



Energy efficient monitoring and control solutions

Answers for infrastructure.

SIEMENS

Energy efficient control and operation

Buildings account for over 40% of the world's energy consumption. There is growing pressure to reduce consumption due to legislation, such as the new CRC (Carbon Reduction Commitment) energy efficiency scheme, concerns about energy supply and security, rising energy costs and greater awareness of green issues and the need to reduce energy usage amongst companies and their employees.

Siemens products and solutions make a direct, quantifiable contribution to environmental and climate protection, these account for over £21 billion of our income.

We offer practical solutions to allow building owners to track and display their actual energy usage. Our DESIGO Building Management system can then be used to ensure demand dependant control of all HVAC and lighting systems to ensure energy efficient and productive working environments.

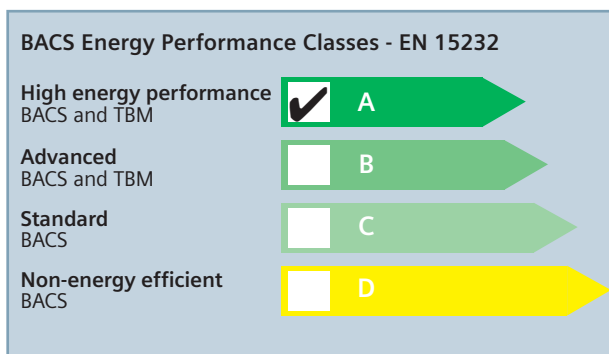
Since making the initial investment can be a barrier for some, we help by offering financial as well as energy saving solutions. This means you can put in place energy efficiency measures without any upfront capital investment. For the initial period, the Financing Payment Plan is structured such that any capital costs are offset against reductions in utility bills, after which you reap the full financial benefit, potentially from as early as receipt of the next bill, making it fully self-financing from the outset.

Proven energy savings

The BS EN15232 standard divides building automation systems in four efficiency classes from A to D. The Desigo Building Energy Management Systems has tested functions that conform to the highest standards.

Energy efficiency class A, for example, states that energy savings in office spaces can reach up to 30% in relation to the standard class C.

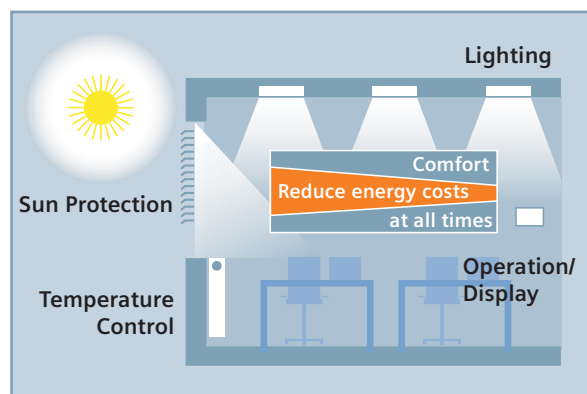
Our energy calculation tool can be used to verify the potential savings that can be achieved.



Integrated building energy management control

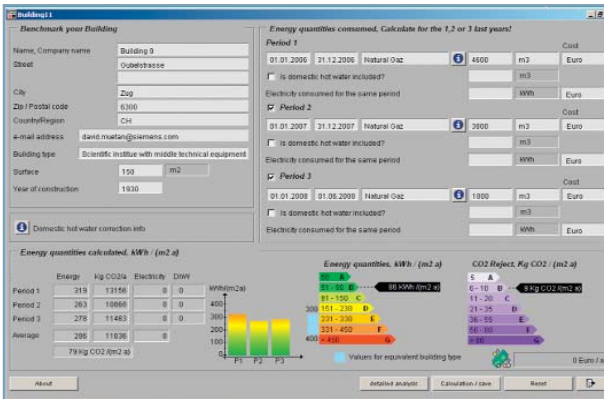
Our product portfolio allows integration and control of the heating, ventilation, and air conditioning as well as low voltage, power distribution, lighting systems and more. This integrated approach to control allows the energy saving to be maximised while still providing total comfort to the building occupants. We utilise standard protocols including BACnet and KNX to ensure easy integration of the different disciplines within the buildings.

This integrated approach centred around demand based control ensures that energy savings are achieved throughout the lifecycle of the building.

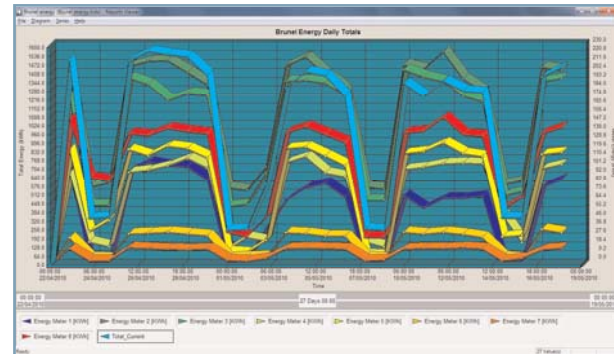


Monitoring and management solutions to increase energy savings

Having good quality data about actual energy consumption is key to achieving an energy efficient building. We have a range of offerings to allow building owners/occupiers to monitor and display their actual energy usage, and compare this to required values. This demonstrates their environmental commitment and motivates their occupants to act in an energy saving manner.



two benefits, it showcases your environmental commitment and it motivates energy saving activities and behaviours.



Energy efficient display

Allows easy calculation and display of total building energy consumption. This can then be used to classify the building according to EN15217 on the basis of the collected data.

Designo Energy Reports

Designo Energy Reports presents energy related data from a Designo Building Energy Management system in a number of useful formats including graphs, tables and lists. This data can be collected from field devices such as heat and energy meters.



The data can be displayed in a format that is easy for the user to understand and can help to analyse usage and plan energy improvement measures.

Green Building Monitor

The Green Building Monitor takes advantage of the public appetite for constant news updates. This software application allows the user to display current and credible statistics about your building's actual energy usage, CO₂ reductions and water conservation making your energy profile transparent.

The program provides report templates to efficiently generate the following energy reports.

The actual values can be displayed along side target values. This is ideal to display via a flat-screen and in a prominent public area such as a reception or lobby area. This has

- Energy consumption report
- Energy costs report
- Weighted consumption report
- Adjusted heating degree days report
- Energy efficiency report
- CO₂ emission report.

Reports can be automatically generated if required to ensure that users have the up to date information when they need, for example on the first day of a month.

Answers for infrastructure.

Megatrends driving the future

The megatrends – demographic change, urbanisation, climate change, and globalisation – are shaping the world today. These have an unprecedented impact on our lives and on vital sectors of our economy.

Innovative technologies to answer the associated toughest questions

Throughout a 160 year history of proven research and engineering talent, with more than 50,000 active patents, Siemens has continuously provided its customers with innovations in the areas of healthcare, energy, industry, and infrastructure – globally and locally.

Increase productivity and efficiency through complete building life cycle management

Building Technologies offers intelligent integrated solutions for industry, commercial and residential buildings, and public infrastructure. Over the entire facilities life cycle, our comprehensive and environmentally conscious portfolio of products, systems, solutions, and services for low voltage power distribution and electrical installation technology, building automation, fire safety and security ensures:

- optimum comfort and highest energy efficiency in buildings,
- safety and security for people, processes and assets,
- increased business productivity.



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The information in this document contains general descriptions of technical options available, which do not always have to be present in individual cases. The required features should therefore be specified in each individual case at the time of closing the contract.

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