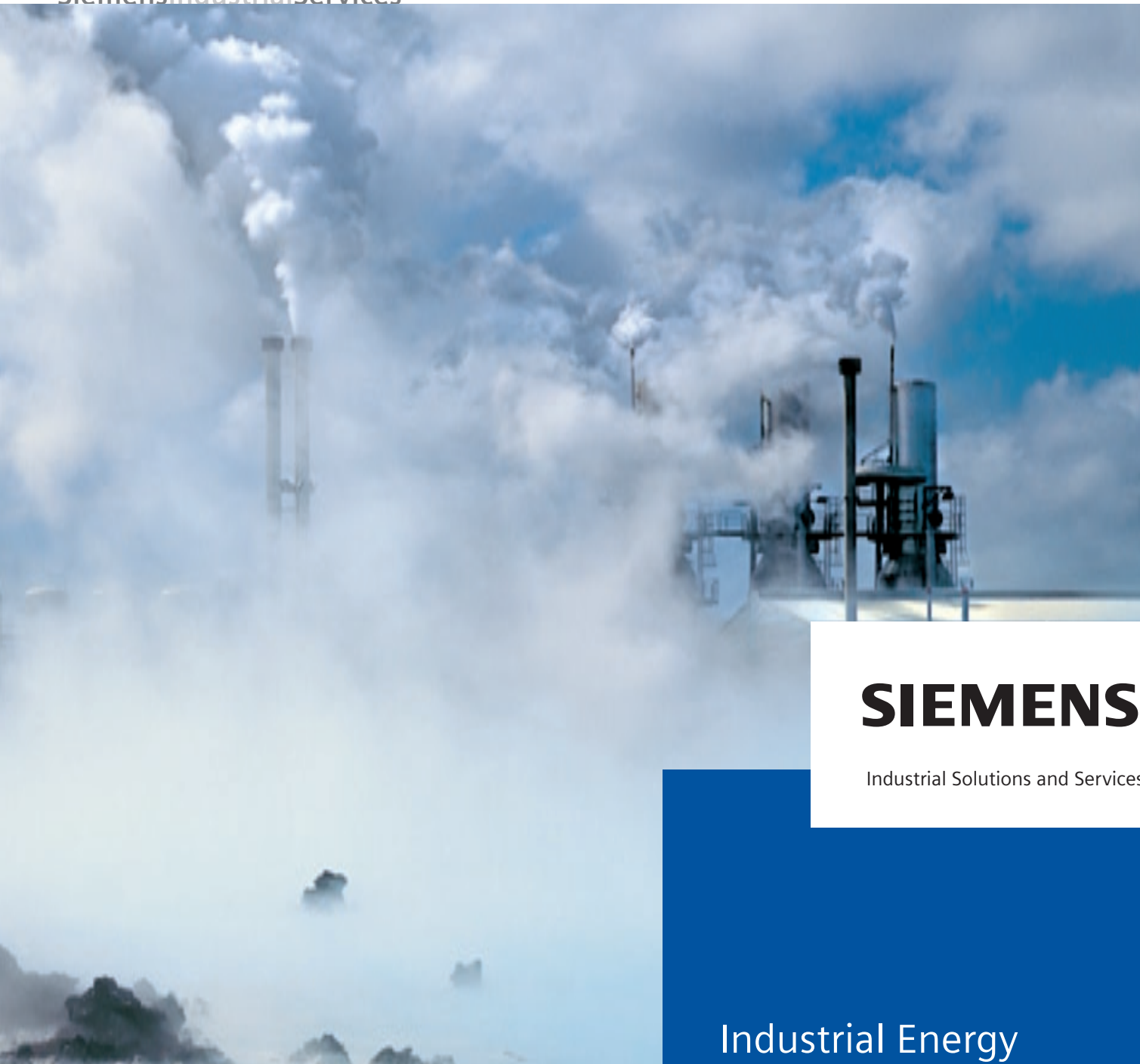


SiemensIndustrialServices



SIEMENS

Industrial Solutions and Services

Industrial Energy

Energy:
reduced costs,
ensured availability

Your Success is Our Goal

The challenge:

Energy – vital resource and cost factor in your production



Energy is an indispensable resource in any industrial production, as well as an increasingly critical cost factor. Industrial Energy provides solutions for every aspect of energy in industry. We solve your challenges either with industry proven solutions or by using a systematic approach, customized for your production plant.

Without energy in the form of electric power, heat, steam, refrigeration, compressed air, etc. there is no industrial production. And without a stable energy supply, there is no competitive product quality. At the same time, the generation and procurement of energy represents a substantial cost factor. In the paper industry, for example, it amounts to about 10 to 20% of all production costs.

Due to rising energy prices and the need to reduce emissions, new challenges appear. How can energy consumption be minimized and energy procurement be optimized? What is the optimum energy mix in view of rapidly changing market conditions? For these and other challenges we offer industrially proven solutions.

And if you want to approach for just that energy savings for your entire plant, Siemens offers a systematic approach:

- identify “energy hogs”
- define cost reduction opportunities
- implement improvement measures
- and verify their effectiveness.

The steps:

Systematic approach for sustained improvements

Only a systematic approach ensures a sustained reduction in energy consumption. As a competent partner we provide consulting and implementation services. The achieved results are the best way to measure us.

Orientation:

Interview for an initial overview

- To provide a first estimate of potential energy cost savings, it's important that we obtain an **overview** of your energy-related business processes. A structured interview and subsequent analysis helps us to assess your **current situation**.

Identification:

Determine opportunities for cost reduction

- In the analysis phase, we identify major energy flows and energy forms in your plant, pinpoint and quantify existing **cost reduction opportunities**, and point out appropriate **improvement projects**.

We look at your production and auxiliary processes from an **integrated** perspective – up to and including energy management and the top level of plant management. Therefore we actually identify the **best improvement projects** avoiding tunnel vision and providing you with the best available technology. Even if you have done already a lot for energy efficiency, **substantial opportunities** often remain to be exploited.

Industrial Energy: Energy: reduced costs, ensured availability

- *Optimizing energy consumption in your production – using a systematic approach for core and auxiliary processes*
- *Consulting and implementation from a single source – Your Success is Our Goal*
- *Realistic model-based predictions*
- *Sustained improvements – using industry proven products and modernization solutions*
- *Continuous improvement process with periodic reviews*

Implementation:

Selection of projects
and implementation

Review:

Controlling
and assessment

Due to our detailed benefits analysis, your improvement objectives are **well defined** and **verifiable**.

But the **continuous improvement process** does not stop there. Every two to three years, we should meet as part of a regular review to establish new improvement objectives considering new technologies and market conditions, and act accordingly .

The combination of consulting and implementation ensures that improvement potentials become reality.

Contact us to find out more.

A detailed **cost/benefit analysis** and ROI calculations provide you with a solid base for deciding which improvement projects to implement. In addition to the energy cost savings, we also consider other effects, such as the impact on your **maintenance costs**.

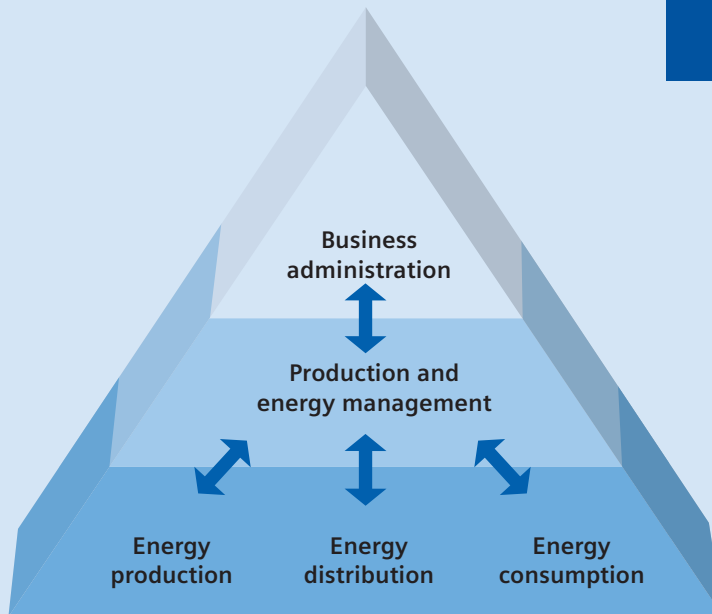
With rising energy prices, most of the proposed projects have a **payback period** of two years or less. And we have the specialists to implement these projects quickly.

Detailed knowledge of your plant and your processes ensures that the improvements work together effectively to provide sustained benefits, always in line with your production requirements.



Ready for direct implementation:

Proven solutions
for reduced costs
and ensured
availability



With our implementation expertise we reduce energy costs and ensure availability
– in energy production, -distribution and -consumption.

Some of the available solutions include:

- **Reuse of waste heat** – waste heat recovery using the Kalina process: greater benefits for you, reduced heat to the environment
- **Use of modern systems, automation, transformers and other energy distribution components** – the cost-efficient way to ensure high availability
- **Reactive power compensation** – to avoid penalties
- **Automated peak shaving** – to avoid penalties for peak loads
- **Use of high efficiency motors with frequency converters for drive control** – paid back in a short time
- **Modern control for electrostatic filters** – for sustained reductions of consumption, emissions and costs
- **Use of modern IT systems** – to keep track of your energy costs and emissions

Further information is available at:

www.siemens.com/industrial-energy

For further information
please contact:

Siemens AG
Industrial Solutions and Services
I&S IS E&C
P.O. Box 3240
91050 Erlangen
Tel.: +49 (9131) 742 111
Fax: +49 (9131) 744 681
E-Mail: euc@siemens.com

The information provided in this brochure contains merely general descriptions or characteristics of performance which in actual case of use do not always apply as described or which may change as a result of further development of the products. An obligation to provide the respective characteristics shall only exist if expressly agreed in the terms of contract.

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