

Why we are a carbon-neutral company?

Climate change is the greatest challenge facing humanity since the end of the Ice Age and is the defining task of our time. The consequences of global warming are becoming increasingly tangible and the pressure on politicians and companies is growing - not least due to the Fridays for Future movement. There is now a worldwide consensus that we urgently need to counteract man-made climate change.

The success of emission reductions depends to a large extent on the voluntary and consistent action of industry in the industrialized countries. Monroe Fluid Technology has therefore decided to take responsibility for the world we leave to our children and grandchildren.

For this reason with the help of the consultants of Fokus Zukunft GmbH we have recorded all greenhouse gas emissions emitted by our company, and offset them by purchasing a total of 309 climate protection certificates for the years 2021 and 2022. With these certificates, we support 3 renewable energy projects in India, Peru and Mauretania. The projects have been certified according to the Verified Carbon Standard; under the sovereignty of the United Nations through CER; through the Gold Standard.

We are aware of our special responsibility as a company towards future generations and have acted accordingly. The impact of our company on the climate has been determined for us by Fokus Zukunft GmbH & Co. KG: Our CO₂ footprint is 309 of CO₂ equivalents per year. On average, a person in Germany causes about 11.6 tons of CO₂ per year through his or her lifestyle.

Greenhouse gases are evenly distributed in the atmosphere. Therefore it makes sense to avoid emissions where the costs are lowest. In addition, projects in emerging and developing countries help to improve the economic, social and ecological situation and support the realization of the sustainability goals of the United Nations. For emerging and developing countries, emissions trading is a key driver for the transfer of clean technologies and sustainable economic development.

This greenhouse gas balance sheet provides a transparent overview of our company's greenhouse gas emissions. The report thus forms an important keystone in our commitment to climate protection. On the basis of the determined footprint the corresponding quantity of climate certificates has been purchased. For the compensation of our greenhouse gases we have received the award "climate neutral company".



Why does our company care about global climate protection?

The international community has agreed that global warming must be limited to below 2 degrees Celsius - or even better still to 1.5 degrees - to prevent catastrophic consequences. However, the current pledges made by individual states are only sufficient to limit global warming to a maximum of 4 degrees. Closing this ambition gap will require additional and substantial commitment from businesses and citizens. We have recognized that voluntary emission reductions and the compensation of unavoidable emissions are essential to effectively counteract climate change. That is why we have decided to neutralize our CO_2 emissions and thus want to make a contribution to a future worth living. Because we not only want to analyze the problems, but also tackle and solve them.

How is the carbon footprint measured?

The carbon footprint is a measure of the amount of greenhouse gases (measured in CO₂ equivalents) produced directly and indirectly, through an activity of an individual, a company, an organization or a product. It includes the resulting emissions from raw materials, production, transport, trade, use, recycling and disposal. The basic idea behind the carbon footprint is therefore to create a basis on which influences on the climate can be measured, evaluated and compared. In this way, necessary reduction potentials can be identified, measures developed and their effectiveness evaluated.

What does climate neutrality mean?

According to the principle of the "Clean Development Mechanism" described in the Kyoto Protocol, greenhouse gases that are emitted in one place on earth and cannot be avoided should be saved by climate protection projects in another place. To finance these, companies buy certificates for corresponding climate protection projects from the six available project sectors (biomass, cooking stoves, solar energy, forest protection, hydropower and wind energy). Each certificate represents 1 ton of CO₂ saved by the respective project. There are numerous climate protection projects worldwide, most of which support renewable energy projects. The initiators of these projects receive emission credits for their commitment, which can be traded in the form of climate protection certificates. The amount is measured, for example, by comparing it with the emissions that would have resulted from the construction of a coal-fired power plant.

How was the amount of CO₂ emissions of our company calculated?

We commissioned the external sustainability consulting firm Fokus Zukunft to calculate our company's footprint. The emissions balance was calculated using the official Greenhouse Gas Protocol guidelines.

What needs to be reported regarding to the Greenhouse Gas Protocol?

Within the Greenhouse Gas Protocol, emissions are divided into Scopes 1, 2 and 3, each of which covers different types of greenhouse gas emissions. Scope 1 includes direct emissions from own energy plants. Scope 2 includes emissions that are indirectly caused by the provision of energy to the company. Scope 3 emissions are other indirect emissions that occur along the entire value chain.



Which greenhouse gases are included in the calculation?

The calculation of greenhouse gas emissions includes the seven main greenhouse gases defined by the Intergovernmental Panel on Climate Change (IPCC) and the Kyoto Protocol: carbon dioxide (CO_2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), nitrogen trifluoride (NF₃) and sulphur hexafluoride (SF₆).

What does "CO2 equivalents" mean?

Not all of the seven main greenhouse gases are equally effective. Methane, for example, is 21 times more harmful to the climate than CO_2 , nitrous oxide 310 times and sulphur hexafluoride even 14,000 times. In order to compare the emissions, all greenhouse gases are therefore converted to CO_2 . These are then referred to as CO_2 equivalents.

How are the collected consumption data converted into greenhouse gas emissions?

The conversion of the collected consumption data (e.g. electricity consumption or fuel consumption) is done by using emission factors, which indicate the emissions per unit (e.g. per kilowatt hour of electricity or liter of petrol). The emission factors mainly come from DEFRA (Department for Environment, Food and Rural Affairs), but also from the GEMIS database (Global Emissions Model of Integrated Systems, IINAS) as well as from the Ecoinvent database and are regularly updated.

How are emission certificates generated?

The initiators of climate protection projects - mainly renewable energy projects - receive emission credits for their commitment, which can be traded in the form of climate protection certificates. The amount of emission compensation is measured, for example, by comparing it with the emissions that would have resulted from the construction of a coal-fired power plant instead of generating renewable electricity.

What quality criteria do the climate protection projects meet?

The climate protection projects we purchase are accredited, approved and controlled according to one of the three internationally recognized certification standards - VCS (Verified Carbon Standard), UN CER (Certified Emission Reduction of the United Nations) or the Gold Standard developed by WWF. The validation of the project results, in terms of the CO₂ savings achieved, is certified by independent inspection agencies such as the German TÜV.

What happens to the CO₂ certificates after they have been purchased?

The purchased number of CO_2 certificates will be decommissioned. This is important because this decommissioning is a prerequisite for the design and marketing of CO_2 -neutral companies and/or products. Without decommissioning, a CO_2 certificate could possibly continue to be traded on the voluntary market, which would not result in any additional reduction in emissions.

Which project(s) is/are supported by the purchased certificates?





With a total number of 309 certificates we support a forest conservation project in Peru, a Wind Power Project in Mauretania, which have been certified by the UN/CER Standard. You can find the exact project descriptions at: https://www.fokus-zukunft.com/klimaschutzprojekte.html

Why are international projects supported?

Climate change is a global issue, so it does not matter where CO_2 emissions are emitted or saved, in the end the sum of greenhouse gases is decisive. In Germany, the reduction or compensation of CO_2 is very expensive, but in emerging and developing countries the compensation is cheaper. The Kyoto Protocol, which is binding under international law, therefore stipulates that so-called climate protection projects that avoid or store greenhouse gas emissions should take place where they are most economical. Accordingly, there are many projects in newly industrializing and developing countries, as the potential for savings through new technologies is still very high there and they can be used much more cost-effectively. In addition, the conditions for renewable energy plants (solar, wind, hydro and biomass) are often much more advantageous there. Furthermore, the projects in emerging and developing countries contribute to improving the economic, social and ecological situation and support the realisation of the sustainability goals of the United Nations. For emerging and developing countries, emissions trading is a key driver for the transfer of clean technologies and sustainably oriented economic development.

What are the advantages of climate neutrality for our company?

- 1. Contribution to the goals of the government, the European Union and the sustainability goals (SDG) of the United Nations
- 2. Raising awareness among employees, suppliers and customers regarding the handling of finite resources. This changes positively the way energy and other resources are used in the company and in people's everyday lives.
- 3. Entering the growth market of "sustainable companies". The "climate-neutral" status enables us to distinguish ourselves in our market segment.
- 4. This currently enables us to play a pioneering role, positioning our company as progressive, innovative, partner-like and forward-looking.
- 5. Promotes awareness of the energy revolution.
- 6. Due to the status as a climate-neutral company and the range of services it offers, the company becomes a partner for its customers in the above-mentioned topics.