

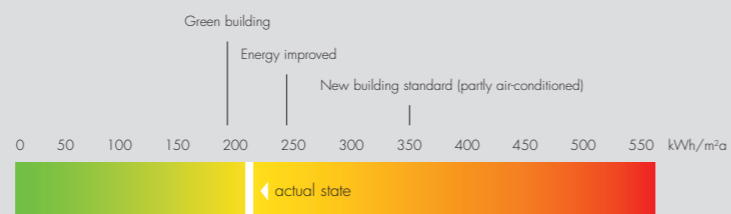


Acting instead of waiting, so that the building doesn't turn into an expensive dinosaur.

Continuous energy management is the key to the future.

Time is pressing. Fossil fuels continue to dominate overall energy consumption. Petroleum is the most important source of energy in the building sector, but this situation cannot continue because reserves are finite. Despite a few deviations from the trend, costs are moving in one direction only over the long term: upwards. So the watchword is: take the right steps today to avoid costs and losses of value later on.

SAUTER's dynamic 'energy pass' shows the current status of the building and is constantly updated.



Dr. Felix Gassmann, CEO,
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The costs of a property are increasingly determined by its operation, whereas investments in the actual construction are becoming less important. As energy prices continue to soar, there is no doubt that achieving maximum energy efficiency has become the key factor – in terms of both costs and CO₂ emissions.

Regulations – and tools to implement them.

Back in 2002, in the wake of the Kyoto Protocol, European studies determined that total energy savings of about 28% were possible in the building sector: this figure would account for 11% of the EU's total energy costs. The Energy Performance of Buildings Directive (EPBD) was issued at that time; it has been binding on all EU member states since the start of 2006 and is also reflected in standard EN 15232.

The EPBD distinguishes the categories of 'new buildings' and 'large existing buildings requiring refurbishment'. It provides methods of calculating energy efficiency for this purpose. Interestingly, the EPBD was not limited to the legislative level, but has also prompted the creation of practical tools to assist with its implementation. These include the European Energy Passport as a means of classifying efficiency, and the requirement for inspections of HVAC systems as well as the requirements for the experts who issue the energy passport or carry out the inspections.

EN 15232 has been in force since 2007 and is the first standard to consider energy efficiency from the standpoint of building automation. It shows how much influence the various control functions, the building automation system and the whole building management have on energy efficiency. This approach forms the basis for the processes to define the minimum requirements which have to be met in the cited areas by buildings of differing complexity with different user profiles.

Continuing need for energy management and consulting.

The standards mentioned above exert a major influence on the planning phase, although they have less effect on active energy management. Building operators still have a great need of strategies for the practical implementation of energy management that can be amortised over the short to medium term. This calls not only for theoretical methods of calculation and proof, but also for building management systems with continuous intelligent energy measurement and consolidated energy reporting.

Specialised energy consulting on the different systems in a building will become increasingly important as time goes on, because each of the systems has its own specific potential for saving energy according to its technology. Sauter can already offer specialised energy consulting, because all the energy-related data for a building are available on SAUTER systems. This is a priceless asset for active energy management.

By providing energy consulting and energy management, SAUTER shoulders its dual responsibility: to the customers and to the environment.

Three cornerstones of energy management

There are three decisive factors as regards increasing energy efficiency on a sustainable basis:

Centralisation of all energy-relevant information

This requires networking of all energy consumers and sources. This is the only way to ensure optimal co-ordination of consumers and sources. By centralising all measured values on one computer, an operator can see his entire energy consumption at a glance, enabling him to derive the actions to be taken.

Planned energy reduction

An energy manager sets goals for reductions over a period of five years, for example – perhaps an ambitious 20% per year, depending on the nature and condition of the property. The necessary measures and the investment requirements are derived from these goals.

Continuous optimisation of systems, and their utilisation

This is not normally achieved at a stroke, but is divided into stages. It also includes conversion to CO₂-free sources of energy. However, helping users to adopt energy-conscious behaviour is just as important as the technical measures: this prevents the energy-saving effect achieved by cutting-edge technology from being negated by irresponsible behaviour.