced in previous years</li> <li>* Stock organic, vegan, Kilometre Zero food in vending machines</li> </ul>	2020 (ongoing)	Absentee rate	-	6,01%



# Development and innovation

South Tyrol is on its way to becoming an increasingly smart and green province. As its main energy service provider, Alperia wants to contribute to this mission. For this reason, we invest in research and development with some of the most important Italian academic and technology bodies and promote the study of innovative systems to improve our activities and support smart and sustainable growth throughout the South Tyrolean region.

7 AFFORDABLE AND CLEAN ENERGY



Ensuring access for all to affordable, reliable, sustainable and modern energy systems

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



Building a resilient infrastructure, promoting innovation and equitable, responsible and sustainable industrialisation

11 SUSTAINABLE CITIES AND COMMUNITIES



Making cities and human settlements inclusive, safe, durable and sustainable

12 RESPONSIBLE CONSUMPTION AND PRODUCTION



Ensuring sustainable patterns of production and consumption

## Sustainability Development Goals promoted by Alperia

<b>SDG 7 Affordable and clean energy</b>	<b>Ensuring access for all to affordable, reliable, sustainable and modern energy systems</b> → We invest in the development of sustainable energy solutions and in the modernisation of our plants and networks. Through the development of innovative projects, we aim to primarily generate our energy from renewable sources (we are already at 94% today). We involve our suppliers to promote sustainable supply and we are developing new products, such as green gas, as well as services and business lines to help our customers be more energy efficient.
<b>SDG 9 Business, innovation and infrastructure</b>	<b>Building a resilient infrastructure and promoting innovation and equitable, responsible and sustainable industrialisation</b> → We develop modern distribution networks, maintaining and improve our systems. We also launched the Smart City and eMobility projects and provide support to innovative research projects with our Innovation Board and dedicated initiatives such as the Alperia Startup Factory. The many projects in this area include: the UVAMs we developed in connecting the Bolzano district heating plant, LIFE4HeatRecovery for a new generation of intelligent district heating and cooling networks where low-temperature waste heat sources (10-40 °C) can be distributed to consumers and Flexi-Grid, a project that will lead to the development of future secondary electrical substations with the use of new generation smart meters.
<b>SDG 11 Sustainable cities and communities</b>	<b>Making cities and human settlements inclusive, safe, durable and sustainable</b> → We have launched projects that will encourage the development of more energy-efficient and sustainable cities. For example the Smart City project, the Smart Land project where we installed intelligent moisture sensors in the fields of 60 South Tyrolean farmers to record and monitor data to improve the irrigation process, investments in green mobility, the expansion of the district heating network to Merano and Bolzano and the Regalgrid project for energy communities and virtual aggregation units where consumers become prosumers, or "co-producer consumers."
<b>SDG 12 Sustainable consumption and production</b>	<b>Ensuring sustainable patterns of production and consumption</b> → Through targeted marketing measures and information campaigns, we aim to raise our customers' awareness of more sustainable consumption patterns and we strive to continuously develop our green product and service portfolio through investing in research and development and promoting innovation.

Investment in research and innovation: **1.560.934**

Revenues from sustainable products and services: **+1,6%**

## Innovation, Research and Development {GRI EU8, GRI 203.1, GRI 102.12}

### Risk management

Risk	Management Approach
Risk of not identifying/planning innovation projects and R&D activities, as well as inadequate channelling of resources to the aforementioned projects/activities with potential impact on the development of new business opportunities	We want to contribute actively to South Tyrol's energy future and develop new technology solutions with innovative research projects. We are preparing innovation guidelines at the group level to support the activities of the Innovation Board and are carrying out the projects selected in 2018. After the success of the previous year's event, we launched the second Alperia Startup Factory.

To encourage the implementation of internal research and development activities, Alperia founded the Innovation Board in 2018. This is a working group made up of employees from different business units and services. The Innovation Board, created to promote a multidisciplinary approach to innovation, also continued its activities in 2019. There were nine projects selected in 2018: two ended, two came to fruition (UVAM and

ELISA) and five are still in progress. Each project is executed and developed to achieve maximum added value for the company, region and customer.

These activities are managed through a governance and control system with a dedicated budget of over €937.842 in 2019 (almost €600.000 more than in 2018), out of more than €100.560 invested in research and development. A periodic report follows up on the issues addressed, chosen because they were in line with the areas of interest defined in the 2017–2021 Strategic Plan. These activities are also the subject of a quarterly meeting with progress update.

**Figure 35: Innovation, R&D and expenditures aimed at providing reliable electricity and promoting sustainable development**

	Unit	2019	2018	2017	YtY variation (%)
Number of employees working on R&D projects	Number of employees	88	46	Not available	91%
Total R&D expenditure	EUR	<b>1.560.934,00</b>	1.056.716,73	1.554.247,59	48%
thereof					
EU projects	EUR	167.293,00	393.168,80		
Other research projects	EUR	455.799,00	317.195,54		
Innovation Board projects	EUR	937.842,00	346.352,39		

Alperia is preparing group-wide innovation guidelines to support the Innovation Board's activities. The objectives of these guidelines is to systematise the group's innovation process, identifying criteria for finding innovative ideas, their selection, details on the prototyping and go-to-market process, specifying the chain of responsibility involved in the various projects, since these are interdisciplinary activities.

We also launched Innovate, an intranet initiative where we asked our employees to come up with innovative ideas. Twelve ideas submitted through the system are now being assessed.

### UVAMs

One of the peculiarities of electricity systems is the need to constantly guarantee that energy required by consumers as a whole is balanced with the energy produced by power plants. Terna is the operator of the Italian transmission grid, and thus guarantees this balance using a highly technical control system, through a dedicated market. In the past, there were a few large power plants that guaranteed energy supply on a national scale. But the growing expansion of renewable energy is leading to many changes for the Italian and European electricity grid. The system has been opened up to many small production, consumption and storage units, the flexibility of which contributes to stabilisation of the electricity grid. Because of this, we now deal with UVAMs (Mixed Enabled Virtual Units), or an aggregation of peripheral units of production, consumption and storage. The aggregated plants, connected to the Virtual Power Plant grid, provide reserve power to be used in the electricity grid should stability problems arise. Terna has established 15 aggregation zones, within which participants in the UVAM project must offer at least 1 MW of positive or negative reserve power. Alperia also took part in these tenders in 2019. The project, which was extremely challenging and carried out within the Innovation Board, involved building a sophisticated IT system to allow the data recorded at some of its plants to be submitted online through dedicated sensors. In addition, the district heating plant in Bolzano was successfully connected. The pilot phase, which has now officially ended, brought the project directly to market, with the intention of introducing other production and consumption units in 2020.

In relation to the financial regulation of UVAMs, the system provides, in addition to the ordinary revenues linked to activated energy (€/MWh), the revenue of resource availability (fixed fee, €/MW).

Currently in Italy, UVAMs are enabled to provide services such as congestion resolution, balancing and tertiary reserves, but Terna's intention is to test how UVAMs can be used for other services (such as secondary frequency/power regulation) and to also involve consumers in the tertiary and/or domestic sector. Indeed, UVAMs are considered fundamental to the redesign of the service market, with a view to a full energy transition. It should

be remembered that the objectives set by the PNIEC (Integrated National Plan for Energy and Climate) are very ambitious and foresee that in 2030 renewable energy will cover more than half of gross electricity consumption (55.4%). To this end, it will be necessary to install about 40 GW of new RES capacity by 2030, which is supplied almost exclusively from non-programmable renewable sources such as wind and photovoltaic<sup>11</sup>.

## **ELISA**

The Innovation Board's second project in 2019 relates to the direct customer relationships. ELISA is an advanced chatbot or virtual assistant that uses artificial intelligence and machine learning to respond to customers appropriately and with consistent language. ELISA has the ability to simulate a human conversation with algorithms that evolve gradually with experience and interaction. ELISA can provide customers with general service information, direct them to web pages with instructions and information, present new products, arrange appointments and manage reservations. By talking to customers, it can give them the answers they need, leaving operators to deal with more complex issues with a higher technical-commercial value. The service is particularly useful in light of the increasing complexity dealing with customers and of the higher numbers of channels to be monitored (email, telephone, social-media networks and messages). Implementing ELISA therefore achieved three objectives: optimising customer-care services; automating communication processes and freeing-up staff; and reducing repetitive low-value activities. The chatbot uses IBM's WATSON technology and is available for Alperia Smart Service, Edyna and Smart Mobility (Neogy) Ecoplus structures and the IT Help Desk. It answers enquiries 24 hours a day, 7 days a week and integrates perfectly with social-media channels, apps and the Alperia website.

## **LIFE4HeatRecovery**

Alperia's Engineering & Consulting department worked with partners EURAC Research, COGEME SpA and Linea Group Holding on the LIFE4HeatRecovery project. The project focuses on the development of a new generation of intelligent district heating and cooling networks where low temperature (10-40°C) waste heat sources can be supplied to consumers. LIFE4HeatRecovery solutions will effectively integrate multiple waste heat sources from urban wastewater and service buildings, allowing a network to be designed providing consumers with reliable, safe and clean thermal energy. LIFE4HeatRecovery will also develop innovative financing mechanisms based on public-private partnerships and active participation models. This strategy brings together European customers, network owners and investors in a single activity and also has a social dimension, creating new business opportunities and chances for participation. This puts users at the centre; they become protagonists in the heating and cooling market. The project, which will be developed by a consortium of ten public and private actors, including energy consultants, utility companies and researchers, will be implemented in four district heating networks: Ospitaletto (Brescia), Wüstenrott in Germany and Rotterdam and Heerlen in the Netherlands.

## **Zero Emission LIFE IP**

Alperia collaborates with the Autostrada del Brennero A22, Azienda Pubbiservizi Brunico, Eurac Research Institute, Vinschgauer Energie Konsortium, IIT (Institute for Technology Innovation Bolzano) and STA (Strutture Trasporto Alto Adige SpA) on the Zero Emission Services for a Decarbonised Alpine Economy project, coordinated by the SASA transport company. The project is based on the 2050 South Tyrol Climate Plan, which aims to reduce CO<sub>2</sub> emissions in various sectors, contributing to the green transformation of South Tyrol. To make this happen, the partners have joined forces to expand the infrastructure network for zero-emission mobility, put pilot fleets on the road and develop zero-emission services (e.g. taxis, shuttle services and freight transport). Specifically, Alperia is dealing with the installation and management of six fast-charging columns in the province. The project launched on 1 January 2019, and will continue for eight years.

## **Smart Land**

A third of South Tyrolean companies are in the agricultural sector: 50% of apples sold in Italy are produced in South Tyrol, and the province is one of the leading producers of white wine in Italy. Therefore, agriculture's contribution to the local economy is fundamental. This is why Alperia collaborates with the Laimburg Research Centre and the Fruit and Vegetable Consultation Centre to develop new technology solutions to make agriculture even more sustainable and efficient. These activities are part of the Smart Land project, which aims to make cultivation irrigation even more intelligent and respectful of resources. Over 120 soil-moisture sensors

<sup>11</sup> <https://www.terna.it/it/sistema-elettrico/ruolo-terna/insight>

were installed in the fields of 60 South Tyrolean fruit and vine growers, recording and monitoring irrigation data. The system advises the farmer about soil-moisture levels and combines weather and current temperature data. Modern data transmission technology makes it possible to give farmers the collected information directly, online and in real-time. Alperia Smart Region, the Alperia business unit in charge of the project, has made its know-how available to develop the technology that will allow farmers to manage the irrigation process without waste. In the future, farmers will be able to retrieve sensor data on their mobile phones in real time, allowing them to react promptly to water shortages. This will not only increase crop quality and ensure volumes, but will also allow for an increasingly sustainable and natural agriculture industry.

### **Sybil**

Alperia Bartucci has developed Sybil, an innovative system that regulates heat distribution by adjusting generators and mixing valves, within the required comfort levels for the building. The technology works with Artificial Intelligence algorithms and allows a lower average temperature to be maintained in boilers and distribution circuits. The system produces intelligent alerts that correct non-optimum user behaviour and report system malfunctions to the thermal power plant. All this generates savings of up to 30% on heating and guarantees remote management of systems. The technology is unique (international patent pending) and innovative in comparison to traditional control and monitoring systems.

### **Flexi-Grid**

The electricity sector has seen a radical transformation in recent years: On one hand, there has been exponential growth of non-programmable renewable source (NPRS) plants connected to the medium- and low-voltage grid and, on the other, conventional plants capable of providing the necessary regulation services to ensure safe system operation have been decommissioned. The Flexi-Grid project was launched to make the electricity grid increasingly safe, reliable, sustainable and innovative. It involves 16 partners from five European countries (Spain, France, Italy, Croatia and Greece) and will lead to the development of:

- future secondary electrical substations with the use of new generation smart meters
- protection systems that allow for and integrate a high penetration of renewable source produced energy into the grid
- software modules that can identify anomalies or malfunctions along the network, first attempting to resolve them automatically and then, if necessary, requesting the intervention of on-call staff from the remote monitoring centre

In addition, a platform will be developed integrating hardware and software solutions to exploit data provided by local energy resources and distributed with Flexi-Grid solutions, which will be interoperable with stakeholder IT systems, increasing their potential to be replicated. This will allow the distribution operations along the DSO (Distribution System Operator) electricity grid to be rendered more flexible, reliable and cost-efficient, promoting market growth and development.

Edyna, as the main DSO of South Tyrol, participates in the project with the MV and LV grid at the Sarentino primary substation. Here the medium-voltage and low-voltage grids are powered by a primary system. We want to test the technical feasibility of modulating the production and loads connected to the medium-voltage grid (to optimise grid power flows and reduce congestion) and use the available production for isolated management of the electricity grid in emergency conditions. The project began on 30 October 2019 at the CIRCE headquarters in Zaragoza, a research centre leading the consortium of partners; it will continue for 48 months.

### **Alperia Startup Factory**

Alperia launched the Alperia Startup Factory, a competition for innovative ideas in the field of renewable energy and the green economy. The project brings together start-ups, innovative SMEs, university researchers and talented young people. The international call for innovative ideas covered five sectors: smart mobility, smart home & building automation, public lighting, hydropower and call-centre optimisation. After a multi-stage selection procedure, the candidates with the most interesting projects were invited to South Tyrol to participate in a two-day workshop, the Innovation Camp. In a second phase, the finalists worked on creating prototypes and carrying out market testing with a view to possible product marketing. The winning start-ups were FieldBox.ai and Beedata, beating out 142 other candidates from across Europe. They then began a collaboration with Alperia to implement the projects for customers and the company. FieldBox.ai, specialised in artificial intelligence solutions for the industrial sector, put forward the Hydrobox project, a digital solution for

monitoring strain on penstocks. The automated surveillance system also has an important forecasting capability. Beedata works in the data analytics sector of the energy market in Europe; its BeeTeam project produces energy bills with additional information and sophisticated data analysis. Alperia Bartucci leads this team. The project allowed for the production of customised reports for some industrial customers, with suggestions for energy efficiency and changes in behaviour, sector benchmarking and initiatives to reduce their carbon footprint.

Following the success of the first year, Alperia has launched the second Alperia Startup Factory, which will end in May 2020 and will cover five themes: energy sharing, smart mobility, stakeholder and customer engagement, district heating and intelligent & safe infrastructure. With 230 teams having applied for the competition, there were 60% more than in the previous year (142 applications). Applications have come in from 37 countries around the world, in Europe, North America, South America, Asia and Australia.

### **Open Innovation**

Alperia collaborates with local and international partners from the scientific world and industry, including research institutes, companies and start-ups. In 2019, it strengthened its collaboration with the Free University of Bozen/Bolzano. One example is an event entitled "Energy Day: Synergies between economic and technical aspects," organised by Alperia and Edyna in collaboration with the university's Science and Technology department. The event was held for students taking an econometrics course on their way to a degree in economics and management, as well as those enrolled in the Hydropower Plants and Hydropower Systems course in the Energy Engineering section of the M.S. programme. The aim of the event, attended by over 120 people, was to introduce students to real industry issues and highlight job prospects in the energy economy.

Collaborations also continued with Eurac Research Institute, IDM Südtirol-Alto Adige and NOI Techpark, the innovation campus in Bolzano. These collaborations are reinforced by a common predisposition to innovation and multilingualism, an important driver for sharing ideas between the German and Italian world. South Tyrol is privileged in being able to host experimental pilot projects, to test out and launch new technology solutions.

### **Smart Net**

Edyna worked with 21 partners from nine European countries on Pilot A of the SmartNet research and innovation project. The three-year project ended in June 2019, and focused on the crucial issue of how to optimise grid storage of electricity produced from renewable sources. In Europe, production of electricity from renewable sources is constantly increasing; likewise its use in electricity grids, mainly those of DSOs. This involves major changes, not only for the European energy market, but also in the coordination between the various operators of the electricity grids, especially in relation to medium- and high-voltage grids. The aim of the SmartNet research project is to find and apply efficient tools and systems to improve coordination between network operators, at both a national and European level. The exchange of information for network monitoring and the development of ancillary services (voltage balancing, frequency adjustment and network congestion management) is at the core of the project. The project is funded by the European Commission's Innovation and Networking Agency (INEA) under the auspices of the Horizon 2020 research programme. Both industrial and scientific partners participated in the project, and in addition to Edyna, the other parties involved include: Terna (Italy's main national network operator), the Technical University of Denmark, Vodafone (Luxembourg), Endesa (Spanish energy company), Sintef Energi As (Norwegian research facility) and Visa (Belgian research institute). Ricerca sul Sistema Energetico, or RSE (managed by parent company GSE), coordinates the SmartNet project. The new, varied equipment designed, built and installed as part of the trial under SmartNet's Pilot A, with the related financial coverage, remains installed and working in the Valle Aurina production plants that participated in the project. During autumn of 2020, a meeting is scheduled with technicians (plant managers who collaborated in the project activities) in collaboration with the RSE coordinator, Gianluigi Migliavacca, in order to illustrate the remarkable results achieved and the prospects for real-time data exchange between generator, DSO and Terna.

### **Storage4Grid**

The European Storage4Grid project looks at identifying a decision-making model to estimate the costs/benefits of planned storage-system installations at private and public sites, where there is a simultaneous presence of consumption, RES production (typically photovoltaic) and charging stations for electric vehicles. The installation of storage equipment and a column for recharging electric car batteries in the Bolzano suburbs, the Residential Site, was completed in a short period of time. During the autumn of 2019, storage equipment was switched on that simultaneously feeds about a dozen charging columns for electric cars at the second site, the Commercial-Industrial Site, at Edyna headquarters in via Lungo Isarco 45/A in Bolzano.

### **Smart Edyna**

In 2018, Edyna launched the Smart Edyna project to create an intelligence base at the Edyna headquarters, located at via Lungo Isarco 45/A in Bolzano. With the use of innovative technologies and through a single dashboard, it will be possible to monitor different areas, such as:

- water reuse: Smart Water is a project dedicated to the collection of rainwater for irrigation, measurement of water transit and detection of soil moisture, as well as intelligent irrigation based on forecast and/or received weather data.
- parking management: Smart Vehicle is an intelligent parking system that identifies free spaces for cars, bikes and motorbikes, counts vehicle numbers and has electric charging columns.
- lighting sensors: Smart Lighting is an LED lighting system activated by detection sensors when pedestrians pass by
- access control: Smart Access is an automatic access recognition system.

Intelligent waste management is to be added to these already active four areas. The entire project, which Edyna presented in the Long Research Night 2019, will end in 2020. Once the development phase is complete, it will be offered to the market to encourage better energy resource management.

## Energy communities

The project dedicated to energy communities continued in 2019. Alperia signed a framework collaboration agreement with Regalgrid Europe Srl, one of the digital energy sector leaders, back in 2018. The aim is to develop a proprietary and patented digital platform and make it available to customers. The platform is capable of offering advanced features allowing for the monitoring, optimisation and real-time management of self-produced, accumulated and consumed energy. In the near future, increasing numbers of consumers will become *prosumers* or co-producer consumers. The solution proposed by Regalgrid® allows the prosumer to further evolve, by becoming part of a community of connected prosumers and optimising exchangeable energy flows. This is useful to meet each of their needs and to reduce consumption costs, as well as those related to investment in self-production and storage devices. It is a win-win mechanism: the user is more aware of his or her needs, and the energy provider is more aware of its customer's needs. All this means personalised offers can be made to customers, resulting in greater savings on bills and more transparency.

In 2019, the first devices supplied by Regalgrid were installed at the NOI Techpark in Bolzano. This made it possible to launch the first virtual energy community in South Tyrol and one of the first in Italy. The SNOCU (Smart NOde Control Unit) devices were connected to the existing photovoltaic system and specific users inside the technology park, which were also equipped with storage systems and inverters supplied by Huawei and SolarEdge. Additional internal users will be subsequently connected to the same community, together with charging stations for electric vehicles. SNOCUs work by transmitting production, consumption and energy storage data from the various connected prosumers to the cloud. A proprietary algorithm then defines the different consumption profiles of each user, redistributing the energy intelligently and optimising flows within the community. During the same year, another pilot project was launched in collaboration with Regalgrid. Again, it was within the energy sector but this time more specifically aimed at the South Tyrolean farming community. This second project involved 20 farms in South Tyrol. In seven, adequate inverters and storage systems working with existing photovoltaic systems were installed in addition to SNOCUs, based on the consumption needs of each user. The remaining 13 farms have only SNOCUs installed. By March 2020, all installations will be complete, creating the Bauernbund Energy Community and virtually connecting the various volunteers participating in the project. The detection and certification phase of the algorithm that governs the operation of the SNOCUs will then begin. Eurac Research Institute has been given the task of ensuring the effectiveness of the algorithm developed by Regalgrid for both projects, and will be required to give feedback on the actual advantages in terms of economic savings and optimisation of flows in energy communities using SNOCUs. The device, which is much more than a simple router, not only transmits data but allows inverters, batteries and smart meters to communicate. It thus acts as a real actuator, capable of receiving orders from the algorithm that governs the process, carrying out the switch-on and standby operations of the various devices and therefore managing the energy flows of the energy community, transforming each system into an active node in the community. The system offered by Alperia is unique because it provides for the existence of a third-party network operator. Alperia itself will act as the managing body and deal with payments.

Alperia is in the final stage of defining its offers in the domestic field related to the supply and installation of photovoltaic systems with accumulation. The company intends to also directly equip its customers with SNOCU, making them energy community ready – that is, ready for access and active participation in the energy community, so as to generate an economic advantage both for themselves and the energy provider. The pilot phase of this project began in 2019. Ten users already equipped with a photovoltaic system had adequate storage systems and related inverters installed to assess the results of at least one year's self-production and actual self-consumption. This allows for the optimisation of future sector-specific offers in terms of power size (photovoltaic systems) and energy (batteries) that can be installed, relative to the typical consumption ranges of domestic users.

**Strategic objective:** We want to actively contribute to the energy future and develop new technological solutions with innovative research projects.

Operational objectives	Measures implemented in 2019	Measures planned in 2019	Deadlines (new)	KPI	Target value	Value in 2019
Creation of centralised and multidisciplinary innovation management	<ul style="list-style-type: none"> <li>* Start preparation for an innovation procedure at the group level to support the activities of the Innovation Board</li> <li>* Develop report on order controlling</li> <li>* Develop the projects ELISA, UVAM and "Mi muovo con la mia Energia" (I get around with my own energy)</li> </ul>	<ul style="list-style-type: none"> <li>* Implement and monitor projects launched by the Innovation Board</li> </ul>	2017–2021 (ongoing)	Investment in research and innovation (EUR Mln)  Number of employees in research and innovation projects	tbd	€1,56 mln  88 employees
Cooperation and search for synergies with businesses, start-ups and research institutes (OPEN INNOVATION)	<ul style="list-style-type: none"> <li>* Start of collaboration with 5 start-ups selected at the end of 2018, through the experience of Alperia Startup Factory for the creation of prototypes; continue on path with creation of a proof of concept and launch of the second Alperia Startup Factory event</li> </ul>	<ul style="list-style-type: none"> <li>* Implement projects with winning start-ups</li> </ul>	2017–2021 (ongoing)	Number of start-ups with projects	5	4  Fieldbox Enterprise Bot IceGateway Beedata
Development of tools (myAlperia improvement proposals, workshops, etc.) to create space for ideas and encourage an entrepreneurial mindset among the workforce.	<ul style="list-style-type: none"> <li>* Launch the Innovate project: a call on the company intranet to ask employees for innovative ideas; twelve ideas submitted through the system are now being evaluated</li> </ul>	<ul style="list-style-type: none"> <li>* Assess the 12 ideas from Innovate and select those to be advanced; launch new edition of Innovate</li> </ul>	2017–2021 (ongoing)	Number of suggestions on the internet portal	-	59 My Ideas  + 12 INNOVATE

## Sustainable products and services {GRI EU7; 302-5; ALP4; ALP5}

### Risk management

Risk	Management Approach
Risk of failure/inadequate development of new energy concepts (e.g. products and services) with potential impact on the strategic objectives to make the business 100% green	We want to develop new business activities in line with the 100% Green DNA concept, promote the take-up and purchase of green products and increase the sales share of sustainable products and services. For this reason, we are examining consumer behaviour programmes aimed at stimulating the purchase of green products.
Risk of failure/inadequate management and development of electromobility services and support infrastructures	We want to promote electromobility and the charging infrastructure in South Tyrol. To achieve this, we are making Alperia an e-mobility service provider and installing charging infrastructures in the area.

In 2019, Alperia generated a 40% revenue share through sustainable products and services. In 2018, that share was 49%. The lower percentage recorded in 2019 is due to the fact that there was a sharp increase in overall revenues from trading activities. Revenues from sustainable products and services alone increased by 1.6% year-on-year. The objective, in line with the next business plan, is to significantly increase this share, investing increasingly in green gas, green energy, district heating, energy efficiency and electric mobility.

### Green Energy and Green Gas {GRI 302.4}

Alperia is one of Italy's leading green-energy companies. It produces energy from renewable sources, through its managed hydroelectric plants within the province. In 2019 these plants, together with solar energy and biomass, generated around 4,3 TWh/year (around 4,2 TWh/year in 2018) of energy from renewable sources. Most power stations are certified, meaning that they produce 100% of CO<sub>2</sub>-free renewable energy in accordance with current legislation, thereby ensuring a sustainable energy supply. This renewable energy is made available to both private and corporate customers, in line with the Province of Bolzano's 2050 Climate Plan (for more information, visit: [www.ambiente.provincia.bz.it](http://www.ambiente.provincia.bz.it)). In this way, Alperia customers can supply themselves with clean energy, produced from the power of the water that flows from South Tyrol's mountains, effectively contributing to climate protection. By taking up this type of energy, the same companies can meet the usage requirements of some of Europe's most environmental certification branding; Alperia provides them with an extensive communications package free of charge. The package includes Green Energy certification, a metal tag or Green Energy logo, which can be published on the website or printed on corporate material and product packaging. The same applies to those choosing green gas, a climate neutral gas, the emissions of which are offset with climate-protection projects and certified annually by TÜV NORD, an established independent certification body. Alperia supports projects that promote energy efficiency, green- and sustainable-energy production and reforestation. The projects comply with the Gold Standard and/or the Verified Carbon Standard, and meet the Kyoto Protocol criteria and requirements. Offsetting greenhouse gas emissions helps to generate a climate-neutral and environmentally friendly lifestyle. This is why Alperia invests in promoting green gas, and will increasingly do so in the future. To avoid additional emissions generated by using the postal service, green gas bills are sent exclusively in a digital format. In 2019, green gas was also offered to residential and business users outside of South Tyrol.

Currently, 100% of the electricity sold in South Tyrol to residential customers is green; the figures for gas will increase by 2020.

For TU.GG. customers, who enjoy higher protection and in South Tyrol are managed by Alperia, the company supplies the energy mix required by the energy regulator, ARERA.

## Energy efficiency

In 2018, Alperia founded Alperia Bartucci, acquiring 60% of the shares of Bartucci SpA, a leading Italian company in the sector. The company specialises in the planning and implementation of measures for industrial energy efficiency and integrated energy services. Alperia Bartucci serves over 300 customers located throughout Italy and employs a team of more than 50 professionals capable of identifying the best solutions to minimise production-process energy consumption. In addition to the normal ESCO services (consultancy and E.P.C. with efficient technologies from third party suppliers), Alperia Bartucci offers its customers energy-efficiency measures based on patented proprietary technology. It is able to design, develop and implement Advanced Process Control Systems (APC) based on multivariable and predictive algorithms that automatically regulate the production process, seeking a reduction in costs related to the primary energy consumed. In 2019, Alperia Bartucci's business developed in various directions:

- energy efficiency measures through its own investment in EPC (Energy Performance Contracts), which combine the advantages of financing through third parties for the purchase of technology with customer performance remuneration
- energy-efficiency monitoring in Alperia offices
- launch of building energy efficiency through the aforementioned Sybil system and tax credits for construction activities on large buildings and smaller-scale activities, from windows to centralised condominium boilers

The monitoring and diagnosis of consumption at Alperia offices began at the end of 2018, and continued throughout 2019. It involved the district heating plants in Bolzano and Sesto; the Cardano, Bressanone and Ponte Gardena plants; the Edyna offices; the Alperia SpA headquarters in via Dodiciville in Bolzano; and Alperia Energy, located at piazza Mazzini in Bolzano. Alperia Bartucci used the energy-diagnosis tool to identify a series of possible activities to be carried out at the assessed plants and locations. The following was identified for each activity: expected energy savings, investment cost, return on investment and presence of Energy Efficiency Certificates (TEE), that is, those that certify achievement of energy savings for the energy end-user through implementing activities to increase energy efficiency. Among the scheduled activities, we note the following:

- installation of a new gas boiler at the Silandro plant: estimating production capacity of 3600 MWh/year, equivalent to about 600 h/year of operation at full load and a new boiler efficiency of 93,5%, it is reasonable to expect a savings of 5,4 toe/year
- installation of an economiser on a biomass boiler: based on the production capacity of 2018 (approximately 3737 equivalent hours in the ex post configuration) and estimating a thermal recovery of 400 kWt, the savings potential is 146 toe/year for seven years
- refurbishment of the co-generator at the Merano plant

There were 46 projects managed with EPCs in 2019 (21 in 2018), with a total annual savings of 4.661 toe, (tons of oil equivalent) and total prevented atmospheric emissions equal to 5.889 tCO<sub>2</sub>. In the same year, 112.544 Energy Efficiency Certificates were issued to Alperia Bartucci SpA (218.387 in 2018) leading to 44.793 toe (76.132 in 2018) saved by customers for whom Alperia Bartucci SpA, as ESCO, carried out the process to obtain the Energy Efficiency Certificates (TEE).

Finally, Alperia Bartucci carries out research and innovation projects and also offers business customers the opportunity to perform an online Web Energy Check, comparing their performance with other sector companies.

## Smart Region

Established in 2018, the Smart Region business unit contributes to making South Tyrol a cutting-edge Smart Region. It operates in three areas:

- telecommunications with Alperia Fiber
- e-mobility with Alperia Smart Mobility (later becoming Neogy)
- energy efficiency with Alperia Bartucci

Becoming a Smart Region involves digitalising the region, electrifying mobility and reducing energy consumption efficiently to guarantee sustainable development.

The 2017–2021 Alperia Group Strategic Plan provides for an investment of over €87 million into the Smart Region business unit and a further €18 million into innovative projects and digitalisation of assets and processes. In 2019, the €9,2 million invested was broken down as follows: €3,5 million into Alperia Bartucci, €4,3 into Alperia Fiber and €1,4 into Neogy. In 2018, by comparison: €2,1 million in Alperia Bartucci, 4,6 million in Alperia Fiber and around one million into Alperia Smart Mobility.

The telecommunications area includes:

- Smart Land: Alperia has developed an experimental project with the Laimburg Research Centre, leading to the installation of intelligent soil moisture sensors to make the irrigation process more efficient. The system has good potential in terms of water savings and will bring significant reductions in CO<sub>2</sub> emissions, since the water pumps are powered by diesel generators. According to estimates, savings could exceed 50% for both water and CO<sub>2</sub>. In 2020, the project will continue with marketing of the sensors.
- Connection to the ultrabroadband network completed for 3.500 homes in Sesto, Chiusa and Tirolo, bringing more than 500 service users online
- Launch of a pilot project to develop photovoltaic energy communities in collaboration with the South Tyrol Union of Direct Farmers and Growers

**Strategic objective:** We want to turn the whole of our business green.

Operational objectives	Measures implemented in 2019	Measures planned in 2019	Deadlines (new)	KPI	Target value	Value in 2019
Develop new business activities in line with 100% Green DNA principles	* Develop new partnerships, green combination products for example: extend the Sparkasse agreement to retail power/gas customers	* Develop new green combination products and increase new green customers	2017–2021 (ongoing)	-	-	-
Develop new business activities in line with 100% Green DNA principles	Joint marketing campaign with Car-Server to promote electric mobility and partnership in the E-Test Days event	* Implement the Regalgrid project dedicated to energy communities and virtual aggregation units, with the conclusion of the installation scheduled for 2020 and the start of surveys	2017–2021 (ongoing)	-	-	-
Develop new business activities in line with 100% Green DNA principles	* Carry out feasibility study on the issue of biogas	* Widen the feasibility study on the issue of biogas	2021 (ongoing)	-	-	-
Increase the share of sales of sustainable products and services	* Initiative for the sale of green products (electricity, gas, thermal services)/training of sales staff	* Initiative for the sale of green products (electricity, gas, thermal services) and training of sales staff	2017–2021 (ongoing)	Share of revenues of sustainable products and services (%)	-	40%
Installation of 5,000 charging stations	* Extend the charging infrastructure * Develop new app for booking columns * Create the Neogy joint venture with Dolomiti Energia	* Expand the charging infrastructure and interoperability agreements	2017–2021 (ongoing)	Number of charging stations	5.000	968 (ongoing)

## APPENDIX

### MANAGEMENT APPROACHES {GRI 103}

#### TERRITORY

##### Security of Supply

###### **103-1 Explanation and definition**

This topic was identified as essential in the 2019 materiality analysis, both in terms of impact and stakeholders. The direct impact on customers is the result of Alperia's production and distribution of electricity. Alperia limits itself to its core business, namely electricity production and distribution.

###### **103-2 The management approach and its components**

As the largest energy supplier in South Tyrol, Alperia aims to ensure a safe and efficient supply of electricity from renewable sources. This is in keeping with the South Tyrol 2050 Climate Plan, which provides for the promotion of renewable energy. In view of the growing demand for electricity in South Tyrol, it is essential to supply and produce sufficient renewable energy now and in the future. The energy distribution system is becoming increasingly complex and decentralised; it needs to respond more flexibly to energy production and demand. Alperia must respond to this evolution, developing an efficient and intelligent network. The group defines responsibilities internally. The remote monitoring centre in Bolzano is responsible for reporting any malfunction or breakdown in the electricity supply service. The service, provided by bilingual operators, is available 24/7, 365 days a year. Alperia budgets for investments to improve service quality and upgrade network infrastructure to increase stability. They are reported annually in the sustainability report under Investments.

###### **103-3 Evaluation of the management approach**

Management systems are regularly reviewed and monitored against set indicators; electricity distribution is subject to the requirements of the national supervisory authority (ARERA). The systems are constantly updated.

#### Supplier Management

###### **103-1 Explanation and definition**

This topic was identified as essential both in terms of impact and by stakeholders. As a complete supplier of energy services, Alperia purchases its products, materials and raw materials from various Italian and foreign suppliers. This leads to direct social and environmental impact throughout the supply chain.

###### **103-2 The management approach and its components**

In selecting suppliers and commercial partners, Alperia aims to ensure respect for environmental and safety standards in the workplace. Alperia works with suppliers and commercial partners to make the supply chain increasingly transparent and eco-sustainable by favouring local suppliers wherever possible. To this end, Alperia selects suppliers based on specific sustainability criteria and standards, updating both the register of suppliers and the vendor-rating system. In addition, all purchase contracts and the general terms and conditions for contracting at a group level contain a binding human-rights clause. Responsibility for this topic has been defined internally. The volume of purchases from local suppliers is regularly recorded and reported annually in the sustainability reporting.

###### **103-3 Evaluation of the management approach**

The effectiveness of the management approach is regularly reviewed and monitored based on set indicators. To ensure the quality of suppliers and to minimise the risk of loss and dependence, Alperia's main suppliers are evaluated according to a vendor rating system. The evaluation criteria are also integrated with sustainability

criteria. For each contract signed with a new supplier, Alperia can perform an audit and verify the supplier's data by checking the information received; this happens partly through on-site inspections and interviews. In 2019, the BravoSolution tender-management system was implemented to make document management with suppliers more efficient.

## **Economic Value**

### **103-1 Explanation and definition**

This topic has been identified as essential in terms of impact but, above all, by stakeholders. Alperia is one of the largest companies in South Tyrol; all its shareholders are public institutions. The group's economic growth therefore has direct and indirect impact, both internally and externally.

### **103-2 The management approach and its components**

Alperia aims to generate significant added value for the various stakeholder groups every year, in order to boost local economic development (including dividends, salaries, taxes and environmental funds). In addition, economic growth has indirect effects, such as investments in the development of infrastructure or the Smart Region of South Tyrol, with which Alperia intends to create ecological added value for the province and to make its own contribution to a smart and digital South Tyrol. Responsibilities are defined within the company. The financial resources used are recorded annually in the context of sustainability reporting and reported externally.

Omissions: complaint procedures.

### **103-3 Evaluation of the management approach**

Effectiveness is assessed annually on the basis of previously defined indicators and, if necessary, adjusted.

## **Asset Integrity**

### **103-1 Explanation and definition**

This topic was identified as essential both in terms of impact and by stakeholders, in particular by coastal and host municipalities, as well as stakeholders. For Alperia, the topic includes the use of security solutions and plant security management to protect employees and residents. Business activity has direct and indirect impact on the environment, the economy and society.

### **103-2 The management approach and its components**

Alperia's distribution infrastructure and power plants, reservoirs and dams are considered sensitive to accidents, natural disasters or terrorist attacks. Alperia seeks to minimise the risks through investments in safety and modernisation. Regular drills and comprehensive emergency plans are carried out to prepare for emergencies. A serious accident would not only have an impact on the surrounding areas but would also have a direct impact on the company itself. Responsibilities have been defined within each business unit.

### **103-3 Evaluation of the management approach**

The evaluation is carried out regularly in the individual business units. Additional external inspections are also carried out regularly, in accordance with legal requirements for plant safety

## **GREEN MISSION**

### **Water**

#### **103-1 Explanation and definition**

This topic was identified as essential by stakeholders and also in terms of impact. Alperia's activities in the field of hydroelectric production have direct impacts on water ecosystems.

#### **103-2 The management approach and its components**

Alperia operates 34 hydroelectric plants with large and small branches as well as 15 large dams and 17 smaller sites in South Tyrol. Hydroelectric plants produce renewable energy; thus, they do not consume natural

resources. The water used in the energy-production process, after being taken from the intake structures, is returned to the environment (river or lake) through a canal or tunnel. The quantities of water withdrawn and turbinated are determined by concession decrees (administrative acts issued by the Province of Bolzano regulating the use of water for hydroelectric plants), which also establish the quantities to be released into the downstream sections (minimum vital outflows) in order to ensure the functioning of the aquatic ecosystem.

#### Sediment management

The management of sediment that accumulates upstream of hydroelectric plant intake works (river dams and artificial basins) is of particular hydraulic and environmental importance. During flooding, and also in low water periods, large waterways take in solid matter from various tributaries and transport it to the valley. Sediment transport is a natural phenomenon, which is necessary for the river system itself, but also for lagoon systems at the sea mouth and for the maintenance of coastal areas.

In South Tyrol some systems are managed by Alperia with barrier structures on the large watercourses of the Adige, Isarco and Rienza valley floors.

There has been a discussion for the last twenty years on the issue of management of sediments that accumulate upstream of intake works: fisheries managers would like this sediment not to be released downstream due to the impact of these operations on fish fauna (requiring mechanical removal). The authorities that oversee safety and hydraulic management consider the operations necessary to guarantee the transport of sediment to the valley. The Concessionaire has the task of guaranteeing the hydraulic safety of the intake works (effectiveness of the discharge components) and of maintaining the useful storage capacity of reservoirs. In the last decade, Alperia presented management projects for reservoirs, which took into account the various ecological, hydraulic and water-resource use needs including for other purposes (e.g. irrigation). The individual management plans were drawn up in a climate of constructive dialogue with the competent authorities, seeking sustainable solutions. The Concessionaire has made every effort to comply with the requirements of these management plans.

For the artificial basins of Rio Pusteria and Fortezza, the management project foresees a release (draining) during the low-water period, generally at three-year intervals; this involves the release of accumulated sediment downstream. Studies carried out in the past – and also confirmed by the findings in 2019 – show that these release operations cause a loss of the youngest fish (fish born in the release year); the adult population, meanwhile, survives the prolonged periods of turbidity. The Concessionaire has tried to extend the time between these releases to the extent possible, carrying them out in periods with high outflows; this guarantees the highest dilution of sediment and good operational effectiveness. The release operation in the Rio Pusteria basin carried out in summer 2019 received some negative press coverage. Alperia has launched a feasibility study to implement alternative release methods.

#### Mitigation and offsetting measures

The operation of hydroelectric power stations in South Tyrol is accompanied by the adoption of environmental measures. For the first time, and the only case in Italy, the granting of concessions for large hydroelectric power plants in 2011 is linked to important environmental measures and the allocation of the necessary financial resources. The adoption of environmental measures is also envisaged for the expired concessions which are currently extended. Alperia has provided environmental funds annually for 16 large hydroelectric plants: Santa Valburga-Pracomune, San Pancrazio, Lana, Sarentino, Cardano, Ponte Gardena, Bressanone, Lappago, Molini di Tures, Lasa, Brunico, Glorenza-Castelbello, Tel, Marlengo, Vizze and Barbiano.

For the entire 30-year duration of the concession, Alperia will allocate approximately €400 million to environmental projects, to benefit the coastal municipalities affected by the presence of the power stations. In 2019, Alperia made available €18,8 million to carry out these projects, of which €17 million was destined for the Alperia GreenPower and Alperia VIPower plants. In so doing, it implements numerous environmental and landscape conservation and improvement projects previously identified by the boards of the individual hydroelectric plants. Environmental improvement measures are carried out by the coastal municipalities themselves, by the Autonomous Province of Bolzano or by the concessionaire. A part of them deal with water courses (morphological improvements, removal of obstacles to the migration of fish, renaturalisations, measures promoting indigenous species of fish fauna, etc.). For some plants, the responsible province offices and fishing associations provide for the breeding of fry every year, in accordance with the Concession Regulations, in order to rebalance the distribution of fish species and to allow fishing. To encourage the improvement of the life of fish species, artificial passages (fish ladders) to the intake structures are planned for some plants. Currently there is no centralised complaint mechanism; complaints are handled locally at the individual power plants. We have set a target to implement a centralised complaint mechanism by 2021.

Omissions: Complaint procedures

### **103-3 Evaluation of the management approach**

For the large branches, the concession for which was renewed in 2011 (a total of 11 large plants), Alperia is obliged to manage a monitoring system that measures the quality of the watercourse concerned. Water quality monitoring is carried out in agreement with the Province of Bolzano. Any adjustments are made during the year.

## **Emissions**

### **103-1 Explanation and definition**

This topic was identified as essential in the 2017 materiality analysis in terms of impact but, above all, by stakeholders. Alperia's direct impacts are generated by the operation of hydroelectric and district heating plants and electricity distribution infrastructures.

### **103-2 The management approach and its components**

Alperia aims to minimise noise pollution, electromagnetic fields and CO<sub>2</sub> emissions deriving from its activities. To this end, a reporting system structured at group level is under development, which will be followed by the preparation of a comprehensive management approach to be published in the next Sustainability Report. Alperia Ecoplus (which manages district heating), Alperia Greenpower and Alperia Vipower (which manage hydroelectric power plants) run all the sites certified according to the ISO 14001:2015 standard. They are also EMAS registered. This issue is coordinated centrally by the HSE department and then implemented in the individual BUs. The relative budgets are drawn up internally.

### **103-3 Evaluation of the management approach**

A structured reporting system is currently being developed for this topic. The evaluation and effectiveness of the management approach will be described in detail from the next financial year.

## **Energy Consumption**

### **103-1 Explanation and definition**

This topic was identified as essential in the 2017 materiality analysis in terms of impact but, above all, by stakeholders. Alperia's direct impact is generated by the operation of hydroelectric and district heating plants and electricity distribution infrastructures.

### **103-2 The management approach and its components**

Alperia aims to promote energy- and system-efficiency (e.g. reduction of grid losses) and climate-friendly energy use within the company itself. To this end, a reporting system structured at group level is currently under development, which will be followed by the preparation of a comprehensive management approach to be published in the next Sustainability Report. Alperia Ecoplus (which manages district heating), Alperia Greenpower and Alperia Vipower (which manage hydroelectric power plants) run all the sites certified according to the ISO 14001:2015 standard. They are also EMAS registered. This topic is coordinated centrally by the HSE department and then implemented in the individual BUs. The relative budgets are drawn up internally.

### **103-3 Evaluation of the management approach**

A structured reporting system is currently being developed for this topic. The evaluation and effectiveness of the management approach will be described in detail from the next financial year.

## CUSTOMERS

### Customer Satisfaction

#### **103-1 Explanation and definition**

This topic has been identified as essential, especially in terms of impact. Clearly, this is also very important for stakeholders, but it is not among the top 10 key issues. Alperia's direct impact derives from the sale of electricity, gas and district heating. The impact concerns both the domestic customers of the protected and free market and district heating customers, as well as business customers (small and medium) and large customers.

#### **103-2 The management approach and its components**

Alperia pursues the goal of improving and expanding customer service and service quality, minimising complaints. The complaint mechanism made available to customers is a freephone number answered by bilingual local operators. Customers can also contact freephone operators by email. Complaint response times are strictly regulated by the national regulator (ARERA), which obliges operators to comply with and, if necessary, improve on these requirements. Responsibilities have been defined within the company. A complaint control centre has been set up to ensure that complaints are dealt with promptly. A conciliation service is also available.

#### **103-3 Evaluation of the management approach**

The national supervisory authority (ARERA) regularly reviews and monitors the achievement of the aims and compliance with its requirements. In 2018, a customer survey was carried out which showed an 87% satisfaction index. The survey is carried out every two years and will therefore be repeated in 2020. Adjustments or improvements are also made during the year, whenever necessary.

## Transparent Marketing and Communication

### **103-1 Explanation and definition**

This topic was identified as essential in the materiality analysis both by stakeholders and in terms of impact. The direct impact generated by Alperia's energy sales is 323.772 customers served.

#### **103-2 The management approach and its components**

Alperia aims to perform responsible, authentic and adequate marketing. This implies a transparent and understandable pricing structure and customer communication, the guarantee of adequate and fair offers and transparent and verifiable sponsorship. Only projects that comply with the guidelines published online are considered for sponsorship. In terms of customer communication, Alperia is committed to providing clear and comprehensible information and energy bills. Any margin of manoeuvre is very limited due to the numerous requirements imposed by the national authority for the sector (AEEGSI). For example, the information that needs to be included in the electricity bill is prescribed in detail and leaves little room for creativity. Customer service consultants receive complaints on the toll-free telephone number, by email or directly at customer office counters. During 2019, estimates were also made available to customers to allow them to monitor their energy consumption more clearly. Activities were also developed, respecting legal requirements, to encourage customers to adopt paperless billing.

Responsibilities have been defined within the company. The budget for marketing and sponsoring activities is defined annually.

#### **103-3 Evaluation of the management approach**

The evaluation is carried out regularly. Effectiveness is monitored several times a year on the basis of set indicators and, where necessary, adjustments are made.

Omissions: Complaint procedures

## Cyber Security

### 103-1 Explanation and definition

Management has identified the topic of IT security as relevant in the context of the materiality analysis. Alperia contributes directly to collected data security management through its commercial activity in the markets. In relation to data security and protection, the group has set up a specific unit that reports on activities and measures. Information security protects Alperia's know-how and the integrity of management systems, safeguarding the general public's peace of mind and ensuring the supply of electricity, gas and heat to the community. The group defines the boundary of information security as the set of all the boundaries that derive from the different areas involving IT and business. Specifically, these are the following boundaries and operating environments: data centres, cloud computing, Wi-Fi, mobile and local networks, Internet of Things, production plants, distribution plants, telecommunications, smart grids, transmission systems and fixed-line and mobile devices. Specific limitations derive from the business organisational structure of the various BUs and areas each with their own specific needs.

### 103-2 The management approach and its components

Management approaches include, among other things, certifications such as ISO 27001 and business continuity plans (INS-212. 01 Business Continuity – Disaster Recovery IT), the plans for the prevention of security threats (INS-105. 02 Information risk management, INS-220. 11 IT vulnerability management), etc. The management approach aims to establish state-of-the-art data protection and security standards, and to prevent negative impacts inside and outside the company as far as possible. Tools for this purpose include ISO 27001 and the team capable of providing a professional response in the event of a cyber-attack (INS-220.10 Incident Handling IT). Alperia has defined internal managers (e.g. Security Officer) who coordinate security-related projects; the DPO (Data Protection Officer) oversees the implementation of the GDPR (General Data Protection Regulation) and monitors compliance. The group also participates in national safety conferences (e.g. CLUSIT) and promotes the training and continuous updating of its employees on the subject of security and data protection.

### 103-3 Evaluation of the management approach

Evaluation of the management approach. Management systems are evaluated on a regular basis (from daily to annually). For example, since 2015, the ISO 27000 certification has been assessed annually by an external auditor. The effectiveness of management systems is also regularly reviewed and monitored on the basis of set indicators and procedures. The necessary adjustments are constantly implemented throughout the year, if and when required.

## EMPLOYEES

### Employee Development

#### 103-1 Explanation and definition

This topic was identified as essential both in terms of impact and by stakeholders. With a staff of over 1.000 employees, the Alperia Group is one of South Tyrol's largest employers, active in all areas of the energy sector, from production and distribution to the sale of energy and innovative services. This activity has direct and indirect impact both inside and outside the company.

#### 103-2 The management approach and its components

The energy sector is constantly evolving, with increasing demands. Within this context, the specialisation and qualification of employees is fundamental. To prevent any shortage of skilled labour resulting from the numerous upcoming staff retirements, Alperia is intensifying partnerships with universities and secondary schools. It also pursues the objective of ensuring regular training and further training of its staff. In order to increase satisfaction and performance, reduce fluctuations and ensure high quality work, Alperia is committed to supporting its employees in various ways. In addition to promoting health in the workplace, the company offers measures to improve compatibility between work and family life, such as flexible working hours and various models of part-time working. Responsibilities have been defined within the company. The family and work audit was also maintained for 2019, with the aim of renewing it again in 2020.

A complaint tool is available on the company intranet page: myideas gives all employees the chance to submit suggestions for improving a service, a work process, occupational health and safety, or measures that contribute to greater motivation or stronger identification with the company. An additional Whistleblowing instrument of a different nature was introduced in line with the legislation. In 2018, new individual career development plans for employees were established; in 2019, the group instituted Talent and Pillars training programmes. The Talent Management project identified 30 talented employees (from the 63 who put themselves forward in 2019), giving them individual and group development opportunities, as well as career growth prospects, thereby helping to increase their motivation. Highlighting the skills and potential of talented employees and pillars is also useful for the succession plan that is currently being prepared by the HR Department, to better meet the challenge of key staff members retiring. In 2019, the 2020 executive MBO scheme was linked to the achievement of a sustainability goal for the first time.

### **103-3 Evaluation of the management approach**

The management approach is regularly evaluated, also through the family-and-work audit. To assess and verify the effectiveness of the management approach, we conduct a regular employee satisfaction survey in cooperation with research and the consulting firm Great Place to Work. This survey was conducted in 2017 and repeated in 2019, highlighting a group-level Trust Index of 50%, with an increase of 9 percentage points compared to the previous result. In addition, feedback interviews continued in 2019 extended to all group employees. Corrections are made continuously throughout the year. Measures sent via intranet are reviewed and evaluated quarterly and, if necessary, approved and implemented. In 2018, the Whistleblowing hotline system was also introduced: through employee involvement, it aims to prevent any risk situations (fraud, crimes, unlawful or irregular conduct on the part of company individuals). No reports were recorded in 2019.

## **Diversity & Equal Opportunity**

### **103-1 Explanation and definition**

In the 2019 materiality analysis, the topic was identified as essential, particularly by stakeholders. Direct impact for Alperia – with 1.017 employees, one of South Tyrol's largest employers – mainly comes from the moderately high average age and the relatively low percentage of women due to the specificity of the technical sector in which Alperia operates.

### **103-2 The management approach and its components**

Promoting diversity and equal opportunity is important for a successful business. This improves adaptability to changing market conditions and increases the attractiveness of employers. Alperia is committed to providing a non-discriminatory working environment and equal opportunities for all group employees, regardless of age, gender, linguistic origin or any disability. For Alperia this also implies the guarantee of equal pay and equal career opportunities for men and women. There are relatively few women in Alperia, due to the particular nature of its technical sector. This is why the company is trying to bring more and more women into technical professions. For the first time, in 2019, a woman was appointed chairperson of the Management Board and we achieved an equal gender balance in the same body. In terms of human resources management, particular attention is paid to the hiring of disabled staff and to compliance with the legal quotas.

### **103-3 Evaluation of the management approach**

The effectiveness of the management approach is evaluated regularly. A Welfare and Equal Opportunities Committee is planned, to be made up of four members appointed by trade union organisations and four by the company. Adjustments can be made continuously throughout the year.

## **Occupational Health & Safety**

### **103-1 Explanation and definition**

This topic was identified as essential both in terms of impact and by stakeholders. There is certainly a direct impact for Alperia, whose 1.017 employees make it one of South Tyrol's largest employers.

### **103-2 The management approach and its components**

Alperia's target is zero injuries. This is achieved through regular training of employees in health and safety. Alperia is committed to providing ever greater protection for employees and third-party companies in the area

of health, safety and the environment. Alperia has promoted and completed the implementation of certified integrated management systems (ISO 14001, ISO 45001, ISO 9001) for all the main group companies.

### **103-3 Evaluation of the management approach**

Occupational Health and Safety system compliance is checked regularly through first-party (internal) and third-party (external, by an accredited body) audits. Effectiveness is monitored several times during the year using set indicators, with adjustments made where necessary. Scheduled periodic meetings are held annually for each certified company (management reviews and meetings, pursuant to Art. 35 of Legislative Decree 81/2008) to share results and improvement programmes, the outcome of internal and external audits, the outcome of health surveillance and the progress of training programmes.

## **DEVELOPMENT AND INNOVATION**

### **Innovation, Research & Development**

#### **103-1 Explanation and definition**

This topic was identified as essential both in terms of impact and by stakeholders, especially owners and investors, as well as research bodies. Alperia promotes innovation in the energy sector through numerous research projects. The fact that it runs several hydroelectric and district heating plants, as well as the electricity grid, enables Alperia to test and apply the most innovative technologies. This has a direct and indirect impact on society, the environment and the economy.

#### **103-2 The management approach and its components**

Alperia places great emphasis on innovation and research in order to respond efficiently and effectively to the challenges of the energy market as well as to provide a modern energy supply and cutting-edge energy services in the future. The group collaborates with local and international partners on various projects aimed at promoting research and developing intelligent systems for efficient energy distribution and production (e.g. smart grids, smart cities, smart meters). Responsibilities are defined internally with the involvement of all business units. Expenses are reported annually in sustainability reporting.

#### **103-3 Evaluation of the management approach**

The evaluation is carried out through regular project controls. In the future, effectiveness will be monitored annually on the basis of key data.

## **Sustainable Products and Services**

### **103-1 Explanation and definition**

This topic was identified as essential, above all by stakeholders, in particular customers. Direct impact is mainly generated for private customers and Alperia business; indirect impact on the environment, meanwhile, is in relation to the development of sustainable products and services.

#### **103-2 The management approach and its components**

Alperia aims to develop its current product portfolio with a view to greater sustainability. The company's objective is to offer customers sustainable, innovative products and services that are designed to achieve energy savings and more efficient use of energy. The goal should be to use sustainable resources to save energy and use it more efficiently. In doing so, Alperia and its customers will contribute significantly to the reduction of CO<sub>2</sub> emissions, as provided for in the Autonomous Province of Bolzano's Climate Plan 2050. Responsibility lies with the respective business units. The share of revenues generated by sustainable products and services and investments to expand the range of sustainable products is calculated and published in the annual report.

#### **103-3 Evaluation of the management approach**

We have set ourselves the goal of increasing the revenue share derived from sustainable products and services. The achievement of goals and the implementation of agreed-upon measures is regularly monitored and evaluated as part of sustainability management.

## LEGISLATIVE DECREE 254/16: MAPPING AND RISK MANAGEMENT {GRI 102-15}

Legislative Decree 254/2016 Area	Material topics	Risk type	Risk	Mitigation/observations monitoring
Social Aspects	Security of Supply	Strategic/operational/financial	<p><b>RISK 1: STRATEGIC</b> – Risk of inadequate measures/failure to manage long-term climate change with potential variable demand of various stakeholders determined by different weather scenarios (e.g. expansion of the heating network vs. global warming)</p> <p><b>RISK 2: OPERATIONAL</b> – Risk of potential malfunctions or interruptions in the distribution of energy, gas and district heating due to: inadequate activities to prevent damage from adverse weather events, inadequate inspections, maintenance and planning of new connections</p> <p><b>RISK 3: OPERATIONAL</b> – Risk of potential malfunctions or interruptions in the distribution of electricity due to: infrastructure inadequacy of the electricity grid (e.g. availability, reliability, efficiency); inadequate level of automation (e.g. fault and malfunction detection); inadequate new connection planning</p> <p><b>RISK 4: OPERATIONAL</b> – Risk of inadequate connection expansion measures in the Bolzano district heating network with potential impact on customer satisfaction</p> <p><b>RISK 5: FINANCIAL</b> – Risk of inadequate investment in measures to improve plant performance in terms of availability, reliability and efficiency</p>	<p><b>MITIGATION / CONTROL ACTION 1</b> We're diversifying our portfolio because we want to be ready for climate change forecasts.</p> <p><b>MITIGATION / CONTROL ACTION 2</b> We've created a portal for businesses where they can register to view the status of underground line to avoid the risk of potential malfunctions in electricity distribution, with the aim of reducing both the frequency and duration of power interruptions themselves; we have taken out insurance policies for adverse weather events risks.</p> <p><b>MITIGATION / CONTROL ACTION 3</b> We've provided for the progressive burying of lines to ensure greater stability of the distribution infrastructure, improve service quality and modernize the grid infrastructure, ensuring greater stability.</p> <p><b>MITIGATION / CONTROL ACTION 4</b> We're expanding the district heating network in both Merano and Bolzano and have also connected our first company to district heating: Edyna.</p> <p><b>MITIGATION / CONTROL ACTION 5</b> We've planned €400 million in investments into the core business (Strategic Plan 2017-2021) over a period of five years, in order to improve the availability, reliability and efficiency of plants; we're also expanding the district heating network in Bolzano and Merano.</p>

Legislative Decree 254/2016 Area	Material topics	Risk type	Risk	Mitigation/observations monitoring
	Economic development	Strategic/financial	<p><b>RISK 1: STRATEGIC</b> – Risk of not including objectives aligned with climate change forecasts in Strategic Plans, increasing the Alperia Group's resilience for possible future scenarios.</p> <p><b>RISK 2: OPERATIONAL</b> – Risk of failure to achieve the strategic objectives of infrastructure evolution and development of the Smart Region due to inadequate management of partnerships for innovation and technological development</p> <p><b>RISK 3: OPERATIONAL</b> – Risk of not creating added value for all stakeholders and communicating environmental and social performance in an ineffective way with a consequent unfavourable consumer, investor and other stakeholder perception on sustainability issues</p> <p><b>RISK 4: OPERATIONAL</b> – Risk of failure to implement both the environmental obligations of the concession contract and spending commitments with potential impact on the failure to improve the surrounding environment and the degree of satisfaction of riparian municipality communities.</p> <p><b>RISK 5 FINANCIAL</b> – Risk of failure to create added value for South Tyrol in the areas envisaged by the corporate strategy, such as: jobs, local taxes and social commitment</p>	<p><b>MITIGATION / CONTROL ACTION 1</b> We want to be ready to face climate change, increasing the group's resilience. For this reason, we include objectives directly related to this topic in our Strategic Plans and are diversifying the business by increasingly focusing on sustainable products and services.</p> <p><b>MITIGATION / CONTROL ACTION 2</b> To contribute to the creation of a South Tyrolean Smart Region, we collaborate with important research bodies to develop new smart grid solutions.</p> <p><b>MITIGATION / CONTROL ACTION 3</b> We want to effectively communicate with stakeholders and customers so as to avoid any type of unfavourable perception related to sustainability issues.</p> <p><b>MITIGATION / CONTROL ACTION 4</b> We want to ensure the well-being of the riparian municipalities. For this reason, we build public works to support the environment, put in place dedicated projects, directly involve the riparian municipality communities and respect all the obligations laid down by provincial legislation.</p> <p><b>MITIGATION / CONTROL ACTION 5</b> We want to create €1.2 billion of total added value for South Tyrol over a period of five years. For this reason, we take strategic action to support the local economy with taxes, job creation and social commitment.</p>
	Marketing and transparent communication	Strategic/operational	<p><b>RISK 1 STRATEGIC</b> - Risk of lack of/inadequate information transparency and communication that is not stakeholder-oriented (e.g. communication of the group's environmental and social performance, extended website content, round tables, stakeholder surveys) with a possible impact on customer satisfaction/increased complaints, customer loss, non-compliance with provisions and codes of conduct</p> <p><b>RISK 2 STRATEGIC</b> - Risk of procuring unsustainable advertising material</p> <p><b>RISK 3 OPERATIONAL</b> - Risk of failure/non-definition of motivational measures for customers to increase the number of customers receiving paperless bills</p>	<p><b>MITIGATION / CONTROL ACTION 1</b> We are committed to implementing transparent, up-to-date and stakeholder-oriented marketing and internal communication. We provide consistent information through our various media channels (e.g. energy points, call centres) and in 2019, we began to introduce CRM or Customer Relationship Management, focusing on lead management.</p> <p><b>MITIGATION / CONTROL ACTION 2</b> We want to make our marketing and communication initiatives socially and economically sustainable. For this reason, all our events are certified Green Events.</p> <p><b>MITIGATION / CONTROL ACTION 3</b> We want increasing numbers of customers to take up paperless billing. We are promoting this choice through consumer behaviour activities to stimulate the take-up of green products.</p>

Legislative Decree 254/2016 Area	Material topics	Risk type	Risk	Mitigation/observations monitoring
	Customer satisfaction	Operational	<b>RISK 1: OPERATIONAL</b> - Risk of inadequate management, in terms of speed and efficiency, of customer/user service and complaints with possible impact on customer satisfaction and loss.	<b>MITIGATION / CONTROL ACTION 1</b> To limit the risk of inefficient management and to offer our customers a rapid and solution-oriented service, we use numerous communication tools such as a bilingual freephone number which is backed up by an external call centre to cope with peaks in requests. This is how we meet all the service SLAs.
	Cyber Security	Compliance/operational	<b>RISK 1: COMPLIANCE</b> – Risk of non-compliance with privacy law provisions in relation to the protection of sensitive data.  <b>RISK 2: OPERATIONAL</b> – Risk of security incidents and failure to manage information, as well as failure to protect sensitive data and intellectual property due to the infrastructure inadequacy with possible data loss or disclosure; risk of possible OTT infrastructure malfunctions with possible impact on the service delivery continuity due to the failure/inadequate development of IT infrastructure and preparation of emergency plans.	<b>MITIGATION / CONTROL ACTION 1</b> We want to guarantee compliance with privacy regulations, which is why we continuously monitor security systems, updating them on an ongoing basis to ensure they are the most up to date and we have implemented all measures envisaged by the GDPR.  <b>MITIGATION / CONTROL ACTION 2</b> We want to guarantee that all data is protected from security incidents and guarantee Business Continuity in case of IT incidents (e.g. server failures, power outages). For this reason, we use efficient protection systems against internal and external attacks and incursions. We also renewed our ISO 27001 certification and developed business continuity plans (INS-212.01 Business Continuity – Disaster Recovery IT).
	Innovation, Research and Development	Strategic/operational	<b>RISK 1: STRATEGIC &amp; OPERATIONAL</b> – Risk of not identifying/planning innovation projects and R&D activities, as well as inadequate channelling of resources to the aforementioned projects/activities with potential impact on the development of new business opportunities.	<b>MITIGATION / CONTROL ACTION 1</b> We want to contribute actively to South Tyrol's energy future and develop new technology solutions with innovative research projects. We are preparing guidelines on innovation at group level to support the activities of the Innovation Board and we are carrying out the projects selected in 2018. After the previous year's successful event, we launched the second edition of Alperia Startup Factory.
	Sustainable energy products and services	Strategic/operational	<b>RISK 1: STRATEGIC</b> – Risk of failure/inadequate development of new energy concepts (e.g. products and services) with potential impact on the strategic objectives to make the business 100% green.  <b>RISK 2: OPERATIONAL</b> – Risk of failure/inadequate management and development of electromobility services and support infrastructures.	<b>MITIGATION / CONTROL ACTION 1</b> We want to develop new business activities in line with the 100% Green DNA concept, promote the take-up and purchase of green products and increase the sales share of sustainable products and services. For this reason, we are examining consumer behaviour programmes aimed at stimulating the purchase of green products.  <b>MITIGATION / CONTROL ACTION 2</b> We want to promote electromobility and the charging infrastructure in South Tyrol. To achieve this, we are making Alperia an e-mobility service provider and installing charging infrastructures in the area.

Legislative Decree 254/2016 Area	Material topics	Risk type	Risk	Mitigation/observations monitoring
Environmental Aspects	Water	Strategic/compliance/operational	<p><b>RISK 1: STRATEGIC</b> – Risk of failure to manage climate change and the growth of weather phenomena (e.g. floods, droughts) with impact on the water cycle and reservoirs with related implications for plant productivity</p> <p><b>RISK 2– COMPLIANCE</b> – Risk of non-compliance with regulatory provisions</p> <p><b>RISK 3 OPERATIONAL</b> – Risk of possible contamination from water from open cycle cooling systems</p> <p><b>RISK 4 OPERATIONAL</b> – Risk of not implementing compensation measures (e.g. fish ladders, re-naturalisation/restoration of the original landscape when plants are decommissioned) and loss of biodiversity.</p>	<p><b>MITIGATION / CONTROL ACTION 1</b> We invest in the safety and resilience of our plants to make sure we are prepared for the possible impact of climate change. Furthermore, we promote research and development activities (for example, with the Alperia Startup Factory project and in collaborations with universities and innovative companies across the world) to improve the safety of our infrastructure.</p> <p><b>MITIGATION / CONTROL ACTION 2</b> We want to guarantee the highest level of compliance with environmental legislation. For this reason, we comply with all provisions and seek all the necessary authorisations from the relevant bodies. We comply with regulatory provisions on Minimum Vital Flow so as not to cause damage to local flora and fauna. We also have ISO 45001, 14001, 9001 certification and EMAS registration.</p> <p><b>MITIGATION / CONTROL ACTION 3</b> We want to minimise the environmental impact of the water our plants return to rivers. For this reason, we are gradually replacing open cycle systems with closed cycle systems.</p> <p><b>MITIGATION / CONTROL ACTION 4</b> We actively protect the environment as well as the biological diversity of waterways. We do this by using funding provided by the environmental fund to implement various morphological improvement measures for waterways affected by hydroelectric shunts. Furthermore, to define the most suitable compensation measures, we organise working groups involving various stakeholders.</p>
	Emissions	Operational	<p><b>RISK 1: OPERATIONAL</b> – Risk of failing to optimise eco-sustainable technology and define monitoring instruments for greenhouse gas emissions (e.g. establishment of a group level report)</p> <p><b>RISK 2: OPERATIONAL</b> – Risk of non-compliance with mobility plans developed for the company vehicle fleet in relation to reducing emissions</p> <p><b>RISK 3: OPERATIONAL</b> – Risk of non-compliance with activities to reduce pollution generated by the group's plants (e.g. air emissions, discharges into water, waste, etc.)</p>	<p><b>MITIGATION / CONTROL ACTION 1</b> - We support the Province of Bolzano's 2050 Climate Plan by reducing our greenhouse gas emissions. To this end, we have begun reporting activities related to environmental KPIs for the purposes of the Sustainability Report to monitor group emissions and carbon intensity.</p> <p><b>MITIGATION /CONTROL ACTION 2</b> – We want to reduce emissions related to mobility, making 50% of the fleet of potentially electric vehicles green in three years. We already have over 100 electric or hybrid vehicles.</p> <p><b>MITIGATION / CONTROL ACTION 3</b> – We want to minimise the pollution caused by our plants, which is why we used part of the proceeds of the Green Bond to finance the modernisation of the hydroelectric plants and the related distribution network.</p>
	Energy consumption	Operational	<b>RISK 1 OPERATIONAL</b> – Risk of inadequate monitoring of energy consumption and energy efficiency levels of buildings and systems with potential impact on the design of energy efficiency measures	<b>MITIGATION / CONTROL ACTION 1</b> – We want to reduce energy consumption in buildings and plants through targeted energy efficiency initiatives. We also do this through Alperia Bartucci SpA, the ESCo that oversees the implementation of energy efficiency projects and innovative energy services, in line with the efficiency objectives of the group's Strategic Plan. Our objective is to use, wherever possible, renewable energy sources to run our plants and buildings.

Legislative Decree 254/2016 Area	Material topics	Risk type	Risk	Mitigation/observations monitoring
	Supplier management	Strategic/operational	<p><b>RISK 1: STRATEGIC</b> – Risk of failure to identify specific criteria/requirements to ensure corporate purchases are made as locally and sustainably as possible and risk of inadequate choice and selection of suppliers.</p> <p><b>RISK 2: OPERATIONAL</b> – Risk of potential non-ethical conduct by suppliers.</p>	<p><b>MITIGATION / CONTROL ACTION 1</b> – To help create local value and select suppliers of raw materials suitable for our business, we strategically set ourselves the objective of making our purchases as locally and sustainably as possible from an ecological and social perspective. All of our new suppliers are screened according to environmental and social criteria. To achieve the target objectives that we have set ourselves for the selection of new suppliers on the basis of social and environmental requirements, we have adopted the BravoSolution system, assessing sustainability criteria by goods category (high, medium, low criticality).</p> <p><b>MITIGATION / CONTROL ACTION 2</b> – To avoid the risk of a lack of transparency in the supplier selection process, in particular in relation to active/passive corruption issues, we are committed to ensuring responsible supply chain management by checking suppliers meet the requirements of integrity, professionalism, technical standards and good reputation. Furthermore, to avoid the risk of non-ethical conduct on the part of suppliers, employees, customers and other stakeholders, a respect for human rights clause is included in the group's general terms and conditions for contracting.</p>
	Asset integrity	Operational	<p><b>RISK 1: OPERATIONAL</b> – Risk of failure to manage inspection and maintenance activities for dams and other hydraulic works (e.g. pipelines, tunnels etc.) to guarantee their structural integrity and avoid potential total or partial collapses, which have the potential to impact on the surrounding environment and result in penalties from the authorities.</p> <p><b>RISK 2: OPERATIONAL</b> – Risk of damage to local communities due to accidents at plants in locations potentially sensitive to natural disasters or terrorist attacks.</p>	<p><b>MITIGATION / CONTROL ACTION 1</b> – We want to guarantee the maximum safety of our infrastructure, dams and hydraulic works, to protect personnel, the population and the surrounding area. For this reason, we have introduced an accurate internal control system, developed constant monitoring and maintenance activities in compliance with legal obligations and managed penstocks in compliance with regulatory obligations. We also want to ensure the resilience of our works and plants even in the event of flooding. For this reason, we have developed immediate action plans and signed a memorandum of understanding with the Civil Protection Agency of the Autonomous Province of Bolzano for the management of emergencies including flooding.</p> <p><b>MITIGATION / CONTROL ACTION 2</b> – We want to ensure business continuity of all IT systems and plants and minimise risks associated with sensitive terrorism targets (e.g. cyber security and sensitive locations). To this end, we have developed a special business continuity and disaster recovery plan.</p>
Personnel management	Occupational health and safety	Compliance	<b>RISK 1: COMPLIANCE</b> – Risk of failure to achieve adequate/maximum levels of occupational health and safety for employees and collaborators (external companies), in relation to injuries, accidents and occupational diseases with potential non-compliance with the legislation on the protection of occupational health and safety in workplaces	<b>MITIGATION / CONTROL ACTION 1</b> - We want to ensure the highest level of safety in the workplace for our employees and external staff (external companies). For this reason, we are installing 30 semi-automatic defibrillators in our workplaces from 2020. We have numerous other tools including a monthly HSE report on health and safety and environment, online information tips on the issue of safety, dedicated training for each group company, partnership with the Civil Protection department and ISO 14001, ISO 45001, ISO 9001 and ISO 27001 certification, revised and renewed every year. We have also introduced an accident, near miss and environmental incident information collection and reporting system. External companies are also assessed on the basis of safety-related criteria.

Legislative Decree 254/2016 Area	Material topics	Risk type	Risk	Mitigation/observations monitoring
	Employee development	Operational	<p><b>RISK 1: OPERATIONAL</b> – Risk of inadequate implementation of staff training plans for the development of specific skills (e.g. development plans for management, high potential programme, digital skills, e-learning courses)</p> <p><b>RISK 2: OPERATIONAL</b> – Risk of inadequate group level human resources policies and procedures with potential impact on recruitment, management and development</p> <p><b>RISK 3: OPERATIONAL</b> – Risk of non-compliance in relation to staff training activities ensuring compliance with specific regulatory requirements (e.g. SSL, Legislative Decree 231/01)</p> <p><b>RISK 4: OPERATIONAL</b> – Risk of employee dissatisfaction leading to potential inefficiency in the management of company activities</p> <p><b>RISK 5: OPERATIONAL</b> - Risk of inadequate definition of retention measures and new recruitment planning to replace retiring key staff with a potential impact from loss of know-how, expertise and highly specialised technical operators</p> <p><b>RISK 6: OPERATIONAL</b> – Risk of conflicting relationships between parties with the consequent impossibility of developing effective personnel policies</p> <p><b>RISK 7: OPERATIONAL</b> – Risk of lack of motivational systems (e.g. team building) for employees, with potential inefficiencies in the management of company activities due to the lack of dissemination of a communication culture to ensure performance feedback and internal awareness through targeted workshops</p>	<p><b>MITIGATION / CONTROL ACTION 1</b> – We have created individual career development plans for our employees and organise specific internal training/e-learning courses according to needs (e.g. workplace safety, change management, cyber security, etc.).</p> <p><b>MITIGATION / CONTROL ACTION 2</b> – We want to ensure the presence of and compliance with group-wide policies and procedures for the recruitment, management and development of staff. To achieve this, we apply the measures required by the Model pursuant to Legislative Decree 231/01 (segregation of duties, powers of attorney and proxies, traceability, objectives definition and selection, performance measurement, etc.).</p> <p><b>MITIGATION / CONTROL ACTION 3</b> – We want to ensure compliance with regulatory obligations relating to staff training, updating training plans in accordance with the quality system and monitoring their actual performance in the area of compliance (e.g. SSL, Legislative Decree 231/01).</p> <p><b>MITIGATION / CONTROL ACTION 4</b> – We want to increase our employees' satisfaction. For this reason, we carry out periodic surveys, including in consultation with external bodies (e.g. Great Place to Work® Institute Italia). The survey carried out in 2019 showed a 50% satisfaction rate and therefore an increase of 9 points compared to the survey carried out in 2016.</p> <p><b>MITIGATION / CONTROL ACTION 5</b> – We want to create a stable and efficient company that has long-term economic success and is capable of consistently addressing the retirement plans of its key staff. To do this we have taken the following measures:</p> <ul style="list-style-type: none"> <li>- we carry out promotional activities at the main schools and universities in the area to attract young talent, in particular in the technical professions;</li> <li>- we launched the Talent project which identifies employees with growth potential among internal staff;</li> <li>- we continue to develop career development plans for Pillar employees who want to get involved and who have the skills Alperia needs.</li> </ul> <p><b>MITIGATION / CONTROL ACTION 6</b> – We establish relationships with employees and their respective unions based on dialogue, limiting conflict and generating development opportunities in the mutual interest of all parties.</p> <p><b>MITIGATION / CONTROL ACTION 7</b> – We want to establish a culture of transparent communication to avoid potential inefficiencies in the management of company activities. We do this with motivational and team-building activities, for which we have allocated a budget of €50/year per person, and with training and career development activities.</p>

Legislative Decree 254/2016 Area	Material topics	Risk type	Risk	Mitigation/observations monitoring
	Diversity and equal opportunity	Strategic / operational	<p><b>RISK 1: STRATEGIC</b> - Risk of failure to define/extend measures (e.g. round tables, workshops) to involve stakeholders (e.g. educational institutions) in raising public awareness on the issue of women in technical professions.</p> <p><b>RISK 2: OPERATIONAL</b> – Risk of work/life imbalance.</p>	<p><b>MITIGATION / CONTROL ACTION 1</b> – We want to attract more women into the technical professions. This is why we promote our company in the main schools and universities in the area, including through meetings with professional women who already work in Alperia. Our communications department has also produced a video on gender equality.</p> <p><b>MITIGATION / CONTROL ACTION 2</b> – We want to be a family-friendly company for both men and women. For this reason, we promote reduced and flexible hours for our employees. As a result of the measures we've adopted, we've been awarded the Family and Work Audit certification from the Family Agency of the Autonomous Province and Chamber of Commerce.</p>
Combat corruption	Anti-corruption	Operational	<b>RISK 1: OPERATIONAL</b> – Risk of failure to monitor processes and activities with a risk of corruption between private individuals and in relationships with the public administration, as well as relationships with related parties	<b>MITIGATION / CONTROL ACTION 1</b> – We want to minimise the phenomenon of active and passive corruption between private individuals and conflicts of interest in relationships with the Public Administration. For this reason, we adopted the Management and Control Organisation Model pursuant to Legislative Decree 231/01 (active corruption), implemented a Whistleblowing procedure and follow a rigorous code of ethics.
Respect for human rights	Supplier management/ Diversity and equal opportunity/ Occupational health and safety/ Employee development	Operational	<b>RISK 1: OPERATIONAL</b> – Risk of violating human rights	Respect for human rights is fundamental for Alperia. We adopt a system of values based on transparency and respect for the dignity, equality and freedom of each individual. This is a commitment that we make both internally and externally, including in supplier selection, to the extent that purchase contracts and the group's general terms and conditions include a binding clause of respect for human rights (beginning with the respect and protection of human rights, occupational health & safety, as well as respect for the environment and sustainability). We are committed to providing a non-discriminatory working environment and equal opportunities for all group employees, regardless of age, gender, linguistic origin or any disability. For Alperia this also implies the guarantee of equal pay and equal career opportunities for men and women. Every Alperia employee has the right to keep themselves informed and freely express their opinions, without being discriminated against for any reason (racial, political, religious).

**GRI CONTENT INDEX {GRI 102-55}**

GRI Standard	Disclosure	Page number(s) and/or URL(s)	Omission				
			Part Omitted	Reason	Explanation		
<b>GRI 101: Foundation 2016</b>							
<b>General Disclosures</b>							
<b>Organizational profile</b>							
<b>GRI 102: General Disclosures 2016</b>	102-1 Name of the organization	See chapter 'Alperia Presents Itself', page '12-13'	none				
	102-2 Activities, brands, products, and services	See chapter 'Alperia Presents Itself', page '12-13'	none				
	102-3 Location of headquarters	See chapter 'Alperia Presents Itself', page '12-13'	none				
	102-4 Location of operations	See chapter 'Alperia Presents Itself', page '12-13'	none				
	102-5 Ownership and legal form	See chapter 'Alperia Presents Itself', page '12-13'	none				
	102-6 Markets served	See chapter 'Alperia Presents Itself', page '12-13'	none				
	102-7 Scale of the organization	See chapter 'Alperia Presents Itself', page '12-13'	none				
	102-8 Information on employees and other workers	See chapter 'Employees', page '90ff' and Annex 'Figure 26'	102-8-b	Not applicable	Split by region: Alperia is a regional company.		
	102-8-d: No significant portion of the organization's activities are performed by workers who are not employees.						
	102-8-e: No significant variations in the numbers reported in Disclosures 102-8-a, 102-8-b, and 102-8-c (such as seasonal variations in the tourism or agricultural industries).						
	102-8-f: Data based on actual employee numbers registered in the HR software.						
	102-9 Supply chain	See chapter Alperia Presents Itself', page 13 and chapter 'Supply Chain Management', p.59ff	none				
	102-10 Significant changes to the organization and its supply chain	There has not been any significant change in the supply chain.	none				

GRI Standard	Disclosure	Page number(s) and/or URL(s)	Omission		
			Part Omitted	Reason	Explanation
	102-11 Precautionary Principle or approach	See chapter 'Opportunities and Risks', page 21ff	none		
	102-12 External initiatives	See chapter 'Sustainability Governance', page 17	none		
	102-13 Membership of associations	See chapter 'Sustainability Governance', page 17	none		
	EU1 Installed capacity	See Annex 'Figure 5'	none		
	EU2 Net energy output	See chapter 'Security of Supply', p.49ff and Annex 'Figure 6'	none		
	EU3 Number of residential and commercial customer accounts	See chapter 'Customers', p. 75ff and Annex 'Figure 18'	none		
	EU4 Length of above and underground transmission and distribution lines by regulatory regime	See chapter 'Security of Supply', p. 49ff and Annex 'Figure 8'	none		
	Strategy				
	102-14 Statement from senior decision-maker	See chapter 'Letter to our Stakeholders', page 4ff	none		
	102-15 Key impacts, risks, and opportunities	See chapter 'Opportunities and Risks', page 21ff	none		
	Ethics and integrity				
	102-16 Values, principles, standards, and norms of behaviour	See chapter 'Alperia Presents Itself', page 12-13, page 14ff	none		
	Governance				
	102-18 Governance structure	See chapter 'Alperia Presents Itself', page 12-13, page 14ff	none		
	Stakeholder engagement				
	102-40 List of stakeholder groups	See chapter 'Alperia in Dialogo', p. 36ff	none		
	102-41 Collective bargaining agreements	100% of total employees are covered by collective bargaining agreements.	none		
	102-42 Identifying and selecting stakeholders	See chapter 'Alperia in Dialogo', p. 36ff	none		
	102-43 Approach to stakeholder engagement	See chapter 'Alperia in Dialogo', p. 36ff	none		
	102-44 Key topics and concerns raised	See chapter 'Alperia in Dialogo', p. 36ff	none		
	Reporting practice				
	102-45 Entities included in the consolidated financial statements	See Annex 'Reporting Boundaries', p.164	none		

GRI Standard	Disclosure	Page number(s) and/or URL(s)	Omission		
			Part Omitted	Reason	Explanation
	102-46 Defining report content and topic Boundaries	See Annex 'Reporting Boundaries', p.164	none		
	102-47 List of material topics	See Annex 'Reporting Boundaries', p.164	none		
	102-48 Restatements of information	See Annex 'Reporting Boundaries', p.164	none		
	102-49 Changes in reporting	See Annex 'Reporting Boundaries', p.164	none		
	102-50 Reporting period	See Annex 'Reporting Boundaries', p.164	none		
	102-51 Date of most recent report	See Annex 'Reporting Boundaries', p.164	none		
	102-52 Reporting cycle	See Annex 'Reporting Boundaries', p.164	none		
	102-53 Contact point for questions regarding the report	See Annex 'Reporting Boundaries', p.164	none		
	102-54 Claims of reporting in accordance with the GRI Standards	See Annex 'Reporting Boundaries', p.164	none		
	102-55 GRI content index	See Annex 'GRI Content Index', p.135	none		
	102-56 External assurance	See Annex 'Assurance Statement', p.160	none		

**Material Topics****GRI 200 Economic Standard Series****Economic Performance**

<b>GRI 103: Management Approach 2016</b>	103-1 Explanation of the material topic and its Boundary	See Annex 'Management Approach: Economic Value'; chapter 'Economic Value' p. 41	none		
	103-2 The management approach and its components		none		
	103-3 Evaluation of the management approach		none		
<b>GRI 201: Economic Performance 2016</b>	201-1 Direct economic value generated and distributed	See chapter 'Economic Value' p. 41ff and Annex 'Figure 2,3'	none		

**Indirect Economic Impacts**

<b>GRI 103: Management Approach 2016</b>	103-1 Explanation of the material topic and its Boundary	See Annex 'Management Approach: Economic Value'; chapter 'Economic Value' p. 42ff	none		
	103-2 The management approach and its components		none		
	103-3 Evaluation of the management approach		none		
<b>GRI 203: Indirect Economic Impacts 2016</b>	203-1 Infrastructure investments and services supported	See chapter 'Economic Value' p.42ff and Annex 'Figure 4'	none		

GRI Standard	Disclosure	Page number(s) and/or URL(s)	Omission		
			Part Omitted	Reason	Explanation
<b>Procurement Practices</b>					
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	See Annex 'Management Approach: Supply Chain Management'; chapter 'Supply Chain Management' p. 59ff	none		
	103-2 The management approach and its components		none		
	103-3 Evaluation of the management approach		none		
GRI 204: Procurement Practices 2016	204-1 Proportion of spending on local suppliers	See chapter 'Supply Chain Management' p. 59ff and Annex 'Figure 12'	none		The organization's geographical definition of 'significant location of operations' is defined as the Province of South Tyrol.
<b>GRI 300 Environmental Standards Series</b>					
<b>Energy</b>					
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	See Annex 'Management Approach: Energy Consumption'; chapter 'Energy Consumption' p. 68ff	none		
	103-2 The management approach and its components		none		
	103-3 Evaluation of the management approach		none		
GRI 302: Energy 2016	302-1 Energy consumption within the organization	See chapter 'Energy Consumption' p. 68ff and Annex 'Figure 16'	none		
<b>Water</b>					
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	See Annex 'Management Approach: Water'; Chapter 'Water' p. 63ff	none		
	103-2 The management approach and its components		none		
	103-3 Evaluation of the management approach		none		
Alperia Own 2017	ALP6 Water released for minimum flow	See chapter 'Water' p. 63ff and Annex 'Figure 15'	none		
	ALP7 Incidents of noncompliance with MVF requirements	See chapter 'Water' p. 63ff and Annex 'Figure 15'	none		
<b>Emissions</b>					
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	See Annex 'Management Approach: Emissions'; chapter 'Emissions' p. 71ff	none		
	103-2 The management approach and its components		none		
	103-3 Evaluation of the management approach		none		
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	See chapter 'Emissions', p.71ff and Annex 'Figure 17'	none		
	305-2 Energy indirect (Scope 2) GHG emissions	See chapter 'Emissions', p.71ff and Annex 'Figure 17'	none		
	305-3 Other indirect (Scope 3) GHG emissions	See chapter 'Emissions', p.71ff and Annex 'Figure 17'	none		

GRI Standard	Disclosure	Page number(s) and/or URL(s)	Omission		
			Part Omitted	Reason	Explanation
	305-4 GHG emissions intensity	See chapter 'Emissions', p.71ff and Annex 'Figure 17'	none		
	305-5 Reduction of GHG emissions	See chapter 'Emissions', p.71ff	none		
	305-7 Nitrogen oxides (NOX), sulphur oxides (SOX), and other significant air emissions	See chapter 'Emissions', p.71ff	none		
<b>Supplier Environmental Assessment</b>					
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	See Annex 'Management Approach: Supply Chain Management'; chapter 'Supply Chain Management' p. 59ff	none		
	103-2 The management approach and its components		none		
	103-3 Evaluation of the management approach		none		
GRI 308: Supplier Environmental Assessment 2016	308-1 New suppliers that were screened using environmental criteria	See chapter 'Supply Chain Management' p. 59ff and Annex 'Figure 13'	none		
<b>GRI 400 Social Standards Series</b>					
<b>Employment</b>					
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	See Annex 'Management Approach: People Development'; chapter 'People Development' p. 91ff	none		
	103-2 The management approach and its components		none		
	103-3 Evaluation of the management approach		none		
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	See chapter 'People Development', p. 91ff and Annex 'Figure 27'	401-1-a /401-1-b	Not applicable	Split by region: Alperia is a regional company.
	401-3 Parental leave	See Chapter 'Diversity and Equal Opportunity', p. 98 and Annex 'Figure 32'	none		
<b>Occupational Health and Safety</b>					
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	See Annex 'Management Approach: Workplace Health & Safety'; chapter 'Workplace Health & Safety' p. 103ff	none		
	103-2 The management approach and its components		none		
	103-3 Evaluation of the management approach		none		
	403-2 Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	See chapter 'Workplace Health & Safety', p. 103ff and Annex 'Figure 33, 34'			
<b>Training and Education</b>					
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	See Annex 'Management Approach: People Development'; chapter 'People Development' p. 91ff	none		
	103-2 The management approach and its components		none		
	103-3 Evaluation of the management approach		none		

GRI Standard	Disclosure	Page number(s) and/or URL(s)	Omission		
			Part Omitted	Reason	Explanation
<b>GRI 404: Training and Education 2016</b>	404-1 Average hours of training per year per employee	See chapter 'People Development', p. 91ff and Annex Figure 28			
	404-3 Percentage of employees receiving regular performance and career development reviews	See chapter 'People Development', p.91ff and Annex Figure 29	none		
<b>Diversity and Equal Opportunity</b>					
<b>GRI 103: Management Approach 2016</b>	103-1 Explanation of the material topic and its Boundary	See Annex 'Management Approach: Diversity and Equal Opportunity'; chapter 'Diversity and Equal Opportunity' p. 98ff	none		
	103-2 The management approach and its components		none		
	103-3 Evaluation of the management approach		none		
<b>GRI 405: Diversity and Equal Opportunity 2016</b>	405-1 Diversity of governance bodies and employees	See chapter 'Diversity and Equal Opportunity' p. 98ff and Annex 'Figure 30'	none		
	405-2 Ratio of basic salary and remuneration of women to men	See chapter 'Diversity and Equal Opportunity' p. 98ff and Annex 'Figure 31'	none		Significant locations of operations: All our consolidated companies are included.
<b>Human Rights Assessment</b>					
<b>GRI 103: Management Approach 2016</b>	103-1 Explanation of the material topic and its Boundary	See Annex 'Management Approach: Supply Chain Management'; chapter 'Supply Chain Management', 59ff	none		
	103-2 The management approach and its components		none		
	103-3 Evaluation of the management approach		none		
	412-3 Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	See chapter 'Supply Chain Management' p.59ff and Annex 'Figure 14'	none		Clause was included in the general terms and conditions as of May 2019. The indicator will be reported as of 2020. Significant contracts are defined as 'contracts', which are managed centrally at group level by procurement and which exceed a value of €100.000.
<b>Supplier Social Assessment</b>					
<b>GRI 103: Management Approach 2016</b>	103-1 Explanation of the material topic and its boundary	See Annex 'Management Approach: Supply Chain Management'; chapter 'Supply Chain Management'	none		
	103-2 The management approach and its components	p.59ff	none		
	103-3 Evaluation of the management approach		none		
<b>GRI 414: Supplier Social Assessment 2016</b>	14-1 New suppliers that were screened using social criteria	See chapter 'Supply Chain Management' p. 59ff and Annex 'Figure 13'	none		
<b>Marketing and Labelling</b>					

GRI Standard	Disclosure	Page number(s) and/or URL(s)	Omission		
			Part Omitted	Reason	Explanation
<b>GRI 103: Management Approach 2016</b>	103-1 Explanation of the material topic and its Boundary	See Annex 'Management Approach: Marketing and Transparent Communication'; chapter 'Marketing and Transparent Communication' p. 79ff	none		
	103-2 The management approach and its components		none		
	103-3 Evaluation of the management approach		none		
	417-1 Requirements for product and service information and labelling	See chapter 'Marketing and Transparent Communication' p. 79ff	none		Requirements are mainly related to information contained on our invoices.
	417-2 Incidents of non-compliance concerning product and service information and labelling	See chapter 'Marketing and Transparent Communication' p. 79ff and Annex 'Figure 22'	none		
	417-3 Incidents of non-compliance concerning marketing communications	See chapter 'Marketing and Transparent Communication' p. 79ff and Annex 'Figure 23'	none		There were no known incidents in 2019 of non-compliance with voluntary sponsoring and donation codes.
<b>GRI 418: Customer Privacy 2016</b>	ALP8 Complaints concerning communication and marketing that is not transparent	See chapter 'Clients' p. 74ff	ALP8	Information unavailable	Currently there is no centralised grievance mechanism in place. We have set a target to implement a centralised grievance mechanism by 2021.
<b>Customer Privacy</b>					
<b>GRI 103: Management Approach 2016</b>	103-1 Explanation of the material topic and its Boundary	See Annex 'Management Approach: Cyber Security'; chapter 'Cyber Security' p. 86ff	none		
	103-2 The management approach and its components		none		
	103-3 Evaluation of the management approach		none		
<b>GRI 418: Customer Privacy 2016</b>	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	See chapter 'Cyber Security' p. 86ff and Annex 'Figure 24, 25'	none		
<b>Availability and Reliability</b>					
<b>GRI 103: Management Approach 2016</b>	103-1 Explanation of the material topic and its Boundary	See Annex 'Management Approach: Security of Supply' and chapter 'Security of Supply', p. 49ff	none		
	103-2 The management approach and its components		none		
	103-3 Evaluation of the management approach		none		
<b>G4 Electric Utilities Sector Disclosures 2013</b>	EU10 Planned capacity against projected electricity demand over the long term, broken down by energy source and regulatory regime	See chapter 'Security of Supply', p.49ff and Annex 'Figure 5'	Split by regulatory regime	Not applicable	Split by regulatory regime is not applicable.
	EU29 Average power outage duration	See chapter 'Security of Supply', p.49ff and Annex 'Figure 9'	none		

GRI Standard	Disclosure	Page number(s) and/or URL(s)	Omission		
			Part Omitted	Reason	Explanation
	EU28 Power outage frequency	See chapter 'Security of Supply', p.49ff and Annex 'Figure 9'	none		
	EU30 Average plant availability factor by energy source and by regulatory regime	See chapter 'Security of Supply', p.49ff and Annex 'Figure 10'	Split by regulatory regime	Not applicable	Split by regulatory regime is not applicable.
<b>Customer Satisfaction</b>					
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	See Annex 'Management Approach: Customer Satisfaction' and chapter 'Customer Satisfaction', p. 76ff	none		
	103-2 The management approach and its components		none		
	103-3 Evaluation of the management approach		none		
	ALP1 Monthly average of calls answered - Green Number	See chapter 'Customer Satisfaction', p. 76ff and Annex 'Figure 19'	none		
Alperia Own 2017	ALP2 Customer complaints	See chapter 'Customer Satisfaction', p. 76ff and Annex 'Figure 20'	none		
	ALP3 Customer satisfaction index	See chapter 'Customer Satisfaction', p.76ff Annex 'Figure 21'	ALP3		
<b>Research &amp; Development</b>					
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	See Annex 'Management Approach:	none		
	103-2 The management approach and its components	Innovation, Research & Development' and chapter 'Innovation, Research & Development', p. 107ff	none		
	103-3 Evaluation of the management approach		none		
G4 Electric Utilities Sector Disclosures 2013	EU8 Research and development activity and expenditure aimed at providing reliable electricity and promoting sustainable development	See chapter 'Innovation, Research & Development', p. 107ff and Annex 'Figure 35'	none		
<b>Sustainable Products and Services</b>					
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	See Annex 'Management Approach:	none		
	103-2 The management approach and its components	Sustainable Products and Services' and chapter 'Sustainable Products and Services', p. 116ff	none		
	103-3 Evaluation of the management approach		none		
G4 Electric Utilities Sector Disclosures 2013 /	EU7/ ALP4 Share of revenues from sustainable products and services	See chapter 'Sustainable Products and Services', p. 116ff and Annex 'Figure 36'	none		

GRI Standard	Disclosure	Page number(s) and/or URL(s)	Omission		
			Part Omitted	Reason	Explanation
<b>Alperia Own 2017</b>	ALP5 Description of new business initiatives with sustainable products and services	See chapter 'Sustainable Products and Services', p. 116ff	none		
<b>Disaster/Emergency Planning and Response</b>					
<b>GRI 103: Management Approach 2016</b>	103-1 Explanation of the material topic and its Boundary	See Annex 'Management Approach: Asset Integrity' and chapter 'Asset integrity', p. 57ff	none		
	103-2 The management approach and its components		none		
	103-3 Evaluation of the management approach		none		
<b>G4 Electric Utilities Sector Disclosures 2013</b>	EU21 Disaster/Emergency Planning and Response	See chapter 'Asset Integrity', p. 57ff	none		

## FULL INDICATOR LIST

Please Note: for numeric data, the comma is used as decimal separator.

### Territory

### Economic Development

**Figure 1: Financial Indicators** (GRI 102-7)

	Unit	2019	2018	2017	2016	YtY variation (%)
<b>Revenue (EUR)</b>	<b>EUR</b>	1.562.756.371	1.272.182.146,00	1.123.490.760,00	1.198.192.638,00	23%
<b>Net Financial Position</b>	<b>EUR</b>	-395.815.750	-387.653.511,00	-421.765.304,00	-525.067.000,00	2%

**Figure 2: Direct economic value generated and distributed** (GRI 201-1)

Direct economic value generated and distributed	2019		2018		2017		2016		YtY variation (%)
	EUR	%	EUR	%	EUR	%	EUR	%	
Direct economic value generated:	1.562.756.371		1.272.182.146		1.123.490.760		1.198.192.638		23%
Revenue	1.562.756.371		1.272.182.146		1.123.490.760		1.198.192.638		23%
Economic value distributed:	1.506.123.515		1.228.491.345		1.121.559.780		1.171.198.449		23%
Operating costs <sup>1</sup>	1.343.472.741	86,0%	1.067.875.802	84%	962.787.064	85%	1.016.056.476	85%	26%
Employee wages and benefits	73.093.184	4,7%	68.525.722	5%	67.720.277	6%	66.766.390	6%	7%
Payments to providers of capital	9.250.687	0,6%	13.443.507	1%	19.524.556	2%	18.606.436	2%	-31%
Payments to government <sup>2</sup>	78.524.074	5,0%	76.939.902	6%	69.869.747	6%	67.718.880	6%	2%
Community investments <sup>3</sup>	1.782.828	0,1%	1.706.412	0,1%	1.658.137	0,1%	2.050.267	0,2%	4%
Economic value retained:	56.632.857	3,6%	43.690.801	3%	1.930.980	0,2%	26.994.189	2,3%	30%

<sup>1</sup>The purchase of energy for trading purposes account for about 90% of the operating costs.

<sup>2</sup>This item includes taxes (IRES, IRAP, IMU, etc.) and other payments such as *canoni idrici, demianali, rivieraschi, energia gratuita, fondi ambientali*

<sup>3</sup>This item includes sponsoring costs and donations.

**Figure 3: Value for South Tyrol** (GRI 201-1)

<b>Value created for South Tyrol:</b>	<b>Unit</b>	<b>2019</b>	<b>%</b>	<b>2018</b>	<b>%</b>	<b>2017</b>	<b>%</b>	<b>YtY variation</b>
Employee wages and benefits	EUR	69.682.656	30%	66.384.082	30%	67.720.277	37%	5%
Payments to government	EUR	78.524.074	33%	76.939.902	35%	69.869.747	39%	2%
Dividends to local governments	EUR	26.000.000	11%	24.000.000	10%	15.200.000	8%	8%
Community investments	EUR	1.782.828	1%	1.706.412	1%	1.658.137	1%	4%
Local procurement	EUR	59.833.219	25%	53.343.496	24%	26.501.483	15%	12%
<b>Total</b>	<b>EUR</b>	<b>235.822.778</b>	<b>100%</b>	<b>222.373.892</b>	<b>100%</b>	<b>180.949.643</b>	<b>100%</b>	<b>6%</b>

**Figure 4: Infrastructure investments and services supported** (GRI 203-1)

<b>Type of significant infrastructure investment projects</b>	<b>Unit</b>	<b>2019</b>	<b>%</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>YtY variation</b>
Energy distribution	EUR	41.571.000	40%	36.520.000	29.663.000	32.500.000	14%
Teleheating & services	EUR	13.059.000	13%	6.866.000	8.596.000	18.400.000	90%
Energy production – mandatory	EUR	19.078.000	18%	17.147.000	13.663.000	8.083.000	11%
Energy production – stay in business	EUR	10.777.000	10%	9.009.000	3.420.000	3.733.000	20%
Smart Region	EUR	9.235.000	9%	7.718.000			20%
IT infrastructure	EUR	7.836.000	7%	4.294.000	1.135.317	2.235.000	82%
Supply & trading	EUR	1.430.000	1%	412.000	825.000	1.059.000	247%
Facility investments	EUR	588.000	1%	1.587.000	1.646.225	1.823.000	-63%
Other investments	EUR	1.126.000	1%	828.000	2.751.106	2.756.000	36%
<b>Total</b>	<b>EUR</b>	<b>104.700.000</b>	<b>100%</b>	<b>84.381.000</b>	<b>61.699.648</b>	<b>70.589.000</b>	<b>24%</b>

## Security of Supply

**Figure 5: Energy capacity** (GRI EU 1; EU10)

<b>Unit</b>		
Projected energy demand in South Tyrol in 2050 (GWh) <sup>1</sup>	GWh	4.144
Produced electricity from renewable sources by Alperia in 2019 (GWh)	GWh	4.326
Hydroelectric capacity in 2019 (GW) <sup>2</sup>	GW	ca.1,4

<sup>1</sup>Data calculated based on data taken from the South Tyrol Climate Energy Plan 2050 and 'dati statistici TERNA 2018'

<sup>2</sup>Number only covers the total hydroelectric installed capacity of the plants managed by Alperia

**Figure 6: Net energy output broken down by primary energy source<sup>1</sup> (GRI EU2)**

		Unit	2019	% of total energy output	2018	2017	2016	YtY variation
<b>Total net produced electric energy</b>		Gwh	<b>4.373</b>		<b>4256</b>	<b>3712</b>	<b>4043</b>	3%
Thereof	Hydro	Gwh	4.044	88%	3.961	3.344	3.681	2%
	Photovoltaic	Gwh	22	0%	21	24	22	5%
	Cogeneration (gas/gasoline)	Gwh	47	1%	53	66	66	-11%
	Biofuel	Gwh	260	6%	221	278	274	18%
Total net produced energy for heating <sup>2</sup>		Gwh	<b>217</b>	5%	<b>199</b>	<b>195</b>	<b>182</b>	9%
Total net energy output		Gwh	<b>4590</b>		<b>4455</b>	<b>3907</b>	<b>4225</b>	3%

<sup>1</sup>Net energy output includes energy produced in our consolidated plants (34 hydroelectric plants, 5 heating plants, 3 photovoltaic parks and 7 photovoltaic plants, 1 biofuel plant) at 100%

<sup>2</sup>Includes thermal energy produced by biomass, gas, gasoline and energy acquired from waste plant. Heat acquired from waste plant accounts for approximately ¼ of produced thermal energy.

Net produced energy from renewable sources	Unit	2019	2018	2017
	Gwh	4326	4203	3977
	%	94%	94%	94%

**Figure 7: Quantity of products provided (GRI 102-7)**

	Unit	2019	2018	2017	2016	YtY-Variation
Electricity sold to end-customers	Gwh	5423	3994	3212	3460	36%
Trading	Gwh	4788	1907	2310	5226	151%
Thermal energy sold to end-customers	Gwh	217	199	195	182	9%
Natural gas sold to end-customers	MSmc	464	367	328	371	19%

**Figure 8: Distribution Network<sup>1</sup> (GRI EU4)**

Unit	2019				2018				2017			
	Above ground	Under-ground	Total	Percentage of under-ground lines	Above ground	Under-ground	Total	Percentage of under-ground lines	Above ground	Under-ground	Total	Percentage of under-ground lines
Length of transmission and distribution lines												
High tensions	km	233	19	252	8%	211	13	224	6%	198	12	<b>210</b>
Medium tension	km	1171	2144	3315	65%	1237	2067	3304	63%	1433	2018	<b>3451</b>
Low tension	km	1126	4043	5169	78%	1155	3945	5100	77%	1301	3816	<b>5117</b>
Total	km	<b>2530</b>	<b>6206</b>	<b>8736</b>	71%	<b>2603</b>	<b>6025</b>	<b>8628</b>	70%	<b>2932</b>	<b>5846</b>	<b>8778</b>
												67%

<sup>1</sup>Distribution network includes the Edyna Srl, Edyna Transmission Srl, Municipality of Parcines and Municipality of Laces networks

Gas distribution network	Unit	2019	2018	2017	YtY variation	
	km	113	113	112	0%	

	Unit	2019	2018	2017	YtY variation
Municipalities supplied with electricity and gas out of a total of 116 South Tyrolean municipalities	np. municipalities	96	98	98	-2%

End-customers connected to the electricity grid	Unit	2019	2018	2017	YtY variation
	no. POD Low tension	233335	232207	229000	0%

Electricity distributed in South Tyrol	Unit	2019	2018	2017	YtY variation
	TWh	2,6	2,6	2,5	0%

Substations <sup>1</sup>	Unit	2019	2018	2017	YtY variation
Primary HV/MV substations	no.	37	36	33	3%
Secondary MV/LV substations	no.	4121	4112	4025	0%
MV switching substation	no.	46	48	47	-4%

<sup>1</sup> Includes substations of Edyna Srl, Edyna Transmission Srl, Municipality of Parcines and Municipality of Laces

**Figure 9: System Average Interruption / Duration Index Frequency Index (SAIFI/SAIDI) (GRI EU28/29)**

	Unit	2019	2018	2017	2016	YtY variation
<b>SAIFI (Frequency of interruptions per customer)</b>	no	1,51	1,73	1,69	1,59	-12%
<b>SAIDI (Power outage duration per customer)</b>	minutes	28,07	27,36	20,74	23,66	3%

## Asset Integrity

**Figure 10: Energy availability (GRI EU30)**

Availability factor <sup>1</sup>		Unit	2019	2018	2017
Energy source	Hydro	%	86,43	87,67	89,76
	Photovoltaic	%	not available	not available	not available

<sup>1</sup>This indicator refers exclusively to AGP (100%) and Vipower (100%) plants. It is not available for photovoltaic plants. The availability factor of a power plant is the amount of time that it is able to produce electricity over a certain period.

**Figure 11: Environmental incidents**

	2019	2018	2017	2016	YtY variation
Number of environmental incidents	0	0	3	0	0%
Number of significant environmental incidents	0	0	1	0	0%
Financial impact of environmental incidents <sup>1</sup>	0	0	not available	0	0%

<sup>1</sup>This includes fines paid and costs for clean-up.

## Supplier Management

**Figure 12: Proportion of spending on local suppliers<sup>1</sup> (GRI 204-1)**

	Unit	2019	2018	2017 <sup>2</sup>
Percentage of products and services purchased locally (based on expenditure in EUR)	%	35%	27%	34%
Percentage of works purchased locally (based on total works expenditure)	%	42%	36%	41%
Percentage of services purchased locally (based on total service expenditure)	%	39%	22%	51%
Percentage of products purchased locally (based on total products expenditure)	%	18%	19%	15%
Percentage of contracts awarded locally (based on number of contracts)	%	62%	60%	59%

<sup>1</sup>The organisation's geographical definition of 'local' is defined as the Province of South Tyrol. Data does not include procurement data for Alperia Bartucci and Alperia SUM as these are located outside of the province of South Tyrol.

<sup>2</sup>164 orders for Edyna were not yet included in the calculation due to different reporting systems and the ongoing process of centralisation.

**Figure 13: New suppliers that were screened using environmental and social criteria (GRI 308-1,GRI 414-1)**

	Unit	2019	2018	2017
Percentage of new suppliers that were screened using environmental and or social criteria.	%	100	100	100

**Figure 14: Significant investment agreements and contracts that include human rights clauses or that underwent human-rights screening<sup>1</sup> (GRI 412-3)**

	Unit	2019	2018	2017
Number of significant investment agreements and contracts that include human-rights clauses	No	information unavailable	0	0
Percentage of significant investment agreements and contracts that include human-rights clauses	%	information unavailable	0	0

<sup>1</sup>Clause was included in the general contract terms and conditions as of May 2019. The indicator will be reported as of 2020. 'Contracts' are defined as agreements that are significant, managed centrally at the group level by procurement and exceed a value of €100.000.

## Green Mission

### Water

**Figure 15: Water** (ALP6, ALP7)

	Unit	2019	2018	2017	2016	YtY variation
Water released for minimum flow	litres per second	38.926	38.883	38.178	37.739	0,1%
Incidents of non-compliance with MVF requirements	No	0	0	0	0	0%

**Figure 16: Energy consumption within the organization<sup>2</sup>** (GRI 302-1)

	Unit <sup>1</sup>	2019	Proportion (%)	2018	Proportion (%)	YtY Variation
<b>Total energy consumption within the organization from non-renewable sources</b>	TJ	1.204	34%	1.117	36%	8%
Gasoline	TJ	78	2%	36	1%	117%
Natural gas	TJ	751	21%	741	24%	1%
Electricity for self-consumption (produced and acquired)	TJ	375	11%	340	11%	10%
<b>Total energy consumption within the organization from renewable sources</b>	TJ	2.340	66%	1.981	64%	18%
Palm oil	TJ	1.997	56%	1.708	55%	17%
Wood chips	TJ	173	5%	167	5%	3%
Electricity for self-consumption (produced)	TJ	170	5%	106	4%	61%
<b>Total energy consumption within the organization</b>	TJ	<u>3.544</u>	<b>100%</b>	<u>3.099</u>	<b>100%</b>	<b>14%</b>

<sup>1</sup>Conversion factors based on the 2006 IPPC Guidebook

<sup>2</sup>Data for 2018 restated due to an update in calculation method

**Figure 17: GHG Emissions<sup>1</sup>** (GRI 305)

	Unit	2019	2018	YtY Variation
Gross direct (Scope 1) GHG emissions	tCO <sub>2</sub> e	52.709	45.019	17%
biogenic CO <sub>2</sub> emissions	tCO <sub>2</sub> e	3.551	3.368	5%
Gross location-based energy indirect (Scope 2) GHG emissions <sup>2</sup>	tCO <sub>2</sub> e	34.622	34.559	0%
Gross market-based energy indirect (Scope 2) GHG emissions <sup>2</sup>		39.393	44.538	-12%
Gross other indirect (Scope 3) GHG emissions <sup>3</sup>	tCO <sub>2</sub> e	32.096	27.931	15%
Total GHG emission location based	tCO <sub>2</sub> e	<b>122.978</b>	<b>110.877</b>	11%
Total GHG emission marked based	tCO <sub>2</sub> e	<b>127.749</b>	<b>120.857</b>	6%
GHG emissions intensity(location) ratio for the organization <sup>4</sup>	tCO <sub>2</sub> e /Mwh of produced energy (gross)	0,03	0,02	
GHG emissions intensity(marked) ratio for the organization <sup>4</sup>	tCO <sub>2</sub> e /Mwh of produced energy (gross)	0,03	0,03	

<sup>1</sup>The main gases included are CO<sub>2</sub> and SF6; emission factors used according to DEFRA (car fleet, biogenic emission) and ISPRA (gas, gasoline); data consolidated according to financial control; data aggregated based on the GHG Protocol  
Biogenic emissions out of wood-chip biomass are calculated with the IPPC Guidebook (2006); palm oil with DEFRA.  
Data for 2018 restated due to an update in calculation method.

<sup>2</sup>Location-based emission factor used for purchased electricity: TERNA (2017) based on the Italian energy mix; emission factor used for purchased heat: EURAC. Market-based emissions have been calculated considering all renewable-certified electricity by an emission factor equal to 0. The remaining, non-renewable certified electrical energy has instead been multiplied by the residual mix as per the European Residual Mix provided by AIB.

<sup>3</sup>Includes rental car fleet and well-to-tank associated emissions (emissions associated for the extraction, refining and transport of raw fuel material sources)

<sup>4</sup>Scope 1,2 and 3 emissions are included in the intensity ratios. Biogenic emissions are included in ratio.

Proportion of emissions	
Scope 1	46%
Scope 2	28%
Scope 3	26%

## Customers

### Customer Satisfaction

**Figure 18: Number of customer accounts<sup>1</sup>** (GRI EU3)

Type	Unit	2019	2018	2017	YoY-Variation
Electricity customer accounts	no.	261.000	236.000	193.000	11%
Heating customer accounts	no.	1.722	1.716	1.674	3%
Gas customer accounts	no.	61.000	60.000	59.000	2%
<b>Total customer accounts</b>	no.	<b>323.772</b>	<b>297.716</b>	<b>253.674</b>	9%

<sup>1</sup>customer accounts= connections to the grid (POD) as per 31.12.

**Figure 19: Monthly average of calls answered at toll-free number (ALP1)**

	Unit	2019	2018	2017	2016
Monthly average of calls answered at toll-free number	%	97%	97%	97%	85%

**Figure 20: Customer complaints (ALP2)**

	Unit	2019	2018	2017	2016	YoY-variation
Number of complaints within the reporting period	No	403	533	587	385	-24%
i. thereof number of complaints addressed within the reporting period	No	402	533	587	385	-25%
ii. thereof number of complaints solved within the reporting period	No	401	533	587	385	-25%
Number of unsolved complaints including prior periods <sup>1</sup>	No	2	0	0	0	
Resolution rate customer complaints within the reporting period	%	99,5%	100%	100%	100%	
Number of customer complaints within the reporting period, addressed within 40 days	%	100%	100%	100%	100%	
Complaint rate (no. of complaints per 100 clients)		0,13	0,18	0,23	-	-28%

<sup>1</sup>These complaints were resolved in 2020.

**Figure 21: Customer Satisfaction Index (ALP3)**

	Unit	2019	2018 <sup>2</sup>	2017	2016
Customer Satisfaction Index <sup>1</sup>	%	not available	87%	not available	not available
Customer Satisfaction Index – Business Clients	%	not available	85%	not available	not available
Customer Satisfaction Index – Private Clients	%	not available	89%	not available	not available

<sup>1</sup>Percentage of clients (business and retail) who are overall satisfied with Alperia's services

<sup>2</sup>Survey was performed for the first time in 2018 and will be performed bi-annually

## Transparent Marketing and Communication

**Figure 22: Incidents of non-compliance concerning product and service information and labelling (GRI 417-2)**

Number of incidents of non-compliance concerning product and service information and labelling	Unit	2019	2018	2017	2016	YtY variation
with regulations resulting in a fine or penalty	nr	0	0	0	0	0%
with regulations resulting in a warning	nr	0	0	0	0	0%
with voluntary codes	nr	0	0	0	0	0%

**Figure 23: Incidents of non-compliance concerning marketing communications** (GRI 417-3)

Number of incidents of non-compliance concerning marketing communications	2019	2018	2017	2016	YtY variation
with regulations resulting in a fine or penalty	0	0	0	0	0%
with regulations resulting in a warning	0	0	0	0	0%
with voluntary codes <sup>1</sup>	0	0	0	0	0%

<sup>1</sup>Sponsorship and Donation Guideline of Alperia

## Cyber Security

**Figure 24: Customer Privacy** (GRI 418-1)

	2019	2018	2017	2016	YtY variation
Total number of substantiated complaints received concerning breaches of customer privacy	0	0	0	0	0%
i. complaints received from outside parties and substantiated by the organization	0	0	0	0	0%
ii. complaints from regulatory bodies	0	0	0	0	0%
Total number of identified leaks, thefts, or losses of customer data.	0	0	0	0	0%

**Figure 25: Other indicators related to cyber security**

	2019	2018	2017	YtY variation
During the year Alperia's protection systems blocked (daily average):				
spam e-mails	4.000	3.000	5.000	33%
malicious connection attempts	6.000	22.000	20.000	-73%

Each month, Alperia identifies and blocks an average of:				
viruses	2.930	70	17	4.086%
pieces of spyware (software that collects information about a user's online activity)	31	40	22	-23%
malicious, suspicious or prohibited internet activities	2.000.000	1.000.000	600.000	100%
malicious or unauthorised applications	200	120	80	67%
malicious or prohibited items of content	250.000	250.000	300.000	0%

## Employees

### Employee Development

**Figure 26: Information on employees and other workers** <sup>1 2 3 4</sup> (GRI 102-8)

		Total number of employees				Employment contract								Employment type							
						Permanent				Temporary				Full-time				Part-time			
		2019	2018	2017	2016	2019	2018	2017	2016	2019	2018	2017	2016	2019	2018	2017	2016	2019	2018	2017	2016
Women	Head-count	230	195	193	188	211	182	189	188	19	13	4	0	147	121	119	117	83	74	74	71
Percentage of total employees	%	23%	21%	21%	20%	21%	19%	20%	20%	2%	2%	0%	0%	14%	13%	13%	12%	8%	8%	8%	8%
Men	Head-count	787	750	747	758	750	708	730	756	37	42	17	2	769	729	726	734	18	21	21	24
Percentage of total employees	%	77%	79%	79%	80%	73%	75%	78%	80%	4%	4%	2%	0%	76%	77%	77%	78%	2%	2%	2%	2%
Total <sup>1</sup>	Head-count	1017	945	940	946	961	890	919	944	56	55	21	2	916	850	845	851	101	95	95	95
Percentage of total employees	%	100%	100%	100%	100%	94%	94%	98%	100%	6%	6%	2%	0%	90%	90%	90%	90%	10%	10%	10%	10%

<sup>1</sup>Alperia Bartucci was not included in 2018 data. Gruppo Green Power, Bluepower Connection Srl, Green Energy Group, and Unix Group Srl are not included in 2019 data. The total number of 2019 Alperia Group employees (with the exception of Bartucci) – equal to 970 – cannot be compared to the total number of employees indicated for 2018 – equal to 945 – net of employees leaving plus new hires in 2019, excluding Alperia Bartucci. The appropriate 2018 figure in order to make this comparison is 961, not 945. This misalignment is due to a different scope of reporting for 2019 compared to 2018 (entry of Alperia Sum and Alperia Trading) and a switch from the TPC to Zucchetti application (incorrect counting of terminated employees).

<sup>2</sup>Employees who left the organisation on 31.12. are not included in total number of employees per 31.12.

<sup>3</sup>Directors are included in employee numbers

<sup>4</sup>The percentages communicated in 2019 are calculated on total employees whereas in the 2018 Sustainability Report they were calculated on employment contract/type

**Figure 27: New employee hires and employee turnover**<sup>1</sup> (GRI 401-1)

New employee hires		Total				under 30	31-40	41-50	51+	YtY variation
		2019	2018	2017	2016					
Women	Headcount	21	13	9	8	6	12	2	1	62%
Percentage of new employee hires	%	28%	22%	26%	24%					
Men	Headcount	54	46	25	26	22	21	8	3	17%
Percentage of new employee hires	%	72%	78%	74%	76%					
Total new employee hires	Headcount	75	59	34	34	28	33	10	4	27%
Total headcount per 31.12.	Headcount	1017	945	940	946					8%
New employee hire rate	%	7%	6%	4%	4%					

<sup>1</sup>Gruppo Green Power, Bluepower Connection Srl, Green Energy Group, and Unix Group Srl are not included in 2019 data. The total number of 2019 Alperia Group employees (with the exception of Bartucci) – equal to 970 – cannot be compared to the total number of employees indicated for 2018 – equal to 945 – net of employees leaving plus new hires in 2019, excluding Alperia Bartucci. The appropriate 2018 figure in order to make this comparison is 961, not 945. This misalignment is due to a different scope of reporting for 2019 compared to 2018 (entry of Alperia Sum and Alperia Trading) and a switch from the TPC to Zucchetti application (incorrect counting of terminated employees).

Employee turnover <sup>2</sup>		Total				under 30	31-40	41-50	51+	YtY variation
		2019	2018	2017	2016	2019				
Women	Headcount	7	10	4	13	1	2	2	2	-30%
	%	12%	19%	10%	28%					
Men	Headcount	52	44	36	33	4	10	5	33	18%
	%	88%	81%	90%	72%					
Total employee turnover	Headcount	59	54	40	46	5	12	7	35	9%
Total headcount per 31.12	Headcount	1017	945	940	946					8%
<b>Employee turnover rate</b>	<b>%</b>	<b>6%</b>	<b>6%</b>	<b>4%</b>	<b>5%</b>					

<sup>2</sup>Employee turnover: employees who leave the organization voluntarily or due to dismissal, retirement, or death in service; turnover per 31/12; employees who leave the organization on 31.12 are included in employee turnover.

**Figure 28: Average training hours** (GRI 401-1)

Average training hours per employee – Gender		Total				YtY variation
		2019	2018	2017	2016	
Women	hours	15,9	14,9	not available	not available	7%
Men	hours	21,6	19,7	not available	not available	10%
Total	hours	20,3	18,7	not available	not available	9%

Average training hours per employee – Employee category		Total				YtY variation
		2019	2018	2017	2016	
Top management (directors and direct reports)	hours	28,2	31,5	not available	not available	-10%
Middle management (2° and 3° level)	hours	25,3	28,4	not available	not available	-11%
Employees	hours	19,2	16,5	not available	not available	16%

**Figure 29: Percentage of employees receiving regular performance and career development reviews<sup>1</sup>** (GRI 404-3)

Percentage of employees receiving regular performance and career development reviews – Gender		Total			
		2019	2018	2017	2016
Women	%	3%	4%	0%	0%
Men	%	3%	3%	0%	0%
Total	%	3%	4%	0%	0%

Percentage of employees receiving regular performance and career development reviews – Employee category	Total				
	2019	2018	2017	2016	
Top management (directors and direct reports)	%	19%	36%	100%	100%
Middle management (2° and 3° level)	%	15%	9%	0%	0%
Employees	%	0%	1%	0%	0%

<sup>1</sup>Currently only MbO Reviews and Career Development Reviews are included. As of 2018, regular employee feedback reviews are being rolled out. Due to the fact that automated data on the % of feedbacks concluded is not yet available, these are currently not included in the indicator.

## Diversity and Equal Opportunity

**Figure 30: Diversity of governance bodies and employees<sup>1</sup>** (GRI 405-1)

Diversity Governance Bodies		Total				under 30	31-40	41-50	51+	YtY Variation
		2019	2018	2017	2016	2019				
Women	Headcount	5	4	4	4	0	0	1	4	25%
Percentage of total members	%	42%	33%	33%	33%	0%	0%	8%	33%	
Men	Headcount	7	8	8	8	0	0	1	6	-3%
Percentage of total members	%	58%	67%	67%	67%	0%	0%	8%	50%	
Total	Headcount	12	12	12	12	0	0	2	10	0%
	%	100%	100%	100%	100%	0%	0%	17%	83%	

Diversity Employees		Total				under 30	31-40	41-50	51+	YtY Variation
		2019	2018	2017	2016	2019	2019	2019	2019	
Women	Headcount	230	195	193	188	26	81	64	59	18%
Percentage of total employees	%	23%	21%	21%	20%	3%	8%	6%	6%	
Men	Headcount	787	750	747	758	84	200	191	312	5%
Percentage of total employees	%	77%	79%	79%	80%	8%	20%	19%	31%	
Employees with disabilities	Headcount	23	24	29	30	1	5	6	11	-4%
Percentage of total employees	%	2%	3%	3%	3%	0%	0%	1%	1%	
Total	Headcount	1017	945	940	946	110	281	255	371	8%
	%	100%	100%	100%	100%	11%	28%	25%	36%	

<sup>1</sup>Alperia Bartucci was not included in 2018 data.

**Figure 31: Ratio of basic salary and remuneration of women to men (GRI 405-1; GRI 405-2)**

<b>Ratio of basic salary and remuneration of women to men</b>	<b>Unit</b>	<b>2019<sup>6</sup></b>	<b>2018<sup>5</sup></b>	<b>2017<sup>4</sup></b>
Top management <sup>1</sup>	Ratio	0,69	0,77	0,78
Middle management <sup>2</sup>	Ratio	1,03	0,93	1,06
White-collar employees	Ratio	0,95	0,87	0,83
Blue-collar employees <sup>3</sup>	Ratio	0,78	0,62	0,75

<sup>1</sup>Includes directors and direct reports<sup>2</sup>Includes 2nd and 3rd level reports<sup>3</sup>Data not representative, as there is only one women in this category who is not a specialized worker.<sup>4</sup>Data was restated due to a change in calculation methodology.<sup>5</sup>Alperia Bartucci was not included in 2018 data.<sup>6</sup>Calculation methodology was updated for better comparison (i.e. standby duty was removed from calculation)

<b>Percentage of female employees per category</b>	<b>2019</b>	<b>2018</b>
Top management <sup>1</sup>	19%	12%
Middle management <sup>2</sup>	17%	15%
White-collar employees	33%	32%
Blue-collar employees <sup>3</sup>	0,4%	0,4%

<b>Percentage of employees per category based on total number of employees</b>	<b>2019</b>	<b>2018</b>
Top management <sup>1</sup>	8%	6%
Middle management <sup>2</sup>	10%	10%
White-collar employees	57%	57%
Blue-collar employees <sup>3</sup>	25%	26%

**Figure 32: Parental leave<sup>2</sup>** (GRI 401-3)

		Men				Women			
		2019	2018	2017	2016	2019	2018	2017	2016
Total number of employees that were entitled to parental leave <sup>1</sup>	Headcount	25	16	42	9	12	7	13	26
Total number of employees that took parental leave <sup>2</sup>	Headcount	21	14	17	9	12	7	13	26
<b>Percentage of employees that took parental leave<sup>3</sup></b>	%	<b>84%</b>	88%	40%	100%	<b>100%</b>	100%	100%	100%
Total number of employees planned to return to work in the reporting period (2019) after parental leave ended		21	14	17	9	6	7	8	4
Total number of employees that returned to work in the reporting period (2019) after parental leave ended <sup>6</sup>	Headcount	21	14	17	9	2	6	8	4
<b>Return to work rate<sup>4</sup></b>	%	<b>100%</b>	100%	100%	100%	<b>33%</b>	86%	100%	100%
Total number of employees that returned to work in 2018 after parental leave ended that were still employed 12 months (ending in the reporting period 2019) after their return to work	Headcount	14	15	9	0	6	6	4	0
<b>Retention rate<sup>5</sup></b>	%	<b>100%</b>	88%	100%	100%	<b>100%</b>	75%	100%	100%

<sup>1</sup>Based on total entitlements known to the employer with starting date after 1.1.2019<sup>2</sup>Based on the entitlements with starting date after 1.1.2019<sup>3</sup>Includes compulsory leave (only for mother) and optional leave (usable also by the father). In 2019 out of six women who planned to return to work: two did return, three extended their parental leave using voluntary leave and one left the company.<sup>4</sup>Total number of employees that did return to work after parental leave/<sup>5</sup>Retention rate = Total number of employees retained 12 months after returning to work following a period of parental leave/ Total number of employees<sup>6</sup>Number corrected and restated for 2017

	2019	2018
Average hours per female employees who took parental leave	1422	1184
Average hours per male employees who took parental leave	104	63
Average weeks per female employees who took parental leave	37,4	31,2
Average weeks per male employees who took parental leave	2,7	1,7
Average months per female employees who took parental leave	9,4	7,8
Average months per male employees who took parental leave	0,7	0,4

## Health and safety at work

**Figure 33: Types of occupational diseases, occupational disease rate, and absenteeism** (GRI 403-2)

Employees	2019	2018	2017	2016
Incidents of occupational diseases	0,00	0,00	0	0
Lost workdays due to occupational diseases	0,00	0,00	0	0
Lost workdays due to absentees of all kind <sup>1</sup>	11.728,85	10.033,00	10.717	7.633
Hours worked	1.613.515,90	1.454.474,01	1.396.937	1.194.147
Hours scheduled to be worked	1.950.014,96	1.822.583,74	1.824.863	1.511.618
<b>Occupational disease rate (per 1.000.000 h)</b>	<b>0,00</b>	0,00	0,00	0,00
<b>Absentee rate (per 1000 hours)</b>	<b>6,01</b>	5,50	5,87	5,05

<sup>1</sup>Absentee excludes permitted leave absences such as holidays, study, maternity or paternity leave and compassionate leave.

'lost days' count begins the day after the absence

**Figure 34: Types of injuries and rates of injury, lost days, and number of work-related fatalities** (GRI 403-2)

Employees	2019	2018	2017	YtY variation
Fatalities	0	0	0	0%
Lost workday incidents	14	13	13	8%
Lost days <sup>1</sup>	427	293	192	46%
Hours worked	1.613.516	1.454.474	1.396.937	11%
<b>Incident rate (per 1.000.000 h)<sup>2</sup></b>	<b>8,68</b>	8,94	9,31	-3%
<b>Lost day rate (per 1000h)</b>	<b>0,26</b>	0,20	0,14	31%

<sup>1</sup>When calculating lost days, 'days' means calendar days; the lost-days count begins the day after the accident

<sup>2</sup>Minor (first-aid level) injuries are not included in the injury rate (IR); fatalities are included in the injury rate (IR)

Contractors	2019	2018	2017	YtY variation
Fatalities	0	0	not available	0%
Lost workday incidents	2	1	not available	100%
Lost days <sup>1</sup>	86	13	not available	562%
Hours worked	656.616	584.353	not available	12%
<b>Incident rate (per 1.000.000 h)<sup>2</sup></b>	<b>3,05</b>	1,71	not available	78%
<b>Lost day rate (per 1000h)</b>	<b>0,13</b>	0,02	not available	489%

<sup>1</sup>When calculating lost days, 'days' means calendar days; the lost-days count begins the day after the accident

<sup>2</sup>Minor (first-aid level) injuries are not included in the injury rate (IR); fatalities are included in the injury rate (IR)

## Development and Innovation

### Innovation, Research and Development

**Figure 35: Innovation, Research & Development activity and expenditure aimed at providing reliable electricity and promoting sustainable development (GRI EU8)**

	Unit	2019	2018	2017	YtY variation (%)
Number of employees working on R&D Projects	number of employees	88	46	not available	91%
Total R&D expenditure	EUR	<b>1.560.934,00</b>	1.056.716,73	1.554.247,59	48%
thereof					
EU projects	EUR	167.293,00	393.168,80		
Other research projects	EUR	455.799,00	317.195,54		
Innovation Board Projects	EUR	937.842,00	346.352,39		

### Sustainable Products and Services

**Figure 36: Sustainable products and services<sup>1</sup> (GRI EU7/ALP4)**

	2019	2018	2017
ALP4: Share of revenues with sustainable products and services (%)	40%	49%	46%

<sup>1</sup>Revenues include production and sale of hydro & solar energy, biomass and district heating, green gas and services related to energy efficiency and green electricity

Revenues relate to pro quota energy quantities; Revenues of the sale of green labelled electricity sold to end customers are based on the estimation of average

**INDEPENDENT AUDITORS' REPORT {GRI 102-56}**



**ALPERIA SPA**

**INDEPENDENT AUDITOR'S REPORT ON THE CONSOLIDATED  
NON FINANCIAL STATEMENT PURSUANT TO ARTICLE 3,  
PARAGRAPH 10, OF LEGISLATIVE DECREE NO. 254/2016 AND  
ARTICLE 5 OF CONSOB REGULATION NO. 20267 OF JANUARY  
2018**

**YEAR ENDED 31 DECEMBER 2019**



## **Independent auditor's report on the consolidated non-financial statement**

*pursuant to article 3, paragraph 10, of Legislative Decree No. 254/2016 and article 5 of CONSOB Regulation No. 20267 of January 2018*

To the Directors of Alperia S.p.A.

Pursuant to article 3, paragraph 10, of Legislative Decree No. 254 of 30 December 2016 (the "Decree") and article 5 of CONSOB Regulation No. 20267/2018, we have performed a limited assurance engagement on the consolidated non-financial statement of Alperia S.p.A. and its subsidiaries (hereafter the "Group" or "Alperia Group") for the year ended 31 December 2019 prepared in accordance with article 4 of the Decree and approved by the Management Board on 16 April 2020 (hereafter the "NFS").

### ***Responsibility of the Directors and of the Supervisory Board for the NFS***

The Directors are responsible for the preparation of the NFS in accordance with article 3 and 4 of the Decree, with the "GRI-Sustainability Reporting Standards" defined in 2016 (hereafter the "GRI Standards") and with the "G4 Sector Disclosure – Electric Utilities" defined in 2013 (hereafter the "G4 Sector Disclosure"), identified by them as the reporting standards.

The Directors are responsible, in accordance with the law, for the implementation of the internal controls necessary to ensure that the NFS is free from material misstatement, whether due to fraud or unintentional errors.

Moreover, the Directors are responsible for identifying the content of the NFS, within the matters mentioned in article 3, paragraph 1, of the Decree, considering the activities and characteristics of the Group and to the extent necessary to ensure an understanding of the Group's activities, its performance, its results and related impacts.

Finally, the Directors are responsible for defining the business and organisational model of the Group and, with reference to the matters identified and reported in the NFS, for the policies adopted by the Group and for the identification and management of risks generated and/or faced by the Group.

The Supervisory Board is responsible for overseeing, in the terms prescribed by law, compliance with the Decree.

### ***PricewaterhouseCoopers SpA***

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### **Auditor's Independence and Quality Control**

We are independent in accordance with the principles of ethics and independence set out in *the Code of Ethics for Professional Accountants* published by the *International Ethics Standards Board for Accountants*, which are based on the fundamental principles of integrity, objectivity, competence and professional diligence, confidentiality and professional behaviour. Our audit firm adopts *International Standard on Quality Control 1 (ISQC Italy 1)* and, accordingly, maintains an overall quality control system which includes processes and procedures for compliance with ethical and professional principles and with applicable laws and regulations.

### **Auditor's responsibilities**

We are responsible for expressing a conclusion, on the basis of the work performed, regarding the compliance of the NFS with the Decree, with the GRI Standards and with the G4 Sector Disclosure. We conducted our engagement in accordance with "*International Standard on Assurance Engagements ISAE 3000 (Revised) – Assurance Engagements Other than Audits or Reviews of Historical Financial Information*" (hereafter "ISAE 3000 Revised"), issued by the *International Auditing and Assurance Standards Board* (IAASB) for limited assurance engagements. The standard requires that we plan and apply procedures in order to obtain limited assurance that the NFS is free of material misstatement. The procedures performed in a limited assurance engagement are less in scope than those performed in a reasonable assurance engagement in accordance with ISAE 3000 Revised ("*reasonable assurance engagement*") and, therefore, do not provide us with a sufficient level of assurance that we have become aware of all significant facts and circumstances that might be identified in a reasonable assurance engagement.

The procedures performed on the NFS were based on our professional judgement and consisted in interviews, primarily with company personnel responsible for the preparation of the information presented in the NFS, analysis of documents, recalculations and other procedures designed to obtain evidence considered useful.

In particular, we performed the following procedures:

1. analysis of the relevant matters reported in the NFS relating to the activities and characteristics of the Group, in order to assess the reasonableness of the selection process used, in accordance with article 3 of the Decree and with the reporting standards adopted;
2. analysis and assessment of the criteria used to identify the consolidation area, in order to assess their compliance with the Decree;
3. comparison of the financial information reported in the NFS with that reported in Alperia Group's Consolidated Financial Statements;
4. understanding of the following matters:
  - business and organisational model of the Group, with reference to the management of the matters specified by article 3 of the Decree;
  - policies adopted by the Group with reference to the matters specified in article 3 of the Decree, actual results and related key performance indicators;
  - main risks, generated and/or faced by the Group, with reference to the matters specified in article 3 of the Decree.

With reference to those matters, we compared the information obtained with the information presented in the NFS and carried out the procedures described under point 5 a) below;



5. understanding of the processes underlying the preparation, collection and management of the significant qualitative and quantitative information included in the NFS. In particular, we held meetings and interviews with the management of Alperia S.p.A. and with the personnel of Alperia Greenpower S.r.l and Edyna S.r.l. and we performed limited analysis of documentary evidence, to gather information about the processes and procedures for the collection, consolidation, processing and submission of the non-financial information to the function responsible for the preparation of the NFS.
- Moreover, for material information, considering the activities and characteristics of the Group:
- at holding level
    - a) with reference to the qualitative information included in the NFS, and in particular to the business model, the policies adopted and the main risks, we carried out interviews and acquired supporting documentation to verify their consistency with available evidence;
    - b) with reference to quantitative information, we performed analytical procedures as well as limited tests, in order to assess, on a sample basis, the accuracy of consolidation of the information. A specific analysis was performed on the energy sources on which the greenhouse gas emission indicators are based;
  - for the following subsidiaries Alperia Greenpower S.r.l. and Edyna S.r.l., which were selected on the basis of their activities, their contribution to the performance indicators at a consolidated level and their location, we carried out site visits during which we met local management and gathered supporting documentation regarding the correct application of the procedures and calculation methods used for the key performance indicators.

### **Conclusions**

Based on the work performed, nothing has come to our attention that causes us to believe that the NFS of Alperia Group as of 31 December 2019 has not been prepared, in all material respects, in compliance with articles 3 and 4 of the Decree, with the GRI Standards and with the "G4 Sector Disclosure – Electric Utilities".

Trento, 24 April 2020

PricewaterhouseCoopers SpA

*Signed by*

Alberto Michelotti  
(Partner)

*Signed by*

Paolo Bersani  
(Authorised signatory)

*This report has been translated from the original, which was issued in Italian, solely for the convenience of international readers. We have not performed any verification procedures on the English translation of the NFS of Alperia Group as of 31 December 2019.*

## NOTE ON METHODOLOGY {GRI 102-45, 102-48, 102-49, 102-50, 102-51, 102-52, 102-54}

This Sustainability Report is a consolidated non-financial report as defined in Italian Legislative Decree No. 254/2016, which examines the activities and indicative figures of the Alperia Group according to the reporting limits and reporting period of the 2019 consolidated financial statements. Deviations are indicated next to the data in question with footnotes. The company was recently established. Due to the consolidation of the existing data-collection systems, in some cases comparable data for the year 2016 is not available.

List of consolidated companies according to the 2019 consolidated financial statements (it should be noted that the share relating to the company Neogy is included in the data, although it is no longer fully consolidated following the investment of Dolomiti Energia Holding SpA):

<b>Business Unit</b>	<b>Company</b>	<b>Investment (%)</b>	<b>Plants (No.)</b>
<b>Parent company</b>	Alperia SpA		
<b>Energy Production</b>	Alperia Greenpower Srl	100	32 hydroelectric power plants; 7 photovoltaic systems (Bolzano)
	Ottana Solar Power SpA	100	1 photovoltaic park
	Selsolar Rimini Srl	80	1 photovoltaic park
	Alperia Vipower SpA	77	2 hydroelectric power stations
	Selsolar Monte San Giusto Srl	60	1 photovoltaic park
<b>Sales &amp; Trading</b>	Alperia Trading Srl	100	
	Alperia Smart Services Srl (NEW)	100	
	Alperia Sum SpA (NEW)	70	
<b>Networks</b>	Edyna Srl	100	
	Edyna Transmission Srl	100	
<b>Heat &amp; Services</b>	Alperia Ecoplus Srl	100	5 district heating plants
	Biopower Sardegna Srl	100	1 biomass power plant
<b>Smart Region</b>	Alperia Fiber Srl	100	
	Alperia Bartucci SpA	60	
	Gruppo Green Power SpA (NEW)	86,53	
	Unix group Srl (NEW)	100	
	Bluepower Connection Srl (NEW)	100	
	Green Energy group Srl (NEW)	50,1	

The Alperia Bartucci SpA company was merged into the Alperia Group in 2018. Group-level data integration has not yet been fully implemented. Alperia Bartucci SpA data has not yet been consolidated in the following areas:

- Supplier management
- Customer satisfaction

Alperia Sum SpA was merged into the Alperia Group in 2019. Group-level data integration has not yet been fully implemented. Alperia Sum SpA data has not yet been consolidated in the following areas:

- Energy Consumption
- GHG Emissions
- Procurement
- Health, Safety and Environment

The companies Gruppo Green Power SpA, Bluepower Connection Srl and Green Energy Group Srl companies were merged into the Alperia Group in 2019. Group-level data integration has not yet been implemented. With the exception of the following areas:

- Economic Development

- Sustainable Products and Services

Following data collection system improvements, to allow better comparability the following indicators for 2018 have been adapted:

- GRI 302-1: Energy Consumption
- GRI 305: GHG Emissions

The Alperia Sustainability Report is published annually. The report has been prepared in accordance with GRI standards: Core Option.

## **CONTACTS {GRI 102-53}**

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