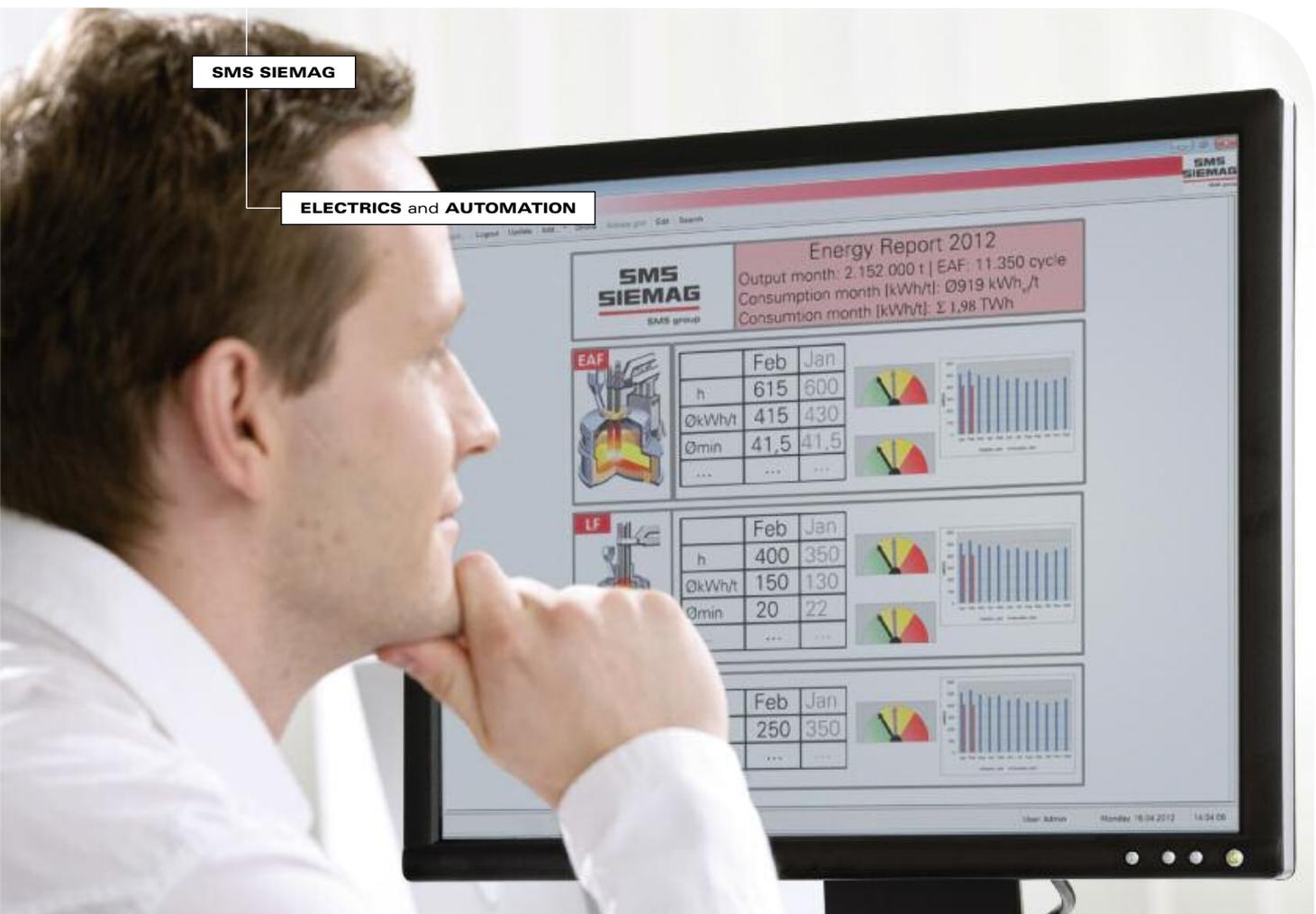


X-PACT® ENERGY ADVISOR

Energy management
for metallurgical plants and rolling mills



X-PACT® ENERGY ADVISOR

Sustainability, profitability, & efficiency

ENERGY MANAGEMENT

Today, you face soaring energy costs, limited raw materials, and government regulations. They all make holistic energy management imperative if you want to increase your competitiveness and ensure efficient production while keeping your costs down.

This is where X-Pact® Energy Advisor comes in. It offers you all-inclusive energy management that quickly uncovers and utilizes your potentials so you save money both now and in the future. Operating in the metallurgy and rolling mill industry, you have a high energy requirement. X-Pact® Energy Advisor is the essential tool for tackling this growing challenge.

Why? Because SMS Siemag and our X-Pact® Energy Advisor help you cut your energy costs and keep them stable. It's easy to integrate X-Pact® Energy Advisor into your corporate structure. Furthermore, the solution complies with requirements for certification according to DIN EN 16001 and DIN ISO 50001. Profit from holistic energy management that offers you more than ever before.



ECOPLANTS

Ecoplants are characterized by the fact that ecological as well as economical benefits are offered to our customers.

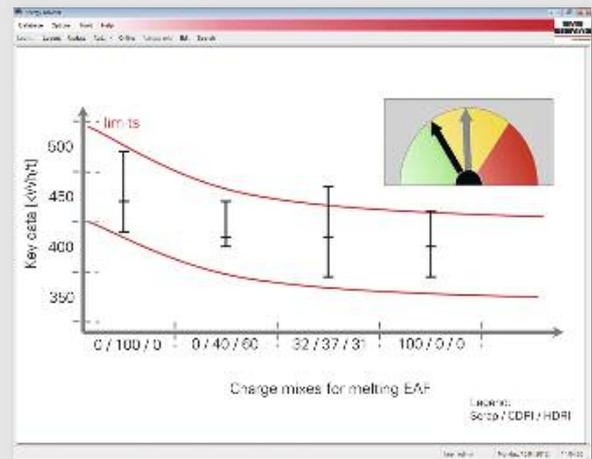
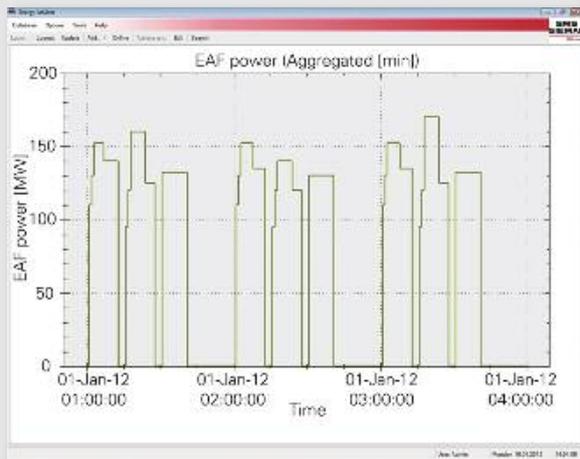




HERE'S HOW YOU BENEFIT:

Reduced energy costs	... due to continuous monitoring and utilization of savings potentials identified
Competitive advantages	... due to increased efficiency and reduced energy input
Enhanced cost-effectiveness	... due to simple calculation of efficiency measures
Increased transparency	... due to a clear-cut presentation of all energy-relevant data in a single system
Evaluation of energy efficiency	... due to analysis of variables and application of key figures
Early warning system	... due to direct notification by email or text message
Easy comparison of plants	... due to KPIs and overviews
Identification of savings potentials	... due to a wide range of analysis options
Increased production stability	... due to early recognition of errors with the help of ratio figures
Documentation and reports	... on energy-relevant procedures, for use in internal and external audits

EVALUATION OF ENERGY EFFICIENCY



FROM DATA COLLECTING ...

The universal and easy-connect interface makes it possible to collect all the data you require. Then, via the data link, you can simply view the entire measured data centrally in the Energy Advisor.

Whenever you want, you can quickly hook up additional measuring points to the Energy Advisor.

Displayed here is the measured data from an EAF in normal operating mode. The current framework conditions of the plant are recorded simultaneously and the times precisely documented. That allows you to exactly analyze the data later. The next step is applying the key figures to determine the energy efficiency of the plant.

... THROUGH FREELY CONFIGURABLE KEY FIGURES ...

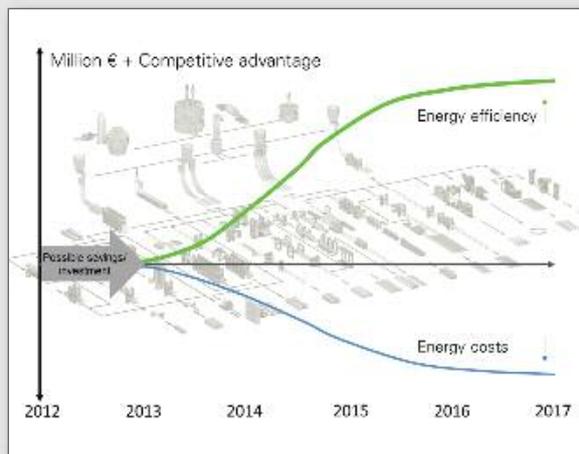
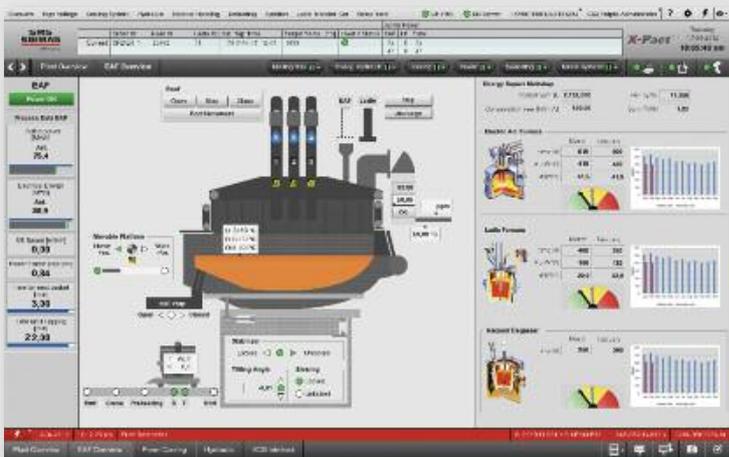
Using key figures, the Energy Advisor gives you an initial impression of the energy efficiency of your plant. Included among the key data available is for instance the specific energy requirement. Right now you can evaluate the measured data and compare it with other plants.

The key data is displayed according to the impact of each variable, so you can check the operating mode and current behavior of your plant.

Take for instance the EAF. An analysis of the key data shows the specific energy that was required per tonne during the melting operation. Here you can see, for example, the energy inputs between different charge mixes.

Combined with limit curves, the Energy Advisor provides you an automatic indication of faults.

USER FRIENDLINESS



... TO SIMPLE DISPLAYS ...

Several key figures are grouped together to form an indicator. That means you can evaluate the energy efficiency and operation of individual plants as well as entire areas.

Energy Advisor comes with the option of cockpits that display the current plant situation plus overviews. Configure or compile the cockpits as you like using Drag & Drop.

A glance at the speedometers or stop lights in the cockpits immediately tells you what you want to know about your energy situation. Efficiency indicators evaluate your plants, plus you can compare values with figures from the past or from other areas, making it easy to unleash savings potentials.

Display elements of the Energy Advisor can easily be integrated into the X-Pact® automation HMI.

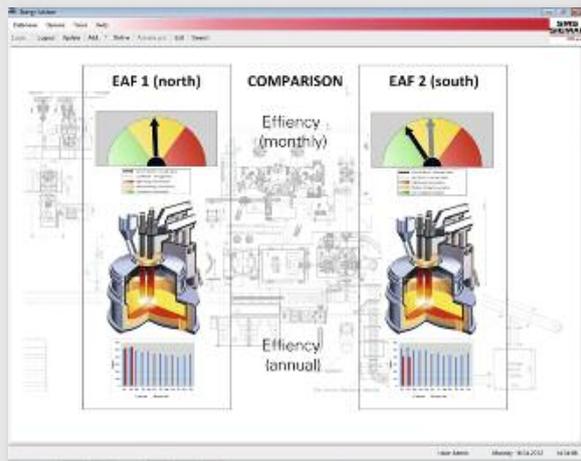
... TO SAVINGS POTENTIALS ...

...and their realization. Thanks to the Energy Advisor, you can rapidly increase and implement savings potentials. To tap into these potentials and savings in the long term, the Energy Advisor includes the option of process monitoring and warnings when limits are exceeded. Energy Advisor keeps a check on your interventions, supporting constant improvements in energy efficiency.

... AND MORE

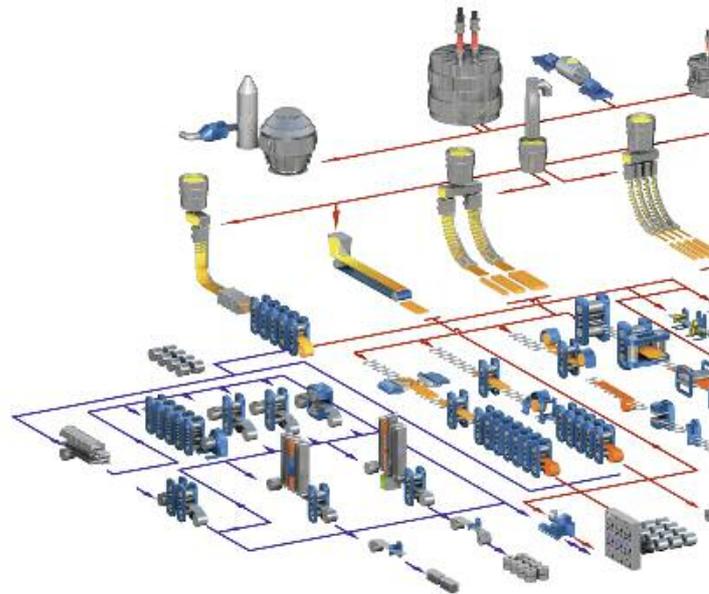
- Generation of improvement projects
- Energy consumption trends
- Planning energy requirement reports / coordination with the energy supply company
- 15-min-average calculations to comply with contractual consumption limits
- Energy balance sheets for production coordination

SYSTEM HIGHLIGHTS

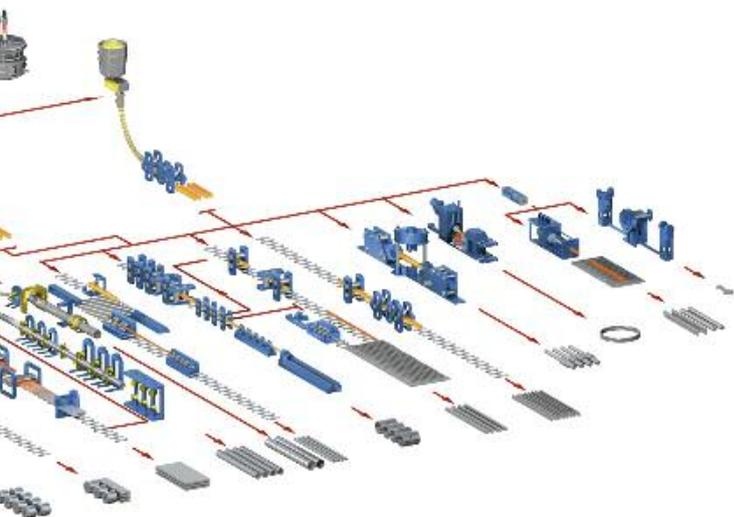
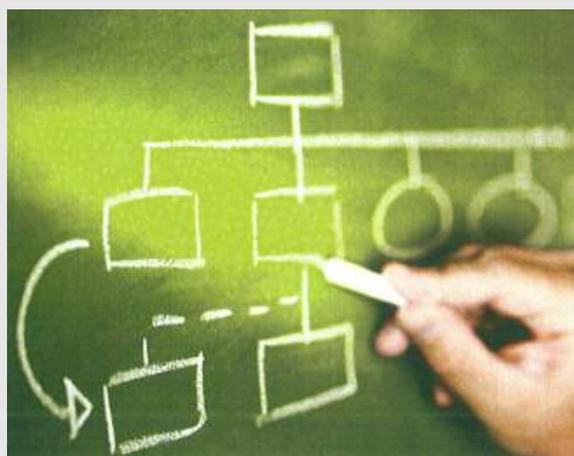
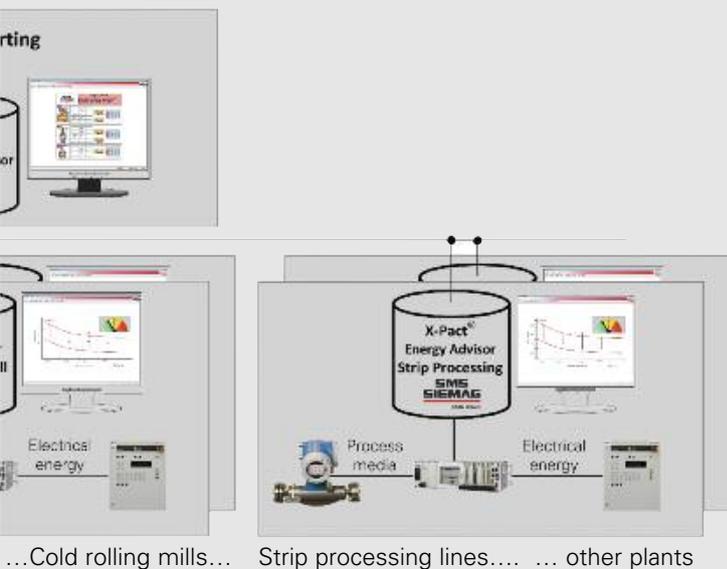


Steel plants... Continuous casting plants... Hot rolling mills...

- Display and recording of energy and production values
- Costs allocated to causes
- Freely configurable key data
- Archiving energy-relevant documents
- Comparison of plants (benchmark) and time periods (before - after)
- Automated energy efficiency evaluation & reporting (also by email)
- Evidence of savings and administration of savings potentials
- Adjustment of the system structure to specific requirements possible at any time
- Easy configuration, evaluation & analysis
- Manufacturer-independent data collection and universal interfaces
- Integration of existing systems possible at any time
- Compilation of overview pages



WHAT WE OFFER YOU



- Customized energy management strategy (e.g. DIN EN 16001 or ISO 50001)
- Support in determining key data and the necessary measuring points
- Selection of sensors and measuring equipment
- Planning and expansion of your energy network
- Integration of Energy Advisor into your existing corporate structure
- Installation and configuration of the hardware and software
- Continuous support
- Support for your audits and target definition
- Energy efficiency analyses
- Planning and implementation of suitable measures
- Employee training

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MEETING your **EXPECTATIONS**