

UAB "Plieno Fortas"

CO₂ Footprint Report 2025

Accounting for the CO₂ footprint is one of the most important tools for solving the global challenges of climate change today. It makes it possible to accurately estimate how much greenhouse gas (GHG) is emitted by an organization, product or activity, and becomes the basis for both strategic decisions and international commitments.

Relevance on a global scale

The increasing attention to climate change has prompted states and organizations to actively measure and reduce their emissions. CO₂ footprint accounting helps:

- monitor progress towards achieving climate neutrality objectives,
- ensuring transparency and accountability at international level
- developing data-driven climate action measures.



In addition, there is increasing pressure from investors, customers and regulators on companies to disclose their environmental impact. Initiatives such as the Science Based Targets initiative or ESG (Environmental, Social Responsibility and Governance) standards further reinforce the importance of this process.

Benefits for organizations

CO₂ footprint accounting provides organizations with not only environmental, but also economic and strategic benefits:

- 1. More efficient resource management** Companies can identify the biggest sources of emissions and optimize the use of energy, raw materials and logistics, thus reducing costs.
- 2. Competitive advantage** Customers who value sustainability are more likely to choose environmentally friendly companies. Transparent CO₂ accounting strengthens reputation and brand value.
- 3. Regulatory compliance** In many regions, especially in the European Union, increasingly stringent requirements for emissions reporting are coming into force. CO₂ accounting helps to comply with legal norms and avoid sanctions.
- 4. Attracting investment** Sustainable companies are more attractive to investors, especially those who follow ESG criteria.
- 5. Risk Management and Strategic Planning** By understanding the structure of their emissions, organizations can better prepare for the impacts of climate change, energy price fluctuations, or regulatory changes.

Practice of European projects of UAB "Plieno Fortas"

Based on the participation of UAB Plieno Fortas in European projects, CO₂ footprint accounting takes on a much broader significance than just preparing reports or ensuring legal compliance. It becomes an integrated part of business management, innovation and long-term strategy, allowing the company to systematically reduce its environmental impact while increasing operational efficiency.



Digitalization integration

One of the most important practical aspects is the implementation of advanced digital solutions. The company integrates data collection systems that automatically record energy consumption, use of raw materials and other indicators affecting emissions. This allows you to:

- real-time monitoring of CO₂ emissions at different stages of production,
- quickly identify inefficient processes,
- make expeditious, data-driven decisions.

Such solutions reduce the likelihood of human error and ensure higher data accuracy, which is essential for both internal analysis and external accountability.

Life Cycle Assessment (LCA)

In the context of European projects, particular attention is paid to the Life Cycle Assessment (LCA) methodology. It makes it possible to assess the environmental impact of a product throughout its life cycle – from raw material extraction to disposal.

In practice, this means that:

- analyses suppliers' emissions and transport chains,
- the energy intensity of the production process is assessed,
- alternative, less polluting materials or technologies are being sought.

This approach makes it possible to identify not only direct but also indirect sources of emissions (so-called Scope 3), which often account for the largest share of the total CO₂ footprint.

Energy efficiency innovations

Participation in EU-funded projects provides an opportunity to test and deploy advanced technologies in the metalworking sector. In the practice of UAB "Plieno Fortas" this includes:

- the deployment of modern, less energy-consuming installations

- process automation and optimisation,
- waste and heat for secondary processes.

These innovations not only reduce CO₂ emissions, but also directly reduce operating costs, increasing the company's competitiveness.

International cooperation

European projects create conditions for active cooperation with companies, scientific institutions and innovation centres in other countries. Such partnerships allow:

- adopt state-of-the-art technologies and methodologies,
- share good practices in the field of emission reductions
- participating in joint research and pilot projects.

The international context also helps to better understand the requirements of different markets and adapt to global sustainability standards.



Funding opportunities

An important aspect is the financial support of the European Union, which significantly reduces the risk of innovation. By participating in projects, the company can:

- to receive co-financing for technological upgrades,
- invest in research and experimental development,
- implement solutions that would otherwise be too expensive.

This allows for a faster transition to more sustainable business models and the achievement of ambitious CO₂ reduction targets.

Strategic importance for business

In conclusion, the experience of UAB "Plieno Fortas" shows that CO₂ footprint accounting:

- becomes a permanent management tool rather than a one-off report,
- stimulates innovation and technological progress,
- strengthens the company's reputation in the international market,
- increase resilience to regulatory and economic change.

Thus, CO₂ footprint accounting in this case acts as a strategic framework for sustainable growth, allowing to combine environmental objectives with economic benefits and long-term competitiveness.

CO₂ footprint accounting is becoming an integral part of modern business. It not only contributes to the achievement of global climate goals, but also helps organizations operate more efficiently, responsibly and competitively in a rapidly changing economic environment.

The Importance of CO₂ Footprint Accounting for Organizations

CO₂ footprint accounting is an important tool that allows organizations to systematically assess the environmental impact of their operations. It involves identifying, quantifying and analysing all greenhouse gas (GHG) emissions throughout the value chain, from the purchase of raw materials to the delivery of the final product or service to the consumer. With increasing pressure from society, investors and regulators to reduce negative climate impacts, CO₂ footprint accounting is becoming part of strategic governance not only for the environment.

1. Identification of emission sources and prioritisation

CO₂ footprint accounting allows organizations to pinpoint which activities generate the highest emissions. This can be energy consumption, transportation, supply chain, manufacturing processes, or even employee postings. Such analysis helps to avoid fragmented decisions and allows you to focus on the areas with the greatest impact. By setting priorities, organizations can allocate resources more efficiently and achieve the highest emission reduction effect with the lowest costs.

2. Implementation of effective emission reduction measures

Based on the data collected, organizations can develop targeted emission reduction strategies. This can include optimising energy consumption, switching to renewable energy sources (e.g. solar or wind energy), introducing more efficient technologies, optimising transport routes or applying circular economy principles. In addition, CO₂ accounting allows you to model different scenarios and choose the most economically and environmentally beneficial solutions.

3. Compliance with legal and regulatory requirements

Environmental regulation is constantly tightening up at both national and international level. Increasingly, organisations are required to report on their GHG emissions, comply with climate policy guidelines or participate in emissions trading schemes. CO₂ footprint accounting helps ensure that data is accurate, reliable, and meets established standards, thus reducing the likelihood of legal risks and potential fines.

4. Improving reputation and strengthening competitive advantage

Sustainability is becoming an increasingly important factor in the decisions of consumers, partners and investors. Organizations that transparently measure and reduce their carbon footprint demonstrate a responsible attitude towards the environment and society. This builds brand trust, improves image, and can help you stand out in a competitive market. In addition, such organizations are more often attractive to investors who value ESG (environmental, social responsibility and governance) criteria.

5. Reducing costs and increasing operational efficiency

Reducing CO₂ emissions is often directly linked to more efficient use of resources. For example, reducing energy consumption or optimizing logistics not only reduces environmental impact, but also operating costs. In the long run, investments in more efficient technologies or sustainable solutions can pay off and even generate additional economic benefits.

6. Evaluation and accountability of progress

Regular monitoring of the CO₂ footprint allows organizations to assess whether they are moving towards their goals. This allows you to adjust strategies, set new goals, and ensure continuous improvement. In addition, transparent reporting to stakeholders – customers, partners, investors or the public – strengthens the credibility and accountability of the organisation.

Meeting climate targets

Consistent reductions in greenhouse gas emissions are necessary to achieve the global climate target of limiting the temperature increase of 1.5 °C above pre-industrial levels. Achieving this goal requires coordinated international cooperation between states and organizations working towards the implementation of both national and regional climate strategies.

One of the main tools to achieve this goal is carbon dioxide (CO₂) footprint accounting. This methodology allows for the systematic identification of emission sources and the identification of opportunities for their reduction, thus reducing the negative impacts of climate change. Properly implemented CO₂ footprint accounting provides organizations not only with measures to reduce emissions, but also with strategic opportunities to promote sustainable growth, increase operational efficiency and strengthen their reputation.

Therefore, CO₂ footprint accounting can be seen as a necessary instrument both in the context of environmental protection and strategic planning of organizations, contributing to the systematic implementation of global climate goals.

Advantages and benefits

CO₂ footprint accounting benefits both organizations and the environment. It helps to better understand how much and where greenhouse gases are produced and where they come from, and allows action to be taken to reduce them.

First of all, this accounting helps to identify the main sources of pollution. Organisations can clearly see which activities (e.g. energy use, transport or manufacturing) generate the most emissions. This allows you to make targeted decisions and reduce pollution more effectively.

Also, CO₂ footprint accounting helps to comply with legal requirements. As more and more countries and international organizations set rules to mitigate climate change, it is important for organizations to monitor and account for their emissions. Proper accounting helps prevent violations and ensures compliance with standards.

Another important aspect is reputation. Companies and organizations that care about the environment and reduce their carbon footprint are more likely to be seen as responsible and trustworthy. This can help you attract customers, partners, or investors.

In addition, accounting for the CO₂ footprint contributes to the achievement of sustainability goals. Organizations can set clear goals, such as reducing emissions over a period of time, and track their progress. This contributes to the joint effort to combat climate change.

In conclusion, CO₂ footprint accounting is an important tool that helps not only to protect the environment, but also to improve the performance of the organization. It allows for more efficient use of resources, strengthening reputation and ensuring that activities comply with applicable requirements.

Environmental Benefits of Using R-407C

R-407C has long been considered one of the main replacements for the old R-22 refrigerant, which was widely used in air conditioning and refrigeration systems, but had a significant negative effect on the ozone layer. The transition to R-407C has taken an important step – it does not deplete the ozone layer and allows to reduce the direct impact on the environment. In addition, it can be applied to many existing systems without major technical changes, making it a practical and cost-effective solution.

However, although R-407C is more advanced than R-22, it still has a fairly high global warming potential (GWP). This means that when it enters the atmosphere, it contributes to climate change. For this reason, even more sustainable alternatives are being sought all over the world, especially in compliance with international agreements and stricter environmental requirements.

It is important to understand that the transition to new refrigerants takes place gradually. The R-407C still plays an important role as a transitional solution, allowing for the reduction of negative environmental impacts while technology and infrastructure adapt to even more advanced options. However, in the long run, it is likely to be increasingly replaced by refrigerants with lower GWP.

In conclusion, R-407C is a significant step towards more sustainable refrigeration solutions, but it is not the definitive solution. In the future, the

Mark	Quantity	Measure	Total CO2, t
R407C	0,0027	†	1,82

most important goal is to further reduce the impact on the climate, increase energy efficiency and switch to technologies that are more environmentally friendly and meet increasingly stringent international requirements.

Reducing mobile pollution sources and sustainable solutions in the transport sector

The use of mobile sources of pollution such as cars, ships, planes and trains is one of the main challenges in the fight against climate change. The transport sector is a significant source of greenhouse gas emissions, especially CO₂. To reduce these impacts, it is necessary to apply cross-cutting and sustainable solutions.

One of the most important ways is to promote electric and hybrid vehicles. Electric cars and hybrid cars consume less fossil fuels and emit significantly fewer pollutants, so their development can significantly reduce the environmental damage caused by the transport sector.

Equally important is the use of green energy and alternative fuels. Electricity produced from renewable sources such as solar or wind makes it possible to further reduce transport pollution. Alternative fuels, such as biodiesel or hydrogen, which are less harmful to the environment, are also increasingly used.

The development of public transport also plays an important role. Modern, convenient and electrified public transport reduces the use of individual cars, transport flows and air pollution in

Mark	Quantity	Measure	Total CO2, t
Petrol	16,29	†	35,68
Diesel	21,58	†	54,17

cities. In addition, increasingly stringent pollution standards and legal regulation encourage vehicle manufacturers to develop more efficient and environmentally friendly technologies.

Taking into account these challenges and opportunities, UAB "Plieno fortas" consistently seeks to reduce the impact of its activities on the environment and contribute to the reduction of climate change. One of the company's strategic directions is sustainable mobility and the promotion of environmentally friendly transport solutions.

By participating in the project No. 03-002-J-0001-J13 "Installation of private electric vehicle charging points for legal entities in workplaces", the company actively contributes to the green transformation in Lithuania, while improving the conditions of employees and partners.

During the project, it is planned to install 2 electric vehicle charging stations with 4 accesses. The total value of the project is EUR 9 341.04, of which EUR 4 670.52 is financed by the European Union's Recovery and Resilience Facility NextGenerationEU. The implementation of the project activities started on 5 June 2025 and is scheduled to end on 31 January 2026.

This project is an important step towards reducing pollution in the transport sector, promoting the use of electric cars and building a more sustainable, environmentally friendly future.



Fossil fuels and high CO₂ emissions

Electricity generation using fossil fuels – coal, oil and natural gas – remains one of the most important drivers of global greenhouse gas increases. These energy sources have been formed over millions of years, but their intensive use has fundamentally altered the composition of the atmosphere in a relatively short period of time. The burning of fossil fuels releases carbon dioxide (CO₂) into the atmosphere, which is the main cause of climate change because it traps heat in the Earth's atmosphere.

It is important to emphasize that the company in question **does not use coal as an energy source at all in its activities**. This is a significant step in reducing air pollution and CO₂ emissions, as it is coal that is one of the most polluting types of fossil fuels.

In addition to CO₂, the burning of fossil fuels also emits other harmful substances such as sulphur dioxide (SO₂), nitrogen oxides (NO_x) and particulate matter. These substances not only contribute to climate change, but also cause air pollution, acid rain and various health problems, including respiratory diseases.

Carbon. Coal is one of the oldest and most widely used energy sources in the world, but also one of the most polluting. Electricity generation from coal has the highest CO₂ emissions per unit of energy compared to other fossil fuels. In addition, burning coal releases large amounts of particulate matter, which pollutes the air and can cause smog. Also, the release of sulfur and nitrogen compounds contribute to the formation of acid rain, which damages forests, water bodies and soil.

Oil. Oil is most commonly associated with the transport sector, but it is also used to generate electricity. Oil burning emits large amounts of CO₂ and other pollutants that contribute to air pollution and climate change. In addition, oil extraction and transportation pose additional environmental risks, such as oil spills, which cause long-term damage to marine and terrestrial ecosystems. Since oil is a finite resource, its use is considered unsustainable in the long term.

Natural gas. Natural gas is considered a "cleaner" fossil fuel because it emits less CO₂ when it is burned than when burning coal or oil. However, they still remain a significant source of greenhouse gases. In addition, it is important to mention methane (CH₄) leaks that can occur during gas extraction and transportation. Methane is an even stronger greenhouse gas than CO₂, so even small amounts of it have a significant impact on the climate. Although natural gas is often used as a transitional energy source, the long-term aim is to replace it with renewable energy sources.

In conclusion, although fossil fuels have been the main source of energy for a long time, their use has significant negative impacts on the environment and climate. For this reason, there is an increasing focus on the development of renewable energy sources such as solar, wind and hydropower, as well as on improving energy efficiency.

One of the most important modern environmental challenges is the reduction of carbon dioxide (CO₂) emissions. Although natural gas is considered a cleaner source of energy than coal or oil, its extraction and use still contribute to greenhouse gas emissions. It is therefore necessary to apply a range of measures to reduce these environmental impacts.

Mark	Quantity	Measure	Total CO ₂ , t
Gas	439,463	MWh	74,71

First of all, it is important to switch to cleaner energy sources, such as solar, wind or biomass energy. These renewable resources allow for a significant reduction in CO₂ emissions. Meanwhile, natural gas can be used as a transitional form of energy until there is a complete transition to more sustainable solutions.

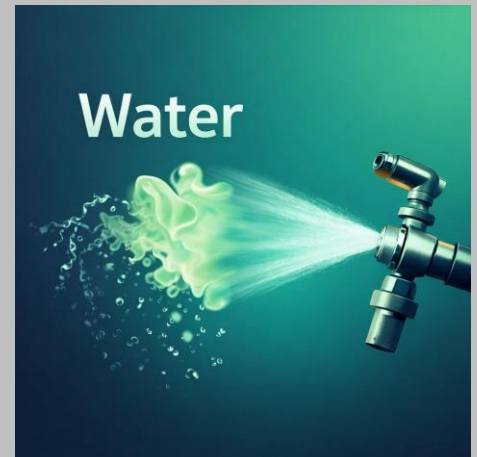
In addition, the implementation of effective technologies is of great importance. Processes that use less energy during drilling, transport and recycling help reduce overall emissions. It is also important to control methane leakage, as methane is an extremely potent greenhouse gas. Its collection and utilization can significantly reduce overall emissions.

Finally, carbon capture and storage technologies are becoming increasingly widely used, allowing CO₂ to be captured and prevented from entering the atmosphere. It is one of the most advanced measures to help reduce the environmental impact of industry.

In conclusion, reducing CO₂ emissions requires complex solutions: from the development of renewable energy sources to the application of advanced technologies. Only by combining these measures can we effectively combat climate change and reduce the negative impact of human activities on the environment.

Reducing CO₂ emissions in water consumption

In today's world, more and more attention is being paid to climate change and ways to mitigate it. One of the areas that also contributes to carbon dioxide (CO₂) emissions is water extraction. Although at first glance it may not seem like a particularly polluting activity, in reality, the extraction, transport and treatment of water require a significant amount of energy, which is often derived from fossil fuels. Therefore, it is important to look for ways to reduce the environmental impact of this process.



One of the most effective solutions is the use of renewable energy sources. Solar and wind energy can replace traditional energy sources, thus reducing CO₂ emissions. This is especially true in regions where these natural resources are abundant. With the use of clean energy, the process of extracting water becomes much more environmentally friendly.

Another important measure is the introduction of more efficient technologies. Modern pumps and motors consume less energy, which also reduces emissions. In addition, optimizing water supply systems can prevent energy waste. Even small improvements in technology can have a significant impact on overall energy consumption.

It is also important to move towards more sustainable energy sources. For example, abandoning diesel generators and using electricity, especially if it comes from renewable sources, can significantly reduce pollution. This not only reduces CO₂ emissions, but also contributes to the creation of a cleaner environment.

Finally, water conservation is of great importance. The less water needs to be extracted, the less energy is consumed. The efficient use of water, its reuse and the reduction of losses allow us to reduce the overall impact on the environment. This shows that responsible consumption is no less important than technological solutions.

In conclusion, the environmental impact of water abstraction can be reduced through a variety of measures. The use of renewable

Mark	Quantity	Measure	Total CO ₂ , t
Water	1730,2	m ³	0,50

energy sources, the improvement of technology, the transition to cleaner energy and the saving of water are key steps towards reducing CO₂ emissions. Only by combining these solutions can a more sustainable future be achieved and contribute to climate change mitigation.

Impact of waste management on CO₂ footprint

Waste management is becoming an increasingly important factor influencing climate change and its carbon footprint today. As consumption and population grow, the amount of waste is constantly increasing, so it is crucial to look for ways to manage it sustainably and responsibly. Properly organised waste management can not only reduce environmental pollution, but also make a significant contribution to reducing greenhouse gases.

One of the most important ways to reduce the CO₂ footprint is to reduce the amount of waste. This can be achieved through recycling and reusing materials, as well as composting bio-waste. Recycling allows you to reduce the need for new raw materials, and thus the energy costs for their production. Meanwhile,

composting helps prevent organic waste from entering landfills, where it decomposes methane, one of the most dangerous greenhouse gases.

Mark	Quantity	Measure	Total CO2, t
Non-recyclable waste	7,211	†	3,37
Recyclable waste	569,1447	†	12,12

Another important aspect is the production of energy from waste. Although waste incineration is often controversial, modern technology makes it possible to transform this process into an efficient source of energy. In this way, it is possible to reduce the amount of waste accumulated in landfills and at the same time produce heat or electricity. Even greater benefits are achieved when this system is combined with renewable energy sources, such as biomass.

Waste sorting is equally important. Properly sorted waste is easier to recycle and less ends up in landfills. This directly reduces methane emissions and contributes to the creation of a cleaner environment. In addition, sorting promotes public awareness and a more responsible attitude towards consumption.

In conclusion, waste management has a direct impact on CO₂ emissions and climate change. The application of sustainable solutions, such as recycling, composting and energy production from waste, allows not only to reduce pollution, but also to make more efficient use of available resources. Therefore, the efforts of every person and society to properly manage waste is an important step towards preserving the environment for future generations.

The CO₂ footprint of UAB "Plieno fortas" in 2025 reaches 958.62 tons.

Reduction of CO₂ footprint at UAB "Plieno Fortas"

In today's world, more and more attention is paid to environmental protection and climate change problems. One of the most important indicators to assess a company's environmental impact is the CO₂ footprint, which shows how much greenhouse gas emissions are emitted during the operation. In order to contribute to the reduction of climate change and implement the principles of sustainability, UAB "Plieno Fortas" actively takes actions to reduce its CO₂ footprint and sets a goal to achieve CO₂ neutrality in the future.

One of the main ways to reduce emissions is through more efficient use of energy. The company is constantly improving its production processes, implementing modern technologies and striving to obtain as much energy as possible from renewable sources, such as solar energy. This allows not only to reduce emissions, but also to use the available resources more rationally.

Equally important is the reduction of waste and its recycling. By applying the principles of circular economy, UAB Plieno Fortas seeks to reduce waste generation as much as possible and ensure that it is properly sorted and recycled. Such solutions help to reduce pollution and create a more sustainable production system.

Transport also has a significant impact on CO₂ emissions, so the company pays attention to this area as well. The aim is to optimize logistics, reduce fuel consumption and gradually switch to more environmentally friendly vehicles, such as electric cars. This allows you to organize your activities more efficiently and at the same time reduce the negative impact on the environment.

The supply chain also plays an important role. The company cooperates with responsible suppliers, chooses more sustainable raw materials and strives to ensure that the entire supply chain complies with

environmental requirements. In this way, the overall environmental impact of the activity is reduced, not only inside the company, but also outside it.

However, technological solutions alone are not enough – employee involvement is also necessary. UAB "Plieno Fortas" encourages its employees to follow sustainable habits, save energy, sort waste and use resources responsibly. Continuous education and awareness-raising help create an environmentally friendly organizational culture.

Finally, the company constantly invests in innovations that allow it to further reduce CO₂ emissions. Production lines are being modernized, advanced technologies are being introduced, and new solutions are being sought to help reconcile efficiency with environmental protection.

In conclusion, it can be said that UAB "Plieno Fortas" consistently strives to reduce its CO₂ footprint and create sustainable activities. Comprehensive measures – from energy saving to employee involvement – allow not only to reduce the impact on the environment, but also to contribute to the creation of a more responsible future.

UAB "Plieno fortas" sustainability strategy: reducing CO₂ footprint and promoting green transformation

UAB "Plieno fortas" consistently strives to ensure that the company's activities are not only efficient and profitable, but also environmentally friendly. A responsible approach to energy consumption, emission reductions and sustainable mobility is becoming an integral part of the company's strategy. The company understands that in the fight against climate change, it is important not only to follow legal requirements, but also to voluntarily implement measures that reduce environmental impact and promote responsible business practices.

One of the first steps in this area is the accurate calculation of the CO₂ footprint. The company evaluates all areas of activity that generate greenhouse gases, including energy consumption in production processes, transportation, waste management, and supply chain impacts. Such accounting makes it possible to identify the largest sources of pollution, create a comprehensive CO₂ footprint profile and plan strategic actions that would provide real benefits to the environment.

Based on the data collected, the company sets clear, measurable and realistic CO₂ reduction targets. These targets can be both percentage – for example, a 10% reduction in emissions over five years – and achieved in phases over a year or a quarter. The goals correspond to the company's capabilities and resources, and their achievement is constantly monitored. This strategy includes optimizing energy consumption, reducing waste, increasing transport efficiency, and working with sustainable suppliers to ensure that the activities of the entire chain are as low as possible.

One of the specific projects is **the improvement of energy efficiency** (project 02-090-K-0031). Its aim is to reduce primary energy consumption and greenhouse gas emissions during production. The company carried out a comprehensive energy consumption audit, during which the main energy losses were identified and solutions to increase efficiency were proposed. Based on the audit recommendations, technological solutions will be deployed that allow optimal energy use, reduce emissions and promote the application of circular economy principles. This initiative not only helps to save resources and reduce operating costs, but also strengthens the company's image of responsible business.

Another important initiative of the company is **sustainable mobility and promotion of the use of electric cars**. Participation in the project 03-002-J-0001-J13, the aim of which is to install private electric vehicle charging points for legal entities in workplaces, allows the company's employees and partners to use

convenient, environmentally friendly transport solutions. This initiative promotes the use of electric vehicles, reduces pollution in the transport sector and directly contributes to the green transformation in Lithuania. In addition, it shows that UAB "Plieno fortas" understands the importance of sustainable mobility and actively implements initiatives that benefit both employees and society.

All these activities – from CO₂ footprint measurement, energy saving, implementation of technological solutions to the installation of electric vehicle charging points – allow UAB Plieno fortas to effectively combine business growth with ecological goals. The company not only reduces its impact on the environment, but also increases operational efficiency, strengthens the image of a responsible, sustainable business and actively contributes to Lithuania's green transformation and climate change reduction. This strategy shows that a modern manufacturing company can successfully combine economic benefits with ecological responsibility, ensuring sustainable development for future generations.

Use of renewable resources and lower CO₂ emissions

Renewable energy sources are becoming increasingly important in modern energy in order to mitigate the effects of climate change and move towards more sustainable energy consumption. Unlike fossil fuels (coal, oil or gas), renewables are inexhaustible or quickly regenerate in nature, so their use makes it possible to reduce greenhouse gas emissions, especially carbon dioxide (CO₂).

The importance of renewable energy sources

Generating electricity from renewable sources such as wind, solar, water, and biomass is one of the most effective ways to reduce environmental pollution. Traditional power plants that burn fossil fuels emit large amounts of CO₂, which contributes to global warming. Meanwhile, renewable sources make it possible to produce energy with almost no direct emissions.

In addition, the use of these resources reduces dependence on imported fuels, increases energy security and promotes economic development by creating new jobs in the "green" energy sector.

Mark	Quantity	Measure	Total CO ₂ , t
Electricity	1291,12	MWh	774,67
Green electricity	87,59	MWh	1,58

Solar energy is another extremely important renewable source. Solar power plants (photovoltaic systems) convert sunlight directly into electricity. This process also does not carry out combustion reactions and therefore does not emit CO₂.

Solar energy is particularly attractive due to its versatility – power plants can be installed both in large solar parks and on the roofs of residential buildings. This allows for the decentralization of energy production and the reduction of electricity transmission losses. In addition, advances in technology and decreasing equipment prices are making solar energy increasingly affordable.

More and more companies are investing in renewable energy sources to reduce their environmental impact. Installing solar power plants on the roofs of company buildings allows to compensate for part of the electricity consumed and reduce emissions.

Companies are also implementing energy efficiency measures, optimising production processes and switching to more sustainable technologies. This not only helps to reduce CO₂ emissions, but also reduces operating costs in the long run.

The use of renewable energy sources is a necessary step in the fight against climate change and the reduction of CO₂ emissions. Wind, solar, hydro and biomass energy make it possible to produce electricity in a cleaner, more sustainable and more efficient way.

The increasing use of these technologies shows that the world is gradually moving towards a low-carbon economy. Therefore, both states, companies and everyone must contribute to this transition by choosing environmentally friendly solutions.

