

Energy controlling from Siemens makes real estate greener

In July 2012, Credit Suisse Real Estate Asset Management, one of Europe's largest private builders and building owners, joined forces with real estate management company Wincasa and Siemens to launch an energy controlling program. This project involves examining and optimizing the energy efficiency of approximately one thousand properties within the bank's real estate portfolio in order to systematically reduce their total energy consumption and CO₂ emissions without any additional construction work. This five-year program is expected to cut the CO₂ emissions of all buildings by at least 10 percent annually, equivalent to approximately 13,000 metric tons.

Action urgently needed in the real estate business

In the real estate sector action is urgently needed to promote sustainable urban development. Buildings consume approximately 40 percent of the world's primary energy and produce one third of human-induced CO₂ emissions through heating, ventilation, cooling, lighting and domestic hot water. Energy costs account for a significant portion of a building's operating expenses. Energy consumption – and thus emissions and costs – can be lowered with relatively little effort simply by optimizing existing building systems and installations.

“Credit Suisse Real Estate Asset Management manages 1,200 properties around the world and produces one percent of the CO₂ emitted by buildings in Switzerland,” says Roger Baumann, Global Head of Product Development and Sustainability. “We therefore bear a great deal of responsibility toward society and the environment. Today, no professional real estate investment company can afford to do without a sustainable real estate strategy.”

In 2002, Credit Suisse Real Estate Asset Management, a leading provider of real estate products, invested in what at the time was the largest MINERGIE office building in Switzerland. In 2006, this was followed by the company's first MINERGIE-P residential apartment building. Three years later, the company established Switzerland's first sustainable real estate fund. In 2010, it was decided to follow the "greenproperty" seal of quality for sustainable real estate for all new construction in Switzerland. Wherever it makes economic sense, the company also seeks international certification, including LEED, BREEAM and DGNB. The operational optimization efforts launched in Switzerland in 2012 through continuous energy controlling broaden the company's commitment to greater sustainability in real estate to include existing properties.

A transparent energy balance is key

In the past, Credit Suisse Real Estate Asset Management had limited opportunities for systematically examining ways to save and optimize energy use in its existing properties. A successful energy management system, i.e. one that conserves resources, must be based on meaningful information and transparency in energy balance sheets. In other words, it must be possible to verify when, why and where energy is needed and consumed. Energy data must be monitored, collected and evaluated continuously to facilitate targeted optimization measures.

According to Hansjörg Sidler, Sales Director Energy Efficiency of the Siemens Building Technologies Division, this program aimed at operational optimization and energy controlling in real estate addresses this very problem. "Thanks to energy controlling, we can measure and sustainably ensure the success of energy savings efforts. We examine all data needed to assess and increase efficiency, subject it to a thorough analysis and compare it with industry standards. Benchmarking across all buildings allows the customer to purposefully use their funds to improve sustainability." In implementing the program, engineers and technicians at Siemens Building Technologies draw on their wealth of experience with specific operational optimization measures that they have collected over the course of many years, including their work on the Energy Efficiency Program of the own worldwide facilities.

Real-time energy monitoring

The approximately 60 buildings managed by Credit Suisse Real Estate Asset Management that consume the most energy and account for over 40 percent of the portfolio's total consumption were connected to the Siemens Advantage Service Center (ASC) over a remote control link. The ASC monitors and controls the connected properties efficiently and cost-effectively via remote access. It also consolidates all important information and operating functions, such as controlling and regulating the heating, ventilation and air conditioning systems as well as consumption monitoring data relating to oil, gas, electricity and water use.

The ASC maintains a detailed overview of the buildings' energy consumption in real-time. Siemens experts can take corrective action when values deviate from the predefined setpoints. Any optimization work that cannot be done remotely is carried out on site by service technicians or employees of the building operator. In any case, a Siemens technician visits each building once a year to perform optimization work.

Another 900 buildings within the real estate portfolio are checked annually based on their energy consumption data. For this purpose, energy engineers analyze the properties, optimize the systems and fine-tune their operation. If it turns out, for example, that the earlier ventilation operating times do not meet the daily needs of the building users, or if the rooms are overheated and underused, the engineers can correct this situation and keep the energy consumption in check. More extensive energy savings measures are implemented by the building operator.

Siemens Building Technologies provides energy monitoring and controlling to evaluate properties. The data is centrally captured in the Siemens Service Platform and is made available to the customer in dashboards and statistics. This proven tool provides all functions and energy efficiency data needed for energy management over the Internet. It forms the backbone for all processes and activities during all phases of a building's or a property's life cycle. Building managers can retrieve the latest information on energy consumption values and costs, CO₂ emissions and benchmark figures at the click of a mouse on a clearly organized dashboard.

In addition, benchmarking across all analyzed buildings makes it possible to use funds earmarked for sustainability improvements purposefully and effectively and to operate the buildings sustainably over the long term.

Energy efficiency increases a building's value and improves its image

“Real estate companies want to give their tenants an attractive ‘green’ building because they see this as an opportunity to do their part for sustainability.

Sustainable buildings are more valuable and thus more attractive. This joint energy controlling program enables our customer to meet their ambitious sustainability goals without spending a lot of money,” concludes Hansjörg Sidler of Siemens Building Technologies.

Roger Baumann from Credit Suisse Real Estate Asset Management adds: “Energy efficiency also protects investments in real estate. Not only does it extend the life cycles of technical systems, it also allows you to reinvest the saved energy and operating costs in the buildings. This makes it possible to finance necessary modernization projects that protect your investment.” In the end, this also benefits the building users. After all, it has been demonstrated that employee productivity increases in office buildings which offer a comfortable work environment.

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Press pictures



Caption

The office building „Foyer“ Zug has been awarded the greenproperty, Minergie-ECO and LEED Platinum certificates. With that, it serves as a landmark building for sustainable construction. Copyright: leistungsphotografie.ch



Caption

The state-of-the-art office complex Terre Bonne Business Park in Eysins, Canton Vaud, was built following the Minergie® standard. It is expected to receive a silver certificate under the greenproperty quality seal.

Further information:

Siemens energy efficiency activities – facts and figures

Since 1995, Siemens has improved the energy efficiency of approximately 7,421 buildings around the world, helping customers save approximately €2 billion in energy costs to date. Half of these savings have been achieved through more than 1,581 energy performance contracting projects in over 5,217 buildings. This has eliminated more than 10.5 million metric tons of CO₂ from the environment.

Study by Credit Suisse Real Estate Asset Management on decarbonizing the Swiss real estate sector

Decarbonization can have a significant impact on real estate investments. The goal of this study, published in August 2012, is to identify actions that banks can take to reduce the CO₂ emissions of their real estate holdings. The study assesses the potential for cutting CO₂ emissions based on the specific example of Credit Suisse Real Estate Asset Management. This study is available in German and English here: www.credit-suisse.com/cleantech/de/

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