An intelligent micro power plant

Self-sustaining power supply for touchless taps

↑ Systematic sustainability: Geberit draws green electricity from the Palü hydroelectric power station on the Bernina Pass in Switzerland (above), a certified "naturemade star" power plant. The generator unit (lower right images) functions as a micro power station, combining intelligent power management, usage, ecology and a practical installation.

The touchless Geberit lavatory taps type 185 and 186 are environmentally friendly products awarded with the WELL label that ensure economical water and power consumption. Previously, the lavatory taps were conventionally fed via power supply system or battery. Starting in 2012, a new generator unit will ensure that the lavatory taps can also be supplied with current in a sustainable way and function self-sufficiently.

One response to climate change and the waste of natural resources are so-called "green buildings" that must meet sustainable criteria such as conserving resources, quality of life as well as acoustic insulation and fire protection. Along with this development, ecological products are increasingly demanded or already required in construction. In the USA, for example, the use of self-contained solutions is already prescribed for new buildings in many projects. With the touchless lavatory taps type 185 and 186, Geberit has already been offering environmentally friendly products that reduce water and energy consumption for several years. In contrast to one-handle mixers and self-closing taps, the lavatory taps with the water-saving label WELL (category A, 6 stars) ensure an efficient consumption due to their control electronics. Water only runs when needed and only as long as actually required.

Green Flagship with sophisticated technology

Until now, Geberit lavatory taps have been supplied via the power supply network or with batteries. This will change starting this spring. Geberit will then be introducing a self-sustaining generator that supplies the lavatory taps with power in a sustainable way using sophisticated technology. Like a small hydroelectric power station, the generator uses the pressure of the tap water to generate the required current and makes the electronic lavatory taps independent of the mains current. The energy produced during operation is stored in a rechargeable battery that supplies the lavatory taps with energy over a long period, eliminating the entire standby consumption of a power supply unit as well. The micro power station is suitable above all for public and semi-public areas where touchless lavatory taps are used for environmental and hygienic reasons, such as airports, stadiums, schools, museums and other highly frequented buildings.

The new product has only benefits for plumbers as well. The generator eliminates the need for the pipelines and power outlets required for a mains version. Planning and installation of the generator is thus very simple. Due to the use of high-performance rechargeable batteries with a service life of at least ten years, regular battery changing is no longer necessary. As a result of the longer maintenance intervals, the maintenance costs can be reduced, and in many cases, service trips and battery waste can also be avoided.

The self-sustaining power supply consists of a compact technology unit, enclosed in a white plastic covering. The product design was developed by the renowned Zurich design office Tribecraft. "The cover has an elegantly restrained design and communicates in a high-quality way what is behind it. The central round element in the middle signals where the turbine is located," is how Daniel Irányi and Tom Stäubli from Tribecraft explain their design. The technology has been optimized to the extent that a very narrow, user-friendly cover could be created and the connections can be easily accessed by a plumber. Furthermore, the product is designed so that all elements can be separated and recycled. The new generator is based on intelligent energy management that meaningfully integrates use, ecology and practical installation in one device.

The self-sustaining power supply will be available on the market in a package with the Geberit lavatory taps type 185 and 186 starting on April 1, 2012 and supplements the current range of mains current and battery versions. Already installed lavatory taps of the type 185/186 can be retrofitted with a corresponding retrofit set without much effort. ←

The self-sustaining power supply of Geberit is primarly suitable for public and semi-public sectors.

Design: Tribecraft, Zurich
Design prize: iF product design award 2012