



# Corporate Social Responsibility Report for 2017

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# President's Letter



**Jacek Glowacki**

**Deputy President of the Management**

**Board of Polenergia S.A.**

## Dear Sirs and Madams,

It is a pleasure for me to present to you the CSR Report of Polenergia Group for 2017.

The CSR Report, prepared in compliance with the GRI (Global Reporting Initiative) Guidelines, is addressed to our stakeholders; it presents our accomplishments and activities in the area of corporate social responsibility, which we have managed to implement in the last year.

We are constantly improving our knowledge and reinforcing our resources, thinking about all areas of our operation. Being guided by involvement and consistency, we aim for maximisation of our activities, relations with business partners, the economic and natural environment. As in the prior years, also last year, Polenergia Group confirmed its involvement in the pursuit of responsible business based on fairness, respect and transparent principles of cooperation with our business partners. We take care of our business partners, employees and suppliers.

The highlight of the last year was commencement of work on a new strategic project for the entire Polenergia Group; we are planning to announce it and implement it in 2018. Polenergia Group is an integrated energy group bringing together companies that are active in the generation of energy from conventional and renewable sources, along with distribution and trading of electric energy.

In relation to the changing market and regulatory environment, the Company is analysing the prospects of development focused on technological and geographic diversification. Independently from preparation of the new strategy, the Company pursues work consisting in development and implementation activities, focusing on two areas: onshore and offshore wind farms.

At the end of 2017, Polenergia Group, together with nine companies that belong to Kulczyk Investments Group, joined the Global Compact Poland Ethics Programme. As one of the signatories of the understanding, we are striving to develop companies from Polenergia Group based on compliance with ethic principles and sustainable development. The Global Compact Poland Ethics Programme is a set of principles which the companies operating in a responsible and sustainable manner should be guided by. The programme was drawn up on the basis of the Universal Declaration of Human Rights, United Nations Guiding Principles on Business and Human Rights, UN Sustainable Development Goals and the Ten Principles of United Nations Global Compact.

In 2017, we persuaded our largest business partners to cooperate and sign the Ethical Standards of Polenergia Group to make them jointly liable for compliance and promotion of ethic principles and values in their respective organisations. We confirmed this act by signing the Understanding on Ethical Standards.

In the last year, as part of the Group, we have implemented a Code of Ethics for our employees which constitutes a set of ethic principles promoted in our Group.

We are building the employees' environmental awareness; therefore, we have consciously implemented and we apply electronic circulation of documents with great satisfaction. This results in saving the employees' time, but also more economic use of paper.

We focus on education and future of the next generations; thus, we cooperate with kindergartens, schools and universities via training sessions which our employees give on the environmental protection.

Taking care of our stakeholders, paying attention to environmental and social issues, with simultaneous respect for the employees are the determinants which form the basis for promoting social responsibility and pursuing business activities in consideration of social and environmental needs.

Everybody who is interested in the vision of corporate responsibility of our Group is heartily invited to read the next CSR report.

# Strategy of Polenergia Group

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Polenergia Group is an integrated energy group which brings together companies operating in the production of energy from conventional and renewable sources, as well as distribution and trading of electric energy.

In relation to the changing market and regulatory environment, the Company is analysing the prospects of development focused on technological and geographic diversification. Announcement of the new strategy, after prior approval by the Supervisory Board, is planned at the end of the first and the beginning of the second quarter of 2018. Independently from preparation of the new strategy, the Company pursues work consisting in development and implementation activities, focusing on two areas:

- › Overland wind farms
- › Offshore wind farms

At the present moment, the Company's portfolio includes projects with a total capacity of 183 MW which are in the final stage of development, provided with building permits and pre-qualification for participation in the exchange process.

The Group is planning to build two offshore wind farms (Polenergia Bałtyk II and Polenergia Bałtyk III) located on the Baltic Sea with a total capacity up to 1,200 MW. The implementation of Polenergia Bałtyk I project depends on the procurement of connection conditions.

In July 2016, Polenergia Bałtyk III project received the environmental decision issued by the Regional Director of Environmental Protection in Gdańsk. The decision is final and valid. On the other hand, Polenergia Bałtyk II project received the environmental decision in March 2017. The decision is also final and valid. At the present moment, work is under way on procurement of environmental decision pertaining to the offshore transmission infrastructure (wind farm power service line). Furthermore, development work in 2017 focused on wind measurement campaign conducted with the use of LIDAR system and initial geological studies of the sea bed.

## Strategy and key areas of social responsibility

This report is the third, comprehensive social responsibility report published by Polenergia Group.

The report for this year was prepared in accordance with the core version of GRI Standards. The report was not subject to additional verification. It encompasses the entire Capital Group in the shape in which it is consolidated in the financial statements. Thus, it presents the dominant unit of the capital group, along with a number of special purpose vehicles, established to service individual investments. When drawing up this report, we were also guided by the requirements of the PN-ISO 26000 "Guidance on Social Responsibility" standard.

The key step necessary to implement during the preparation of the first report in order to make it compliant with the G4 Reporting Guidelines (in previous years) and GRI Standards (in the report for 2017), was to define areas of significant impact on the environment and determine stakeholders on which Polenergia exerts significant impact or which exert significant impact on the company. Below, please find a list of defined key areas of responsibility which refer to the Polenergia Group's activities and which will be discussed in detail in a further part of the report.

Area of responsibility	Social or environmental aspect	Impact aspects and indicators according to GRI	Significance
Environment	Impact of investments on local natural environment	Biodiversity Waste and sewage Complaint mechanism	High
Environment	Impact of activities on climate	Materials Energy Emission	High
Environment	Biomass harvesting	Materials	High
Society	Fears of local communities related to nuisance of planned investments	Local community	High
Employees	Safety and OHS	OHS	Average

## Strategy of corporate social responsibility of Polenergia Group

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Polenergia aims at maintaining balance between the expectations of clients and protection of long-term interests of the natural and social environment

The Company relies its' development on state-of-the-art available technologies which use renewable and conventional energy sources, simultaneously taking care of human safety and environmental protection. In 2015, the Strategy of Corporate Responsibility of Polenergia Group was adopted via the Resolution of the Management Board. It determines

the measurable goals for years 2015 - 2019 in all areas of operation of the Group. The strategy forms the basis for implementation of CSR activities for all Group companies. It contains the most important aspects which should constitute guidelines for further development. The premise for undertaking activities as part of responsible business is also

the Social and Environmental Policy of Polenergia Group, updated in 2016, which has sustainable development as its' main goal and foundation of wise management of activities.





# Strategy of corporate social responsibility of Polenergia Group

## Priorities as part of the strategy of corporate social responsibility of Polenergia Group:



### Safety

- › Assuring, implementing and making the subcontractors liable for observing safety procedures compliant with ISO 18001 and acting in line with the law;
- › Ongoing training and making employees aware of threats related to work at investments (wind turbines, work at heights, work with dangerous tools);
- › Conclusion of agreements containing ethic and environmental clauses;
- › Environmental audits, including controls of subcontractors;
- › OHS audits, including controls of subcontractors.



### Society

- › Dialogue with the local community with respect to planned/ existing investments - ongoing information activities, responses to fears and questions of local communities;
- › Dialogue with non-governmental organisations, in particular NGOs that work for environmental protection - analysis of reservations and doubts;
- › Charity activities - focus on problems and needs of communities directly neighbouring with investment facilities.



# Strategy of corporate social responsibility of Polenergia Group

## Priorities as part of the strategy of corporate social responsibility of Polenergia Group:



### Environment

- › Improved structure of fuel as a result of emissivity of produced energy;
- › Harvesting raw materials (biomass) exclusively from certain and certified sources;
- › Plant-origin biomass, which does not constitute competition for food production;
- › Reduced risk of polluting ground waters;
- › Optimised consumption of electric energy and paper;
- › Recycling of basic secondary raw materials in the head office and in industrial facilities;
- › Regular nature monitoring - impact of the investment on biosphere;
- › Regular monitoring of environmental parameters in line with granted permits;
- › Optimisation of biomass transport nuisance.



### Responsible management:

- › Inclusion of CSR issues in management;
- › Care for employees in the area of training, OHS, ethics, satisfaction from work;
- › Comprehensive HR policy;
- › Establishment of CSR working group;
- › Introduction of flexible work principles for young parents;
- › Inclusion of social and environmental goals in managing and remuneration of Employees.



## Description of activities of Polenergia Group

In today's shape, Polenergia was established in 2014, when it took over the energy assets of Polenergia Holding S.á.r.l. Group, which hitherto did not belong to Polenergia. The restructuring offered Polenergia prospects of long-term and sustainable growth.

### Key operational assets and development projects of Polenergia Group according to segments of operation and energy sources:

Source	Energy Generation	Distribution	Sale/ Trade
Renewable energy sources	Polenergia: special purpose vehicles dedicated to operate onshore wind farms; new onshore and offshore wind farm projects; project of a biomass power plant	Polenergia Dystrybucja Sp. z o.o. - specialist distributor and vendor for plants, commercial and residential buildings.	Polenergia Obrót S.A.
Natural gas/ coke oven gas	Polenergia Nowa Sarzyna CHP, Polenergia Mercury Power Plant (coke oven gas)	Polenergia Dystrybucja Sp. z o.o. / PPG Polska Sp. z o.o.	Polenergia Obrót S.A.



# Description of activities of Polenergia Group



**Renewable energy**



**Conventional energy**



**Distribution**



**Trading**

## Wind Farms of Polenergia Group

Between 2005 and 2015, energy based on wind sources was the most dynamically developing RES branch in Poland. In 2005, the installed capacity of installations using wind energy was 83.28 MW; by 2017, the installed capacity grew by more than 70 times (5,848.67 MW). In the recent years, dynamic development was halted by domestic legislation, unfavourable towards RSE.

Nevertheless, on account of new EU regulations ("winter package"), increasing the share of RES as of 2030 up to 35%, the global trend of abandoning fossil fuels and making the economy green, it is to be expected that the growth of installed capacity is going to be observed also in Poland.

Polenergia operates in the wind energy sector, applying modern wind turbine technologies to produce clean energy. As part of development of energy based on wind, the activities encompass:

- › Development and sale of wind farms
- › Operation of wind farms



**245 MW**

Size of  
wind projects  
In 2017



**740 GWh**

Volume of production  
from wind farms  
In 2017

Polenergia is the operator and owner of wind farms. The first wind farm with the capacity of 22 MW was commissioned in January 2007 in Gnieźdźewo in the Puck Commune. In January 2012, two subsequent wind farms were commissioned: Łukaszów Wind Farm (34 MW) and Modlikowice Wind Farm (24 MW) in the Zagrodno Commune and, over the next years, Gawłowice Wind Farm and Rajgród Wind Farm. In the third quarter of 2015, another wind farm with the total capacity of 43.7 MW located in Skurpie joined five already operating facilities, whereas the Wind Farm in Gawłowice was extended onto the second stage. In February 2016, Mycielin Wind Farm with a capacity of 48 MW was commissioned.

At the end of 2017, the size of wind project portfolio of Polenergia amounted to 245 MW, which puts the company in the group of leaders on the market of operating wind farms in Poland. The volume of production from wind farms exceeded 740 GWh in 2017.

As of 30 September 2017, the installed capacity in wind power plants in Poland is 5,848.67 MW, which constitutes almost 70% of share in installed capacity of all RES technologies in Poland.

# Description of activities of Polenergia Group



**Renewable energy**



**Conventional energy**



**Distribution**



**Trading**

## Polenergia Group Wind Farms in 2017

No.	Location	Capacity (MW)	Commissioning
1	Puck	22	2006
2	Modlikowice	24	2011
3	Łukaszów	34	2011
4	Gawłowice	41.4	2014
5	Rajgród	25.3	2014
6	Skurpie	43.7	2015
7	Gawłowice II	6.9	2015
8	Mycielin	48	2015/16





# Description of activities of Polenergia Group



**Renewable energy**



**Conventional energy**



**Distribution**



**Trading**

## Polenergia Group Wind Farms in 2017

### PUCK WF

The farm is located in Gniezdźewo near Puck. The farm was commissioned in January 2007. It has the capacity of 22 MW, which is generated by wind turbines with the capacity of 2 MW each. The operator of the wind farm is Dipol Sp. z o.o., a project SPV that is owned in 100% by Polenergia S.A. Puck WF produces and delivers electric energy to the local energy distributor, Energa Operator. Dipol also has a long-term agreement for sale of certificates of origin from RES (green certificates) concluded with Polenergia Obrót S.A.

### Modlikowice WF

The farm is located in the Zagrodno Commune in the Złotoryja Poviát. The wind farm has the capacity of 24 MW which is generated by 12 wind turbines (Vestas V90 2.0 MW) on 105 m high towers. The operator of the wind farm is Talia Sp. z o.o., a special purpose vehicle of the project which is owned in 100% by Polenergia S.A. The farm was commissioned at the beginning of 2012.

### Gawłowice WF

The farm is located near Grudziądz in the Kujawsko-Pomorskie Province. It consists of 18 Siemens SWT-2-3-108 turbines with the tower height of 115 m and the total capacity of 41.4 MW. The operator of the wind farm is Grupa PEP Farma Wiatrowa 1 Sp. z o.o., a project SPV which belongs in 100% to Polenergia. The farm was commissioned in the 4th quarter of 2014, and in 2015, the second stage of the project was finished, i.e. three turbines of the same manufacturer (Siemens SWT-2-3-108). The total capacity of Gawłowice Wind Farm is 48.3 MW.

### Łukaszów WF

The farm is located in the Zagrodno Commune in the Złotoryja Poviát. Wind farm with the capacity of 34 MW which is generated by 17 wind turbines (Vestas V90 2.0 MW) on 105 m high towers. The operator of the wind farm is Amon Sp. z o.o., a special purpose vehicle of the project which is owned in 100% by Polenergia S.A. The farm was commissioned at the beginning of 2012.

# Description of activities of Polenergia Group



**Renewable energy**



**Conventional energy**



**Distribution**



**Trading**

## Polenergia Group Wind Farms in 2017

### Rajgród WF

The farm is located near Grajewo in the Suwałki region in Podlasie Province. It consists of 11 wind turbines (Siemens SWT-2-3-108) with a tower height of 115 m and the total capacity of 25.3 MW. The operator of the wind farm is Grupa PEP Farma Wiatrowa 6 Sp. z o.o., a project SPV, which belongs in 100% to Polenergia. The farm was commissioned in the fourth quarter of 2014.

### Skurpie WF

The farm is located near Płońsk in the Działdowo Poviast in Warmińsko-Mazurskie Province. It consists of 19 Siemens SWT-2-3-108 turbines with the tower height of 115 m and a total capacity of 43.7 MW. The operator of the wind farm is Grupa PEP Farma Wiatrowa 4 Sp. z o.o., a project SPV which belongs in 100% to Polenergia. The farm was commissioned in the fourth quarter of 2015.

### Mycielin WF

The farm is located in the area of two communes Niegosławice and Szprotawa in the Żagań Poviast in Lubuskie Province. It consists of 24 wind turbines, each with the capacity of 2 MW (manufacturer: Vestas, model V110). The total installed capacity is 48 MW. The wind farm operator in Polenergia Farma Wiatrowa Mycielina Sp. z o.o. - a project SPV which belongs in 100% to Polenergia. The farm received the occupancy permit in the first quarter of 2016.

Subsequent projects pursued by Polenergia Group encompass a total of 216 MW, including wind farm projects that are ready for construction (with a valid building permits) with the capacity of approx. 183 MW and a design of biomass power plant with the capacity of approx. 31 MWe, also provided with a building permit.

# Description of activities of Polenergia Group



**Renewable energy**

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## Wind Farms on the Baltic Sea



**Conventional energy**



**Distribution**



**Trading**

The strategic project pursued by Polenergia Group is the construction of offshore wind farms on the Baltic Sea. Offshore wind farms are one of the most dynamically developing technology for electric energy production, not only in Europe, but also around the world. Poland, constructing subsequent GW of capacity installed in offshore wind farms, faces the challenge and, simultaneously the opportunity of creating a supply chain for the entire sector related to the offshore power industry, based on Polish harbours and industry, making Polish manufacturers of cables, foundations and transformer stations involved in offshore projects, along with steelworks, steel and other industries. Taking the above into account, the analysis of offshore market potential, prepared by McKinsey and published in 2016, shows that the development of offshore wind energy in Poland may offer up to 77,000 new work places in Poland by 2030, directly and indirectly related to the sector, as well as contribute PLN 60 billion to the Polish GDP.

WindEurope (formerly: EWEA) and IRENA estimate that over a million people is currently employed around the world on positions directly related to wind power. In Europe, there is quarter of a million people employed in the sector, whereas one-third of them is in the offshore wind energy industry. In 2016, the value of installed capacity in offshore wind farms amounted to 13 GW; additional 5 GW was at the

stage of construction and over 60 GW at various stages of development. A huge market potential, as well as growing share in domestic energy mixes of countries is shown by the following estimates: by 2030, between 26 and 84 GW of production capacity from offshore wind farms may be installed in Europe in total.





# Description of activities of Polenergia Group



**Renewable energy**



**Conventional energy**



**Distribution**



**Trading**

## Wind Farms on the Baltic Sea

Polenergia possesses permits for the location of artificial islands, as well as conditions for connection, which allow for connecting offshore wind farms to the Polish Power System in two stages, between 2021 and 2026. Location permits were also obtained for the entire offshore route of the connection cable. On 7 July, 2016, Polenergia Bałtyk III, a company that belongs to Polenergia Group, was the first entity in Poland to procure a decision on environmental conditions for offshore wind farm Bałtyk Środkowy III. Another offshore wind farm, also belonging to Polenergia Group, received the environmental decision on 27 March 2017.

The procured decisions on environmental conditions for both offshore farms are a result of comprehensive studies of the sea environment, environmental impact analyses, as well as social consultations conducted on a broad scale.

Offshore wind farms



# Description of activities of Polenergia Group



**Renewable energy**



**Conventional energy**



**Distribution**



**Trading**

## Wind Farms on the Baltic Sea



*It may be a cliché to say that the world in which we live and in which organisations operate is constantly changing. One of the implications is the fact that the companies are forced to adopt new modes of operation and focus their attention on new activities. To make this approach efficient, awareness of the environment and changes occurring in it is necessary. Polenergia and DNV GL have been cooperating in the area of renewable energy for a number of years. It is not only a strictly business oriented cooperation. Both companies share common values, related to the vision of the direction in which the power sector should be heading. DNV GL helps various entities solve problems related to the so-called “energy trilemma”, i.e. issues in the area of ensuring reliable and, at the same time, sustainable energy sources at competitive prices. In our opinion, Polenergia’s activities fit this framework and constitute an expression of responsibility for the future. It is hard to imagine our world in a decade or two. However, it is certain that the progressing decarbonisation is*

*inevitable, even if only as a result of the shrinking resources of fossil fuels. In line with the forecasts prepared by DNV GL, wind power, also including offshore wind turbines, will play a very important role in the future energy mix. In 2050, it may cover over one-fourth of the global demand for electric energy.*

*The mission pursued by Polenergia, with “development of energy friendly for people and the environment” at its’ forefront, complies with this vision of the future. Simultaneously, the activities undertaken by the company and the adopted strategy reflect the direction in which the power industry is heading. Diversification of own energy mix, development of renewable energy sources and supplementing them with gas solutions are the best examples. Co-participation in guaranteeing access to clean, economically competitive energy, supplied as part of a stable system, may be considered an excellent example of social responsibility.*



**Łukasz Sikorski**

Engineer with the soul of a humanist, involved in wind energy for over eleven years, both onshore and offshore. Offers technical consultancy for renewable energy projects at various stages of development and implementation. Particularly interested in the potential of cost reduction of offshore wind energy and its’ place in the future energy mix. Employee of the Polish division of DNV GL, one of the largest technical consultants in the world.



One of the largest, independent technical consultants in the world, active primarily in the area of renewable energy. The company provides various services for offshore wind energy, including counselling for Polenergia as part of preparation and performance of wind measurements on the Baltic Sea.



# Description of activities of Polenergia Group



**Renewable energy**



**Conventional energy**



**Distribution**



**Trading**

## Biomass Fuels

Biomass is a source of renewable energy which is used for energy purposes via direct combustion of wood and wood waste, straw, vegetable production waste or energy crops. In 2008, Polenergia Group started to implement projects related to the supply of the energy sector with pellet made of agricultural biomass, primarily straw (via straw granulation method). The company decided to mark its' presence in this market segment in response to the growing demand of the Polish energy sector for agricultural biomass, the supply of which is still limited. Straw pellet was chosen as the best form of biomass combustion on account of low transport costs, ease of internal transport and good physio-chemical properties. It is also necessary to emphasise that straw is an agricultural by-product (e.g. cereal production) and thus, this material does not directly compete with the production of food (competition for arable land).





# Description of activities of Polenergia Group



**Renewable energy**



**Conventional energy**



**Distribution**



**Trading**

## Biomass Fuels

In 2017, Polenergia Group operated three facilities and an energy crop plantation:

- › Pellet Factory in Ząbkowice Śląskie
- › Pellet Factory in Sępólno Krajeńskie
- › Pellet Factory in Zamość
- › Energy crop plantation in the vicinity of Chojnice

In total, the pellet production factories that belong to Polenergia Group manufacture pellet in the amount of 100,000 tons annually, servicing, as part of long-term contracts and spot supplies, large power plants and co-generation plants.



# Description of activities of Polenergia Group



**Renewable energy**



**Biomass Fuels**



**Conventional energy**



**Distribution**



**Trading**

## Pellet Factory in Ząbkowice Śląskie

The pellet factory in Ząbkowice Śląskie was commissioned in the third quarter of 2010. The operator of the factory is Grupa Polenergia - Biomasa Energetyczna Południe Sp. o.o. The decision on location of the factory was made on the basis of very favourable conditions on the local straw market. GPBE Południe delivered pellet to the Veolia plant (Łódź) and Ekopasze (export). In June 2017, the production in the factory was ceased on account of absence of output.

## Pellet Factory in Sępólno Krajeńskie

Since the second quarter 2009, straw pellet factory has been operating in Sępólno Krajeńskie near Bydgoszcz. Its' operator is Polenergia Group - Biomasa Energetyczna Północ Sp. z o.o. The capacity of the plant is approx. 4 tons per hour, which gives the annual production capacity on the level of approx. 30,000 - 35,000 tons. The investment is located in the Kujawsko-Pomorskie Province. Geographically, the outlet market of the factory is limited by transport costs of the product and covers an area within a radius of approx. 150 - 300 km around Sępólno Krajeńskie. The raw material market encompasses poviats located within a radius of approx. 60 - 80 km from the factory. The pellet factory delivers product to Veolia plants (Łódź), Mondi (Świecie), PGNiG Termika (Warsaw) and Dolna Odra Power Plant.

## Pellet Factory in Zamość

The pellet factory located near Zamość started to operate in the second quarter of 2012. The factory's operator is Polenergia Group - Biomasa Energetyczna Wschód Sp. z o.o. The choice of location in the Zamość Economic Sub-Zone, similarly to other factories, resulted from availability of raw materials for pellet production. The biomass produced in Zamość is delivered to the Połaniec Power Plant, where the largest power block fuelled exclusively with biomass was built. The volume of production is 4,500 tons monthly.

## Energy Crop Plantations

Polenergia planned to diversify its activities as part of production of fuel from biomass and it invests in energy crops. As part of Grupa PEP - Uprawy Energetyczne, a pilot plantation of various Miscanthus grass varieties was established. Miscanthus grass is a high-yielding energy crop which may be used both as fuel and material for pellet production. The goal of the project was to procure seedlings for the needs of developing the Miscanthus grass plantation in cooperation with farmers. The project, on account of absence of regulations pertaining to agricultural biomass, was reduced from 50 hectares to 5 hectares. The plantation is located in the vicinity of Chojnice.



# Description of activities of Polenergia Group



**Renewable energy**



**Conventional energy**



**Distribution**



**Trading**

## Development prospects of conventional and biomass energy

Polenergia Group, expanding its' operation, develops a number of alternative projects based on renewable and conventional sources of energy, at the same time becoming adjusted to the current development trends of the power sector. At the present moment, the investment is under preparation.

## Wińsko Biomass Power Plant

Wińsko Biomass Power Plant is scheduled for implementation in the Wińsko Commune (Wołów Powiat) in the Dolnośląskie Province. The planned capacity of the facility is 31 MWe. The biomass power plant will be supplied with biomass fuel of agricultural and forest origin and its' operation is planned for 30 - 40 years. The environmental decision was procured for Wińsko Biomass Power Plant, along with connection agreement to the 110 kV grid, a permit required under the Water Law to collect water and discharge sewage. Building permit has also been obtained. The installation is going to be characterised by very low emission of pollution to the atmosphere thanks to the application of a modern pollution cleansing system complying with BAT requirements and most recent requirements of the European Union with respect to environmental protection. On account of the used biomass

fuel, the balance of emission of carbon dioxide is considered to be zero. The construction of the power plant will contribute to the development of the region and will offer work places, both in the facility and in the supply chain of agricultural and forest biomass, e.g. during balloting (preparation of fuel) and its' transport. The project will also guarantee outlet market for remnants of agricultural and forest production (straw, maize chaff, forest chips).

Wińsko



# Description of activities of Polenergia Group



**Conventional energy**



**Distribution**



**Trading**



**Renewable energy**

## ..... Co-generation and industrial energy outsourcing

Polenergia is involved in the construction and exploitation of sources of energy production in conventional technology (fuel combustion), including co-generation of electric energy and heat. These are facilities located in the vicinity of large production plants and satisfying the energy needs of such plants. Forms of cooperation with recipients of energy include outsourcing.

Industrial energy outsourcing consists in separation of power plants and CHP plants from company structures and outsourcing their management to specialist companies. In the taken-over facilities, necessary modernisation work is performed or completely new equipment is assembled. Technological solutions and business models of operation of outsourcing projects are adjusted to the specific needs of production plants. Both sides gain benefits from decreased costs thanks to the investment in new technologies.

In 2017, Polenergia Group operated two industrial energy facilities:

- › Nowa Sarzyna CHP
- › Mercury Power Plant



# Description of activities of Polenergia Group



**Conventional energy**



**Distribution**



**Trading**



**Renewable energy**

## ..... Co-generation and industrial energy outsourcing

Polenergia has a 15% share in the domestic market of energy generated from natural gas.

Mercury Power Plant allows for procuring energy from fuel which previously constituted an unused by-product of operation of coke plants. Nowa Sarzyna CHP uses natural gas; its' combustion is characterised by relatively low emission of CO<sub>2</sub>, dust, NO<sub>x</sub> and SO<sub>2</sub>, and, in relation to this, a generally lower impact on the environment.

## Nowa Sarzyna CHP

The combined heat and power plant is located in Nowa Sarzyna, near Leżajsk in Podkarpacie Province. The facility is fuelled with natural gas and has the total power output of 116 MWe and heat output of 70 MWt. Electric energy produced by Nowa Sarzyna CHP Plant is delivered to the Polish Power System via three overhead 110 kV high voltage lines. Heat is used for technological and heating needs of chemical plants located in the vicinity and for heating purposes of town of Nowa Sarzyna.

## Mercury Power Plant

Mercury Power Plant is located in Wałbrzych and is managed by Mercury Energia. The project is implemented on the basis of an agreement concluded between Mercury Power Plant and Wałbrzyskie Zakłady Koksownicze Victoria S.A. Mercury Power Plant started to generate power at the beginning of July 2006. The power unit consists of a gas-fired boiler and a steam turbine with the power of approx. 8 MWe. Electric power is produced from coke oven gas, which is a by-product of coke production in Wałbrzyskie Zakłady Koksownicze Victoria S.A. It is worth noting that until the launch of the project, the gas was simply burnt and had no economic use. The innovative project has not only contributed to improved business efficiency of the plant, but it primarily offered the possibility of procuring energy without additional burden on the natural environment.

# Description of activities of Polenergia Group



**Distribution**



**Energy Distribution**



**Trading**



**Renewable energy**



**Conventional energy**

Polenergia Dystrybucja is a company that belongs to Polenergia Group. It is an independent operator of the distribution system (OSDn) based on the decision of the President of the Energy Regulatory Office. Today, Polenergia Dystrybucja is the largest private distributor of electric energy in Poland, operating across the country and setting up new distribution areas.





# Description of activities of Polenergia Group



## Distribution

### Distribution Areas of Polenergia Dystrybucja in 2017



## Trading



## Renewable energy



## Conventional energy

Polenergia Dystrybucja builds or takes-over infrastructure necessary for energy distribution and recovers investment outlays via return on the Regulatory Asset Base (RAB) and amortisation of RAB which is contained in the distribution tariff. Furthermore, the company distributes energy to industrial, commercial and residential recipients, e.g. trading centres and housing estates. Polenergia Dystrybucja has 32 operating projects and 24 projects pending implementation. At the present moment, the company has almost 12,000 clients who consume over 290 GWh power annually, delivered via 110.2 km long power lines, 87 stations and 146 transformer stations.

Another company of Polenergia Group, Polenergia Kogeneracja, is a distributor of natural gas which concentrates on supply of gaseous fuels to industrial plants with the use of own distribution infrastructure. At the present moment, the company provides gaseous fuel distribution services to two industrial clients in Tomaszów Mazowiecki with the annual volume of distributed natural gas on the level of 40 million Nm<sup>3</sup>. (440 GWh).

As of October 2016, Polenergia Kogeneracja has also been selling natural gas to the public utility sector in the amount of 12.5 GWh per year.

**PLN 21.2 million**

Planned investments in distribution area between 2017 and 2018

**PLN 18.3 million**

Value of infrastructural credit agreement with ING Bank Śląski S.A.

**26%**

Increase in Regulatory Asset Base ("RAB")

**25% (over 3,000)**

Planned growth in the number of new clients up to 2018

# Description of activities of Polenergia Group



**Distribution**

**New Energy**



**Trading**



**Renewable energy**



**Conventional energy**

In response to the market demand, Polenergia also develops the so-called New Energy.

New Energy is dispersed, prosumer energy based on photovoltaic solutions combined with energy storage. This development will allow for selling energy and gas to end recipients, in combination with services related to power efficiency. Polenergia offers services which include construction and connection of micro-installations and generation sources to the grid, as well as support for clients in the area of photovoltaic installations and procuring co-financing. In 2017, Polenergia Dystrybucja prepared and commissioned eight photovoltaic installations, including seven for consumers and one for own needs. Simultaneously, the company is implementing a pilot programme for construction and exploitation of stations for charging electric cars. The offer covers comprehensive solutions for every individual client. In 2017, the company completed five designs of charging stations. They are located primarily in Warsaw and Kraków.

Investments in new technologies and making the recipients independent from application of solutions based on fossil fuels both for production of electric energy for the needs of buildings, as well as development of a network of chargers for electric cars, offers huge benefits, not only economic.



**7 AFFORDABLE AND CLEAN ENERGY**



**11 SUSTAINABLE CITIES AND COMMUNITIES**



**13 CLIMATE ACTION**



**9 INDUSTRY, INNOVATION AND INFRASTRUCTURE**



These are also environmental benefits, namely reduction of carbon dioxide emission and formation of smog in the case of facilities that previously had been using inefficient boilers for solid fuels, satisfaction from using clean technology. Primarily, development of RES technologies and installations used to charge electric cars will influence saturation of the market with new technological solutions resulting in the fact that prosumers will constitute a social and economic force contributing to a change of behaviour to more environmentally conscious, which may indirectly contribute to legislative changes in the perception of prosumers on the power market.

# Description of activities of Polenergia Group



## Trading

### Polenergia Obrót S.A. energy and emission trading



## Renewable energy



## Conventional energy



## Distribution

Polenergia Obrót is a company specialising in wholesale trade of electric energy, property rights and gas, as well as provision of management services for the energy contract portfolio for entities from Polenergia Capital Group and external units.

Polenergia Obrót is one of the most dynamically developing companies in the sector of electric energy trading in Poland. Strategy changes initiated in 2012 offered tangible effects in the form of over twelve-fold growth of the trade volume between 2012 and 2017. The annual average volume between 2015 and 2017 was 25.5 TWh.

Since October 2013, the company has been an active and direct member of the Polish Power Exchange (TGE), at the same time systematically increasing the number of commercial partners on markets over-the-counter markets. In 2013, the company started to operate on the wholesale market of electric energy in Germany, including transactions as part of interconnector exchange. Since December 2013, Polenergia Obrót has been a member of EPEX SPOT SE and since March 2017, also OTE and OKTE exchanges in Czech Republic and Slovakia.

As of 1 July 2016, Polenergia Obrót has been the market maker at the Polish Power Exchange. The company's task is to maintain liquidity by ongoing submission of buy and sell orders of instruments listed on the Commodity Market.

On 18 November 2016, the company started trading on ICE in London with respect to right to emission of carbon dioxide (via broker Merex Spectron). The trading volume for rights to CO2 emission exceeded 2.2 million EUA in 2017.



# Description of activities of Polenergia Group



## Trading

### Polenergia Obrót S.A.: energy and emission trading



## Renewable energy



## Conventional energy



## Distribution



Polenergia Obrót S.A. has been an active member of the Polish Power Exchange since October 2013 and since July 2016, it has been playing an active role of maker of markets serviced by the Polish Power Exchange. We appreciate the role of the power market, which is created as part of the exchange and we feel jointly responsible for its' transparency. In the course of our long-term activity, we have observed a growing role of exchanges in the development of the power industry. We are aware of the significance of the Polish Power Exchange in the process of optimising trade strategies of market participants. This year, we feel greatly satisfied with our work as Polenergia Obrót S.A. was distinguished as one of the most active PPE companies in 2016 and the prize for the best Broker of the Year was given to Marcin Gwarda, an employee of Polenergia Obrót.



**Arkadiusz Zieleźny,**

**President of the Management**

**Board of Polenergia Obrót S.A.**

# Description of activities of Polenergia Group



## Trading

### Trading of RES property rights



## Renewable energy



## Conventional energy



## Distribution

Furthermore, the Company trades property rights from certificates of origin, both with respect to long-term contracts and spot transactions.

In 2013, trading in property rights from RES amounted to 150 GWh, and in 2015 it exceeded 550 GWh; in 2016, it reached 1,000 GWh and in 2017 2,300 GWh.



150 GWh

Trading of RES property rights in 2013 r.



550 GWh

Trading of RES property rights in 2015 r.



1000 GWh

Trading of RES property rights in 2016 r.



2300 GWh

Trading of RES property rights in 2017 r.





# Description of activities of Polenergia Group



## Trading

### Gas trading



## Renewable energy



## Conventional energy



## Distribution

In 2014, Polenergia Obrót received a license to trade gaseous fuels (OPG license) and license to trade in gas from abroad (OGZ license). One of the priorities is development of this activity in the area of wholesale trade on the exchange market, OTC transactions and interconnector exchange. In 2016, natural gas trading amounted to 6.9 TWh and remained on this level in 2017.

Polenergia Obrót also acts as the Transmission Commissioner (ZUP), responsible for balancing in GAZ-SYSTEM. It is the leader of the Balance Group; Polenergia Kogeneracja is a participant in this Group.

In November 2017, the company started gas trading at ICE Endex (via broker Merex Spectron).

An important area of operation of Polenergia Obrót is provision of comprehensive electric power portfolio management services, property rights, CO2 emission and guarantees of origin (the volume of trading for companies from Polenergia Capital Group exceeded 930 GWh in 2017) for companies from Polenergia Capital Group.

Cooperation with associated entities encompasses the entire chain of power values from generation (wind farms, CHP plant, bio-gas stations) through sale and up to distribution of power to the end clients. The range of provided services includes:

- › Nowa Sarzyna CHP
- › Mercury Power Plant

The offer of comprehensive portfolio management is also addressed to companies outside of the Capital Group, including in particular wind farms, CHP plants, trading companies and end clients.

Polenergia Obrót is also a member of industry organisations which associate entities operating on the power market. The Company is a supporting member of the Association of Energy Trading (TOE) and the European Federation of Energy Traders (EFET).



## Values of Polenergia Group

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All aspects, expectations and principles by which Polenergia Group is guided by, simultaneously supervising the life cycle of projects, are communicated via the publicly accessible Environmental and Social Policy and the adopted Strategy of Corporate Social Responsibility. Solutions are implemented via the Environmental and Social Management System.

In our activities, we are guided by the principles of broadly understood ethics. It is manifested in our approach to stakeholders: shareholders, employees, partners and contractors. Ethical conduct is treated as an additional asset of our Group. We continually strive to act responsibly with respect to our stakeholders. We are guided by the principles of fair competition when choosing suppliers and contractors and we act in a mode deprived of any semblance of corruption.



## Values of Polenergia Group

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In Polenergia Group, we observe top ethical standards, environmental protection and labour standards. We expect the same from our business partners and suppliers with whom we cooperate. Responsible actions of all partners in the supply chain not only streamline the work and guarantee high quality of servicing and functioning of our assets, but it is also an approach that allows for comprehensive management of the impact on the social and natural environment.

Thus, in 2017, Polenergia started to update the Group's Code of Ethics and communicated the Ethical Standards for Business Partners, Contractors and Subcontractors with which it cooperates.

The Standard and the Code of Ethics are available on the company's website: [www.polenergia.pl](http://www.polenergia.pl)

Both the employees of Polenergia Group and our partners are required to build labour culture compliant with the values of the Universal Declaration of Human Rights, UN Sustainable Development Goals and the ethical principles of the UN Global Compact. At the same time, the Code of Ethics offers a possibility of notifying abuse and describes the options of contact and reporting violations to the established Committee of Ethics operating in Polenergia Group. Agreements with employees and business partners contain provisions that pertain to the observance of the principles of ethics and taking care of the natural environment and local communities.

Wishing to bring closer and emphasise the partnership in striving to create ethical business environment, in 2017 Polenergia S.A. signed "Ethical Standards for Business Partners, Contractors and Subcontractors" with its' key business partners. The standards were signed with companies that deliver equipment and office consumables, technology suppliers, service technicians of our facilities and companies guarding the operating facilities. We believe that joint actions for the sake of ethical conditions of work, environmental protection,

work for the benefit of local communities will contribute to creating long-term benefits for our stakeholders.

Polenergia Group, wishing to create joint values and implementing ethical stances in pursuit of its' business strategy, has joined the Global Impact ethical programme in 2017 and Partnership for Common Implementation of Environment-Related Sustainable Development Goals "Together for the Environment" UNEP GRID (more in the "Corporate Governance" Chapter).

In 2017, Polenergia started  
to update the Code  
of Ethics of the Group.

# Environmental Protection

## - Summary of activities in 2017

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### Wind Farms on the Baltic Sea

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Polenergia has also carried out a geo-technical research campaign on the sea bed for both areas intended for the investment - this is another key stage of work which is going to allow for the preparation of the design of setting the wind turbines.

Polenergia, via its' SPVs, i.e. Polenergia Bałtyk II Sp. z o.o. and Polenergia Bałtyk III Sp. z o.o., is implementing construction projects of two wind farms on the Baltic Sea.

The SPVs have procured permits for the location of artificial islands, conditions of connection which allow for connecting the offshore Wind Farms to the Polish

Power System in two stages, between 2021 and 2026, along with location permits for the entire sea route of the connection cable. The company that is handling the connection for the designed Offshore Wind Farms in the course of procuring environmental decision for the offshore and onshore route of the cable.

In 2016, Polenergia received the Environmental Decision for the first Offshore Wind Farm and in March 2017, it procured environmental conditions for performance of the second planned project (Offshore Wind Farm Bałtyk II). Procurement of both environmental decisions

was an effect of many months of social campaigns and consultations with all interested milieus: fishermen, maritime administration, local government authorities and residents. Websites have been designed for both projects:

- › [www.baltyk3.pl](http://www.baltyk3.pl)
- › [www.baltyk2.pl](http://www.baltyk2.pl),

which present major design parameters of Offshore Wind Farms, a comprehensive non-technical summary of environmental reports and study results.



## Wind Farms on the Baltic Sea

In January 2017, wind measurement with the use of LiDAR type device located on a floating buoy was started.



*This is a major, even key stage of development of every wind project. The results of measurements will directly influence the feasibility and profitability of Polenergia's offshore wind farms, and may indirectly impact the successful development of this branch of power industry in our country*

*During measurements, modern devices for remote measurement of wind speed that employ laser beams, the so-called floating LiDAR are used. The device determines the speed of movement of air masses above it and, due to the fact that it is positioned on a stabilised buoy floating on the sea, it also allows for registering other parameters.*

*The first measurement campaign on the Polish part of the Baltic Sea blazes the trail also due to another reason. Everything indicates that our country is going to be a pioneer when the development of offshore wind farms on the basis of remote measurements is concerned, without the use of measurement mast set on the sea bottom. This is due to the fact that together with technological development and progressing commercialisation, the trust to LiDAR technology has increased significantly in recent years. On the one hand, the applied devices allow for obtaining reliable information about windiness on the sea, but also, which is equally important, may contribute to the reduction of the final cost of energy.*



Łukasz Sikorski

Engineer with the soul of a humanist, involved in wind energy for over eleven years, both onshore and offshore. Offers technical consultancy for renewable energy projects at various stages of development and implementation. Particularly interested in the potential of cost reduction of offshore wind energy and its' place in the future energy mix. Employee of the Polish division of DNV GL, one of the largest technical consultants in the world.



One of the largest, independent technical consultants in the world, active primarily in the area of renewable energy. The company provides various services for offshore wind energy, including counselling for Polenergia as part of preparation and performance of wind measurements on the Baltic Sea.



## Polenergia Nowa Sarzyna Combined Heat and Power Plant (CHP)

The CHP Plant is located in the area of Nowa Sarzyna Commune, in the north-eastern part of Podkarpacie Province. The facility is located in an industrial area in direct vicinity of chemical plant CIECH Sarzyna S.A. (Grupa CIECH).

Since the beginning of its' activity, the company has been particularly intent on acting in compliance with legal provisions and any regulations, as well as best practice in the area of environmental protection. Annual reports from controls conducted by authorised entities have always expressed very good opinions of such institutions about the activities and approach of the CHP Plant with respect to the aspects that were the subject matter of control. Correctness in popularising and making the employees aware of the significance of such

issues is especially emphasised, along with application of procedures also inducing CHP contractors to observe such high standards. In 2017, no penalties were imposed on the company in relation to violation of environmental protection provisions.

In 2017, Polenergia Nowa Sarzyna Sp. z o.o. CHP provided the service of rebuilding the national electric power system for Polskie Sieci Elektryczne S.A. based on a four-year

contract concluded in 2016. The service encompasses auto-start of gas turbo-units and their operation in a separate part of the national electric power system within a scope necessary for correct course of the process of restoring the operation of the Polish Power System after the disappearance of voltage in the System or its' section. The most important element of this process is the supply of energy from the CHP Plant to launch the power block in a selected system power plant.





# Polenergia Nowa Sarzyna Combined Heat and Power Plant (CHP)

## Nowa Sarzyna CHP Plant

The combined heat and power plant is the first heat plant in Poland whose generating units have the auto-start capacity and may be used in the process of rebuilding the Polish Power System. To date, only water power plants had such technical capacity.

At the beginning of 2017, Polenergia Nowa Sarzyna CHP and CIECH Sarzyna concluded an agreement for supplies of heat between 2020 and 2030 and an agreement on local services valid between 2020 and 2030.

On 18 January 2017, Nowa Sarzyna CHP concluded an annex to the electric energy sale agreement between Nowa Sarzyna CHP and GET EnTra Sp. z o. o. of 21 March 2008, extending the term of its' validity until 2019.

In 2014, Nowa Sarzyna CHP implemented Environmental Management System ISO 14001 with respect to the co-generation of electricity and heat. In May 2017, Nowa Sarzyna CHP was certified for compliance with ISO 14001:2015 standard and received a certificate of compliance with such standard, issued by Lloyd's Register Quality Assurance for a period of 3 years.

Since 2011, by means of the decision of Provincial Commander of the State Fire Service, Nowa Sarzyna CHP was included in the group of plants with high and increased risk of a serious industrial failure located within the borders of Nowa Sarzyna Commune. The group also includes chemical factory CIECH Sarzyna S.A. and Silikony Polskie Sp. z o.o.

Technologies and quantities of consumed fuel and raw materials, as well as operating indices (efficiency, availability, reliability) reduce the negative impact of Nowa Sarzyna CHP on the natural environment to the minimum, including impact on the climate in comparison to the installations with a similar capacity fuelled with coal. The CHP Plant does not generate any post-combustion waste and the emission of greenhouse gases is lower by half; emission of NOx is seven times lower; the plant does not emit SO2 or dust. The applied technology reduces the volume and aggressiveness of industrial sewage, whereas the recycling of precipitation water, condensate and use of condensate from heating systems allows for limiting the consumption of raw water.

In 2017, Nowa Sarzyna CHP did not apply for changes in the environmental decisions that it holds and did not request issue of new ones.

In 2017, the steam turbine control system was replaced and annual inspection was carried out, along with borescope inspection of the steam turbine. The repair plan of auxiliary devices was also prepared.

The CHP Plant does not generate any post-combustion waste and the emission of greenhouse gases is lower by half.

In 2017, the following authorities controlled Nowa Sarzyna CHP:

- › Province Inspectorate of Environmental Protection with respect to the compliance with environmental protection requirements by the installation operators, requiring procurement of an integrated permit; control of compliance with environmental protection provisions in the area of gas and dust emission to the air, control of compliance with the provisions of the Waste Act and control of settlement of fees for the use of the environment.
- › Sanitary and epidemiological station with respect to the evaluation of the sanitary and hygienic status and health conditions of the work environment
- › Control of the State Fire Brigade with respect to the compliance with fire regulations, compliance with safety requirements in a plant with increased risk of occurrence of a serious industrial failure and with respect to the procedure of handling substances that impoverish the ozone layer.

All of the above-listed controls ended with issue of control reports with no remarks.



## Prizes/ rankings

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### Nowa Sarzyna CHP Plant



In January 2017, Nowa Sarzyna CHP received a nomination for the Leader of Polish Business 2016 by Business Center Club.



In June 2017, Nowa Sarzyna CHP received a distinction of Wprost weekly - WPROST Eagles diploma for Podkarpackie Province.



The nomination of the president of Nowa Sarzyna CHP in the national Businesswomen ranking organised by Puls Biznesu as one of few women in Poland successfully managing a CHP plant incessantly since 2011, where the managed CHP Plant is constantly accomplishing high operating and financial indices.



In November 2017, Nowa Sarzyna CHP received "Fair Play Company" Business Quality Certificate and Platinum Laurel (for companies fulfilling the competition requirements incessantly for nine years). More information is presented on the PFP programme website: <http://przedsiębiorstwo.fairplay.pl/laureaci-przedsiębiorstwo-fairplay2017.html>



## Mercury Power Plant

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Launched in 2007; it is located in the area of the former Victoria Power Plant. Mercury Power Plant operates on the basis of waste coke oven gas from Wałbrzyskie Zakłady Koksownicze Victoria S.A.

Mercury was launched in 2007; it is located in the area of the former Victoria Power Plant. Mercury Power Plant operates on the basis of waste coke oven gas from Wałbrzyskie Zakłady Koksownicze Victoria S.A.

The installation functions as part of the EU system of emission trading system (EU ETS), currently in its' third stage (from 2013 to 2020). The installation has approved and valid carbon dioxide emission monitoring plan. It also possesses a valid permit for emission of gases and dust to the air. In 2017, no control of Environmental Protection Inspection was carried out. No penalties were imposed

on the facility in relation to failing to fulfil reporting obligations in the area of environmental protection and reporting to the National Centre for Emission Management (KOBIZE).

In line with the requirements of the emission permit, measurements are conducted in Mercury Power Plant (total dust, nitrogen dioxide, sulphur dioxide), reports on environmental use are prepared, on the basis of which the installation settles environmental fees, a CO2 emission report for the installation is prepared and verified by an external certified expert and every year, reports are submitted to the National KOBIZE Database. Waste evidence is maintained and the annual report is submitted to the Marshal's Office of Dolnośląskie Province. Furthermore, information about products that contain asbestos is also presented [Regulations of the Minister of Economy of 13 December 2010 on requirements with respect to the use of products containing asbestos and use and cleaning of installations or devices in which asbestos-containing products were used].





## Wińsko Power Plant

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Polenergia Group has commenced preparations to build a biomass power plant with the capacity of approx. 31 MWe. The facility will be located in Dolny Śląsk in Wińsko Commune (Wołów Powiat).

The planned location has a valid decision on environmental conditions, a permit required under the Water Law for collection of water and discharge of sewage and a building permit for the main area, along with a permit obtained in 2017 for connecting the facility to the electric power station of the operator (GPO Wińsko).

In parallel, the Operator has commenced work on 15 km of 110 kV line, with respect to which the environmental decision has already been procured and a local spatial management plan has been adopted, allowing for the implementation of this task.

The company carrying out the "Wińsko Power Plant" project has implemented and efficiently manages the mechanism of complaints and applications, reacting to all questions of stakeholders. In 2017, on account of initiation of an administrative procedure in relation to the Investor's application for issue of an integrated permit for Wińsko Power Plant, interest in the investment among the local community has increased, which resulted in meetings, both with residents, the Commune Council and local associations in the course of which the Investor's representatives and authors of the application for integrated permit presented the Investment and responded to the questions of interested residents.





# Operating Wind Farms



## PUCK WF

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(Dipol Sp. z o.o.) located in Gnieźdźewo Commune:

The farm was commissioned in 2007.



## Modlikowice WF Łukaszów WF



## Rajgród WF



## Gawłowice WF



## Skurpie WF



## Mycielin WF

Since the beginning of its' operation until 2012, ornithological and chiropterological observations were conducted and acoustic measurement was performed. Reports from the studies in annual cycles are available on the website of Polenergia Group: <http://www.polenergia.pl/pol/pl/strona/puck>. No penalties were imposed on the company. No control took place in the facility in Gnieźdźewo in 2017.

### New protected sites in the investment area

No new protected sites were established in close vicinity of the wind farm, on which Puck Wind Farm could exert impact.



# Operating Wind Farms



**PUCK WF**

**Best practice**



**Modlikowice WF  
Łukaszów WF**



**Rajgród WF**



**Gawłowice WF**



**Skurpie WF**



**Mycielin WF**

In June 2017, exercises of “Gdynia” Specialist Group of High Altitude Emergency Services were organised in the area of the wind farm. The workshops were organised by

the Poviát Headquarters of the Fire Brigade in Puck in cooperation with Polenergia. Rescue workers from the High Altitude Group were made acquainted by the employees servicing the Puck Wind Farm with principles of staying in the area of the wind farm, OHS regulations and the functioning and operation of wind turbines. Additionally, alpine techniques and equipment used by the personnel in case of emergency situations and a necessity of quick evacuation, were presented.

After a brief introduction, the rescue workers climbed the external ladder located on the turbine tower to the gondola which hangs over 80 metres above the ground. Subsequently, the exercise scenario included evacuation of persons from the gondola to the ground with the use of various alpine techniques. The exercises went smoothly and the rescue workers participating in them were happy with yet another possibility of taking part in classes in a facility of this type.

Companies from Polenergia Group willingly take part in helping to organise such events. Cooperation with the State Fire Brigade and other safety services is a very important element

of implementing the work place strategy for the Group. Our goal is to increase the employees’ awareness and to include them in joint liability for a safe work place to make sure that safety is their value and asset. We also wish to share our experiences with Subcontractors and Partners with whom we create a safe work place.



# Operating Wind Farms



**Modlikowice WF**  
**Łukaszów WF**

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Łukaszów Wind Farm (Amon Sp. z o.o.)  
and Modlikowice Wind Farm (Talia Sp. z o.o.)



**Rajgród WF**

The projects received co-financing from Infrastructure and Environment Operational Programme, Measure 9.4 Generation of energy from renewable sources.

The wind farms have been operating since 2012.



**Gawłowice WF**



**Skurpie WF**

No penalties were imposed on Amon and Talia. No control took place in the facilities in 2016.



**Mycielin WF**



**PUCK WF**

## New protected sites in the investment area

In close vicinity of the wind farm, no new protected sites were established on which Modlikowice and Łukaszów Wind Farms could exert impact.

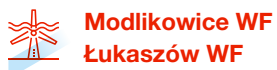
**UNIA EUROPEJSKA**  
**FUNDUSZ SPÓJNOŚCI**



**INFRASTRUKTURA  
I ŚRODOWISKO**  
NARODOWA STRATEGIA SPÓJNOŚCI



# Operating wind farms



**Modlikowice WF  
Łukaszów WF**

## Best practice



**Rajgród WF**



**Gawłowice WF**



**Skurpie WF**



**Mycielin WF**



**PUCK WF**

Protection of Montagu's harriers' nests in the area of wind farms.

Since 2014, when ornithologists observing birds as part of post-implementation monitoring found nests of Montagu's harrier, Polenergia has been conducting active protection of this rare species from the Accipitridae family. As part of protection activities in 2017, the outline of work related to bird protection was maintained: nests were fenced off in order to make sure that during harvest and other agro-technical

procedures, agricultural vehicles did not threaten the brood. During mowing, birds were not threatened in any way. Protection from predators was also guaranteed by sprinkling certified odour repellent. The product is completely safe for people, animals and the environment. Observations have shown that Montagu's harriers from every brood (2014 - 2017) safely left the nest.

2014

6 young birds safely  
left the nest

2015

3 young birds safely  
left the nest

2016

4 young birds safely  
left the nest

2017

6 young birds safely  
left the nest

Total

19  
birds

# Operating wind farms



**Modlikowice WF  
Łukaszów WF**

## Best practice



**Rajgród WF**



**Gawłowice WF**



**Skurpie WF**



**Mycielin WF**



**PUCK WF**

The practice described above is aimed at protecting Montagu's Harrier especially in the early stage of development, which also increases the chances for growth of the population of this rare species. In this manner, Polenergia has joined the active protection of Montagu's harrier in Poland, which is subject to the patronage of the Ministry of Environment and the General Directorate of Environmental Protection.

The protection practice of Montagu's harrier was notified in January 2017 to Sustainable Business Forum as part of project "Sustainable Business in Poland 2016. Best Practice" and was published in a study "Sustainable Business Report in Poland. Best Practice 2016" with respect to best practice in the area of biodiversity protection.

Polenergia plans to extend the protection of Montagu's harrier also in areas of other operating wind farms, where ornithological monitoring is conducted and where this bird species has been observed and where its' nesting has been ascertained.





# Operating wind farms



## Rajgród WF

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Rajgród Wind Farm

(Grupa PEP – Farma Wiatrowa 6 Sp. z o.o.).  
Commissioned in 2014. The wind farm is located in Rajgród Commune in Grajewo Powiat in Podlasie Province.



## Gawłowice WF



## Skurpie WF



## Mycielin WF



## PUCK WF



## Modlikowice WF Łukaszów WF

The farm is made up of 11 wind turbines (Siemens SWT-2-3-108) along with accompanying infrastructure.

In January 2015, post-implementation ornithological and chiropterological studies in the area of the wind farm were started. They were continued in 2016. Observations have shown no negative impact on the Accipitriformes and young white storks leaving the nests. No high mortality was ascertained among birds and bats. In 2017, the Regional Directorate for Environmental Protection in Białystok (Field Operations Division), having become acquainted with the results of the annual report for 2016, did not file any remarks to the analysis of proposed solutions with respect to monitoring in the next years.

In 2018, in line with the decision, the third year of post-implementation monitoring is scheduled.

The company implemented the complaint filing mechanism as part of the installation management system. Information about the project is published on Polenergia Group's website and made available in the City Office in Rajgród, where the results of acoustic measurements were also provided along with results of post-implementation impact of the wind farm on birds and bats.

No penalties were imposed on Rajgród Wind Farm in 2017.

No control of the Province Environmental Protection Inspectorate was performed.

In close vicinity of the wind farm, no new protected sites were established on which Rajgród Wind Farms could exert impact.





# Operating wind farms



**Rajgród WF**

**Best practice**



**Gawłowice WF**



**Skurpie WF**



**Mycielin WF**



**PUCK WF**



**Modlikowice WF  
Łukaszów WF**

In 2017, Rajgród WF joined the organisation of the 6th Podlasie Emergency Medicine Workshops. The workshops were organised between 23 and 24 June 2017 in the vicinity of Rajgród by the Province Headquarters of the Poviát Fire Brigade in Białystok in cooperation with the Regional Directorate of State Forests in Białystok, "Strażak" Sport and Physical Culture Association and Poviát Headquarters of State Fire Brigade in Grajewo. During the workshops, the participants - this year in the record number of 46 teams - took part in a first aid training during a staged mass accident, accident at an LPG station, a transport accident involving a bus, as well as a staged accident in the main electricity switching station on a wind farm. The last event took place in the area of Rajgród Wind Farm. Persons attending the workshops had the chance of getting trained on helping a person who suffered an electric shock, a burnt person and a person with disturbed heart rhythm.

Participation in such events is of great importance for Polenergia Group companies. We wish to take part in the life of local communities - not only because this is a source of satisfaction for us and for our employees and it reinforces the image of a socially responsible company, but primarily due to the fact that in the case of such events as the Emergency Medicine Workshops, we are involved in activities that have an actual impact of the human safety and health.



## Operating wind farms



### Gawłowice WF

Gawłowice Wind Farm (Grupa PEP - Farma Wiatrowa 1 Sp. z o.o.): The first stage was commissioned in 2014 and the next one a year later. The installation is located in Radzyń Chełmiński Commune in Grudziądz Poviát in the Kujawsko-Pomorskie Province.



### Skurpie WF



### Mycielin WF



### PUCK WF



### Modlikowice WF Łukaszów WF



### Rajgród WF

Studies of birds and bats after construction of turbines took place in 2015 and 2016; reports from the studies were submitted to the administration authorities after collection and analysis of data. Major conclusions from a two-year monitoring are that the wind farm has not exerted negative impact on birds and bats; the breeding birds in the area of the wind farm are medium-abundant, whereas the population size of the species of breeding birds after the construction of the wind farm remains on a similar level. Mortality with the carcass disappearance rate experiment is 1.28 specimens / MW/ year. In April 2017, the Regional Directorate of Environmental Protection in Bydgoszcz accepted post-implementation studies presented after the second year of the study. Another annual monitoring cycle is scheduled in 2018.

No penalties were imposed on the SPV operating the Gawłowice Wind Farm. No control took place in the facility in 2017.

The company implemented the complaint filing mechanism as part of the installation management system. Information about the project is published on the website of Polenergia Group and made available in the City and Commune Office of Radzyń Chełmiński.

In close vicinity of the wind farm, no new protected sites were established on which Gawłowice Wind Farms could exert impact.



# Operating wind farms



**Gawłowice WF**

**Best practice**



**Skurpie WF**



**Mycielin WF**



**PUCK WF**



**Gawłowice WF  
Łukaszów WF**



**Rajgród WF**

In December 2017, classes for students of the Faculty of Telecommunications, Computer Science and Electrical Engineering of the UTP University of Science and Technology in Bydgoszcz were organised at the Gawłowice Wind Farm.





## Operating wind farms



### Skurpie WF

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Skurpie Wind Farm

(Grupa PEP- Farma Wiatrowa 4 Sp. z o.o.): Skurpie Wind Farm was built in Płońska Commune, Działdowo Powiat, Warmińsko-Mazurskie Province. The farm was commissioned in the third and fourth quarter of 2015 in two stages.



### Mycielin WF



### PUCK WF



### Modlikowice WF



### Gawłowice WF Łukaszów WF



### Gawłowice WF

In 2016 and 2017, the impact of Skurpie Wind Farm on bats and birds was monitored. In line with the provisions of the environmental decision, the study results should be presented to the administration authorities (Commune Office and Regional Directorate of Environmental Protection) after the end of every half-year of studies. The reports are submitted to the competent authorities. The studies do not show any negative impact on birds or bats.

No penalties were imposed on the SPV operating the Skurpie Wind Farm. No control took place in the facility in 2017.

The company implemented the complaint filing mechanism as part of the installation management system. Information about the project is published on the website of Polenergia Group and made available in the Commune Office in Płońska.

In close vicinity of the wind farm, no new protected sites were established on which Skurpie Wind Farms could exert impact.

# Operating wind farms



## **Mycielin WF**

Mycielin Wind Farm  
(Polenergia Farma Wiatrowa Mycielín Sp. z o.o.)  
The wind farm was built in 2015 and received  
an occupancy permit in February 2016.



## **PUCK WF**



## **Modlikowice WF**



## **Rajgród WF**



## **Gawłowice WF Łukaszów WF**



## **Skurpie WF**

Mycielin Wind Farm is located near Mycielín, Gościelín, Gościeszowice, Długie, Dzikowce and Sucha Dolna, in the area of Niegosławice and Szprotawa Communes, Żagań Powiat, Lubuskie Province.

In 2016, ornithological and chiropterological studies were conducted in line with the range of the post-implementation monitoring agreed with the Regional Directorate of Environmental Protection in Gorzów Wielkopolski. The annual report from observations was submitted to the Directorate in 2017. The Directorate did not file any remarks with respect to the applied methodology and the mode of conduct of monitoring. Accepting the study from the first study year, the Directorate emphasised that the accomplished mortality levels

both for the Accipitriformes and the entire range of avian fauna are relatively low, far from the threshold values determined on the basis of pre-implementation monitoring. The Regional Directorate for Environmental Protection does not see the necessity of commencing minimising activities at this stage, apart from the activities proposed by scientists conducting the observations (mowing and ordering of service yards to decrease their attractiveness for bats). Another cycle of studies will be held in 2018/ 2019 and will encompass another phenological cycle.

No penalties were imposed on Mycielín Wind Farm in 2017. In close vicinity of the wind farm, no new protected sites were established on which Mycielín Wind Farms could exert impact.



# Operating wind farms



**Mycielin WF**

**Best practice**



**PUCK WF**



**Modlikowice WF**



**Rajgród WF**



**Gawłowice WF  
Łukaszów WF**



**Skurpie WF**

The company implemented the complaint filing mechanism as part of the installation management system. Information about the project is published on the website of Polenergia Group and made available in the Commune Office.

In 2016, two cases of contact with the Environmental Protection Division were recorded. The first one pertained to the possibility of work at the wind farm and the second referred to the possibility of organising educational classes devoted to renewable energy sources and environmental protection in Children's Holiday Centre in Przemków. The "green classes" took place in 2017. They were addressed to children who stayed in the Centre during winter holidays. The Centre serves not only as accommodation for young people. In 2016 and 2017, the centre received the international environmental certificate "Green Flag" and it attaches great importance to the environmental education. Employees of Polenergia Group who took part in the classes prepared a presentation and a board game for children devoted to the Renewable Energy Sources.



*Our facility takes part in various educational projects aimed at promoting biodiversity, animal rights and inanimate nature. As part of "waste education", we set up of a Waste Cemetery in the area of our facility; we cooperate with the Przemków Forest Inspectorate with respect to the organisation of classes on nature and forest education (we plant trees), we teach the children the correct habits with respect to pro-environmental activities in their local environments. This year, when applying for the Green Flag certificate, we chose the thematic area of Biodiversity. We try to make children who stay in our facility aware and responsible consumers; we teach them how to handle waste and take care of the natural environment. Our great advantage is the nature surrounding us and the possibility of exerting impact on great numbers of young people, as in the course of the year, many children stay in our centre.*

**- Dorota Macioł, teacher at the Children's Holiday Centre in Przemków.**





# Operating wind farms



**Mycielin WF**

**Best practice**



**PUCK WF**



**Modlikowice WF**



**Rajgród WF**



**Gawłowice WF  
Łukaszów WF**



**Skurpie WF**

We are very happy that a number of centres operate in the country which have a mission not only to guarantee safe leisure for children, but also to provide them with knowledge in the area of environmental protection and ecological education.

Polenergia Group is willingly involved in the education of children, in particular in the area of expanding knowledge about Renewable Energy Sources and operation of our company. By showing young people the possibilities of developing emission-free sources of energy and helping them acquire knowledge, we participate in the formation of a new generation of people who will take care of the natural environment.

Children are going to create the future. However, it is us, by providing them with our knowledge and experience, who create the conditions for a better world.



## Biomass harvesting

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With respect to biomass investments and development of subsequent projects based on this fuel, Sustainable Biomass Harvesting Procedures and Policy were implemented (published on website [www.polenergia.pl](http://www.polenergia.pl)) after review of the Management System in 2012. They are aimed at control intended to make sure that supplies of biomass to the facility are not burdensome for the environment and the locations through which biomass is transported; the standards are also meant to make sure that the biomass is harvested in line with good practice and the law.

Supply procedures contain control instruments both of the process and sources of biomass procurement, biomass transport control and mode of control of forest biomass origin.

Wishing to minimise the impact of biomass supplies on the environment, Polenergia gives its' pellet recipients a guarantee that biomass from which the generated final product was procured was harvested in a sustainable manner.



## Social engagement and development of local community - Polenergia as a good neighbor

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The Polenergia Group engages socially and environmentally mainly through its special purpose vehicles.

Activities focused on the local community and its development are extremely important. Cooperation with the local community is based on constant dialogue and mutual involvement. Such activities are mainly carried out by the Group's project companies, for example in the area of the development, construction and operation of wind farms. The Group focuses its day-to-day activities on local communities living around the developments and, above all, on their needs. The particular emphasis is put on partnership and support. Permanent cooperation and commitment are aimed at maintaining good neighborly relations as well as improving the quality of everyday life of local communities. The group supports, inter alia, initiatives in the field of education, culture and art and promotion of physical activity. The activity is also conducted to counteract the various dimensions of social exclusion and to support infrastructure projects. Examples of our initiatives include:

Activities of the Dipol Sp. z o.o. (FW Puck), supporting the organization of the „Fidle Gnieźdzewskich Gburów” folkloric festival for years. All Windfarms in the operation take part in co-financing or organizing carnival parties and Christmas events for children from schools and day care centers located in the vicinity of our facilities, and also engage in renovations of day rooms and schools in the vicinity of functioning facilities.

The Polenergia Group is also involved in helping children from Children's Homes. During the summer holidays of 2017, the Polenergia Group funded enter tickets to sports and recreation centers and cinema booklets for children of Children's Home No. 9 in Warsaw. It also organized a collection of cleaning products, basic necessities and board games for children among its employees. Before Christmas, we gave sweets to the children and accepted the invitation of the orphanage to the Christmas Eve supper.

Together with our employees, we organized a collection of winter children's clothing for the Family Children's Home, which lacked warm clothing.



important to the children. Such activities have also important impact on children, who can trust adults, as well as for our employees who find enjoy in helping others.

I KNOW. I FEEL...  
I AM HELPING.



## Social engagement and development of local community - Polenergia as a good neighbor

The Nowa Sarzyna CHP supports a number of sports clubs, cultural centers and individual initiatives that are important for the local community and translate into very good relations with residents, who are also customers and also employees of the combined heat and power plant. The company provides financial assistance in cyclical campaigns organized by the Municipal Cultural Center in Leżajsk (organ concerts), „UNIA” Municipal Sports Club Nowa Sarzyna, Pedagogical and Psychological Clinic in Leżajsk, Museum of the Leżajsk Land, Special School and Educational Center, „LELIWA” Social and Cultural Association in Leżajsk, the Leżajsk Music School, the Kresowiak Association, schools and kindergartens from the Leżajsk and Nowa Sarzyna municipality and many more. ENS joined the UMiG Nowa Sarzyna campaign entitled „Zielona Gmina” and was the sponsor of the prizes. In addition, the Nowa Sarzyna CHP financed the purchase of teaching aids and equipment for the physics and technical laboratory at the Nowa Sarzyna Primary School.

In 2017 the Nowa Sarzyna CHP continued sponsoring sports clubs and classes in student education robotics at the Professor Franciszek Leja School Complex of Grodzisk Górny. The students took part in the European eliminations for the Botball 2017 Robot Construction and Programming Tournament (ECER 2017) in Sofia (24-28.04.2017) taking 1st place in Double Eliminations. The team also won the Judge's Choice award for the best robot design.

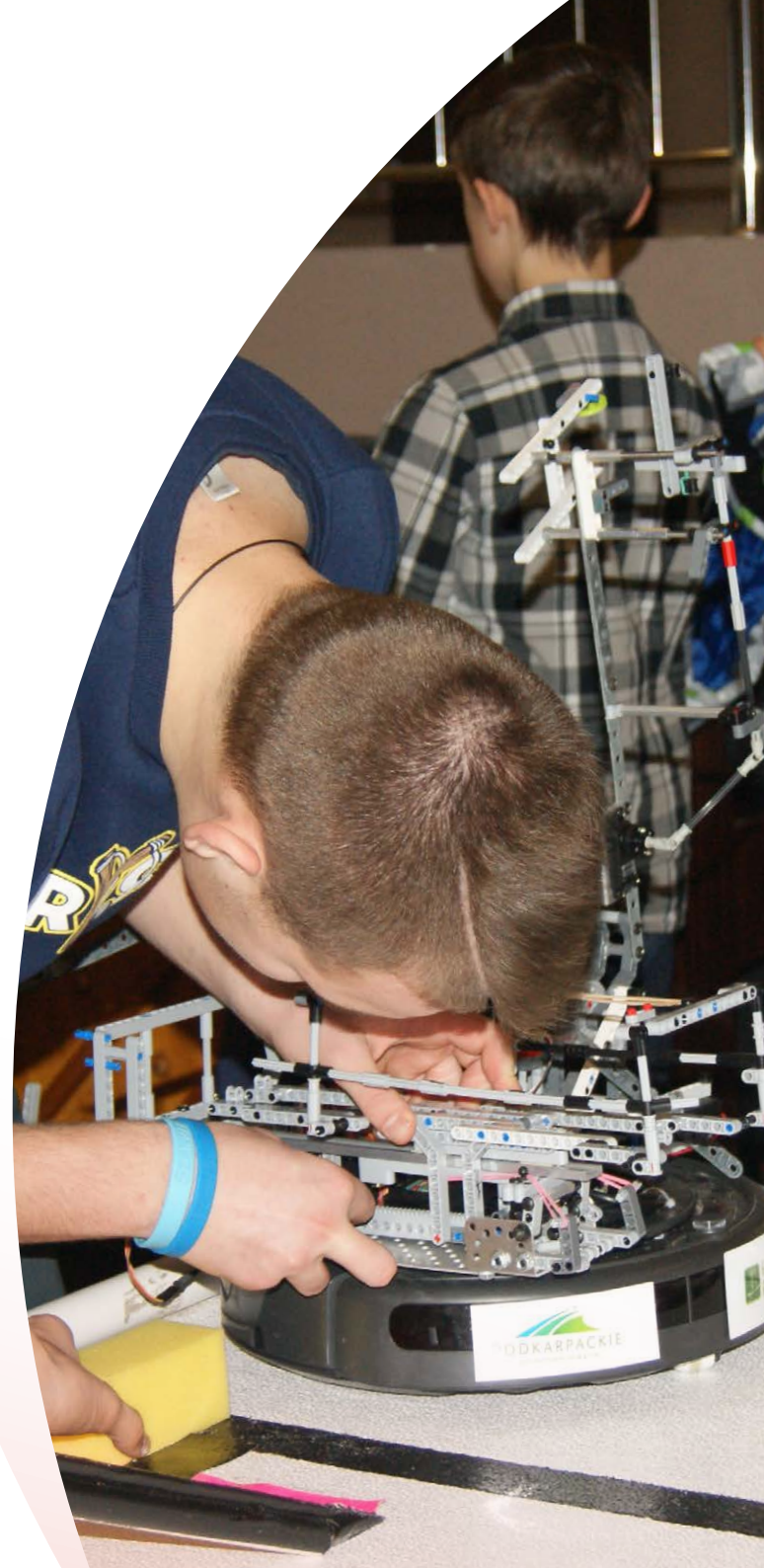
Thanks to the excellent results in Sofia, the team supported by Nowa Sarzyna CHP qualified for the Botball 2017 Tournament in Norman, Oklahoma (USA). It is worth adding that for the fourth time in a row the representation of the Franciszek Leja School Complex in Grodzisk Górny took part in the World Final of the Botball Robot Construction and Programming Competition. They achieved very good results. In this tournament: 1st place in Alliance Matches and 4th place in Seeding Rounds. The team received a 100% score for the competition documentation, which is the best result in the team's history at Botball and demonstrates the improvement in the language competences of the tournament participants. In the general classification of the tournament, the team took high 7th place.

For the third time in a row the team received the distinction of „Overall Judge's Choice” - an award for the best design solution of robot and its software.

In 2017, two of the Nowa Sarzyna CHP employees joined the Szlachetna paczka campaign and volunteered in the preparation of packages for a needy family in the Leżajsk area.

The Polenergia Nowa Sarzyna CHP also financially supported the Municipal and Communal Public Library in Nowa Sarzyna. More on the site:

<http://www.nowasarzyna.naszabiblioteka.com/news/podzikowania-dla-polenergia-elektrociepownia-nowa-sarzyna-sp-z-o-o>.



## Social engagement and development of local community - Polenergia as a good neighbor

Polenergia does not act alone in caring for local communities and has been cooperating with other companies in the region for many years. Since 2013 Polenergia Nowa Sarzyna CHP together with the Municipal Services Department / CIECH Sarzyna Chemical Plant has been applying uniform heat prices for municipal residents of Osiedle Awaryjne in Nowa Sarzyna, in accordance with the Agreements concluded with these parties.

Furthermore, Nowa Sarzyna HCP has been offering discounts on heat supply charges for municipal residents every year since 2014.

The year 2017 was particularly fruitful in joint activities of enterprises from the Nowa Sarzyna region bringing the benefit to the local community.



**ELEKTROCIEPŁOWNIA NOWA SARZYNA**  
GRUPA POENERGIA

Iwona Sierżęga -

CEO of Polenergia Elektrociepłownia Nowa Sarzyna Sp. z o.o.



*In 2017, we managed to implement - in cooperation with the Mayor of Nowa Sarzyna and CIECH Sarzyna chemical plant - two significant projects. The first one involved the purchase of one defibrillator by each party, so now Nowa Sarzyna, a small town of 6,000 inhabitants, has three defibrillators located in generally available public places. The second project is a joint purchase of special, certified equipment for the playground for disabled children run by the Integration without borders Association*



**17 PARTNERSHIPS FOR THE GOALS**



**Ciech**  
Sarzyna



Mariusz Grelewicz -

CEO of CIECH Sarzyna S.A.



*We know that we are an important part of the economy of our region, giving employment to several hundred employees and maintaining many local companies, which is why we attach more and more importance to corporate social responsibility and to being a „good neighbor” for the town and municipality of Nowa Sarzyna.*



**ELEKTROCIEPŁOWNIA NOWA SARZYNA**  
GRUPA POENERGIA

Iwona Sierżęga -

CEO of Polenergia Elektrociepłownia Nowa Sarzyna Sp. z o.o.



*We are happy that CSR cooperation with local authorities and CIECH Sarzyna is good. Together, we can finance more projects serving the residents of the municipality. We are also thinking about further joint activities in 2018*





## Corporate Governance

Corporate governance is the system of principles and standards relating to broadly understood company management. In the Polenergia Group good practices within this area focus on improving the efficiency of the organization management, taking into account social interest, respecting stakeholders and ethical principles.

The Polenergia Group is aware of the fact that to create an „Ecosystem of shared values” and contribute effectively to positive changes in the environment, it cannot act independently. Without cooperation with local communities, non-governmental organizations, it would be difficult to co-create large-scale long-term changes.



### Global Compact Network Poland

An important event of the past year was the accession of Polenergia S.A. and Polenergia Nowa Sarzyna CHP to the Ethics Program of Global Compact Polska.

The Program's initiator is the Kulczyk Foundation - one of the leaders of the „Ethics Standards in Poland” project. The Foundation actively creates the Standard and consistently sets new, ambitious goals. An extremely important aspect of signing Standards was the joint accession of all Kulczyk Investments Group companies to the Ethics Program:



### KULCZYK FOUNDATION



*We do not forget that the human being is the most important. Therefore for the Kulczyk Investments Group business ethics is so important; it is permanently inscribed in our investment strategy and everyday work. I cannot imagine that anything can be created without the support of jointly involved people and respect for human rights and needs.*

**- Dominika Kulczyk, President of Kulczyk Foundation**







## Corporate Governance

In 2017 Polenergia also joined the „Together for the Environment” Partnership.

This is an initiative created for the implementation of environmental goals for sustainable development adopted by the UN in September 2015.



The initiative of the „Together for the Environment” Partnership program was taken on September 15, 2016 in Warsaw by the UNEP GRID-Warsaw Center in cooperation with the United Nations Environment Program (UNEP). It associates companies, organizations and associations, as well as the public sector, operating in the Partnership for the implementation of Sustainable Development goals, sharing knowledge, competences and technologies and supporting the implementation of the environmental fields of the 2030 Agenda for Sustainable Development.



*We are convinced of the need to implement all seventeen goals adopted by UNEP. We are particularly close to the goals of improving the quality of life in cities, activities aimed at the protection of climate changes and clean energy. We believe that the successful implementation of the principles of sustainable development depends on the cooperation of administration, enterprises and the involvement of people, by creating a conscious and responsible civil society. We are ready to share our knowledge, support and participate in projects aimed at achieving goals, and to promote activities related to sustainable development.*

**– Marta Porzuczek, Head of the Environmental Protection Department at Polenergia S.A.**



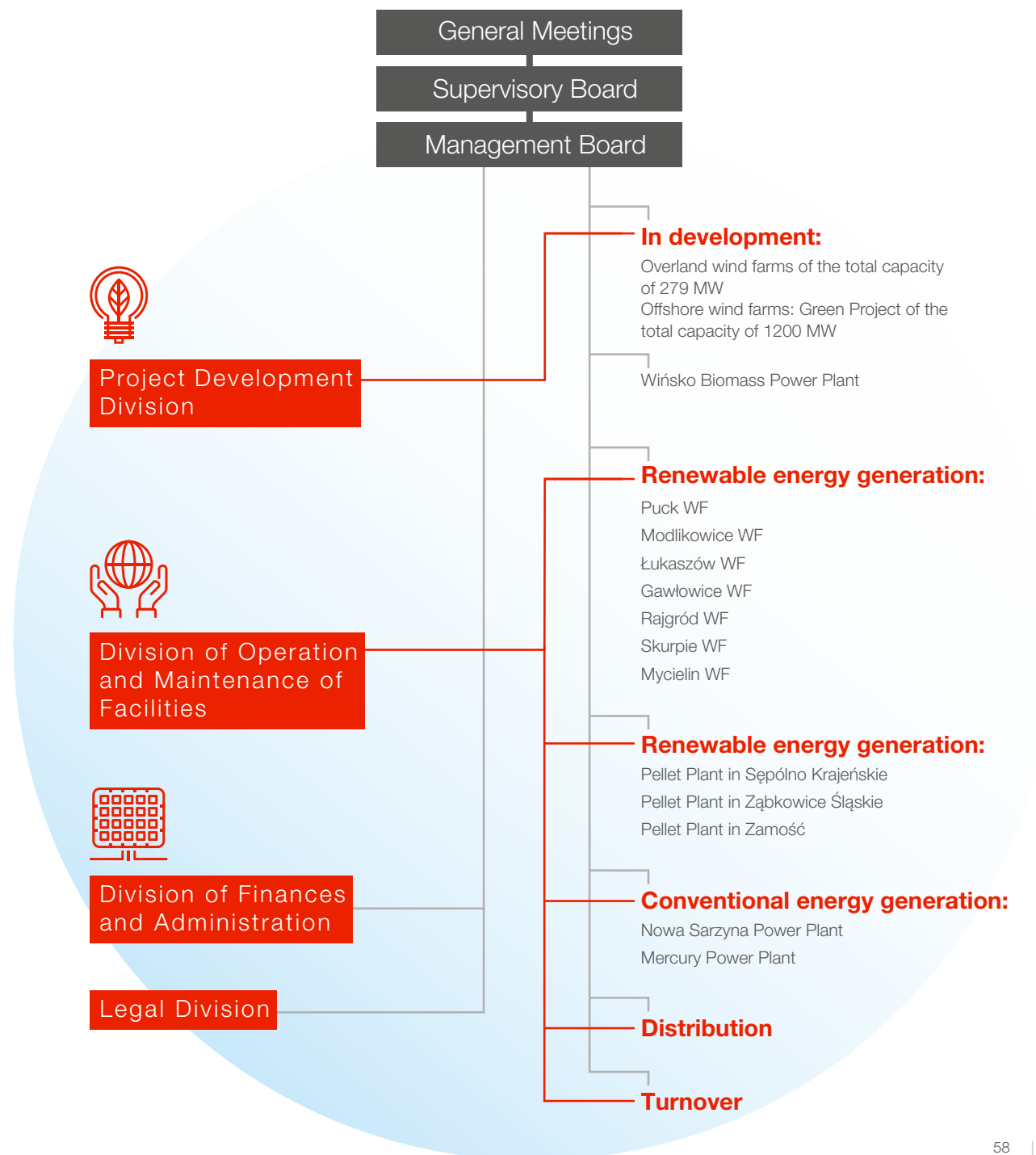
# Corporate Governance

Polenergia S.A. being a company listed on the Warsaw Stock Exchange in Warsaw meets all the requirements regarding corporate governance, financial and non-financial reporting as well as dialogue with stakeholders. The Group executes its risk management policy and internal control system through procedures governing the processes and principles of the company's operations.

The Code of Ethics was implemented in the Group together with the appointment of the Ethics Committee, which is to examine possible claims from employees. A scheme of the Employee's system for reporting possible abuses was also prepared and implemented. The Group regularly analyzes risks related to the Group's operations. As a result of this analysis, a register of risks was created that classifies risks in terms of their validity and monitoring needs.

The entire process is controlled by a risk management team, which monitors risks and updates the list of key risks on an ongoing basis. Monitoring of the implementation and observance of these principles is the responsibility of the Audit Committee of the Supervisory Board.

**The rules of operations of the supervisory bodies, the Management Board and the employees have been included in relevant regulations and internal procedures.**



# Corporate Governance

## The Polenergia Group engages in external initiatives through participation in associations and organizations such as:

### **Polish Association of Listed Companies (SEG)**

- a representative of companies listed on the Stock Exchange in Warsaw, serving issuers with the knowledge and advice on stock market regulations.

### **Polish Wind Energy Association (PWEA)**

- an organization supporting and promoting the development of wind energy, aimed at creating favorable conditions for investing in wind energy in Poland.

### **Industrial Energy and Energy Recipients Chamber (IEPiOE)**

organization of economic self-government associating entities related to the generation, transmission, trade and consumption of electricity and heat.

### **Association of Energy Trading (TOE)**

- an association that undertakes supporting activities: development of a competitive energy market in Poland, propagation of information on the possibilities of using the competitive energy and fuel market for participants of this market, shaping of ethical standards in energy and fuel trade, representing socially or economically useful interests of the energy and fuel trade sector towards government administration bodies and other associations. As a member of the TOE, the Polenergia Group is represented by Polenergia Obrót.

### **Polish Chamber of biomass**

- an association of entrepreneurs and companies that supports the development of the biomass market for distributed power engineering in Poland. It associates producers of biomass used for energy purposes and producers of biomass fuels.

### **Polish Power Exchange (TGE)**

- the company was founded in 1990 as an association operating in the field of electricity generation. Polenergia Nowa Sarzyna CHP has been a member of the association since June 2016.

### **Economic Association of Polish Power Plants**

- the company was founded in 1990 as an association operating in the field of electricity generation. Polenergia Nowa Sarzyna CHP has been a member of the association since June 2016.

### **Association of Employers „Business Centre Club”**

- Polish employers' union founded in 1991 in Warsaw, representing interests of employers in the Social Dialogue Council. Polenergia Nowa Sarzyna CHP has been its member since 2015.

### **European Federation of Energy Traders (EFET)**

- an organization created to improve the quality of energy trade in Europe and to promote the development of a sustainable and connected European energy market. Polenergia Obrót is a member of the EFET.

### **The EU Emissions trading system (EU ETS)**

- Greenhouse Gas Emission Trading Scheme (SHE) - Community system of trading in allowances for emissions of carbon dioxide and other greenhouse gases. Polenergia Elektrociepłownia Nowa Sarzyna Sp. o.o and Mercury Power Plant using installations covered by SHE. These companies have dedicated accounts in the Union Registry.

### **Polish-Chinese Business Council**

- an association that is a non-governmental organization. It brings together experts and entrepreneurs operating on the Polish and Chinese market. Its goal is to promote trade exchange and investments between these countries, to seek opportunities to increase access to the Chinese market through Polish business.

### **Polish Press Agency**

- the biggest information agency in Poland that collects, develops and transmits objective and comprehensive information from the country and abroad.

### **UN Global Compact Network Poland**

- In 2017, the Polenergia Group accepted the Standard for Management of the Ethics Program, in particular the Universal Declaration of Human Rights and the United Nations Guidelines on Business and Human Rights, thus confirming compliance with the principles and values contained in this Standard.

### **UNEP GRID in the partnership with UN Environment**

- in 2017, the Polenergia Group joined the UNEP GRID Partnership „Together for the Environment”, implementing the Sustainable Development Goals (SDGs) of 2030 Agenda.



## Dialogue with Shareholders

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Dialogue is an indispensable tool for maintaining good relations in interpersonal and business relations. It is a process that helps build trust in the company, but also in individual projects that the Group undertakes.

The Polenergia Group conducts a regular dialogue with stakeholders, from which it obtains necessary information on the expectations of these stakeholders.

The main group of stakeholders for the Polenergia Group are shareholders and investors with whom the Company is in regular contact through the publication of reports and current communications as well as periodic stock exchange reports.

In addition, a separate email address (PolenergiaR@polenergia.pl) has been dedicated for communicating information relating to inquiries about the Company sent on an ongoing basis.

Another group of stakeholders is the State Administration, among others: the Ministry of Economy, Ministry of Transport, Construction and Maritime Economy, Ministry of the Environment, Energy Regulatory Office, Maritime Office, Regional Directorates of Environmental Protection, National Labor Inspectorate, Construction Supervision Inspectorate, State Sanitary and Epidemiological Inspectorate, Voivodship Marshals, Poviats and District Offices, Voivodship Monument Conservator, Road Administration, the Police and the National Fire Service, Regional Water Management Boards, Regional Directorates of State Forests and other State Treasury

companies). This group of stakeholders is directly involved in, among others, the stages of social consultation projects, or issuing relevant administrative permits required to complete our projects.

At the level of operational activities, the main group of stakeholders of our Group are suppliers and sub-contractors, either of technical and assembly solutions or raw materials.

Energy distributors - this group of stakeholders is involved at the stage of agreements related to the investments, plans and implementation of our projects.

The largest group of stakeholders are business customers and individual clients (Polenergia Dystrybucja). As for the first group, this is cooperation with a dozen customers buying products and services provided by Polenergia Dystrybucja, while contacts with the second group - i.e. individual clients - are conducted through a designated helpline and website, and a specially dedicated email address.

A large group of stakeholders are financial institutions (lenders, banks) with whom the Company directly communicates and regularly provides required financial statements.

Another type of stakeholders are local communities and

The main group of stakeholders of the Polenergia Group are shareholders and investors with whom the Company stays in regular contact

their residents, where the Company engages in consultation processes, information campaigns being in direct contact with residents and local government authorities.

A separate group of stakeholders are non-governmental and scientific organizations (local, regional, national and international ornithological organizations; local, regional, national and supranational ecological organizations, other than ornithological; academic institutions), where the Company engages in consultation processes.

The last and one of the most important stakeholder groups are employees of our Group. In this case, the contact and communication is definitely direct and ongoing. In addition to meetings with employees, an intranet is also a useful tool for communication of news within the Company, and the annual assessment of results and conversation about the career path development are a permanent element of the employees' annual evaluation in the bonus process.

## Polenergia as an Employer

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The Polenergia Group is made up of nearly 211 employees employed in all companies belonging to the entire Polenergia Group.

Increased attention to promoting good cooperation and good relations between employees, as well as good and safe working conditions are an important element of the socially responsible business conducted by the Polenergia Group. We want to improve communication between employees and the departments, which makes our work more efficient and encourage integration of employees.



## Office management

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Polenergia as an employer wants the office to be a friendly place of work for our Employees, but also for business partners and contractors visiting us. The office of our Group has been designed to foster cooperation and concentration of employees. There are areas separated for joint and individual work, for meeting business partners or a suitable venue for conducting teleconferences. We attach great importance to the proper ergonomics of work, hence not only the seats but also the desks have adjustable height, so that the employee can individually customize them to their needs and comfort. In each season, the system of air and air conditioning filters is inspected in all rooms of the office. We guarantee safe working conditions by appointing persons responsible for keeping an eye on occupational safety. These are just one of many examples of how the Employer supports good working conditions in the Group.

Employees are provided with full-range medical care and a wide medical care package, guarantying access to a many specialists, which they can extend to the members of their families. Employer guarantees non-pay benefits to their employees in the form of sports packages covering a wide range of activities, which is a manifestation of our care for the condition, relaxation and health of our staff.

Polenergia attaches great importance to increasing employee awareness in terms of ecology and environmental protection. For many years, we have been continuing waste segregation by separating a place especially dedicated for waste batteries and products unsuitable for standard segregation. We focus on the economy of paper consumption and thus protection of forests. Since 2016, we have implemented the electronic document flow, which not only saves our employees' time, but, above all, significantly reduces paper consumption. This cycle is extended by further electronic circulation such as the electronic circulation of incoming correspondence or registration of business trips. In addition to the electronic system, we engage our employees in the process of reusing printed paper pages - we have prepared containers for sheet of papers printed with non-confidential information only on one side, which we then pass to kindergartens and primary schools for use in art lessons; and separate containers for two-sided prints, which we treat as waste paper forwarded for recycling.

We strive to remain a socially sensitive business entity that will serve the community through activities beneficial to both the company and society. To help local communities, Polenergia started cooperation with beekeepers living in towns where

Social involvement and care for the natural environment by our Business Partners has always been a top priority in the creation of our supply chain

facilities/wind farms belonging to the Polenergia Group are located. Since last year, we have been placing regular honey orders that employees use in the office, especially during the winter.

In this way, we support local beekeepers, while having the certainty that employees use the original and natural product.

Social involvement and care for the natural environment by our business partners is always a priority when creating the supply chain. Cooperation with socially responsible companies and the development of our supply chain based on such companies helps us care for the natural environment together, and to promote and communicate attitudes of social responsibility.

That is why last year we have asked our largest business partners to sign Agreements in the field of Ethical Standards, in which they undertake to comply with the ethical standards of the Polenergia Group as part of their activities with the companies of the Group.



## Ethical Code

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The most important element in the context of respecting the rights of employees in Polenergia is the application of the code of ethics, the most important aspects of which are intolerance to discrimination based on sex, skin color, religion, belonging to minority or sexual or political orientation, and non-acceptance of mobbing. In 2017 the ethics commission did not receive any reports of abuse or unethical behavior. The employees of the Polenergia Group adhere to the principles of fair competition contained in the Code of Ethics.

There were no cases of reaping any benefits by using the information or position in the company.

## Employee training

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We believe that it is up to our employees to develop Polenergia and create a competitive advantage. The level of education of our staff is very important for us. As an employer, we help our employees improve their qualifications by trainings, conferences, postgraduate studies, MBA studies and participation in educational programs. Polenergia provides its Employees with the opportunity to raise their professional qualifications by organizing training on a wide range of topics, so that the employees of each cell can find training appropriate to their needs and in accordance with the position held. The mutual benefits are brought by the training of hard skills – e.g. development of foreign language skills and specialist knowledge, or software training; as well as soft competences - such as time management skills or team work skills.

The thematic scope of such trainings include acquiring technical, language and interpersonal knowledge and skills. Polenergia employees participated in nearly 6,000 hours of training.

Postgraduate studies of employees of Polenergia Nowa Sarzyna CHP:

- › In June 2017, three employees completed post-graduate studies in the field of „Thermal Energy” at AGH in Krakow. One employee completed a post-graduate program „MBA Energetyka” at Lazarski University in Warsaw.
- › Since October 2017, two more employees have took post-graduate studies in the field of „Thermal Energy” at AGH.



## Payroll and employment system

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The Employees are provided with transparent information on the remuneration principles and additional benefits, which are included in the Rules of Work, Remuneration and the Employee Appraisal Assessment Scheme. The Employees are subject to annual supervisors' review, where the goals set a year earlier are verified, which translates into a financial reward in the form of annual bonuses.

On the Group scale, the percentage of people employed under civil law contracts is very low. Cases of employment by way of contracts

based on civil law contracts are sporadic and limited to contracts to perform a specific service or project. The company helps employees reconcile their work and private lives by providing remote tasks, reduced hours and flexible working hours on request. We apply the rules of honest remuneration and bonus policy, taking into account any individual contribution of each employee, as well as the results of teams they work with.

## Polenergia S.A.

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The Management Board of the Polenergia Group ensures that the work is based on the principles of good coexistence with care for the natural environment, local community and with respect for the principles of ethical values and principles. Members of the Management Board of the Polenergia Group care about the employees, their well-being at the workplace, but also on friendly relations between them, which translates into a good atmosphere at everyday work. The Management Board of the

Polenergia Group is trying to be close to its own Workers and listen to their needs, requests and opinions. At important moments in the life of the Company, the members of the Management Board organize special meetings with the Employees, during which they inform about the most important events concerning the Group and Group development plans for subsequent years. Another opportunity to meet is also Christmas, New Year (summaries of the Group's annual activity) and Easter.



## Good Practices - Polenergia as an Employer Polenergia Nowa Sarzyna CHP



There is an (amateur) company football team in ENS. ENS funded uniform sportswear for its trainee. In the autumn and winter the company rents a sports hall in MOSiR in Leżajsk to train the team.

In the summer, trainings take place cost-free at the stadium in Nowa Sarzyna due to the sponsorship of the youth football team.

On June 11, 2017, a family picnic took place at the CYZIÓWKA Training and Leisure Center.

The employees of ENS, together with their families, it is about 130 people, took part in the picnic. During the event, the participants could choose from these forms of entertainment: rope park zone, Tyrolean rally, water obstacle course, kayaking competition, water rescue demonstration, quad track driving, children's area (pneumatic recreational equipment, fun and games, treasure hunt zone for children), racing on ecological scooters and a series of family animations and competitions.

In addition, on December 15, 2017, an annual (annual) employees' Christmas meeting took place.

### Good practices - internships



Every year Polenergia engages itself in the Jan Kulczyk scholarship program for the most talented students and doctoral students of the University of Adam Mickiewicz in Poznan run by the Kulczyk Foundation. In 2017, Polenergia once again signaled its readiness to accept subsequent scholarship holders - according to their interests - for summer internships. As a responsible employer, we want to motivate young people to personal development, developing talents and help them make life decisions according to their interests and share our knowledge and experience with them.

### Good Practices Polenergia

#### - support to technical universities:

Polenergia cares for the ecological education of the youngest, but also supports the University of Technology, organizing trips and internships, which allows students to learn about modern energy facilities. For the Polenergia Group, one of the companies from the energy sector and potential future employer - these are extremely important activities that improve the quality of education.

In December 2017, Polenergia handed over measuring devices for studying and archiving meteorological data for the needs of the project „Construction of a savonius turbine” to the Student Scientific Circle of Unconventional Energy (at the Warsaw University of Technology)”. Measuring devices provided to students will allow for a detailed examination of the turbine made by the Circle (including the examination of basic performance parameters, drawing production curves as a function of wind speed).



# Good Practices

## - Polenergia as an Employer

### Polenergia Nowa Sarzyna CHP



#### Polenergia Nowa Sarzyna CHP

For many years, Polenergia Nowa Sarzyna CHP has been providing school students and student internships and apprenticeships, as well as familiarization with the operation of the steam-gas block, primarily for students and students of technical faculties. Summer apprenticeships create opportunities to learn about the energy object and work in it. Through such activities, the Nowa Sarzyna HCP helps educate high-class energy specialists.

Throughout 2017, 5 students (mainly from the University of Technology, AGH University of Technology, Rzeszów University of Technology, Lodz University of Technology, University of Economics) took part in ENS, and 3 students of technical secondary schools held student internships.

In 2017, there were no open vacancies in the technical department; however, at the time when such vacancies in this department appear, first to consider are graduates who completed traineeships or internships in ENS and who have been well evaluated by the tutor of the apprenticeship.

#### Polenergia Obrót S.A.

In 2017, Polenergia Obrót S.A. was a partner of the 6th Edition of the Energy Academy granted honorary patronage by the Ministry of Energy and the President of the Energy Regulatory Office.

As part of the project, a participant of the Academy of Energy held an internship at the Company. Representatives of the Company took part in one of the Academy's sessions sharing their knowledge on wholesale energy markets with students.

The Academy of Energy is an annual project carried out by the Lesław Paga Foundation. The aim of the Academy of Energy is to help students make their first professional steps in the energy industry in Poland. „Due its free access, the Academy of Energy is open to young, ambitious people from all over Poland - students and graduates of economic, managerial and legal faculties, and above all, of technical universities. Participation in this project gives a unique opportunity for personal development and the opportunity to meet people with a similar passion, and also allows you to gain substantive knowledge from the best experts in the industry.



Scholarship holders of the Academy of Energy project compose a unique community that is constantly evolving and creating a unique network of contacts between people with different specializations. Relationships between project participants help them find their place in the labor market. This is a unique project that is based on the network of people interested in the energy industry, and the fruit of this cooperation are interesting reports, publications and innovative projects „(more information: <http://paga.org.pl/ae>)

We are very happy that we can support young people in building their career path and share many years of experience with them. Our common goal with the Lesław Paga Foundation is substantive preparation and improving the qualifications of young employees in the energy industry. The shape and security of the energy market in Poland will depend on them.

(more informaion: <http://paga.org.pl/ae>)



# Occupational health and safety (OHS)

## Safety standards for external companies and our guests:

Safety standards and rules for guests movement were implemented in all our operating facilities, including wind farms. They also apply to wind farms. The standards implemented in our companies also apply to all our subcontractors (e.g. naturalists/ acoustics visiting wind farms, people performing works related to as-built reporting obligations and suppliers of other services).

All objects in the operation must meet the requirements of the regulation of the Minister of Economy on health and occupational safety for energy equipment. This means that employees must have great qualifications in the field of OSH verified by an examination and confirmed by appropriate qualification certificates resulting from the Energy Law Act.

In addition, activities performed with using power equipment are classified as operations and other activities (e.g. repairs, inspections, measurements, tests, assemblies). Operations are carried out by qualified certified personnel based on the operating instructions. All other activities are performed on the basis of an individual work order issued (separate for each task).

Our safety procedures and instructions for wind farms were reviewed in 2016 and occupational health and safety training and consultations on procedures were held for facility managers in September 2017. The improved procedures will be implemented at the beginning of 2018.

## Examples of good practices in the field of occupational safety

### Polenergia Nowa Sarzyna CHP

On annual basis an external company (Tarbonus, an external adviser) issues a Statement on the compliance of and fulfillment of the Company with requirements and regulations in the field of occupational health and safety, fire safety and compliance with environmental law. Also in 2017, Polenergia Nowa Sarzyna CHP received a document confirming the fulfillment with the Polish law in the above-mentioned scope.

The ENS activity – subject to procedures and instructions concerning occupational health and safety, fire protection and environmental protection, in particular the Instruction for Organization of Safe Work in ENS, general OHS instruction, Instruction for external companies performing work in ENS, Fire Safety Manual, Company's Rescue and Operational Plan, Failure Prevention Scheme, Risk Assessment

and Management System, Environmental Protection Management and others - are all subject to verification. In addition to the above verification, Tarbonus also monitors changes in the areas of occupational health and safety, fire protection and environmental protection, which may have an impact on the activity of ENS.

ENS conducts first aid training every year. The company has two AEDs.

Regarding information on incompatibilities within the scope of labor law, occupational health and safety, sanitary standards and environmental regulations, there were no inconsistencies within the scope of labor law, occupational health and safety and sanitary standards recorded in any of the plants.



## Regulatory environment

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Changes in Polish / EU law / good practices in 2017, affecting the operations of the Polenergia Group in the environmental and social field and affecting the development of new projects and activities in operation:

### EU Law

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An executive decision of the European Commission establishing conclusions on Best Available Techniques (BAT) for large combustion plants was published in the Official Journal of the European Union On August 17, 2017. The decision means the entry into force of new, more strict emission standards for large combustion plants. Winter package „Clean Energy for all Europeans” - presented on November 30, 2016 by the European Commission – consists of 8 legislative proposals aimed at accessing intelligent solutions (dispersed energy sources and active recipients), increasing the share of renewable energy to 50% in 2030 throughout the EU, improving the security of the energy system and energy efficiency.

The Directive of the European Parliament and of the Council (EU) 2015/2193 of 25 November 2015 on the limitation of emissions of certain pollutants into the air from medium combustion plants was transposed by amending of the Environmental Protection Act in 2017. Changes in MCP (medium combustion plants) emission standards concern 1 MW to 50 MW sources, regardless of the type of fuel used.

On December 13, 2017, the European Commission approved the Polish renewable energy support program.

The PLN 40 billion program will support the development of renewable energy through competitive auctions. The implementation of the plan is subject to assessment and the results will be presented in 2020.

### Regulations

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- › Regulation of the Council of Ministers of 8 August 2017 on the organization of combating threats and pollution at sea (Journal of Laws 2017.1631 of 30 August 2017). Regulation of great significance to the construction and operation of wind farms in the Baltic Sea.
- › Regulation of the Council of Ministers of December 11, 2017 (Journal of Laws 2017.2469 of 29 December 2017) regarding the adoption of the National Program for the Protection of Marine Waters. Regulation of relevance for the construction and operations of wind farms in the Baltic Sea.
- › Regulation of the Minister of the Environment of 13 December 2017 (Journal of Laws 2017.2377 of 20 December 2017) on the functioning of the Database on Product and Packaging and Waste Management. The regulation comes into force on 1 January 2018 and changes the reporting principle in the field of waste management by introducing the Database of Product and Packaging and Waste Management.



## Documents / Activity Plans / Partnerships constituted in 2017

- › National Action Plan for the implementation of the UN Guiding Principles on Business and Human Rights 2017-2010
- › The Declaration of the Baltic Sea signed on 20 September 2017 in Tallinn - an agreement on cooperation in the Baltic Sea region for the development of offshore wind energy. The declaration was signed by a representation of eight wind energy associations from Estonia, Denmark, Finland, Germany, Latvia, Lithuania, Poland and Sweden. As part of the PWEA action in 2017, a working group for offshore wind energy was also established.
- › Regulation on the General Data Protection (GDP) - the Polenergia Group intends to adopt appropriate procedures, make the employees aware of and apply security measures consistent with the guidelines in order to properly ensure the safety of personal data.
- › The European Union continues its work over the Act on Counteracting Money Laundering and Terrorism Financing. The Polenergia Group will look at the progress of these works to implement internally appropriate procedures.

## Legal acts

- › Act of July 12, 2017 amending the Act on substances that deplete the ozone layer and some fluorinated greenhouse gases and some other acts (Journal of Laws of 2017. No 1567 of 23 August 2017).

Plus executory orders:

Regulation of the Minister of Development and Finance of 7 December 2017 (Journal of Laws 2017.2410 of 22 December 2017) regarding the minimum technical equipment suitable for performing activities covered by the certificate for the personnel within the area of fluorinated greenhouse gases and controlled substances.

Regulation of the Minister of Development and Finance of 7 December 2017 (Journal of Laws 2017.2402 of 22 December 2017) on the examination and certification of personnel in the field of fluorinated greenhouse gases and controlled substances - the variations are important for substations equipped with SF6 gases.

- › The Act of 8 December 2017 on the Power Market, signed by the President on 29 December 2017, constituting a support mechanism for the power plants and energy companies implemented by auctions.
- › Act of 9 October 2015, Journal of Laws 2015.1936 of 23 November 2015) on the amendment of the act on sharing information about the environment and its protection, public participation in environmental protection and environmental impact assessments and some other acts. The changes introduced by the amendment of the UOOŚ Act are effective as of 1 January 2017. The act introduced, among others, changes on the date of social consultations, extending them from 21 to 30 days. The range of environmental reports prepared since 2017 has also changed.
- › The Act of 20 July 2017 on Water Law enters into force on 1 January 2018. It has impact on the business activity (obtaining water-legal permits and assessments, e.g. for water services such as: water consumption, sewage release, use of water for energy generation purposes)
- › The Act of June 14, 1960 The Code of Administrative Procedure (Journal of Laws 2017.1257 of 27 June 2017). The amended provisions apply to proceedings initiated after June 1, 2017.

## Supplementary tables with data

### Activity scale – basic economic indicators plus power generation capacity and employment data

Basic economic indicators	2017 Results [in thous. PLN]
Sales revenues	2 762 378
Net profit/loss	-87 702
Total assests	2 664 264
Long-term liabilities	894 846
Short-term liabilities	587 430

### Installed power by generating sources

Production sources	2017 Results [in MWe]
Wind farms	245
CHPs	116
Power Plant	8

### Energy industry - product responsibility – special indicators<sup>1</sup>

	2017 Results
The number of people in the area of enterprise distribution	11 274
The number of people not served in the area of enterprise distribution	0

### Generated power by generating sources

Production sources:	2017 Results [in GWh]
Wind farms	747,053
CHPs	764,000
Power Plant	54,663

### Energy industry - product responsibility – special indicators<sup>2</sup>

	2017 Results
The number of disconnections caused by non-payment of bills by customers	448
The number of disconnections caused by system failure	0

## Supplementary tables with data

### Number of clients

#### 2017 Results

##### Polenergia Dystrybucja

	Klienci	Punkty poboru energii
Individual	8 684	9 368
Business	1 042	2 680
Industry	33	38

##### Polenergia Obrót

Counterparties	135
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### Energy industry - product responsibility – special indicators; frequency of power outage<sup>3</sup>

#### SAIFI

#### 2017 Results

Indicator of the average systemic frequency of long and short outages constituting the number of recipients exposed to the effects of all these outages during the year divided by the total number of recipients served

0,22

### Employees

#### Employees

#### 2017 Results

% of employees covered by a collective agreement

0

### Energy industry - product responsibility – special indicators; average power outage time<sup>4</sup>

#### SAIFI

#### 2017 Results

Indicator of the average systemic duration of a long and very long break, expressed in minutes per customer per year, constituting the sum of the products of its duration and the number of recipients exposed to the effects of this interruption during the year divided by the total number of recipients served

102,11

#### MAIFI

Average rate of short outages, which is the number of recipients exposed to the effects of all short outages during the year divided by the total number of serviced recipients

0,00009



## Supplementary tables with data

### Basic raw materials, materials and fuels

Employees	IU	2017 Results
Natural gas	m3	164 977 791
Natural gas - chemical energy (according to calorific value, LHV)	GJ	6 268 295,13
Coke oven gas	m3	45 460 100
Straw	Mg	82 896,7

### Production capacity - pellet production plants

Production capacity	2017 Results
Average annual pellet production (Mg)	76 874

### Employment (in full-time positions)

Województwo	2017 Results		
	Women	Men	Total
Lower Silesia	0	21,1	21,1
Kuyavia-Pomerania	1	17	18
Lubelskie	2,5	29,25	31,75
Lubusz	0	0,5	0,5
Łódzkie	0	0	0
Lesser Poland	0	0	0
Mazovian	39,95	35,8	75,75
Opolskie	0	0	0
Subcarpathia	6	42,25	48,25
Podlaskie	0	2	2
Pomerania	0	4	4
Silesia	0	0	0
Świętokrzyskie	0	0	0
Warmia-Masuria	0	1	1
Greater Poland	0	0	0
West Pomerania	1	1	2
<b>Total</b>	<b>50,45</b>	<b>153,9</b>	<b>204,35</b>
<b>Civil law agreement</b>	<b>1</b>	<b>4</b>	<b>5</b>

## Supplementary tables with data

### Energy, production capacity

Facilities: Nowa Sarzyna CHP, Mercury Power Plant, CHPs and wind farms:

Electricity and heat production	2017 Results
Electricity production (MWh)	1 565 716
Heat produced (GJ)	458 964,673
Electricity and heat sold	2016 Results
Electricity sold(MWh)	1 547 620
Heat sold (GJ)	447 411,623

### Avoided Emissions [Mg CO<sub>2</sub>]

Emissions	2017 Results
Wind farms	740 730
Pellet production plants	108 734
Mercury Power Plant	60 338
Nowa Sarzyna	240 326

### Branża energetyczna – profil organizacji

Allocation of carbon emission permits	2017 Results
Mercury Power Plant	0
ENS	27 278

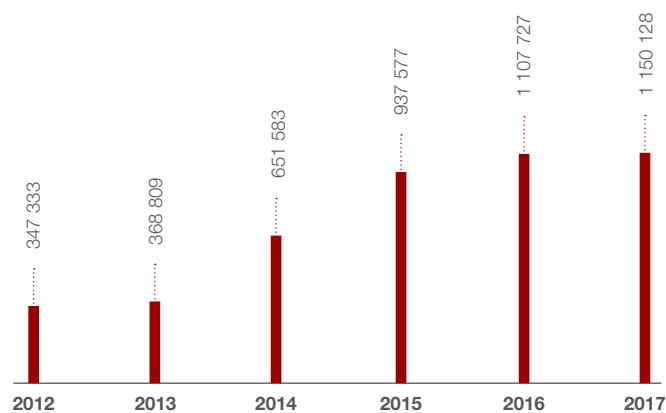
### CO<sub>2</sub> emissions

	IU	2017 Results
EC Nowa Sarzyna	Mg	334 999
EL Mercury	Mg	33 849

## Supplementary tables with data

Emissions avoided as a result of producing electricity / heat compared to producing the same amount of electricity / heat from hard coal

### Emissions avoided



### Water

	2016 Results		2017 Results	
	Percent	Volume [m3]	Percent	Volume [m3]
Water processed and reused	1,75 %	15 168	2,92%	25 746

### Energy industry – economics

	IU	2017 Results
Nowa Sarzyna CHP	Mg	334 999
Mercury Power Plant	Mg	33 849

### Wastes

	IU	2017 Results
Hazardous waste		
Non-hazardous waste	Mg	4,37
Wastes in total	Mg	669,86
<b>Wastes in total</b>	<b>Mg</b>	<b>674,23</b>



## Supplementary tables with data

### Occupational Health and Safety (OHSE)

	2016 Results	2017 Results
Number of accidents	3	1
Number of accidents per 1,000 employees	0,1	0,01
Number of days of absenteeism at work per one accident	46,67	148
Number of fatal accident	0	0
Number of cases of occupational diseases	0	0
Number of employees exceeding the maximum permissible concentrations (MPC) (dust level)	0	0

### Trainings

	2017 Results
<b>By sex</b>	
Number of hours of training in the year attended by women	1489
number of women	43
Number of hours of training in the year attended by men	4501
number of men	118
<b>By position</b>	
Number of training hours in the year participated by directors / managers	3178
Number of directors / managers	50
Number of training hours in the year participated by specialists	815
number of specialists	36
Number of training hours in the year participated by other employees	2244
number of other employees	53

### Biodiversity - Active protection of the Montagu's harrier

Year	The amount of ringed chicks that have left the nests
2014	6
2015	3
2016	4
2017	6
Total:	19

# GRI Indicators

Indicator		GRI Guidelines	Area according to ISO 26000	Comment / Description	Page
102-14	G4-1	Statement issued by the top management (e.g. executive director, board president or other equivalent person) on the importance of sustainable development for the organization and its strategy	6.2	[President's Letter]	3
102-15	G4-2	Description of key influences, opportunities and risks	6.2	[President's Letter] In addition, business risks, including non-financial risks, can be found in the Report on the Operations of the Polenergia Capital Group for the year ended on December 31, 2017	3,6
102-1	G4-3	Organization's Name	-	Polenergia S.A.	9
102-2	G4-4	Main brands, products and /or services	6.7	[About the Company]	9
102-3	G4-5	Location of the organization's headquarters	6.2 7.3.3	Polenergia S.A. ul. Krucza 24/26 00-526 Warsaw	
102-4	G4-6	The number of countries in which the organization operates and providing the names of those countries where the main operations of the organization are located or which are particularly relevant in the context of the content of the report	6.2 7.3.2 7.3.3	The Polenergia Group conducts operations mainly in Poland	9
102-5	G4-7	Form of ownership and legal structure of the organization	6.2	Joint-stock company, publicly listed on the Warsaw Stock Exchange. The company was included in the sWIG80 index. Shareholders <a href="http://www.polenergia.pl/pol/pl/akcjonariat-0">http://www.polenergia.pl/pol/pl/akcjonariat-0</a>	6 58
102-6	G4-8	Supported markets with geographical coverage, sectors served, characteristics of customers / consumers and beneficiaries	6.2 7.2 7.3.3	[Description of the Activities of Polenergia Group]	9-30
102-7	G4-9	Activity scale	6.2 7.3.2	[Description of the Activities of Polenergia Group] [Supplementary tables with data]	9
102-8	G4-10	Number of own and supervised employees by sex and type of contract	6.4. 6.4.3. 6.3.7	[Polenergia as an Employer] [Supplementary tables with data]	61-66

Indicator		GRI Guidelines	Area according to ISO 26000	Comment / Description	Strona
102-41	G4-11	Percentage of employees covered by collective agreements	6.3.10	[Supplementary tables with data]	
102-9	G4-12	Description of value chain	6.6.6	[President's Letter] [Corporate Governance]	3 58
102-10	G4-13	Significant changes in the reporting period regarding the size, structure, ownership form or value chain	6.2	[Strategy and key areas of social responsibility] Replacement of GRI-G4 standards with GRI Standards To limited extent this rule refers to the operations of the Polenergia Capital Group.	5
102-11	G4-14	Explanation of whether and how the organization applies the precautionary principle.	6.2.	At the same time, companies always use the best available techniques. However, of course, in case of any doubts as to the possible impact of a given technology, companies will approach it with the precautionary principle.	
102-12	G4-15	External, accepted or supported by the organization economic, environmental and social declarations, principles and other initiatives	6.2. 6.4.5	[Corporate Governance]	56-59
102-13	G4-16	Membership in associations (such as industry associations) and/or in national/international organizations	6.2.	[Corporate Governance]	59
102-45	G4-17	Business units recognized in the consolidated financial statement	7.3.3		9
102-46	G4-18	The process of defining the content of the report		[Strategy and key areas of social responsibility]	5
102-47	G4-19	Significant aspects of identified social and environmental impact	7.3	[Strategy and key areas of social responsibility]	5
102-48	G4-22	Explanations regarding the effects of any adjustments to information contained in previous reports, giving reasons for their introduction and their impact (e.g. mergers, acquisitions, change in the year / base period, nature of operations, measurement methods)		[Description of the Activities of Polenergia Group] Consolidated Financial Statements for the year ended 31 December 2017 with the opinion of an independent certified auditor" <a href="http://www.polenergia.pl/pol/sites/default/files/reports/periodical/skonsolidowane_sprawozdanie_finansowe_grupy_polenergia_0.pdf">http://www.polenergia.pl/pol/sites/default/files/reports/periodical/skonsolidowane_sprawozdanie_finansowe_grupy_polenergia_0.pdf</a>	
102-49	G4-23	Significant changes compared to the previous report regarding the scope, extent or methods of measurement used in the report		CSR Report for 2017 is prepared based on GRI Standards. The Report for 2016 was prepared on the basis of GRI-G4.4	



Indicator		GRI Guidelines	Area according to ISO 26000	Comment / Description	Strona
102-40	G4-24	List of stakeholder groups engaged by the organization	6.8.3	[Dialogue with Shareholders]	60
102-42	G4-25	Basis for identifying and selecting stakeholders engaged by the organization	6.8.3	[Dialogue with Shareholders]	60
102-43	G4-26	An approach to engaging stakeholders including the frequency of involvement by type and group of stakeholders	6.4.5	[Dialogue with Shareholders]	60
102-44	G4-27	Key issues and problems raised by stakeholders and the response from the organization, including reporting by them	6.4.5	[Strategy and key areas of social responsibility]	5 60
102-50	G4-28	Reporting period (e.g., fiscal year / calendar year)		[Dialogue with Shareholders] 01.01.2017 – 31.12.2017	
102-51	G4-29	Date of publication of the last report (if published)		March 2017	
102-52	G4-30	Reporting cycle (annually, every two years, etc.)		Annually	
102-53	G4-31	Contact person	7.4.3	Marta Porzuczek Manager of the Environment Protection Department/EHS Plenipotentiary of the Board for CSR Polenergia SA ul. Krucza 24/26 00-526 Warsaw e-mail: Marta.Porzuczek@polenergia.pl	
102-54	G4-32a	Compliance with GRI Standards	7.7.2	[Strategy and key areas of social responsibility]	5
102-55	G4-32b	Indeks CSR	7.7.2	[Strategy and key areas of social responsibility]	5
102-56	G4-32c G4-33	Policy and current practice in the field of external verification of the report.	7.5.3.	[Strategy and key areas of social responsibility]	5
102-18	G4-34	The supervisory structure of the organization together with the committees subordinate to the highest supervisory body, responsible for particular tasks, such as creating a strategy or supervising the organization	6.2.	[Strategy and key areas of social responsibility] [Corporate Governance] Management structures, including the approach to corporate governance issues, are described in the Report on the Operations of the Polenergia Capital Group for the year ended on 31 December 2017 <a href="http://www.polenergia.pl/pol/sites/default/files/reports/periodical/sprawozdanie_zarzadu_z_dzialalnosci_grupy_kapitalowej.pdf">http://www.polenergia.pl/pol/sites/default/files/reports/periodical/sprawozdanie_zarzadu_z_dzialalnosci_grupy_kapitalowej.pdf</a>	5 56

Indicator		GRI Guidelines	Area according to ISO 26000	Comment / Description	Strona
102-16	G4-56	Organization values, principles, codes and standards of behavior and ethics.	6.2. 6.3 6.6	[Corporate Governance] [Polenergia as an Employer]	56-57 61-63
<b>Materials (GRI 301)</b>					
103-1	G4-20 G4-21	The nature of an important area		[Description of the Activities of Polenergia Group]	9
103-2		Management approach (DMA)		[Values of the Polenergia Group] [Environment Protection – Summary of 2017 activities]	30-31 32-55
103-2		Measurement and evaluation		[Environment Protection – Summary of 2017 activities] [Supplementary tables with data]	32-55 70
301-1	G4-EN1	Used raw materials/materials by weight and volume	6.5. 6.5.4.	[Supplementary tables with data]	70
<b>Energy (GRI 302)</b>					
103-1	G4-20 G4-21	The nature of an important area		[Environment Protection – Summary of 2017 activities]	32-55
103-2		Management approach (DMA)		[Environment Protection – Summary of 2017 activities] [Supplementary tables with data]	32-55
103-2		Measurement and evaluation		[Supplementary tables with data]	70
302-1	G4-EN3	Direct and indirect energy consumption by primary energy sources	6.5.4	[Supplementary tables with data]	70
<b>Biodiversity (GRI 304)</b>					
103-1	G4-20 G4-21	The nature of an important area		[Environment Protection – Summary of 2017 activities]	32-55
103-2		Management approach (DMA)		[Environment Protection – Summary of 2017 activities]	32-55
103-2		Measurement and evaluation		[Environment Protection – Summary of 2017 activities]	32-55
304-1	G4-EN11	Location and area of owned, leased or managed lands located in protected areas or areas of high biodiversity value outside protected areas or adjacent to such areas	6.5.6	[Environment Protection – Summary of 2017 activities]	32-55

Indicator		GRI Guidelines	Area according to ISO 26000	Comment / Description	Strona
304-2	G4-EN12	Description of the significant impact of activities, products and services on the biodiversity of protected areas and areas of high biodiversity value outside protected areas	6.5.6	[Environment Protection – Summary of 2017 activities]	32-55
304-3	G4-EN13	Protected or revitalized habitats	6.5.6	[Environment Protection – Summary of 2017 activities]	32-55
<b>Emissions (GRI 305)</b>					
103-1	G4-20 G4-21	The nature of an important area		[Environment Protection – Summary of 2017 activities] [Supplementary tables with data]	32-55 70
103-2		Management approach (DMA)		[Environment Protection – Summary of 2017 activities]	32-55
103-2		Measurement and evaluation		[Environment Protection – Summary of 2017 activities]	32-55
305-1	G4-EN15	Total direct greenhouse gas emissions by weight (Scope 1)	6.5. 6.5.5.	[Supplementary tables with data]	70
305-5	G4-EN19	Reduction of greenhouse gas emissions	6.5.3	[Supplementary tables with data]	70
305-7	G4-EN21	Emission of NOx, SOx, SF6, and other relevant compounds emitted into the air by type of compound and weight	6.5. 6.5.3.	[Supplementary tables with data]	70
<b>Sewage and waste (GRI 306)</b>					
103-1	G4-20 G4-21	The nature of an important area		[Environment Protection – Summary of 2017 activities]	32-55
103-2		Management approach (DMA)		[Environment Protection – Summary of 2017 activities]	32-55
103-2		Measurement and evaluation		[Environment Protection – Summary of 2017 activities]	32-55
306-2	G4-EN23	Total weight of waste by type of waste and method of waste treatment	6.5.	[Supplementary tables with data]	70
<b>Occupational health and safety (OHSE) (GRI 403)</b>					
103-1	G4-20 G4-21	The nature of an important area		[Environment Protection – Summary of 2017 activities] [Occupational health and safety]	30 67
103-2		Management approach (DMA)		[Occupational health and safety]	67



Indicator	GRI Guidelines		Area according to ISO 26000	Comment / Description	Strona
103-2	Measurement and evaluation			[Occupational health and safety] [Supplementary tables with data]	67 70
403-2	G4-LA6	Indicator of injuries, occupational diseases, lost days and absences from work, as well as the number of work-related fatal accidents by region	6.4. 6.4.6.	[Supplementary tables with data]	70
403-3	G4-LA7	Employment in conditions of increased risk of occupational diseases	6.4. 6.4.6.	[Supplementary tables with data]	70
<b>Local community (GRI 413)</b>					
103-1	G4-20 G4-21	The nature of an important area		[Dialogue with Shareholders] [Social involvement and development of the local community - Polenergia as a Good Neighbor]	60 32-55
103-2		Management approach (DMA)		[Dialogue with Shareholders] [Social involvement and development of the local community - Polenergia as a Good Neighbor]	60 32-55
103-2		Measurement and evaluation		[Dialogue with Shareholders] [Social involvement and development of the local community - Polenergia as a Good Neighbor]	60 32-55
413-1	G4-SO1	The nature, scale and effectiveness of programs and practices in assessing and managing the impact of the organization's activities on the local community, including the impact of entering a given market, conducting and terminating operations	6.3.9 6.5.1 6.5.2 6.5.3 6.8	[Environment Protection – Summary of 2017 activities]	32-55
413-2	G4-SO2	Activities with significant potential or existing negative impact on the local community	6.3.9 6.5.3 6.8	[Environment Protection – Summary of 2017 activities]	32-55
<b>PROFILE INDICATORS FOR THE ENERGY INDUSTRY</b>					
<b>Organization profile</b>					
EU1		Installed power generating capacity divided into generating sources		[Supplementary tables with data]	70
EU2		Net energy generated by generating sources		[Supplementary tables with data]	70

Indicator	GRI Guidelines	Area according to ISO 26000	Comment / Description	Strona
EU3	Number of individual and commercial clients		[Supplementary tables with data]	70
EU5	Carbon dioxide allowances		[Supplementary tables with data]	70
<b>Economy</b>				
EU11	Average efficiency of power generation in CHPs		[Supplementary tables with data]	70
<b>Environment</b>				
EU13	Change in biodiversity of habitats before and after the implementation of investment	6.5.6	Measures to protect the environment (biodiversity) -description of good practices [Supplementary tables with data]	42-43 70
<b>Employees</b>				
<b>Society</b>				
EU22	Number of people physically or economically displaced, and due compensation	6.6.6 6.6.7	There are no people who are physically displaced. Economic resettlements resulting from damages in field crops that occurred at the stage of construction or during failure with the necessity of getting access. Compensation is equal to the average yield per hectare for a given type of crop.	
<b>Product responsibility</b>				
EU25	Number of accidents and fatalities	6.4.6	[Supplementary tables with data]	70
EU26	Percentage of people not served in the area of company distribution	6.7.4	[Supplementary tables with data]	70
EU27	The number of disconnections caused by non-payment of bills by customers or system failure	6.7.6	[Supplementary tables with data]	70
EU28	Frequency of power outage	6.7.8	[Supplementary tables with data]	70
EU29	Average time of power outage	6.7.8	[Supplementary tables with data]	70