

# 30 years of experience – one system: The comprehensive solution for your energy management needs. Your one-stop-shop.

Quality made in Germany.



## EOS/EAS 4.000 – Save successfully with the right system

Automatic peak-demand management, energy & company data acquisition and more.

# DIBALOG COMPANY AND ENERGY MANAGEMENT SYSTEMS GMBH

*You don't become a world market leader overnight. Our systems are based on the experience we've gathered and refined since 1984, allowing us to provide a unique service to our customers. Quality made in Germany.*

## FULL SERVICE, FLEXIBLE DESIGN

Our main focus is on developing and producing the energy optimization system **EOS** and the operating data acquisition system **EAS** for industrial use. Beyond that, *dibalog* is known for its flexibility and readiness to work with and for the customer to find individual solutions. Installation, optimization and professional after-sales service are provided by our highly qualified technical staff, **worldwide**.

## MODULAR, ALL-PURPOSE, INDIVIDUAL

Products and services from *dibalog* are designed for all-purpose worldwide use and can be expanded using additional modules. Whether it be power-peak reduction to lower your electricity bill, energy and operating data acquisition for your quality and energy management or operational data analysis (e.g. DIN EN ISO 50001, DIN EN ISO 16247-1, SpaEfV, EMAS), we can offer a customized package for your individual business needs.

*dibalog* is the leading specialist for energy management systems in heat-treatment shops (commercial and captive) and has been a service provider for technical data acquisition for medium-sized businesses for many years. We are the one-stop-shop for discovering and capitalizing on saving potentials in your business that may be currently hidden.

## THINK GLOBAL, ACT GLOBAL

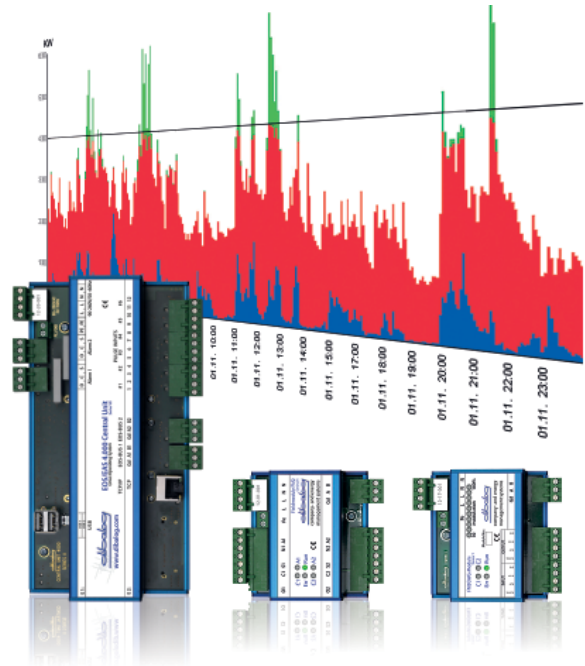
With *dibalog USA*, *dibalog Canada* and our service and distribution partners, we are now even closer to our international customers and have accomplished another of our corporate philosophy's objectives – **delivering comprehensive and uncomplicated service, wherever your facility is located.**



## ENERGY OPTIMIZATION SYSTEM EOS 4.000

### REDUCING ELECTRIC POWER PEAKS TO CUT YOUR ENERGY COSTS

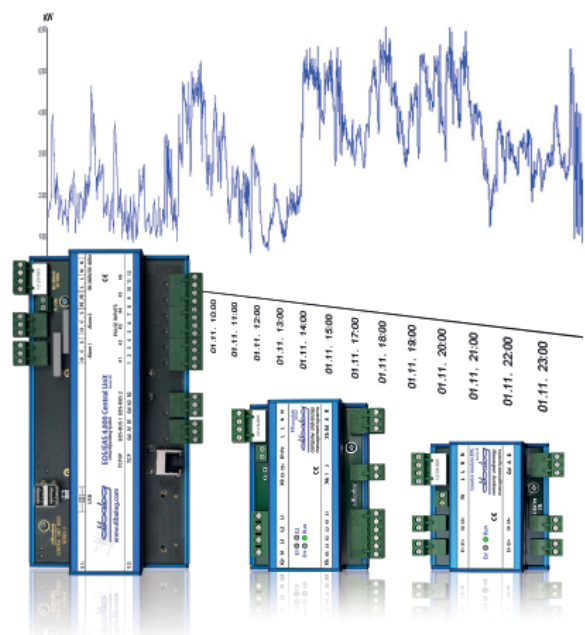
- Our combined hardware and software solution for industrial, automated peak-load management
- Up to 40% reduction in your power-peak billing costs
- Modular, expandable design, customizable for your individual needs and universally compatible – without replacing your existing controls
- Installation and optimization without affecting production or quality
- Stand-alone or in combination with the energy and operating data acquisition system EAS
- Consultation, hardware and software supply, installation and setup, after-sales service – all from one source; no production downtimes during installation or support



## ENERGY & COMPANY DATA ACQUISITION SYSTEM EAS 4.000

### FOR YOUR ENERGY AND QUALITY MANAGEMENT NEEDS, OPERATIONAL DATA ANALYSIS AND MORE

- Our combined hardware-and-software solution for industrial, automated data acquisition
- Measuring, recording and visualization of energy, media and process data, alarms, etc.
- Modular expansion tailored to your individual needs and universally compatible
- Preventive maintenance and fault alarm function with email and voice alerts
- Stand-alone or in combination with the EOS energy optimization system
- Consultation, hardware and software supply, installation and setup, after-sales service – all from one source



ONE PLATFORM – ENDLESS POSSIBILITIES.



# CENTRAL UNIT & WEB-VISUALIZATION EOS/EAS

## MEASURE, OPTIMIZE, VISUALIZE AND ANALYZE

30 years of experience concentrated in one system platform:

The heart of our systems is the Linux-based central processing unit *dibalog* EOS/EAS 4.000, which was developed in-house. The integrated *dibalog* software takes over the intelligent control of connected loads to reduce power peaks, as well as the internal and centralized storage of all recorded operating data.

The EOS and EAS can either operate independently or in combination in one central unit. Via the web interface the system can be conveniently accessed from your desktop using a secure password. Historical and live data are displayed as graphs and charts in the visualization software EVS and can be exported for further processing. Our backup and off-line evaluation tool vEVS also periodically saves all data to a customer server, making it easily available for quick analyses.

## FEATURES

- EOS/EAS modules connected via field bus
- Pulse input for primary measurement, 2 alarm relays, inputs for externally changing the maximum-demand settings
- EOS/EAS software and database on an internal HDD
- TCP/IP port for web interface, vEVS and connecting modules (https/sFTP/ssh)
- Graphic and chart-form visualization (EVS) of optimization and operational data with export function, optional data interface to the AMS\* system
- Multi-user management with individual user-rights assignment and optional user-specified alarm forwarding via e-mail and / or voice
- Browser-based backup visualization vEVS for automatic backup and rapid analysis of large amounts of data e.g. for monthly or yearly time frames

(See the technical data sheet for further details; \*AMS is a brand of TTC, Witten, Germany)



ACCES VIA WEB BROWSER FROM YOUR DESKTOP -  
**SECURE AND CONVENIENT.**

## POWER-PEAK REDUCTION WITH EOS 4.000

Energy suppliers constantly measure the power demand in kW and use the highest average 1/4- hour (depending on the contract), the so-called power peak, as the basis for billing. Power peaks are caused when many consumers have temporary high energy demands simultaneously. As such, these incidentally high values are responsible for a large percentage of your energy costs – **a problem that EOS prevents.**

## HOW DOES EOS WORK?

**EOS** consists of hardware modules that are installed in consumers' control panels and are connected between the controller and the power-switching device. Thanks to a field bus, the intelligent central unit constantly receives status reports from the connected consumers and optimizes their power supply so as to avoid expensive power peaks in high-demand periods.

**EOS** automatically determines the current energy status of each consumer and constantly adapts to the changing total demand and the switching actuations. It determines the optimal set point for the individual consumer and for operations as a whole, monitoring power requirements and peaks.

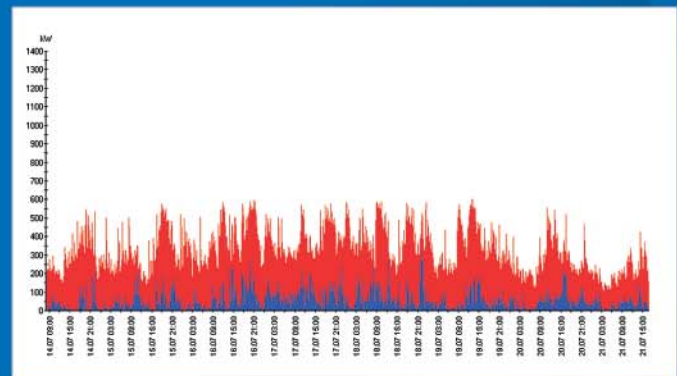
The system does not need any further serial interfaces. It operates autonomously and independently without influencing either the production process or the quality of your products. Thanks to its modular design, **EOS** can be individually customized, and can be expanded to serve larger companies. **EOS** is compatible with nearly all types of electrically operated thermal loads (regardless of manufacturer) while using your existing control systems.

We'll be pleased to offer you a no-obligation consultation and provide you with a savings calculation you can count on – so you can see today how much you could be saving tomorrow. **With EOS you no longer have to dread the next electrical bill from your energy supplier and can generate new investment potential with the money you save.**

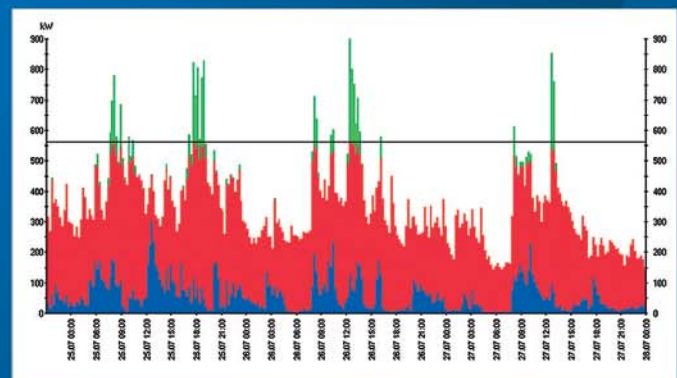


**EOS field modules Type FM**  
(Contactor control) and FMGW  
(SCR/VRT control)

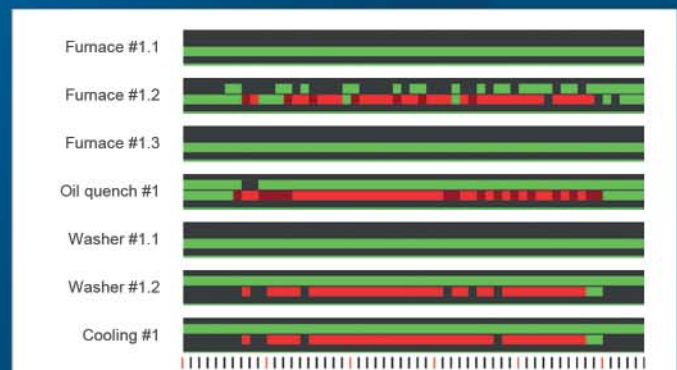
## OPTIMIZING POWER PEAKS – CUTTING POWER COSTS.



*Power performance as a graph or table, updated by the minute*



*Visualization of power peaks and calculated savings*



*Display switching actuations of all consumers, updated by the minute*

# DATA ACQUISITION SYSTEM EAS 4.000

## MEASURE, EVALUATE AND CALCULATE

As a standalone system or as an extension of the existing EOS system, EAS records all necessary energy and operating data (energy and media consumption, temperatures, run times, etc.) and makes them available using web browser visualization and as data export in graphs and tables. In addition to providing the information for your reliable quality and energy management (DIN EN ISO 50001, HACCP, etc.) and your cost center accounting EAS can show you important savings potential (e.g. tax refunds, optimization of production processes, etc.), reports current alarms by email or voice and protects you against data losses with automated backup features.

The type and number of measuring points are only secondary considerations. You determine what you want to measure, and we'll deliver an EAS 4.000 system tailor-made for your individual needs utilising standardised products.

## EAS-MODULE OVERVIEW



### PM Module (electrical energy meter)

24/7 energy consumption measurement in kWh; power measurement; heating surveillance; preventive maintenance and automatic alerts in case of potential heat damage



### ZML Module (counter module)

4 pulse inputs; digital value acquisition for: runtimes + alerts, pulse counting for consumption of compressed air, gas, natural gas, water, existing electric meters with pulse output, and other medias or values



### UIML Module (current-voltage measurement module)

4 analogue inputs: 0-10V, (0)4-20mA, 0-2V and for connection of MUM Modules



### TML Module (temperature measurement module)

For *dibalog* digital sensors Type TSL 3, e.g. for HACCP, water and other temperatures



### MUM Small/Big Module (multi transducer)

from 1 up to 4 Multi-inputs for up to 4 galvanically separated measurement transducers;

can be individually configured e.g. for thermocouples, current, voltage or other signals

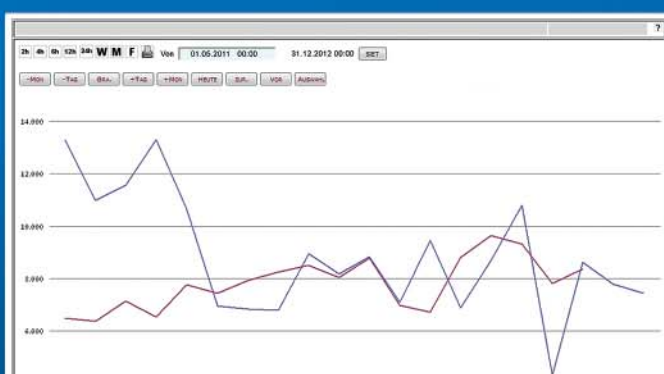


### Temperature sensor TSL 3

digital room, contact and liquid sensors for cold storage equipment / facilities, motors, washing machines, cleaning and cooling facilities, etc.

**NEED A SOLUTION FOR OTHER TYPES  
OF MEASUREMENTS? JUST CONTACT US!**

## ENERGY MANAGEMENT WITH EAS – PRODUCTION AND CONSUMPTION MONITORING YOU CAN RELY ON



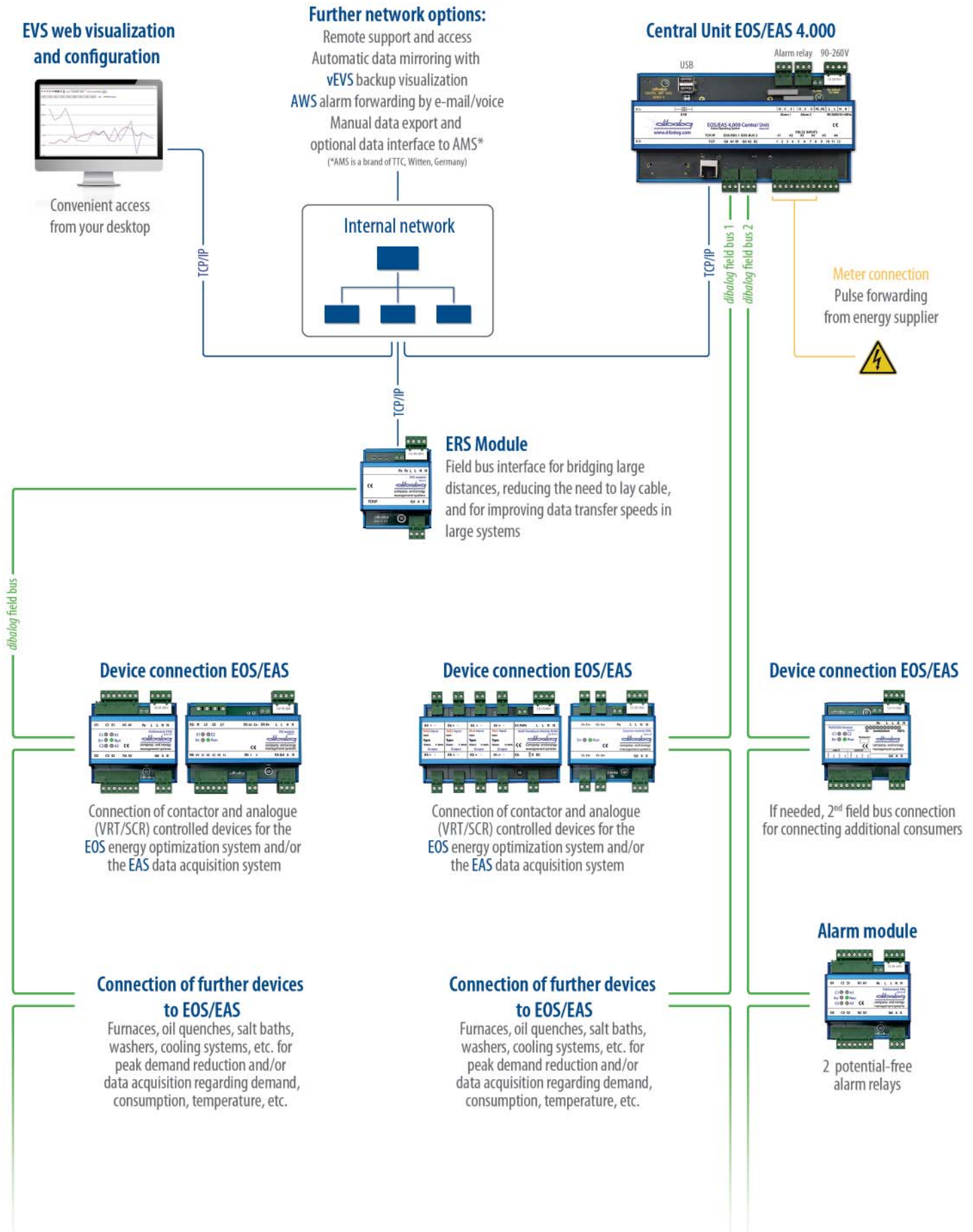
Measure, monitor and document,...

Measuring point	Group	Mod.No	Mp.No	Minima	Maxima	Average	Sum HT	Sum NT	Total
Furnace 1	Energy measurement	1	1	243	2345	1345	1500	144	2345
Furnace 2	Energy measurement	2	2	254	5268	3544	3111	2165	5268
Furnace 3	Energy measurement	3	3	534	2488	1659	1300	1180	2488
Furnace 4	Energy measurement	4	4	225	2342	1355	1154	1190	2342
Furnace 5	Energy measurement	5	5	211	7888	4522	5365	3233	7888
Furnace 6	Energy measurement	6	6	131	2355	1423	1232	1125	2355
Furnace 7	Energy measurement	7	7	163	1211	577	858	355	1211
Furnace 8	Energy measurement	8	8	533	4144	2436	1743	2401	4144
Furnace 9	Energy measurement	9	9	514	2544	1354	1222	1302	2544
Furnace 10	Energy measurement	10	10	167	7377	4853	4111	3296	7377
Furnace 11	Energy measurement	11	11	585	5676	3546	3563	2125	5676
Furnace 12	Energy measurement	12	12	741	3634	1354	2210	1304	3634

... evaluate, compare and calculate!



## SCHEMATIC OVERVIEW



# EOS/EAS: ONE PLATFORM – ENDLESS POSSIBILITIES.

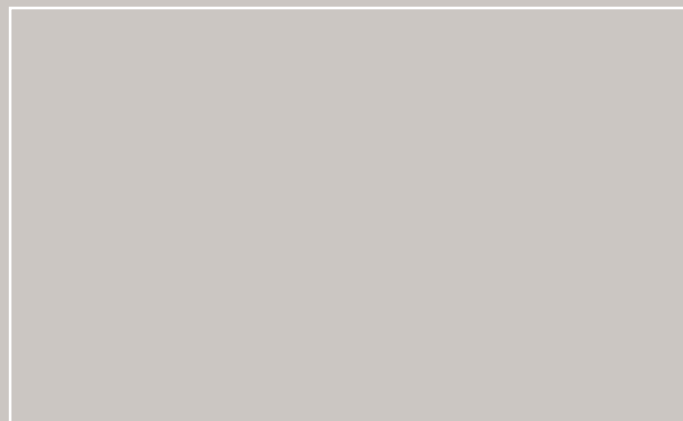
AN INVESTMENT THAT PAYS OFF!

*dibalog* not only offers consulting based on our years of experience and expertise in the field; we also develop in-house and install our products individually for you on site.  
*dibalog* – the one-stop-shop for national and international enterprises interested in discovering huge savings potentials!

Interested? We're there to help you, just call us on +49 (0)6221 434110,  
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[www.dibalog.com](http://www.dibalog.com)



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