

The background of the entire page is a photograph of a lush green forest covering rolling hills. A large, vibrant green paraglider is in the foreground, suspended in the air. Its canopy is fully inflated and shows a white stripe along the edge. In the distance, another smaller paraglider with orange and blue canopies is visible against a clear blue sky.

ECOLOGICAL REPORT

of Bank Ochrony Środowiska S.A.

2017/2018

In the interests of our air
– business for the future



Dear Sir or Madam,

We are proud to present to you the twenty-first Ecological Report of Bank Ochrony Środowiska S.A. – the report is an annual summary of the activities of our unique institution for the protection of the natural environment and sustainable development of Poland.

Its form and content have evolved over the years, just as the needs of the pro-ecological investment market and the most important environmental problems in Poland have changed. However, the mission that has been guiding us since the start in 1991 remains unchanged – we support undertakings for the development of industry and services in the field of environmental protection, development of the market of products and services related to ecology and promote attitudes and initiatives to protect the natural environment. We combine business and ecology for the benefit of customers.

In this edition of the Report, we present the effects of our actions through the prism of the air protection problem. We are aware that the fight against smog is a huge challenge requiring the mobilization of significant financial and technical resources in the coming years, but we would like to note that, as a bank, we have extensive experience in activities which have significantly contributed to the improvement of air quality. It is enough to indicate that from 1991 to the end of 2017 with the financial support of BOS S.A. investments in the field of atmosphere protection with a total value of over PLN 37 billion have been completed. It would not be possible without support and cooperation with the most important Bank's shareholders – National and voivodeship funds for environmental protection and water management as well as the State Forests National Forest Holding.

Our shareholders trusted us once again – in February 2018 during the General Meeting a decision was made to increase the capital by issuing shares. The acquired capital in the amount of PLN 300 million will enable us to intensify efforts aimed at implementation of the assumptions of the current Development Strategy of Bank Ochrony Środowiska.

When planning new pro-ecological initiatives, we are looking for new partners – institutions that, like the Bank, recognize the need to support sustainable development. An example of this is PKN Orlen, with whom we concluded a letter of intent confirming the conduct of joint activities in the field of building effective models for the implementation of projects in the field of environmental protection.

We are motivated by the satisfaction of our clients and business partners and the awareness that we are the first choice bank for individuals and entities interested in environmentally friendly solutions. It also motivates that we have a significant impact on the possibility of improving the well-being and working conditions of our and subsequent generations. Therefore, this Report includes a chapter in which we present various investments in the field of atmosphere protection carried out our clients.

I cordially invite you to read the latest issue of the Ecological Report of Bank Ochrony Środowiska S.A., in which we show that ecology, including air quality protection, is a business that benefits all of us and the next generations.

Bogusław Białowąs
President of the Management
of Bank Ochrony Środowiska

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AIR PROTECTION

Introduction

When Joseph Priestley (1733-1804) discovered during one of his experiments oxygen, he said: "Who knows, maybe some time this clean air will become a fashionable luxury article. Only two mice and I have so far enjoyed it."¹ In our today's reality, in the context of the increasingly urgent problem of poor air quality in Poland, the definition of clean air as a luxury good takes on a new meaning.

All people share the desire for a healthy life in a friendly environment. The Constitution of the Republic of Poland stated: "The Republic of Poland (...) ensures environmental protection, guided by the principle of sustainable development" (Article 5). In addition, it was stated that "environmental protection is the responsibility of public authorities" (Article 74), but at the same time "everyone is obliged to care for the environment and is responsible for the deterioration caused" (Article 86).

The problem of air pollution in our country is so complex that despite clearly defined responsibility for the state of the environment and despite many measures to protect the atmosphere, this problem has not been solved for years. Air quality statistics invariably show its poor quality, but there is no longer any social consent for inaction or partial action.

In this part of the Ecological Report, we will deal with some myths about air protection and climate change, we will show what the impact of basic air pollution on human health is and we will tell what initiatives are being taken in the world, in Europe and Poland to improve the quality of the air we all breathe.



Climate change – truth or myth?

One of the most embedded myths in the general consciousness is the statement that anthropogenic CO₂ emissions are too low compared to emissions from natural sources for the human climate action to have any impact - after all, natural CO₂ emissions are twenty times higher than those caused by humans².

It is true that the anthropogenic emission of carbon dioxide is low compared to the natural emission (but contrary to popular opinion it is many times higher than the volcanic emission³). For tens of thousands of years⁴, natural absorption balanced emissions, the natural carbon cycle in nature remained in equilibrium, and global concentration of carbon dioxide and methane in the atmosphere remained unchanged. However, along with the industrial revolution in the second half of the 18th century, global CO₂ emissions from burning fossil fuels began to grow at a more or less exponential pace: in 1750 total global emissions from fossil fuel combustion were 3 MtC (3 million tonnes of elemental carbon), and in 2014 it was already over 9300 MtC⁵. The concentration of carbon dioxide in the atmosphere before industrial changes remained at the level between 180 and 300 ppm⁶, in 2015 the average level of concentration of carbon dioxide in the atmosphere exceeded the record threshold of 400 ppm⁷. What will be the data of the World Meteorological Organization for 2017? We'll find out soon.

Although natural processes help to absorb some of the anthropogenic CO₂ emissions, our emission exceeds the absorption capacity of nature more or less from the middle of the last century. The increase in the concentration of greenhouse gases causes an increase in the surface temperature of the Earth, which in turn causes changes in rainfall patterns, storm intensity and water levels. IPCC ratings (Intergovernmental Panel on Climate Change) indicate that global averaged surface temperatures of the Earth and the oceans have increased by 0.85 °C in 1880-2012, and the main reason for this is human activity⁸. Researchers predict that the increase in the amount of greenhouse gases in the atmosphere will cause a continuation of the temperature rise trend⁹ - around 2100, the global average temperature will be higher by 1.5 to 3.7 °C compared to 2000^{10,11}, and the level of CO₂ will increase to 600-700 ppm. The description of the effects of these changes is the subject of many scientific works, but at the beginning it is worth realizing at least how much air conditioning needs and related nuisance may increase in the future due to the increased number of hot days in a year.

The impact of air pollution on human health

Although skeptics claim that tobacco smoking – and not smog – harms health, there is strong scientific evidence that there is a link between air pollution and adverse health effects. In recent years, the level of understanding of the discussed processes has been increasing: the results of analyzes indicate the relationship between air pollution and the incidence of asthma, chronic bronchitis, chronic obstructive lung disease, upper respiratory tract and bladder cancer, arrhythmia and even heart failure¹².

The people who are most vulnerable to the negative impact of air pollution include those with heart disease, pregnant women and unborn children, outdoor workers, the elderly, children up to 14 years of age, and athletes who train extensively outdoors.

It is estimated that several million people die prematurely every year as a result of diseases associated with air pollution¹³. According to the WHO, air pollution globally is responsible for, inter alia, 25% of deaths and cases of lung cancer, 17% of deaths and cases of acute lower respiratory tract infections, 15% of deaths and cases of ischemic heart disease¹⁴.

The pollutants that have the greatest impact on health problems include dust (PM), ozone (O₃), nitrogen dioxide (NO₂) and sulfur dioxide (SO₂).

Dusts: Dust particles with a diameter of less than 10 micrometres (PM₁₀ and PM_{2.5}) are particularly dangerous – they are able to penetrate the lungs and the circulatory system, causing cardiovascular, cerebrovascular and respiratory complications.

Tropospheric ozone: Ozone in the upper layer of the atmosphere (stratosphere) is useful – it almost completely absorbs the ultraviolet radiation which is harmful to living organisms. However, ozone in the lower atmosphere (troposphere) is air pollution. Elevated concentrations of ozone in the air can lead to inflammatory reactions of the eyes or respiratory tract diseases, including worsening asthma symptoms and reduced lung function. The human body in the defense response to ozone entering the lungs, reduces the amount of inhaled oxygen, which can cause increased cardiovascular disease, drowsiness, headaches and a drop in blood pressure¹⁵.

Nitrogen oxides: Of the six nitrogen oxides, nitrogen dioxide and nitrogen oxide are particularly important¹⁶. Nitrogen dioxide is a brown, highly toxic gas with a sharp smell¹⁷. In big cities, NO₂ emissions from car engines predominate, which is why the biggest levels of pollution occur most frequently in the vicinity of busy streets. Exposure to high concentrations of nitrogen oxides can cause burning and swelling of the upper respiratory tract, accumulation of fluid in the lungs, dizziness and bruising of the skin and lips.

Sulfur oxides: Like nitrogen oxides, they are responsible for the acidification of water and soil. Acidic groundwater rinsing potassium out of the soil, resulting in a reduction in its fertility. Sulfur oxides are responsible for the corrosion of metals – causing damage to the surrounding environment and increased wear of machines. After getting into the bloodstream, sulfur oxides accumulate in the liver, spleen and lymph nodes¹⁸.

The European Union for air quality

Air pollution has become one of the important areas of European cooperation as early as in the 1970s¹⁹. Currently, the main tool of the European Union serving the implementation of instruments for improving air quality are Directives, which set the air quality standards, based on the results of the latest research on the impact of air pollution on health.

The first significant instrument of the European fight for cleaner air was the 1996 Directive on the assessment and management of ambient air quality²⁰. In this framework directive and four related documents²¹, standards have been set for the level of concentrations of basic air pollutants (including sulfur dioxide, nitrogen oxides, lead, benzene and carbon monoxide).

As part of the Thematic Strategy on Air Pollution of 2005²², the European Commission proposed combining the above-mentioned acts into one – the Directive on air quality and cleaner air for Europe (the so-called CAFE Directive)²³ was developed. Together with the Directive on arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air²⁴, they constitute the current legal framework for controlling the concentration of air pollutants in the EU.

Poland so far has not been able to boast of successes in the field of air quality: in June 2016, the European Commission filed a complaint²⁵ against the Republic of Poland stating inter alia crossing from 2007 to at least 2013, the daily limit values for PM₁₀ dust in 35 out of 46 air quality zones and incorrect implementation of the anti-smog directive to national regulations. In February 2018, the EU Court of Justice delivered a judgment recognizing allegations – for the European Commission the verdict is a tool to impose a financial penalty on Poland²⁶.

The Court of Justice has ruled that daily and annual air quality standards were continuously exceeded in Poland in 2007–2015. Attention was paid to the lack of effectiveness of the fight for clean air in our country – air protection programs did not take into account short deadlines for achieving the air quality improvement and there were delays in the introduction of regulations regulating the requirements for solid fuels and heating devices used for individual heating installations.



Protection of the atmosphere in Poland - conditioning

Discussions related to ecology, reduction of CO2 emissions, emission requirements and standards, high EU targets regarding, inter alia, the share of renewable energy sources generate extreme emotions in our country (and not only). It is certain that Poland, due to its unique resources (fossil fuels, but also large forest cover of the country) and the specific potential of renewable energy – must develop a unique, optimal path of economic development that will also ensure respect for the environment and comfort of our lives and next generations.

In the public discussion, the pessimistic information comes to the fore – that Polish cities are the most polluted in Europe²⁷, that our country is blocking Europe's²⁸ climate policy, that for years it has not been able to improve air quality²⁹ that neglect in the development of production sources will soon lead to blackout, we allow irreversible losses in national forests³⁰, and instead of being a leader, we are at the end of the European rankings³¹. The truth, as always, lies somewhere in the middle – one must be aware of many positive achievements of our country in many of the above-mentioned areas:

- The Polish Electricity Association (PKEE) draws attention to the fact that the sector of large systemic power industry has been reducing emissions at the cost of huge financial efforts for more than 10 years³². According to data provided by the National Center for Emissions Management and Balancing (KOBiZE)³³, by 2014 Poland reduced CO2 emissions by 34.5% compared to the base year 1988.

- The very fact that Poland is organizing a climate summit this year for the third time, this time in Katowice, is a sign of our commitment to climate matters³⁴. During the previous, 23rd UN climate summit (COP23) in Bonn, thanks to the efforts of the Polish delegation, the reduction the concentration of carbon dioxide through its absorption by forests and soil³⁵ was included in the climate agreement. Representatives of various countries around the world, including China are interested in the developmental project of the National Forests „Forest charcoal farms”³⁶.
- Poland has exceeded the national target in the field of energy efficiency, understood as achieving in 2016 final energy savings in the amount of not less than 9% of the average national energy consumption from 2001-2005. The decrease in energy intensity in Poland is systematic – the average annual rate of energy intensity improvement exceeds 3%³⁷, which obviously – translates into a relative reduction of pollutant emissions.
- Reducing energy intensity is implemented, among others in the construction sector – the Thermal Modernization and Renovation Fund itself since the beginning of its existence until the end of 2017 has been supplied with the amount of PLN 2.3 billion³⁸ and allowed to pay out PLN 22.2 thousand in thermomodernization bonuses until the end of the first quarter of 2018. Note that a comprehensive thermo-modernization allows in some cases to reduce the heat demand of a building by as much as half. We would like to emphasize that the Thermomodernization and Renovation Fund is just one of many available means of support for improving the energy efficiency of buildings in recent years.

- Investment in new energy-efficient buildings is also conducive to air protection – especially as since the beginning of 2017, stricter technical requirements, including significantly reduced annual demand for non-renewable primary energy, have been in force.
- It is worth noting that despite many difficulties, clean technologies are being developed in Poland. The Polish energy sector is gradually diversifying the energy mix – over the decade, the installed capacity of renewable energy sources in the power system has increased from 1.5 GW to 8.6 GW³⁹, and the prospect of adopting an amendment to the RES Act in the near future gives a chance for further increase in the RES share in national energy mix.
- At the same time, almost all of the conventional energy and heating sector in Poland is in the process of adapting to demanding environmental standards resulting from: BAT conclusions for large combustion units (LCP) and the MCP Directive for medium combustion plants.
- The possibility of improving the state of air in Poland is greatly influenced by the large level of „connection to heating” of the country – in terms of the share of households connected to district heating systems, Poland is one of the leading places in Europe. It is worth emphasizing that more than half of the inhabitants of our country use the so-called system heat, which is produced to a large extent by local heating companies. Heat production in district heating systems allows for restrictive emission control and elimination of the problem of waste incineration in the case of individual domestic heat sources.

34.5% Reduction of CO2 emission compared to the base year of 1988 by Poland

Poland's fight against smog – the most important activities

The problem of so-called „low emission” in Poland has come under close scrutiny relatively recently, among others, due to the increasingly frequent and increasingly inconvenient occurrence of smog – it is smog that encouraged careful analysis of air pollution caused by individual and industrial boiler rooms and transport. Moreover, the public opinion has begun to openly express its opposition to the unsuccessful and insufficient anti-smog activities.

In January 2017, the Economic Committee of the Council of Ministers presented a package of 14 recommendations for actions necessary to be taken in the light of the high concentration of air pollution in large areas of the country, thus giving rise to a coherent strategy to solve the problem. As experts emphasize – the fight against smog in our country is a task that can take up to 10 years. In the course of 2017, many important activities have already been implemented: the most important are anti-smog resolutions, requirements for solid fuel boilers and coal quality standards, but also laws and programs to support the development of electromobility and wooden construction.

In accordance with art. 96 of the Act on Environmental Protection Law (EPL), voivodship assemblies may, by way of a resolution, introduce restrictions or prohibitions on the operation of installations in which fuels are burned. On this basis, in January 2017 the assembly of the Małopolskie voivodeship adopted the first in Poland, so-called anti-smog resolution covering the entire voivodeship. In Małopolska (apart from Krakow, where in 2019 you will not be able to use solid fuels at

all) all heating appliances for solid fuels are to meet the requirements set by ecodesign – ie requirements set out in the Commission Regulation (EU) 2015/1185, which will be obligatory throughout the European Union, but from 2020. Following Małopolska, further voivodeships are preparing their resolutions.

Introduction of requirements for emissivity and efficiency of heat sources and gradual getting rid of the so-called “Mugs” throughout the country is a must in the fight against smog. Thanks to the introduction of the Ordinance of the Minister of Development and Finance regarding the requirements for solid fuel boilers on 1 October 2017 since July 2018 only fifth class boiler will be allowed for sale and purchase on our market. It specifies the detailed requirements for boilers with a rated heat output of up to 500 kW placed on the market and for use. The Annex to the ordinance specifies the limit values of carbon monoxide (CO) emissions, organic gaseous pollutants (OGC) and dust – they are identical to the requirements for class 5 boilers in accordance with EN 303-5 in 2012.

103 billion PLN

The budget of the government program “Clean Air”

On April 25 this year The Parliament Commission for Energy and Treasury adopted a government draft amendment to the so-called Act on solid fuels. The most important effect of the entry into force of the draft Act will be monitoring and controlling the quality of coal reaching final recipients. The most important changes in the regulations will be:

- clarification of the catalog of solid fuels, the introduction of which on the municipal and household market will be prohibited, most importantly: coal mills, flotoconcentrates, lignite and unsorted fuels,
- introduction of fuel quality certificates: consumers, thanks to transparent information, will have knowledge about what fuel they buy,
- introduction of coal quality control: samples of solid fuels will be collected by both Trade Inspectors – on coal storage and by Customs and Tax Service officers – eg from railway cars at border crossings.

Placing of solid fuels on the market in violation of the new law will be subject to a fine of up to 500,000 PLN or punishment of up to three years of imprisonment.

Moreover, in June of this year the representatives of BOŚ, NFOŚiGD and WFOŚiGW signed a memorandum of understanding regarding the implementation of a priority program “Clean Air”. The main goal of the program is improve energy efficiency of the existing single-family housing substance through a thorough thermal modernization and replacement of heat sources. The program will be carried out over the period of ten years and the budget for subsidies and preferential loans amounts to PLN 103 billion.

Low emissions are also automotive transport, which is a huge problem especially in big cities. In Warsaw, there are more than 900 cars per 1000 inhabitants⁴¹, while the EU average in 2016 was 505⁴². Unfortunately, these are not new, no-emission cars – more than half of cars in Poland are more than 10 years old – in Germany or France there are around 20 percent of them. A milestone in the direction of a change in the automotive image of our country may be the Electromobility Development Program, which consists of several documents, including the Act on electromobility and alternative fuels. In the act that came into force on February 22 this year. various incentives are planned for the development of electromobility, including, among others construction by the end of 2020, 6,000 charging points of normal power, the possibility of municipal councils to enter clean transport zones, exemption of electric cars from parking fees in paid parking zones, lower excise duty on the purchase of a vehicle and a more favorable depreciation rate. The development of electromobility is already visible in the public transport sector and will be progressing faster. Hybrid, gas-driven and even electric vehicles, despite the higher purchase costs, are becoming more and more popular due to potential savings in operation. According to the plans of the Ministry of the Environment, Poland will allocate, among others over PLN 2 billion for the purchase of around one thousand innovative zero-emission buses⁴³. These activities can significantly contribute to the improvement of air quality in densely populated areas, where, as in Warsaw, road transport is currently responsible for 60-80% of air pollution⁴⁴.

PRO ECOLOGICAL ACTIVITY OF BOŚ BANK

Bank with a mission and experience

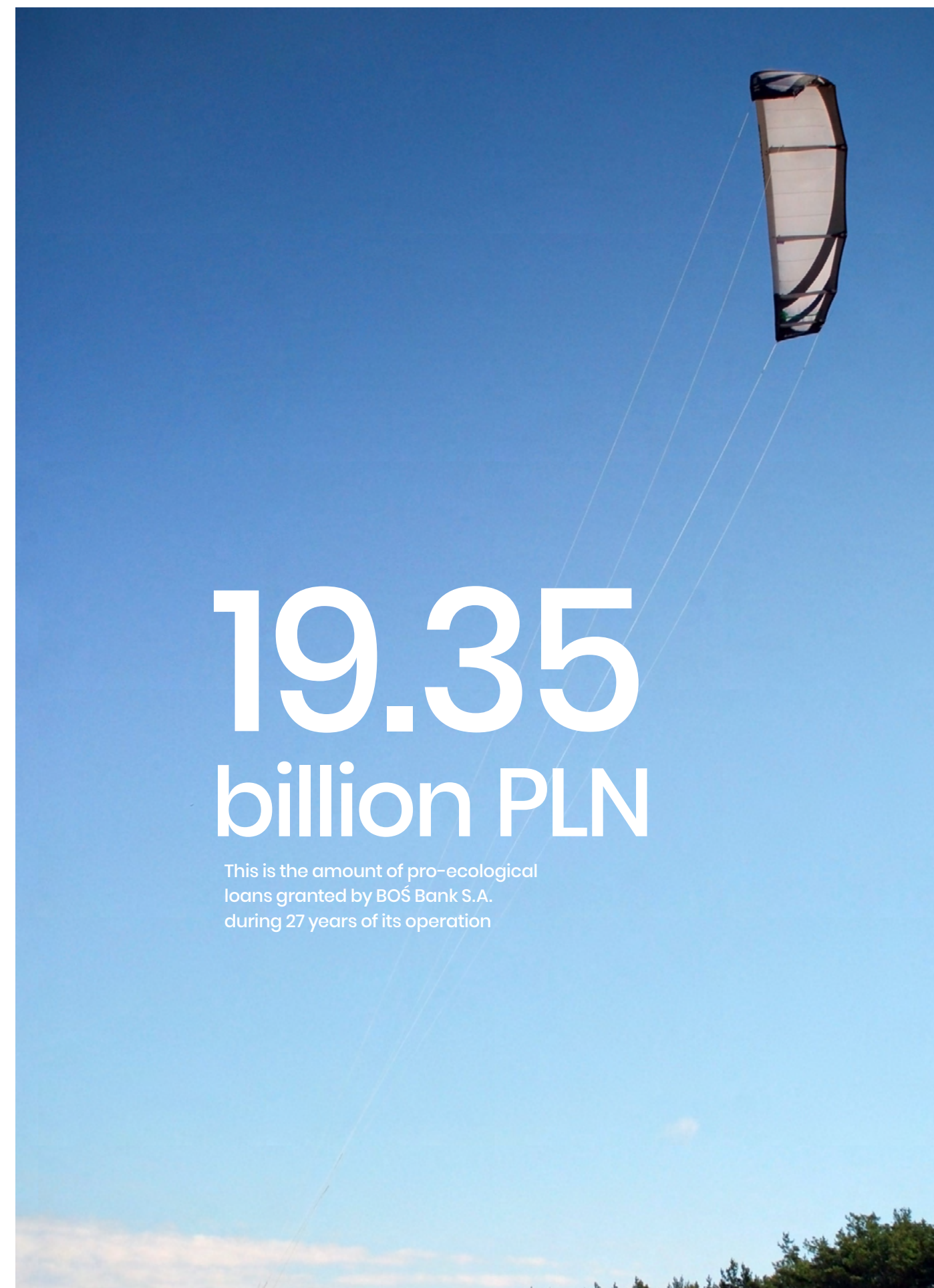
Bank Ochrony Środowiska S.A. was appointed as a specialist bank supplementing and supporting the activities of environmental protection funds. The main founder of BOŚ Bank and until today the majority shareholder is the National Fund for Environmental Protection and Water Management. The bank started its activity in 1991, and since 1997, BOŚ shares have been listed on the stock exchange. BOŚ is a Polish bank, and among the shareholders, apart from the main one – NFOŚiGW, there are, among others State Forests.

BOŚ concentrates its activity on the domestic market, implementing the principles of sustainable development, financing projects implemented with respect for the surrounding environment. During 27 years of operation, BOŚ granted PLN 19.35 billion of pro-ecological loans for various tasks to protect individual environmental components, and the value of investments carried out with the use of these loans exceeded PLN 50.25 billion. They fit into the mission of the Bank, which emphasizes that BOŚ is "Polish Bank combining business and ecology for the benefit of customers". Thanks to such activities and initiatives aimed at reducing the Bank's direct impact on the environment, we joined the prestigious group of companies listed under the RESPECT Index. Listed on the main stock exchange market, the companies included in this Index meet in the highest degree corporate governance, information governance and investor relations, including environmental, social and employee factors.

Experience in financing environmental protection is the scale of previously funded projects, but also knowledge of specialist banking staff – environmental engineers employed in BOŚ and related directions who work with clients, helping them to properly prepare the investment process, and in developing a good financial installation for each project. They help clients to see the environmental aspects of their activities and identify their ecological effects.

Knowledge of specialists – Bank Ecologists is also knowledge about current and planned pro-environmental regulations, resulting from EU directives and national policies and regulations regarding environmental protection. Among them, in recent years, regulations for the protection of air and improving its quality, such as the IED and MCP Directives on renewable energy sources, and measures taken within the framework of the Clean Air program have become particularly important. Legal requirements can be translated into knowledge about the directions of necessary investment projects. Environmentalists share this knowledge with clients, both during bilateral meetings, as well as through participation in numerous industry conferences and educational activities.

The Bank's specialist activities, and above all, a strong commitment to the development of pro-ecological investments, have been recognized and awarded by the Chapter of the 6th edition of the "Rewards for Promoting Renewable Energy" – in the "MAN OF 2016" category Ecologists of Bank Ochrony Środowiska were honored.



Proecological offer of Bank Ochrony Środowiska

Among the Bank Ochrony Środowiska's products there are always attractive loans offered for pro-ecological investments. Also, 2017 was characterized by a large range of pro-ecological products, dedicated to, among others financing of projects in the field of air protection. The Bank offers products for individual clients, communities and housing cooperatives, local governments and entrepreneurs.

The preferential pro-ecological loans offer includes special loans in cooperation with the Provincial Funds for Environmental Protection and Water Management, as well as the second edition of the Prosument Eco-credit and the Loan for thermomodernization and renovation projects. All of them are part of the activities aimed at eliminating air pollutants (anti-smog activities) and are characterized by preference in the financial structure – it is usually a supplement to the loan capital from the donor's funds after completing the project and obtaining the planned environmental effects or the interest on the loan. In each case, the participation of a donor such as NFOŚiGW, WFOŚiGW or BGK causes that the burden of repayment for the Customer is lower than in the case of commercial financing. The subsidies offered encourage people to take pro-ecological actions that will improve the condition of the environment.

In 2017, the Bank cooperated in the field of granting loans with funds or with additional payments from WFOŚiGW in the following provinces: Dolnośląskie, Kujawsko-Pomorskie, Lubelskie, Lubuskie, Łódzkie, Małopolskie, Opolskie, Podkarpackie, Warmińsko-Mazurskie and Wielkopolskie. After the break, in November 2017 preferential credits with funds and with the WFOŚiGW subsidy in Katowice also appeared.

However, thanks to cooperation with NFOŚiGW in the fourth quarter of 2017, the "Prosument Eco-credit" offer was available (the second edition) – BOŚ granted loans from the NFOŚiGW subsidy for microinstallations of renewable energy sources, mainly heat pumps, photovoltaic installations, solar collectors. The subsidy to the loan accounted for 30% for installations producing electricity and 15% for installations producing heat energy.

For many years in the BOŚ SA offer loans are available for thermo-modernization and renovation projects, granted under the rules set out in the Act on supporting thermo-modernization and renovation projects. In the case of this offer, the thermomodernization bonus is up to 20% of the credit amount used for the implementation of the thermomodernization project. Thermo-modernization measures are an important contribution to the improvement of air quality, as the first step should be to reduce energy demand, and the next one to reduce the emissivity of the source that supplies this energy, eg by converting coal to gas or connecting to the heating network where it is available.

Typically, Funds – Donors specify the scope of investment projects for which a loan with additional payment can be obtained, which is why the Bank – bearing in mind that the Clients' needs often go beyond the tasks specified in the Fund's contracts, and also offer other products to finance other pro-ecological projects. An example is the Eco-loan for individuals, which can be used to finance a lot of activities, such as the purchase of gas boilers, household sewage treatment plants, but also bicycles and rehabilitation equipment.

An important product that influences the improvement of the environment is also Eco PV credit, for financing the purchase and installation of a photovoltaic installation. Its main advantage is the possibility of financing 100% of the cost and long repayment period (up to 20 years for customers using the offer of companies cooperating with the Bank), thanks to which monthly installments become relatively low.

The above offer of pro-ecological products mainly concerns solutions for residential construction and allows you to finance investments that allow you to obtain heat or electricity while limiting the negative impact on air quality. It should be added that the Bank finances household sewage treatment plants or sewage systems on similar terms, thanks to which the negative impact on water quality is reduced.

The offer of Bank Ochrony Środowiska also includes pro-ecological products dedicated to entrepreneurs and local governments. Among them, the loans granted on the basis of an agreement with the European Investment Bank should be distinguished, especially in the context of the care for air quality. We are talking about a line addressed to micro, small and medium enterprises and the public finance sector (local government units and municipal enterprises) for financing projects aimed at increasing the value of fixed assets, including projects aimed at meeting the needs related to environmental protection. Under this line, the so-called Climate Change Action component (included in the Juncker Plan) covering activities to reduce greenhouse gas emissions to the atmosphere, including investments in renewable energy and energy efficiency.

Complementary of the pro-ecological offer addressed to entrepreneurs is an investment loan as part of the "Zielona Inwestycja" promotion. Its feature is that if the loan is designated as a device or a pro-ecological solution – the margin is lower than for analogous loans directed to any purposes. The bank also grants loans for energy projects, the idea of which is that the installment of the loan should be repaid from the obtained savings in energy costs.

When planning an investment, especially one that generates certain environmental effects, it is worth getting acquainted with the current offer of Bank Ochrony Środowiska, information about which is always available at www.bosbank.pl or on the hotline at 801 355 455 or +48 22 543 34 33.



Pro-ecological loans granted

In 2017, the Bank concluded 2078 new pro-ecological transactions in the total amount of PLN 736.9 million. Pro-ecological transactions were targeted mainly at entrepreneurs – PLN 637.9 million, ie 87% of the loan amount. On the other hand, proecological transactions for natural persons predominate, accounting for 88% of the number of transactions.

In 2017, the Bank recorded an increase in the sales of working capital loans for companies operating in environmental protection. Ecological working capital facilities, overdraft facilities, purchase of receivables and ecofactoring accounted for 52% of the amount of proecological transactions concluded. More than half of the amount of concluded transactions of a working nature concerned the financing of companies that carry out activities related to the implementation of construction projects, real estate trading or hotel business activities taking into account solutions and pro-ecological aspects. These include loans for developers who implement buildings with high energy efficiency, or hotels that use renewable energy sources or other pro-ecological solutions. This shows that energy-efficient construction – conducive to the care of clean air – is gradually developing on the Polish market.

The Bank also cooperates with entities from the public finance segment, which it offers to finance pro-ecological solutions mainly based on loans under the CEB and EIB foreign banks. In 2017, it granted PLN 39.8 million for local government units. These loans are intended primarily for thermo-modernization of buildings such as schools, kindergartens, municipal offices and for the construction of sewage systems. An interesting example is the financing of a generator set fueled with natural gas along with a heat recovery and cooling system at a sludge dryer located in the sewage treatment plant in Częstochowa. This solution significantly improves the efficiency of energy use and is part of the care for cleaner air.

The customers of the retail segment in 2017 received PLN 59.3 million of pro-ecological loans, an increase of 23% compared to the previous year. The largest share was held by ecological mortgage loans – 35% of the amount

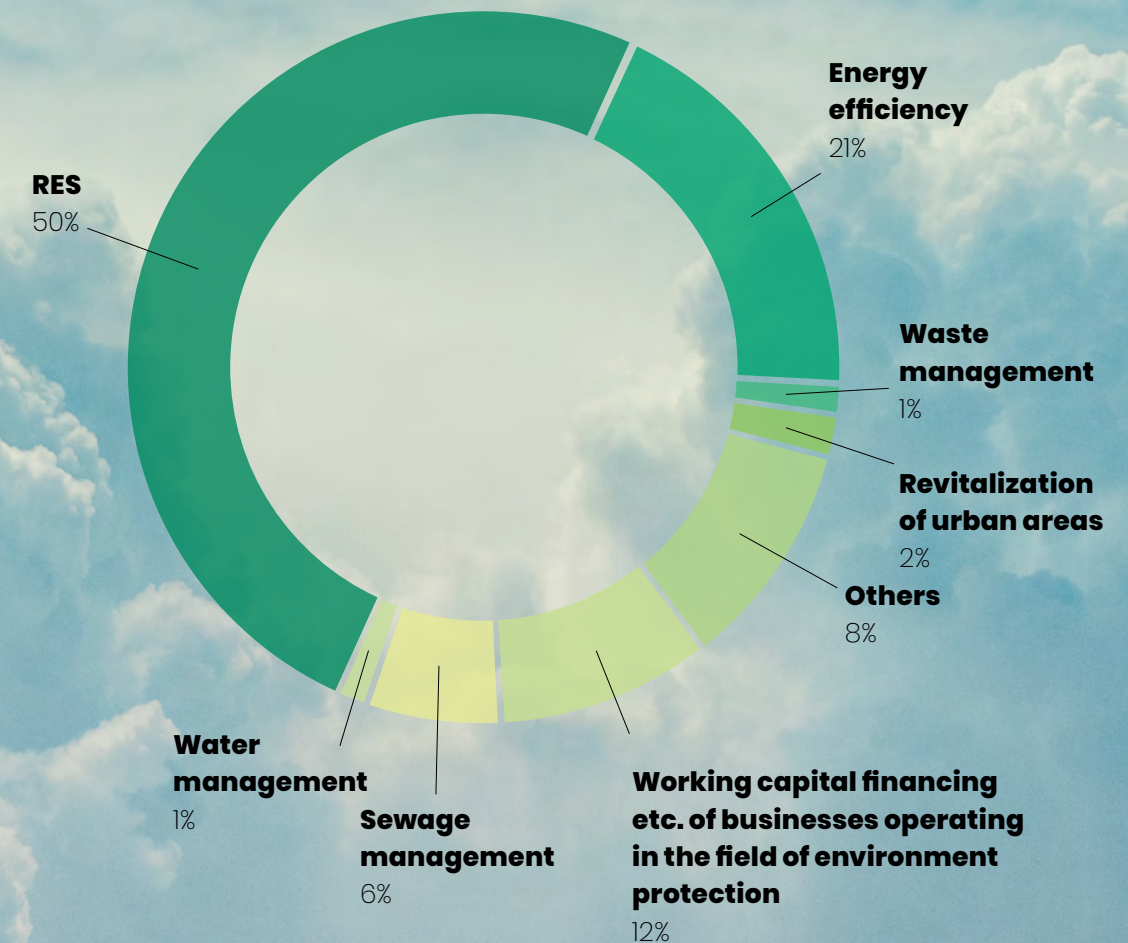
of pro-ecological loans in the abovementioned category, and their sales doubled compared to 2016. In 2017, the interest in Eco Credit was increased – 103 such loans were granted in the total amount of PLN 2.1 million. This testifies to the development of prosumer market – people who consciously make decisions about investing in their own, but also “clean” source of electricity. This awareness of customers has been built by BOŚ for years, among others through cooperation with donors, under which we offer preferential loans for renewable energy micro installations.

In 2017, Bank Ochrony Środowiska continued its long-term cooperation with the National and Provincial Funds for Environmental Protection and Water Management. **As part of cooperation with WFOŚiGW, the Bank granted 800 loans for a total amount of PLN 36.6 million. These loans financed mainly projects in the field of atmosphere protection, including RES and energy efficiency (in total 82.5% of the total amount of loans granted from the WFOŚiGW).**

In 2017, the Bank resumed cooperation with WFOŚiGW in Katowice. It concerns the financing of tasks carried out by individuals and housing communities in the field of thermo-modernization and replacement of boilers and home sewage treatment plants. Under the agreement with WFOŚiGW in Katowice, loans are granted in the form of loans with a 20% subsidy from the Fund.

In the case of cooperation with NFOŚiGW on August 28 this year there was a contract regarding the implementation of the NFEPWM priority program entitled Prosumer – a co-financing line intended for the purchase and installation of micro-installations of renewable energy sources, addressed to individuals and housing communities and cooperatives. The amount of funds available to the Bank is PLN 28 million for loans and PLN 12 million for subsidies. The sale of loans called EkoKredyt Prosument II started on October 16, 2017. By the end of the year 187 contracts for loans in the amount of PLN 4.3 million were concluded. Applications for funding under this Program were accepted by the end of January 2018, ie until the pool of allocated funds was exhausted.

The structure of the pro-ecological loan portfolio at the end of 2017 was as follows:



As you can see, the portfolio is dominated by investments that contribute to the improvement of air quality – both related to renewable energy and broadly understood energy efficiency.

Completed investments and achieved environmental effect

Among the investments in environmental protection co-financed by BOŚ S.A., in 2017, 1,740 projects were completed and put into operation with a total estimate value of PLN 352.6 million. Share of BOŚ S.A. loans in the costs of completed investments it amounted to 57.4% on average.

The largest group of completed investment projects were tasks in the field of atmosphere protection (78% of the value of tasks), including mainly sustainable construction and energy efficiency, which together accounted for 60% of the investments' value.

For years, Bank Ochrony Środowiska has been monitoring ecological effects obtained through co-financed projects. Below we present selected ecological effects, obtained for projects, the implementation of which ended in 2017:

39.69 Reduction of dust emission [ton/year]

19.78 Reduction of sulfur dioxide emissions [ton/year]

6 559.51 Reduction of carbon dioxide emissions [tons/year]

1 441.94 Energy production from renewable sources [MWh/year]

29 24.73 Reduction in heat consumption and losses [GJ/year]

13.23 Length of sewerage network [km]

16 012.29 Waste disposal, including asbestos-containing [ton]

AIR PROTECTION IN PRACTICE

Completed Investments

The pro-environmental projects realized with the co-financing of BOŚ and our satisfied customers prove best about the effect ecology can achieve in business. In this part of the Report, we present the most interesting examples of recent investments that have significantly contributed to the reduction of the negative impact of human activity on air quality. We hope that they will be a source of inspiration and proof that we can work in favor of the atmosphere in various areas. Our story is divided into three parts:

1

in the first we have the honor to present our clients' investments, who have taken pro-ecological solutions into account in their business strategies,

2

in the second, we bring closer the specifics of investments in the area of thermal energy supply, as modernization investments in this area are one of the most effective ways of combating smog;

3

in the third we show that thermo-modernization makes sense both for residential and commercial buildings as well as in the case of public buildings and industrial buildings.

Ecology in Business Strategy

Hotel Arłamów S.A.

Deep in the heart of the Bieszczady Mountains – Arłamów has one of the most modern leisure and training centers in this part of Europe. Many people know its advantages in the form of excellent conference, entertainment, sports and wellness facilities, but few know that it is also one of the most innovative facilities in terms of energy production and energy management – because the center is equipped with its own trigeneration installation. Trigeneration – simultaneous production of electricity and heat or cold, is a solution that allows for the optimal use of fuel, and thus reducing the emission of pollutants into the air, compared to the production of energy in separate processes. Innovative solutions used in the installation allow it to work with very high efficiency. It is worth noting that the fuel used in the heat and power plant is energy wood that is a renewable energy source (RES).

We have our own high-efficiency biomass heat and power plant, thanks to which we can easily meet a significant part of the center's demand for electricity, and all demand for heat and ice water for the air-conditioning system. The installation in a trigeneration association is the most modern and one of the largest facilities of its kind in Poland, one of the few in Europe. The electrical power of the installation is 12 MW, and the thermal power of 5.6 MW, cooling capacity of 2.7 MW absorption aggregates – it would be enough to provide electricity for a small town. We sell surplus electricity to the grid of the Power System Operator, and waste heat is used to heat the football field plate – optimization of energy management in the complex, whose usable area exceeds 72 thousand square meters, is the key to the success of such a large investment. Our heat and power plant was among the laureates of the competition "Construction of the year in energy". As a fuel, we use waste from wood plants, wood waste created as part of harvesting wood in forests, and wood from purpose crops of energy willow and poplar.

The hotel located in the heart of the mountains must integrate with the dazzling surroundings and provide guests with a sense of closeness to nature – this is why environmentally friendly elements can be seen in many aspects of the facility's functioning, eg our own biological-mechanical wastewater treatment plant with a capacity of 97 m³ / d. BOŚ representatives help us to identify these pro-ecological elements and sources of their financing in the process of advising on the most appropriate ways to finance the investment and operations.

**Antoni Kubicki, Ph.D.,
President of the Management Board**

Ceramika Paradyż Sp. z o.o.

The fact that the potential to increase energy efficiency in industry is huge, you do not need to convince anyone. As Bank Ochrony Środowiska, we have the honor to cooperate with a company which is the pride of the Polish economy – Ceramika Paradyż Sp. z o.o. is one of the largest Polish producers of ceramic tiles. We are glad that with our participation the company implements investments that contribute to reducing energy consumption and improving air quality.

We are talking about the expansion and modernization of the plant producing construction ceramics in Tomaszów Mazowiecki. As part of the investment, a part of existing worn-out machines was replaced with new ones, characterized by better gas and electricity consumption per unit of manufactured product and lower lack of capacity.

As part of this project, in one of our plants were installed modern equipment adapted to the production of large format tiles: 2 presses with tile dryers cooperating with them, modern roller furnace, along with loading and unloading and unloading devices, 2 glass lines, team digital printers for printing patterns on tiles, tile sorting together with a set of accompanying devices, internal transport devices, a compressor and a technological line for rectification, breaking and semi-polishing.

The investment resulted in increasing the efficiency of the production line and reduction in the energy intensity of production, which in turn translated into lower emission of pollutants into the atmosphere. Achievement of measurable environmental effects, i.e. emission reduction:

- dust – 144 kg / year,
- sulfur dioxide (SO₂) – 1970 kg / year,
- nitrogen oxides (NO_x) – 1102 kg / year,
- carbon monoxide (CO) – 138 kg / year,
- carbon dioxide (CO₂) – 1238 t / year.

together with the reduction of energy consumption in the form of fuel, it allowed to obtain financial support for the task in the form of WFOŚiGW Łódź subsidies for loan interest. Efficient cooperation with BOŚ enabled the timely implementation of the investment.

I would like to emphasize that protection of the natural environment is a very important element of the strategy of Ceramika Paradyż. Our innovation and high quality of manufactured products as well as high business standards and contribution to the promotion of Polish products on the international arena are annually recognized with prestigious awards, also in the field of environmental protection.

Adam Tępiński,
President of the Management Board

HOLMED Zdrój Sp. z o.o.

In the Podlasie Province there was one sanatorium functioning in 2016, which is surprising considering the natural values of these areas. In connection with the above, the management of the company HOLMED Zdrój Sp. z o.o. took steps to build a spa hospital in Supraśl, and BOŚ SA was chosen as the business partner.

Location of the investment is not accidental – the city of Supraśl has the status of a health resort, and the whole commune is part of the functional area of "Green Lungs of Poland". This unique climate and nearby mud deposits decide about the qualities of this place.

As a result of the investment, in 2017 a spa hospital with a usable area of nearly 7,000 m² was established. The facility is located on the edge of the Knyszyńska Forest, offering patients the possibility of active rest in the bosom of nature, apart from rehabilitation activities in the hospital.

In order to meet the health needs of the province, we have created a Rehabilitation and Spa Hospital in Supraśl, the only facility of this type in Poland, which has the ability to assess the progress of treatment of individual patients. In addition, with the NFZ's requirements in mind, we strived to ensure that our Center was part of the coordinated care model so that the patient could take early rehabilitation after leaving the hospital. The use of natural healing methods in therapy based on regional natural resources is our next distinguishing feature.

The hospital building has been designed to minimize energy consumption, thanks to which its annual primary energy demand is more than 15% lower than required for the reference building. In addition, the source of heat in the facility is a heat pump cooperating with a gas condensing boiler, providing more than 18% share of renewable energy in the annual energy demand for final energy.

We welcomed the offer of co-financing the construction of the hospital by Bank Ochrony Środowiska, and good cooperation enabled its timely implementation.

Zbigniew Kasprowicz,
President of the Management Board

Heat engineering in the fight against smog

Ciepłownia Rydułtowy Sp. z o.o.

The development of system heating is one of the most effective ways to improve air quality. Due to the specificity of the business, Ciepłownia Rydułtowy Sp. z o.o. in the city of Rydułtowy in the Silesian Province carries out many investments aimed at modernizing the company and adapting to the requirements of ecology in heating. Recently, the client has implemented two very important investments from the point of view of environmental protection with the help of our Bank.

The first investment focused on improving the energy efficiency of the heating system through the modernization of the heating network, the construction of a group heat substation and the installation of measuring systems with remote reading. Thanks to this investment, an ecological effect was obtained in the form of reduction of emission of dust and gas pollutants into the atmosphere, including dust, SO₂, NO_x, CO, CO₂. BOŚ S.A. provided the necessary bank guarantees, which enabled the client to obtain a loan from WFOŚiGW in Katowice.

The second undertaking at which the Bank acted as a guarantor was the modernization of the water boiler. The task was to assemble a gas burner from demethanization of the mine together with the internal gas installation. The use of an additional source that uses methane fuel for production of heat is a technological innovation – close cooperation with the “Rydułtowy” mine allowed for the full management of gas obtained from demethanization of the mine.

Ciepłownia Rydułtowy Sp. z o.o. is a system heat and drinking water supplier in the city of Rydułtowy. Annually, the Company introduces approx. 280,000 GJ of heat into the heating network, and almost 400,000 m³ of water to the water supply network. Ciepłownia Rydułtowy Sp. z o.o. provides services for the inhabitants of Rydułtów housing estates, single-family houses, a mine, a hospital, municipal educational and cultural institutions as well as local entrepreneurs.

The company supplies heat for the purposes of space heating and hot water, at the same time providing warm service to the city's residents. The company also provides residents with healthy water. It is a specialist company that provides continuous, reliable and safe delivery of heat and water to its clients, following the principles of sustainable development resulting from its mission: “We develop – for you”.

The main goal of Ciepłownia Rydułtowy Sp. z o.o. is to provide the comfort of heat to its recipients and constant improvement of the quality of services provided, expanding the market and the range of products offered, ensuring minimization of the impact on the natural environment.

Ciepłownia Rydułtowy Sp. z o.o. strives to be one of the most modern companies in the region, which is why it conducts systematic modernization of its heating and water supply infrastructure. All these activities translate into lowering costs and increasing the competitiveness of the products offered by the company.

Andrzej Wycisk,
President of the Management Board

Housing Cooperative in Łomianki

Cooperation between Bank Ochrony Środowiska S.A. and the Cooperative started in 2015, when the Cooperative decided to conduct a pilot investment aimed at reducing the cost of supplying the building with heat.

The investment consisted in the construction of a dual-purpose gas boiler room, ensuring both the heating of flats, and the supply of hot tap water, which enabled detaching from the district heating plant. As a result, individual hot water circuit installations without circulation, where water was heated in gas flow heaters with electric ignition or a pilot light, were liquidated. Due to the successful implementation of the pilot investment, the Cooperative decided on another, this time a larger investment, in which 9 buildings were separated from the central district heating plant and 8 new gas boiler rooms with full automation and new central hot water installations were made, 8 gas connections were made. 1 individual single-boiler boiler house was converted into a two-function boiler room, and central heating installations for 9 new buildings were adapted to a new heat source.

Construction of dual-function boiler rooms, thanks to:

- *high boiler efficiency and power control capabilities,*
- *reduction of losses on heat transfer due to the location of new boiler rooms directly in the buildings being supplied,*
- *liquidation of individual water heaters in dwellings*

it contributed to the reduction of gas fuel consumption, which in turn translates into a reduction in the amount of pollutants emitted into the air. The obtained effects are:

- *reduction of primary energy consumption by 2 379.5 GJ/year,*
- *reduction of CO₂ emissions by 120.7 t/year,*
- *reduction of final energy consumption by 22.3%.*

In addition, thanks to the investment, the safety of building operation has been improved by reducing the risk of explosion or being hit by inappropriate operation and maintenance of equipment.

The investment was implemented as part of the POLSEFF 2 Program dedicated to financing investments improving their energy efficiency.

Janusz Piotrowski, M.Sc.,
President of the Management Board

Housing Cooperative „Cukrownik” in Werbkowice

The “Cukrownik” housing cooperative in Werbkowice faced the challenge of finding a new source of thermal energy after terminating the contract with a long-term heat supplier – Cukrownia Werbkowice.

After a thorough analysis the following solution was chosen: building two container gas boiler rooms with a total power of 1810 kW with necessary gas connections and heat connections for central heating and hot water circulation.

Due to the ecological nature of the investment, the loan granted from the European Investment Bank line was qualified to the so-called the “Climate Action” component. The investment brings environmental effects in the form of reduction of pollutant emissions:

- sulfur oxides (SO_x) – by 961.8 kg/year,
- carbon dioxide (CO₂) – by 1654 kg/year,
- total suspended dust (TSP) – by 9746 kg/year,
- carbon monoxide (CO) – by 4557 kg/year,
- nitrogen oxides (NO_x) – by 3238 kg/year.

After disconnecting from the previous heat supplier, we decided to implement a more functional and cost-effective solution in the form of two fully automated container gas boiler rooms with connections.

In the first boiler room, two gas boilers with blast burners with a capacity of 820 kW each were installed. In the second boiler room, two low-temperature, condensation water boilers, fired with natural gas GZ-50, with an output of 85 kW each were installed. Both boilers have integrated gas burners modulated in the power range from 18% to 100%.

We are very pleased with the cooperation with BOŚ, whose representatives have proposed an adequate way to finance our investment.

Jan Wach

President of the Management Board

Elżbieta Buzian

Deputy President of the Management Board



Thermomodernization of buildings

Housing Cooperative “Słowianin” in Świnoujście

The “Słowianin” cooperative trusted the Bank’s reliable consultancy in 2007 and since then has completed, with the Bank’s financing, over 40 investments with a total value of nearly PLN 25 million – all aimed at increasing the energy efficiency of the Housing Cooperative.

We are the largest housing cooperative in the cities of Świnoujście, Międzyzdroje and Wolin, we manage land with an area of almost 340,000. m2, which corresponds to real estate in the number of 133. We are constantly looking for development opportunities, and Bank Ochrony Środowiska helps us in this by suggesting the most convenient sources of financing – so far we have been able to take advantage of attractive loans with WFOŚiGW subsidies in Szczecin (for interest and capital) and loans with a BGK bonus for thermomodernization projects – the environmental effect associated with these investments is reduced to over 44 TJ/year – a sufficient amount of heat to melt over 130 million kilograms of ice! Further investments are under way.

In 2017, we also completed the implementation of projects financed under the “PolSEFF2” Sustainable Energy Financing Program in Poland, under which we obtained a 15% subsidy after completion of the investment. The condition for obtaining co-financing was to reduce electricity consumption by at least 20% – in our case it was on average 40% savings! The tasks carried out concerned the replacement of passenger lifts with accessories, electrical installations and lighting. Modern solutions allow to reduce energy consumption also in standby mode, the cranes are equipped with intelligent control systems thanks to which energy consumption and power ordered are adequate to the needs, replacement of old incandescent bulbs with LED lighting also reduces energy needs several times. In total, two investments valued at around PLN 1.44 million gross allowed for the exchange of 12 lifts, with the subsidy from NFOŚiGW in the amount of almost PLN 200,000. zł.

The potential to improve energy efficiency and related emissions in multi-family housing is huge – and cooperation with BOŚ allows us to take advantage of market opportunities and fulfill the most important goal of improving the comfort and quality of life of residents.

Mariusz Łukaszuk, MA
President of the
Management Board,
Director of the Cooperative

Suchy Las Commune

Municipalities play a significant role in the implementation of activities aimed at the protection of the atmosphere. A splendid example is the commune of Suchy Las near Poznań, which has been consistently implementing investment activities for many years, resulting in a reduction in emissions of atmospheric pollutants from existing municipal facilities.

One of the investments carried out in 2017, there was a comprehensive thermo-modernization of the building of the School Complex in Chłudowo. The project received co-financing in the amount of 85% of eligible costs, and bridge financing for the investment was provided by Bank Ochrony Środowiska S.A.

The investment included insulation of the walls and roof of the building, replacement of windows and doors and replacement of cast iron radiators with new steel radiators equipped with thermostatic valves. Previously, the facility was equipped with two modern gas boilers with high efficiency. The project also replaced conventional lighting fittings for energy-efficient LED lighting. A roof solar photovoltaic installation consisting of 100 panels with a total power of 26 kWp was also installed. Thanks to the change of light sources, the demand for electricity for school lighting needs has been reduced by 40%, while at the same time even 65% of electricity for school lighting will be produced in its own solar installation.

The solutions applied have improved the technical condition of the school building and the thermal conditions experienced by users and have increased the level of energy efficiency.

As a result of the investment, we have achieved measurable environmental effects, auditors indicated, among others, for the following energy and environmental effects of our project:

- production of electricity from RES – 25 MWh/year,
- estimated annual reduction in greenhouse gas emissions – 215.12 tons of CO2 equivalent/year
- reduction of annual primary energy consumption – 2,605.59 GJ/year
- the amount of electricity saved – 46.52 MWh/year
- the amount of thermal energy saved – 1,867.62 GJ/year.

Grzegorz Wojtera, MA, Commune Head

Skrwilno Commune

The described investment is an example of an effective increase in the energy efficiency of public buildings – through thermal modernization and renovation of the Skrwilno Commune Office building.

Skrwilno commune has been cooperating with BOŚ S.A. since 2008 – cooperation includes commercial loans granted on the basis of the Public Procurement Law, loans from foreign lines, deposits.

The building of the Commune Office in Skrwilno was established at the turn of the 1950s and 1960s in traditional technology according to the then binding construction standards. It consists of two ground floors with a volume of 5,391 m³. It has its own boiler with a power of 2x150 kW fired with coal.

As part of the thermo-modernization and renovation works, the following were performed:

- insulation of the flat roof of the area 501 m²
- replacement of radiators with new steel, double plates with thermostatic valves
- replacement of steel and copper tubing with appropriate thermal insulation
- installation of 5 solar collectors with an area of 2.51 m² each
- mechanical ventilation in the meeting room of the Commune Council and the server room.

As a result of the investment, there was a significant reduction in the demand for thermal energy supplied from its own coal-fired boiler room, which contributed to reducing the emission of harmful substances into the atmosphere.

Dariusz Kolczyński, M.Sc., Commune Head

Unimor Development S.A.

Thermomodernization also makes sense in commercial buildings. As part of cooperation with Unimor Development SA from Gdańsk, the office building was modernized by replacing the window carpentry, façade and roof renovation, installation of elevators, replacement of internal installations and changing the interior arrangement.

Our building was originally designed as an industrial facility, in 2006-2011 it was adapted for educational purposes. Thanks to cooperation with Bank Ochrony Środowiska in 2015-2016, we have thoroughly reconstructed it and currently it meets the standards required for B+ class office buildings. This modernization has reduced the primary energy demand by 20% below the normative requirements.

Krzysztof Paul, President of the Management Board

D&R Dispersions & Resins Sp. z o.o.

An interesting example of thermomodernization is a warehouse and production building of D & R Dispersions and Resins Sp. z o.o., a producer of chemical raw materials, specializing in the production of alkyd resins used in the production of paints. The company continues the traditions of the "Nobiles" factory founded in Włocławek in 1897.

Our cooperation with BOŚ S.A. lasts from 2013 thanks to the possibility of obtaining preferential loans co-financed by WFOŚiGW in Toruń.

The last of these investments covered the production building from 1970, which did not meet the regulations regarding thermal insulation of building partitions. The task consisted of:

- wall insulation using mineral wool boards in a trapezoidal sheet,
- assembly of aluminum windows.

The investment was completed in February 2018. As a result of its implementation, there was a significant reduction in heat energy demand (reduction of heat losses), which contributed to reducing the emission of harmful substances into the atmosphere at the place of its production.

Earlier, we also carried out a thorough modernization of our warehouse and workshop building from 1969, also including the WFOŚiGW surcharge for the interest rate on the loan. The possibility of obtaining such support definitely makes it easier for entrepreneurs to make decisions on pro-ecological investments.

Jerzy Jarosz, President of the Management Board

BOŚ GROUP ACTIVITY

BOŚ | BROKERAGE HOUSE BOŚ

Brokerage house Bank Ochrony Środowiska SA /DM/ has been operating on the capital market since 1995. It is part of the BOŚ Bank capital group. It is one of the longest operating brokerage houses in Poland and a leading player on the brokerage services market in the country. Is a long-term leader in the futures market, awarded by the President of the Warsaw Stock Exchange for the highest activity on this market.

The office provides clients with a comprehensive product offer. It is the undisputed leader in the use of innovative technologies in customer service. The distinguishing feature of the Bureau's offer against the background of the competition are Internet and mobile transaction platforms and solutions enabling trade automation. DM BOŚ provides access to Polish and foreign exchange markets, forex, investment funds, energy market and pension solutions. It guarantees high quality of service of investment accounts, supports investors with numerous trainings, analyzes, recommendations and analysts' comments.

The Office closely cooperates with Bank Ochrony Środowiska in the area of individual and institutional clients, offering, among others, Bossafund investment funds sales platform, stock exchange loans for active investors, analytical support or comprehensive issuer service.

DM BOŚ actively engages in pro-ecological activities of the BOŚ SA Capital Group. among others by including in the offer brokerage services intermediation in trading in property rights resulting from the so-called "Colored certificates". In this respect, DM BOŚ's offer is addressed primarily to producers of electricity from renewable sources (wind farms, small hydropower plants, photovoltaic plants, etc.) and cogeneration

generators (high efficiency cogeneration plants, producing electricity in combination with heat), giving these entities the possibility of selling property rights received as a confirmation of electricity generation in a renewable energy source or in cogeneration.

In addition to operating in the business area, the office actively participates in and supports environmental initiatives. Bearing in mind the care and care for the environment, office employees are involved in CSR projects in the area of ecology.

DM BOŚ received many prestigious industry awards for its activity on the capital market and has been appreciated by investors for years. Many times recognized as the Best Brokerage House in the National Investor's Research organized annually by the Association of Individual Investors. From the beginning of the ranking, he is always on the podium among the best.

In 2018 alone, at the conference of the FxCuffs Conference – the largest meeting in Central and Eastern Europe of the investment market sector Dom Maklerski BOŚ S.A. received prizes in the Best Polish Brokerage House category 2018, Best Polish Forex Broker 2018, Best Polish Broker CFD 2018, thanks to the numerous votes of Polish individual investors who gave them in a wide vote at the turn of 2017/2018. In the same year, the Polish Power Exchange honored the office with the Platinum Megawat statuette for the largest broker activity on the gas markets, and the Warsaw Stock Exchange awarded DM BOŚ for activity on the futures market and the main share market of the WSE.



BOŚ Ekosystem is a company of the BOŚ SA Group, specialized in the provision of leasing services. The spectrum of the company's offer is wide and includes various forms of financing from structured finance leasing, through operational standardization, ending with a leasing loan popular in agricultural activity. The company addresses its services to large companies as well as to the SME and JST

sector. In addition to the leasing of typical items such as vehicles, machinery and equipment and real estate, the company implements the Bank's mission related to the financing of projects supporting broadly understood environmental protection. The company has already completed projects in the field of electromobility and renewable energy in its leasing portfolio.

BOŚ | EKOPROFIT

BOŚ Eko Profit S.A. is a company that complements the BOŚ Group's offer in the area of organizing financing of investment projects. It engages its own resources and supports clients in obtaining debt financing, both commercial and preferential, in particular arranges financing for investment projects with the participation of NFEPWM funds and EU de-

velopment programs. In 2017, a significant part of the company's activity were projects in the field of technical and financial consulting, including for the benefit of BOŚ S.A. clients. In 2017, BOŚ Eko Profit S.A. also held control over the wind farm (6 MW) in the Pełczyce commune through a subsidiary company MS Wind Sp. z o.o.

ACTIVITIES OF BOŚ FOUNDATION



The BOŚ Foundation since 2009 runs nationwide pro-ecological projects

and pro-health. Over 3 million people – students, teachers and parents – have taken part in all previous activities. The Foundation implements the principles of sustainable development so that raising the standard of living does not take place at the expense of the natural environment.

The Foundation is a non-governmental organization funded by Bank Ochrony Środowiska and Dom Maklerski BOŚ SA. It implements proprietary programs and projects, initiating cooperation with other non-governmental organizations, local governments and institutions. He is involved in the development and implementation of the social responsibility strategy of Bank Ochrony Środowiska S.A. It develops the volunteering of BOŚ Group employees, involving them in the activities undertaken or encouraging them through micro-motivations to support local social initiatives.

The Bank Ochrony Środowiska Foundation participates in public events, realizing

in this way, the task of educating the general public in the field of environmental protection and a healthy lifestyle. Examples of festivities and picnics in which the

Foundation took part were "Winter in the City", "Earth Day", "Safe return to school", "Food a gift for life and health – in the light of threats from GMOs". The Foundation is present on the internet and social media. The most important portal under the wings of the BOŚ Foundation is www.aktyniepозdrowie.pl. It serves as a constantly updated knowledge base about healthy lifestyle, proper nutrition and environmental protection. In 2017, the portal had over 130,000 users. There is also a fanpage "Actively for Health" on Facebook, where information about current events on the BOŚ Foundation's activities is published. At the end of October 2017, the fanpage liked 4214 users.

The second profile of the BOŚ Foundation on facebook is the fanpage "BOŚ young" – addressed to the young generation. It contains information about ecology and healthy eating, videos with healthy recipes and other curiosities that are to draw the attention of young people to health and environmental issues.

The Foundation also runs the website PlanujeGotuje.pl containing a database of recipes that were created during the implementation of many projects of the Foundation. The site contains nearly a thousand recipes that we can filter both for meals (breakfast, lunch, dinner, afternoon tea, dinner), as well as your favorite ingredients (eg, groats, grains, fish, vegetables, fruits, poultry).

Ecological education

#Dirty here

The project is a continuation of the nationwide civic campaign started in 2015 aimed at the elimination of "wild dumps". The Foundation encourages citizens to identify, report via a dedicated website and monitor sites that need to be cleaned. More than one thousand locations have been reported since the project was launched, and in just 2017, over 300 illegal dumps have been cleared! The Foundation remains in constant contact with the municipalities, on whose terrains there are wild dumps reported by the residents.

Bet on the Sun

The project promoting Renewable Energy Sources, especially photovoltaics, has been run by the BOŚ Foundation since September 2015. As part of it, school complexes from students working under the supervision of a supervisor, they prepare energy audits of selected single-family houses and organize conferences promoting RES micro-installations for the local community. In a parallel film competition, the teams record 2-minute reports presenting the benefits of using RES installations.

EKO model

It is a modeling contest involving the execution of the EKO model of an installation for a single- or multi-family home. In 2017, the BOŚ Foundation launched the second edition of the project involving the independent execution of a mock-up or a model of a household sewage treatment plant.

Green bench

It is a nationwide, pro-social grant project addressed to the residents of open settlements (managed by cooperatives, housing communities or self-governments) in cities over 10,000 residents. The project is to enable the transformation of neglected areas on housing estates into green corners, mini-gardens with a bench. This will allow you to revive the space around the blocks, create a space for rest and meetings. The substantive partners of the project are the Chair of Landscape Architecture and the Chair of Landscape Art at SGGW.

Pro-health education

Time for health

"Time for health" is a competition for primary and secondary schools. The main goal of the competition is to reach with knowledge about a healthy lifestyle, proper nutrition and organic farming to a wide audience – not only school students, but also to whole local communities. As part of the tasks, the competition teams also develop a map of ecological farms in their area. Producers of healthy food are invited to the Health Festivals, where they present their products and establish contacts with potential customers.

Traditional orchard

The "Traditional Orchard" project implemented in cooperation with the "Dzieło Nowego Tysiąclecia" Foundation and the Polish Academy of Sciences.

The aim of the project is restitution and promotion of native varieties of fruit plants, now being repulsed by the new generation varieties. We strive to ensure that the tradition of old fruit trees is not lost in Poland. We also want to draw social attention to the need to increase biodiversity, which serves to protect natural ecosystems.

World through the eyes of young people

"The world through the eyes of young people" is a joint initiative of the BOŚ and Poczta Polska SA Foundation. Art competition for the postage stamp project in which young people aged 10-19 participate.

In April 2017, the first of three planned editions of the competition was launched. The motto of the edition was "Czas na zdrowie", meaning the promotion of a healthy lifestyle. Stamps, in addition to use and collector value, are to constitute an element of healthy education, as part of the mission of the BOŚ and Poczta Polska Foundation. In October 2017, Poczta Polska issued 3 stamps with the best 3 works of pupils in 100,000 copies.

I eat healthy, I know more

"I eat healthy, I know more" is a nationwide pro-health education project for the first and third forms of primary schools. The BOŚ Foundation has been running it since 2010 and from the very beginning its implementation is accompanied by care for the health of the young generation.

The project "Zdrowo jem, więcej wiem" lasts for the entire school year and has the character of nationwide inter-school team competition. We set a number of tasks for healthy nutrition and physical activity before the competition teams. Teachers who run contest teams provide access to scenarios of classes and didactic materials as well as reliable scientific knowledge about healthy eating and the role of physical activity, which is given in the form of accessible articles collected on the portal: aktywniepozdrowie.pl.

In the 2016/2017 school year, nearly 500,000 people were covered by pro-health education.

Involvement of employees of the BOŚ group

Employee volunteering

The Bank Ochrony Środowiska Foundation conducts numerous voluntary activities that involve employees in activities for the benefit of civil society and the development of local communities. Every year there are two editions of the program – spring and autumn.

In 2017, over 30 employees of the BOŚ Group participated in the spring session, and the total, estimated number of recipients (beneficiaries) is about 600 people, as well as animals. Currently, the next spring edition is being implemented.

I help all year

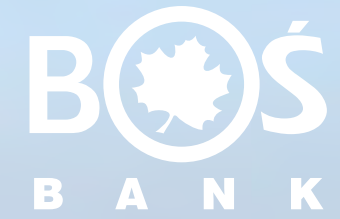
The Bank Ochrony Środowiska Foundation conducts regular fundraising, which is voluntarily provided by BOŚ employees. Funds accumulated in "I help all year" are allocated for two purposes. One of them is the grants for BOŚ employees who find themselves in a difficult random situation. The second goal is scholarships for talented children from low-income families, the action is carried out in cooperation with the Saint Nicholas Foundation. Thanks to the collected funds, children can continue their education, pursue their passions and develop talents.

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SUMMARY

- The problem of air pollution in our country is so complex that despite many actions to protect the atmosphere, it has not been possible to solve this problem for many years. Air quality statistics invariably show its poor quality, but there is no longer any social consent for inaction or partial action.
- In 2015, the average level of carbon dioxide concentration in the atmosphere exceeded the record threshold of 400 ppm. Although natural processes help to absorb some human-caused anthropogenic CO2 emissions, our emission growth at an exponential rate has exceeded the absorption capacity of nature since the middle of the last century.
- It is estimated that every year several million people die prematurely because of diseases related to air pollution. Although skeptics say tobacco smoking – and not smog – harms health, it has been scientifically proven that there is a link between air pollution and adverse health effects.
- In February 2018, the European Court of Justice delivered a judgment that daily and annual air quality standards were continuously exceeded in Poland in the years 2007-2015. It was emphasized that the fight for clean air in our country was ineffective. For the European Commission, the verdict is a tool to impose a financial penalty on Poland.
- Discussing ecology related topics, reduction of CO2 emissions, emission requirements and standards and ambitious EU targets, including the share of renewable energy sources, arouses extreme emotions in our country (and not only). In the public discussion, pessimistic information comes to the fore, but we must be aware of many positive achievements of our country in various areas affecting the quality of air.
- In January 2017, the Economic Committee of the Council of Ministers presented a package of 14 recommendations for actions necessary to take due to the high concentration of air pollutants in a large area of the country. Fighting with smog is a task that can take up to 10 years. During 2017, selected measures have already been implemented.
- Bank for Environmental Protection (pol. – Bank Ochrony Środowiska, here and after – BOS S.A.), existing since 1991, focuses its activities on the domestic market, implementing the principles of sustainable development, financing projects implemented with respect for the environment, including projects for the protection of the atmosphere. During 27 years of operation, BOS granted PLN 19.35 billion of pro-ecological loans, and the value of investments carried out with the use of these loans exceeded PLN 50.25 billion.
- So far, investments in the field of atmosphere protection of a total value of over PLN 37 billion were carried out with the financial support of BOS S.A. It would not be possible without cooperation with the most important Bank's Shareholders – National and voivodship funds for environmental protection and water management. Among the products of the Bank for Environmental Protection there are always attractive loans offered for pro-ecological investments. Also, 2017 was characterized by a large range of pro-ecological products, dedicated, among others, to financing projects in the field of air protection. The Bank offers products for individual clients, communities and housing cooperatives, local governments and entrepreneurs.
- Loans granted in cooperation with the Provincial Funds for Environmental Protection and Water Management are special items in the offer of preferential pro-ecological loans, just as the second edition of the Prosumer Eco-credit and the Loan for thermo-modernization and renovation projects. All of them are part of the activities aimed at eliminating air pollutants (anti-smog activities) and are characterized by preference in financial construction.
- The offer of BOS S.A. also includes pro-ecological products dedicated to entrepreneurs and local governments. These include loans granted on the basis of a contract with the European Investment Bank in the form of a line addressed to micro, small and medium enterprises and the public finance sector. Under this line, the so-called Climate Change Action component (included in the Juncker Plan) covering activities to reduce greenhouse gas emissions to the atmosphere, including investments in renewable energy and energy efficiency.
- In 2017, the Bank concluded 2078 new pro-ecological transactions in the total amount of PLN 736.9 million. Pro-ecological transactions were targeted mainly at entrepreneurs – PLN 637.9 million, about 87% of the loan amount. On the other hand, pro-ecological transactions for individual clients constitute 88% of the number of transactions.
- In 2017, the Bank recorded an increase in the sales of working capital loans for companies operating in the area of environmental protection. Ecological revolving loans, overdrafts, purchase of receivables and eco-factoring accounted for 52% of the amount of pro-ecological transactions concluded.
- Among investments co-financed by BOS S.A., 1,740 environmental projects of a total estimate value of PLN 352.6 million were completed and put into operation in 2017. Share of BOS S.A. loans in the costs of completed investments amounted to 57.4% on average. The largest group of completed investment projects were tasks in the field of atmosphere protection (78% of the value of tasks), including mainly sustainable construction and energy efficiency, which together accounted for 60% of the investment's value.
- The pro-environmental investments realized with the co-financing of BOS S.A. and our satisfied customers are the best proof of realization of ecology in business. In the Report, we present examples of over a dozen recently completed investments that have significantly contributed to reducing the negative impact of human activity on air quality.
- The idea of sustainable development is guided by the entire BOS Capital Group. BOS Brokerage House actively engages in the pro-ecological activities of the Group, among others by including brokerage services intermediation in trading in property rights resulting from the so-called "colored certificates". BOS Ekosystem is a company specialized in the provision of leasing services. The company has already completed projects in the field of electromobility and renewable energy in its leasing portfolio. BOS Eko Profit S.A. is a company that complements the BOS Group's offer in the area of organizing financing of investment projects.
- The pillar of the BOS corporate social responsibility activity is the BOS Foundation, which runs nationwide pro-ecological and pro-health projects since its establishment in 2009. Over 3 million people – students, teachers and parents – have already participated in all existing Foundation's programs.



Out of respect for the nature the report has been printed on ecological paper.

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