“Our knowledge and our solutions are helping to create a better world. We have a responsibility to the wider community and we are committed to environmental protection.

In our global operations, featuring a great diversity of processes, products and services, our company is concerned with sustaining the natural resources essential to life. We view the economy, environmental protection and social responsibility as three key factors carrying equal weight in a liberal world market. We support the dissemination of knowledge needed for sustainable development through the transfer of knowledge in the fields of management and technology, wherever we operate as a company.

For us, sustainable development in environmental protection means careful use of natural resources, which is why we assess possible environmental impacts in the early stages of product and process development. It is our aim to avoid pollution altogether or to reduce it to a minimum, above and beyond statutory requirements.”

Environmental mission statement

Design for environment

Ecological design is nothing new at Siemens. The company published its in-house standard SN 36350 on environmentally compatible product design in 1993, and since then this standard has been an integral part of our product planning and development process. Among other things, it calls for use of separate and distinct material fractions, ease of disassembly, a reduction in the number of components per product, durability, low energy requirements during manufacture and day-to-day use, and the avoidance of hazardous substances. It also lists minimum requirements regarding the parameters to be described in environmental declarations.

This standard and our system of environmental management enable us to take a holistic and all-encompassing approach to environmental protection spanning the entire product life cycle from product planning to end-of-life recycling and disposal. We also work with product-specific guidelines that refine the requirements outlined in SN 36350.
Lower energy consumption

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**Environmental mission statement**

- Lower energy consumption
- Lower greenhouse gas emissions
- Higher energy efficiency

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**The challenge**

The worldwide rise in energy prices and ever stricter regulations on the emission of greenhouse gases are compelling industrial companies to use energy more efficiently. However, most companies are not aware of the possibilities available for making savings.

**The solution**

With SIMAIN Energy Optimization, Siemens helps companies find and realize their potential savings. The process involves considering a company’s overall energy balance in four stages. All forms of energy are taken into account, including electrical, mechanical and thermal, as well as all the primary sources of energy used, such as oil, gas and water.

In the first phase, the Energy Health Check, all operational processes and organizational structures relevant to energy management are systematically examined on the basis of a computer-aided interview. The company is evaluated by comparing it by industry, country and sector with over 2,000 previously examined companies to reveal potential savings.

Phase 2 includes a technical analysis on site. The general energy efficiency status of the plant is evaluated to derive measures to improve its energy efficiency. All forms of energy, energy supply and distribution, energy data capture and any energy losses are taken into account. In the third, concept phase, the previously identified measures are prioritized according to the technical and commercial expense involved. The actual possibilities for making savings are determined on the basis of measurements and calculations. Binding offers are obtained to establish the investment requirement. And an implementation concept is produced for the selected measures.

In the last phase, the measures selected to improve energy efficiency are implemented. The project management ensures speedy handling, selected partners implement the measures, and the possibilities of obtaining grants are investigated.
Plants before energy optimization are used as references for evaluating the measures. The functional unit is the total annual energy cost assessed by a consultant at a location.


Typical SIMAIN optimization project (EOS)

The assessment is based on the fact that an average industrial location consumes energy in a ratio of 40% electrical energy to 60% primary energy from fossil fuels, and that energy costs of around €500,000 were incurred annually prior to implementation of the energy optimization measures.

Eco-Care Matrix (ECM)

Environmental compatibility
Compared to projects which have not been energy-optimized, SIMAIN Energy Optimization improves environmental compatibility by an average of 10%.

Efficiency
The energy optimization process generates costs for consulting services and implementation of the project which are amortized within two years through energy savings as a result of reduced energy consumption. Beginning in the third year, cost reductions of 12% from energy savings can be expected.
For further information please contact:

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