

# STEAG headquarters becomes climate-neutral

Climate plan for Essen headquarters saves 1,550 metric tons of CO<sub>2</sub>

Essen/Würzburg/Stuttgart. The headquarters of the Essen-based energy company STEAG on Rüttenscheider Strasse will gradually become climate-neutral in the coming months. The conversion to green, emission-free heating, which has already taken place, will now be followed by the installation of a photovoltaic system and an energy management system. In implementing this change, STEAG is drawing on in-house expertise from its subsidiaries STEAG Solar Energy Solutions (SENS) and OPTENDA GmbH. Together with the switch to green electricity, the measures achieve an annual saving in CO<sub>2</sub> emissions of around 1,550 metric tons.

STEAG, the long-established Essen-based energy company, is intensifying its efforts to steadily improve the company's own carbon footprint. Since 1990, STEAG has already reduced its own CO<sub>2</sub> emissions in Germany by more than 80 percent. "The implementation of a detailed energy plan for our corporate headquarters in Essen is a further step along this path," says Dr. Andreas Reichel, Chairman of the Management Board of STEAG GmbH, adding that the company is particularly proud that it can draw on in-house expertise to implement the plan.

Starting on June 18, the Würzburg-based PV specialists from STEAG's subsidiary SENS is to install a rooftop solar system on an area of around 260 square meters at Rüttenscheider Strasse 1-3. This has a capacity of around 60 kilowatts (KWp). The more than 150 solar panels required will be lifted onto the roof of the building by a truck-mounted crane.

## The challenge of a historic building

"In terms of area, an even larger and therefore more powerful PV system would have been conceivable," says Michael Kollorz from STEAG's building management. But since the building, which was designed by the well-known architect Egon Eiermann at the end of the 1950s, is a listed building, a larger system was not feasible.

A total of four inverters are installed to ensure that the system achieves an optimum energy yield even in the case of partial shading. The system itself is connected directly to the building's main distribution board in the basement via a 70-meter fireproof cable. "With the PV system alone, we will avoid around 22

metric tons of CO<sub>2</sub> emissions each year in the future,” says Bernd Retzlik, who supervised the implementation of the project at SENS.

### Saving energy with the energy management system

The second important building block in improving the emission footprint of the building is the implementation of an energy management system. Here, too, STEAG can draw on expertise from its own ranks: STEAG’s digital subsidiary OPTENDA from Stuttgart has developed the “Energy Monitor”, a powerful and intuitive tool for energy monitoring and management. This is now also being used at Rüttenscheider Strasse in Essen.

The graphical display of the PV system’s performance data on a monitor in the building’s entrance area is only the most visible part of the new energy management system. “With the Energy Monitor, energy consumption can be easily recorded, analyzed and also optimized based on the results of those analyses,” says Sebastian Braun, Managing Director of OPTENDA. The name of the STEAG subsidiary stands for the task to which the young, digital team from Stuttgart has dedicated itself: “OPTimize ENergy by Data”.

### CO<sub>2</sub> balance sheet of the package of measures

Thanks to the in-house software tool, the carbon footprint of the building is expected to be improved by a further 61 metric tons per year. “The conversion to a climate-neutral heat supply that has already taken place reduces the building’s emissions balance by a further 320 tons per year,” says Michael Kollorz. Finally, the bulk of the CO<sub>2</sub> savings comes from the switch to green electricity: “This measure accounts for at least another 1,150 tons per year.” In total, the savings potential of all the measures therefore amounts to just over 1,550 metric tons.

### STEAG management trainees provided the impetus

The energy plan for STEAG’s headquarters was developed by an interdisciplinary working group of management trainees. Traditionally, these junior managers go through a General Management Program (GMP) at STEAG. In that program, the participants work in teams to develop a project of their own design. “The idea behind the energy plan was to create a practical benefit for the climate and the environment. In addition, the project was also intended to symbolize the fundamental transformation of STEAG, which the company, which for decades stood primarily for energy generation from hard coal, is currently undergoing,” explains Dr. Florian Dauber, one of the members of the project group.

“With the implementation of the energy plan, STEAG is documenting its declared intention to gradually reduce its own emissions further and further,” says Dr. Ralf Schiele, who is responsible on the STEAG Board of Management for the Market and Technology divisions.

### Reference project and demonstration of performance

But even beyond the immediate climate benefit, the project has an important significance for STEAG: “In addition to the immediate effect for the benefit of our climate, the project is also an important technical

reference for the solutions STEAG has to offer in the comprehensive decarbonization of industry and commerce,” says Ralf Schiele.

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## About STEAG

For over 80 years, STEAG has stood for efficient and reliable power generation, both in Germany and abroad. As an experienced partner, we support our customers comprehensively in all phases of power supply. We design, develop, implement, operate and market highly efficient energy solutions – from distributed generation facilities and those based on renewable sources to large central power plants. Together with customized solutions in the field of electricity and heat supply, we also provide a wide range of energy services – increasingly on the basis of renewables. Successfully so: Since 1990, STEAG has permanently reduced its own CO<sub>2</sub> emissions in Germany by more than 80 percent.

## About SENS

STEAG Solar Energy Solutions (SENS) is a service provider based in Würzburg, Germany, with international operations in the renewable energy sector. Its range of services includes the development and construction of turnkey solar farms, the operation and maintenance of photovoltaic plants and the implementation of energy solutions for commerce and industry – such as rooftop PV systems, electric vehicle charging stations and storage systems. SENS has been part of the STEAG Group since July 2019, and employs around 270 people at nine locations in Germany and abroad.

## About OPTENDA

OPTENDA stands for OPTIMIZE ENERGY BY DATA. And exactly that is at the heart of our day-to-day work. We pursue the goal of every enterprise – whether from industry, commerce or the public sector – only consuming as much energy as it actually needs. We want a world without any waste of energy, and are committed to the responsible use of our earth's resources.

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