

Subject: Finance, Policy and
planning on the basis of
a low-carbon economy
and renewable energy sources

The plan of
Low Carbon Economy
of Municipality Rabka-Zdroj.



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Rabka-Zdroj for more than a hundred years is a spa town famous for its large resources of medicinal mineral waters.

- **Disadvantage:** geographical location of the village makes it difficult ventilation of the city, in connection with the heating season, the city is struggling with the problem of emerging smog.

To improve air quality developed :

The plan of Low Carbon Economy(PGN)

This document sets out courses of action Rabka - Zdrój in terms of:

- ***the elimination of low emissions,***
- ***increasing the share of energy from renewable sources,***
- ***reduction in final energy consumption,***
- ***reductions in greenhouse gas emissions,***
- ***increase in energy efficiency.***

The problem of air pollution occurs in most municipalities of Malopolska

- unfavorable structure of heating buildings based on solid fuel,
- burning in devices with low technical efficiency.

The time horizon for

The Plan of Low-Carbon Economy

determined for a year

2023,

which corresponds to the horizon indicated in

Air Protection Programme

for the Malopolska Region – **Malopolska
Region 2023 in Healthy Atmosphere.**

Currently, in the Municipality of Rabka-Zdroj is unfavorable structure of the supply of buildings with heat,

It is estimated that about **70%** of buildings heated with boilers for charging coal and wood,

Do not operate collective systems of a heat supply.

Under the **Plan of Low Carbon Economy** it is promoted the exchange of heat sources and hot water in the first place on :

- devices powered with gas,
- renewable energy sources including the heat pump,
- solar devices,
- photovoltaic devices,
- biomass boilers.

Another element that requires intervention is improving the energy efficiency of buildings

Currently, the energy state of the buildings in the Municipality of Rabka-Zdroj is relatively low.

An important issue is also introduction of an appropriate policy on local transport,

Desirable solutions :

- ❑ increase the share of environmentally friendly means of transport, e.g. bikes
- ❑ solutions for public transport from the viewpoint of spa and tourist,
- ❑ the need for proper communication with residents and reaching to them with information both about the existing problems and the impact of pollution on the health of residents and tourists

At the level of The Plan of Low Carbon Economy it is defined four strategic objectives, the implementation of which is to achieve throughout the whole municipality - to 2023 - air quality standards in line with the requirements of national and EU environmental legislation, and ultimately in line with the recommendations of the World Health Organization.

The objectives to help achieve the objectives were defined in the following way:

1. Elimination of low emissions from the municipal sector, residential and economic development with increasing the share of renewable energy in the supply structure of buildings with heat and hot water;
2. Systematic improvement of energy efficiency in the communal sector and outside the communal;
3. Significant reduction of pollution and nuisances resulting from vehicular traffic within the municipality area;
4. Raising public awareness of the need of high air quality care (education, information and integration of activities).

Each of the objectives assigned to specific actions, rooted in time and describing what and how should be implemented to systematically makes the closer the completion of a strategic objective, and consequently the main objective.

Low emissions and low-carbon economy

The terms "**low emissions**" and "**low carbon economy**" are often confused and treated the same interpretatively.

For **"low emission"** is considered conventionally emissions into the air emitters (ie. chimneys) to a height of 40 m.

Low emissions have a significant impact on air quality because low-located source of emissions often leads to high concentrations of pollutants in the occupied zone.

Low emission is responsible in Poland for 87% of emissions of carcinogenic benzo(a)pyrene and more than 50% of emissions of particulate matter (PM10).

The term "**low carbon economy**" refers to the economy, which minimizes dependence on fossil fuels and thus reduces the emission of greenhouse gases. This is a term commonly used in Europe, but its direct impact on the conditions of Polish constitute a strong narrowing of the problem.

A low carbon economy means a transition to a completely new reality, especially in Poland, where the use of fossil fuels, which are the main source of greenhouse gas emissions, is very deeply rooted.

To carry out the transformation from high to low carbon economy, the Polish government decided to develop a **National Programme for the Development of Low Carbon Economy** which "programs" the development of the economy.

On 4th of August 2015 in the Ministry of Economy was adopted **National Programme for the Development of Low Carbon Economy**, which was then directed to inter and public consultation.

The essence of the program is to stimulate changes resulting in the transformation of the Polish economy towards a low-carbon, while maintaining the principle of sustainable development.

The specific objectives of the National Programme for the Development of Low-Carbon Economy is :

- ❑ low-carbon production of energy;
- ❑ improving the efficiency and management of raw materials, including waste;
- ❑ the development of sustainable production - covering industry, construction and agriculture;
- ❑ low-carbon transformation in the distribution and mobility;
- ❑ promotion of sustainable consumption patterns.

Implementation of the actions of this Plan
will bring both benefits in the form of:

- ❖ improve air quality,
- ❖ reduce greenhouse gas emissions,
- ❖ saving natural resources.

Appropriate action should be carried out at different levels:

- government administration,
- local government,
- in the private sector.

It is necessary to introduce:

- ✓ appropriate legal and administrative regulations,
- ✓ the provision of adequate financial resources,
- ✓ ensuring human potential for the development of new technologies,
- ✓ rational spatial planning,
- ✓ maintaining adequate infrastructure,
- ✓ educating the society,
- ✓ rationalization of transport tasks.

Thank you for your attention