

FACTSHEET LIXIL GOES ZERO

LIXIL's Corporate Responsibility Strategy outlines **three core pillars** of activity like Global Sanitation & Hygiene, Water Conservation & Environmental Sustainability and Diversity & Inclusion. The LIXIL goes ZERO initiative especially supports the second pillar aiming for Zero Carbon and Circular Living. The priority is to avoid and reduce CO₂ emissions, whereby only those emissions that cannot yet be avoided are to be offset.

Since 2020 all eight LIXIL fittings plants, including the plants in Hemer, Lahr, Porta Westfalica (all Germany), Albergaria (Portugal) and Klaeng (Thailand) along with Jiangmen (China), Danang (Vietnam) and Monterrey (Mexico), where also GROHE products are manufactured, as well as the German logistics centres of the

GROHE brand are CO₂-neutral. In 2021, the GROHE outbound logistics became CO₂-neutral. All fittings plants and German distribution centers switched to green energy. To reduce the carbon footprint year by year, defined KPIs are to follow.

The sanitary brand will offset so far unavoidable CO₂ emissions through three compensation projects: two hydroelectric power stations in India and Vietnam as well as a borehole maintenance project in Malawi. These projects are based on extremely stringent criteria, such as the Gold Standard, developed under the aegis of the WWF.



CLEAN ENERGY THANKS TO HYDROPOWER

Himachal Pradesh, India

The project is located on the Satluj River between Karcham and Wangtoo in the northern Indian state of Himachal Pradesh. As a hydropower plant, the project uses the river's natural flow to generate energy. Importantly, there is no reservoir in which the water is temporarily stored, and so the potential negative environmental impacts of water storage are avoided. In the underground turbine house, four Francis turbines are driven by the power of the river water before the water is returned to the river bed below. All the power generated by the power plant is fed into the North Indian transmission grid and replaces conventionally generated electricity, which mainly comes from coal-fired power plants.

RESTORING BOREHOLES FOR CLEAN WATER SUPPLY

Dowa & Kasungu, Malawi

In the project's districts of Dowa and Kasungu in Malawi, half of the population lives without access to clean drinking water. Part of the problem is that around one third of the existing boreholes can't be used, due to wear and tear. That's why GROHE supports a project that repairs damaged boreholes and improves the living conditions for the people based in the area. Most boreholes are operated by a hand pump. Generally, the pumped water is clean and can be consumed without any additional treatment. This also reduces carbon emissions, since water would otherwise be purified using fuel to boil it. In addition, the project also makes it possible to set up financing mechanisms to ensure the boreholes are maintained in the long-term, securing the water supply.



CLEAN POWER GENERATION ON THE DONG NAI RIVER

Dak Nong province, Vietnam

The project is located in the Dak Nong province, Vietnam. A dam provides a power supply which is independent of the weather and rainy season. This allows for constant as well as reliable power throughout the year and reduces the need for emergency generators, which often run on fossil fuels. In addition, the power supply can be controlled so that during periods of lower demand, water can be held back rather than generating excess power. The clean electricity is fed into the local power grid.

ENERGY INITIATIVES AT THE LIXIL FITTINGS PLANTS

At its international fittings plants, LIXIL applies the latest technologies that increase sustainability.



In 2019, the **material-saving 3D metal-printing** process was launched.



In 2018, LIXIL invested in a state-of-the-art test laboratory in Hemer, Germany. The **laboratory area has been expanded by 590m² to 1,510m²** in order to create the required infrastructure for more efficient development processes and new test methods.



The plant in Klaeng, Thailand, is the most sustainable plant in Southeast Asia **thanks to its DGNB silver certificate:** Solar panels are installed on the building's entire roof, **reducing carbon emissions by almost 2,000 tons per year.**



Since 2015, **block heat and power plants** at the German plants in Hemer and Lahr, allow **savings of 4,750 tonnes of CO₂ per year.**



New Solar parks have been put into service in Klaeng (Thailand), Hemer (Germany) and Albergaria (Portugal). Further **photovoltaic modules will be installed** in Lahr and Hemer.

Find more information about GROHE's sustainability engagement on www.green.grohe.com