GOSSEN METRAWATT

Safety through Competence

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EMC 5.x

Energy Management Software

Energy Management

Systematic Energy Management for Lasting Benefits

Electrical power, gas, water and heat are central cost factors in the production process and in building management – and energy prices are rapidly rising from year to year. For this reason, more and more companies are deciding to take advantage of comprehensive energy management for improved efficiency and reduced consumption of valuable resources. The most important basis for optimizing consumption is always a detailed ascertainment of current consumption, as well as accurately pinpointing when and where how much energy is used in which processes. After all, costs can only be influenced if we know exactly when and how they're incurred.

The Intelligent Way to Optimized Consumption

As a high performance software solution, **E**nergy **M**anagement **C**ontrol has been specifically designed for industry, energy and building management applications. It allows for automatic logging, visualization, analysis and billing of all relevant consumption data. With the help of this well founded database, targeted and effective measures for improvement can be implemented – and opportunities for modern energy management can be fully exploited:

- **Transparency:** visualization of consumption and load structures – detection of weak points

- **Responsibility:** source-related cost allocation of consumption or costs

- **Benchmarking:** acquire figures and compare objects

- **Cost minimization:** identify and realize potential savings

- **Budget security:** precise planning and monitoring of energy costs

The Highlights at a Glance

- Automatic remote meter reading
- Visualization of load and consumption profiles
- Comprehensive reporting functions
- Cost center billing for industrial operations
- Consumption billing for rental properties
- Master data management
- Virtual channels with formula editor
- Providers, tariffs, tariff calculator, planning data
- Manual consumption entry

- Real-time display of individual measuring channels
- Inexpensive modular design
- License-free SQL database
- Selectable user authority
- Integrated help system
- Various languages: D, GB, F, I, NL, CZ, PL
- Compatible with Windows XP / Windows 7

Online-Demo: www.gossenmetrawatt.com / Energy Management section

- **Tariff optimization:** selection of the least expensive tariff for energy import according to the utility, as well as consumption and contract conditions

- **Eco-friendliness:** reduced consumption sinks CO_2 emissions

- **Up to date:** real-time overview of consumption and billing data

- **Flexibility:** billing based upon individually adjustable parameters

- **Service requirements:** rising energy consumption indicates a need for maintenance or repair

Energy Data in Focus – and Always Under Control

EMC 5.x makes professional energy management easy – and efficient. It provides reliable data for optimization measures and allows for targeted control of already implemented measures.

From Analysis to Billing

Load and consumption characteristics, as well as specific comparisons of energy data can be represented graphically with EMC 5.x in a clear-cut fashion, for example as time series or curves. Evaluations can also be displayed in tabular format and exported to Microsoft Excel. And EMC 5.x offers an additional, valuable feature for data processing: Virtual channels can be set up with the help of an integrated formula editor. These allow for calculations based upon individual sources of data, and thus support time-saving evaluation in advance.

User-Friendly and Flexible

EMC 5.x can be used with any Windows PC in a trouble-free fashion.
Browser-oriented menu navigation via tree structures and integrated help functions assure intuitive use after a short introductory period.

Modular Structure

The modular structure of EMC 5.x makes it easy to expand the system, thus adjusting itself perfectly to individual requirements.

Worldwide Access

Several users can access the high performance SQL database simultaneously at their browsers via intranet or Internet. The user administration function integrated into EMC 5.x controls specific access privileges and password protection.

A Single Software for All Locations

EMC 5.x is extremely well suited for international use. The software is multilingual (D, GB, I, NL, CZ and PL). The user can select his desired language, even during operation.

System Requirements for a Proprietary Energy Management System

Server: Dual Core Processor 32 bit or 64 bit, 1 GB RAM, 100 GB hard disc, Microsoft Windows 7 or Windows 2003/2008 server, Internet Explorer version 8/9 or Firefox

The Inexpensive Alternative: Portal Solution

The advantages of EMC 5.x can be taken advantage of, even without installing the software to a computer at your location – it's easy thanks to the Internet: GOSSEN METRAWATT makes rental access available to this end, and provides all of the desired features. Investments in hardware, installation costs and on-site updates are thus rendered entirely unnecessary. And competent advice provided by our experts is of course included as well.
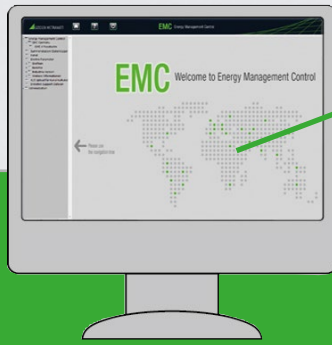
EMC 5.x

A Perfect Fit for Every Company

EMC 5.x takes its data from GOSSEN METRAWATT's Energy Control System (ECS). Professional system components are used for autonomous acquisition and optimization of energy consumption. Custom tailored information networks can be configured depending upon the size of the company and its applications. In actual practice, a combination of intelligent software and world-class hardware assures a reliable, smooth flow on information.

3. Evaluate and process energy and consumption data

Ethernet – Analog Telephone Network – ISDN – GSM

SMARTLOGGER

The energy data logger unites energy and consumption data logging with fault alarm and monitoring functions for all types of media. It is the perfect solution for a small number of measuring points.

Summators

U160x summators can be individually networked. They autonomously acquire energy and consumption data via pulse, analog or LON interface.

SMARTCONTROL

SMARTCONTROL acquires energy and consumption data via Modbus, M-Bus and LON, as well as via pulse and analog inputs. Networking is made possible via Ethernet, or via public communications networks with a built-in modem.

2. Evaluate, save and transmit energy and consumption data

Pulse Output – Analog Signal – M-Bus – LON – Modbus

Consumption Meters

In combination with meters for gas, water, heat and compressed air, electrical power meters acquire consumption data for all types of media.

Power Meters

In addition to important 3-phase quantities, multifunctional power meters indicate energy consumption as well.

1. Measure energy and consumption values

Individualized Scope of Functions

EMC 5.x software is equipped with numerous functions. Thanks to its modular software concept, the inexpensive basic version can be indiviually expanded, and provides the right solution even in the event of growing demands. Special functions for data export to existing operating and billing programs can be configured in a customer-specific fashion.

Basic Version

Read and Display Data The basic version includes 1 user, 1 location/type of energy, 64 channels, 20 virtual channels

Remote meter reading provides time-synchronized data, and eliminates costly travel as well as meter reading and input errors. Short read-out intervals provide meaningful load profiles as a basis for optimization and billing.

- Automatic remote meter reading with convenient scheduler, via serial interface, Ethernet or telephone modem using inexpensive call-by-call area codes.
- Manual consumption entry for the elimination of missing data, or for acquiring data which cannot be cannot be remote-accessed, including report generation.

Graphics assure ideal transparency for energy consumption and load patterns. They allow for the detection of weak points, and provide a foundation for consumption, process and peak optimization.

- Various diagram types for fixed and flexibly adjustable time periods
- Print function and export to MS Excel
- Selections can be saved as personal graphics
- Magnifying function for detailed evaluation
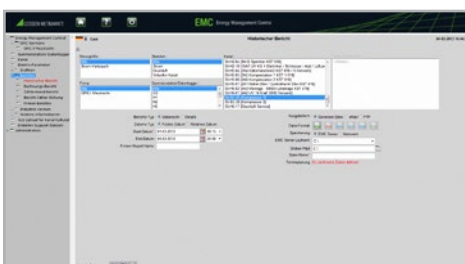
Reports document consumption and show costs based upon applicable tariffs. They're the basis for responsible use of energy, internal billing and contract negotiations with the power utilities.

- Standardized reports covering freely selectable time periods
- Adjustable detail view
- Print function and export to MS Excel
- Selections can be saved as personal reports
- Report transmission via e-mail or FTP

Virtual Channels – This module is capable of calculating new data for all types of evaluation. Consumption figures can thus be summarized, distributed or ascertained by means of accounting grids.

- Universal computing functions for the generation of new values in virtual channels
- Benchmarking is made possible by calculating characteristic figures
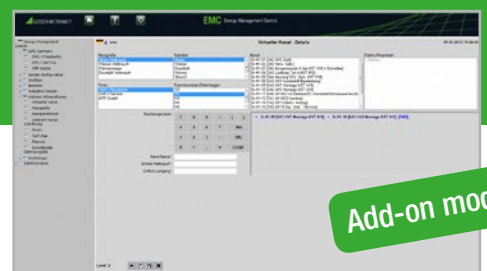
Add-on module

Energy Suppliers and Tariffs – The ideal tool for schedule optimization: Energy consumption can be financially evaluated on the basis of specified tariffs with this module. Schedules can be derived from planning data and compared with actual load characteristics.

- Specification of energy suppliers and tariffs
- Creation of planning data with integrated vacation calendar, data exchange with MS Excel is possible
- Graphic planning comparison and billing report
- Tariff calculator for checking invoices and comparing tariffs
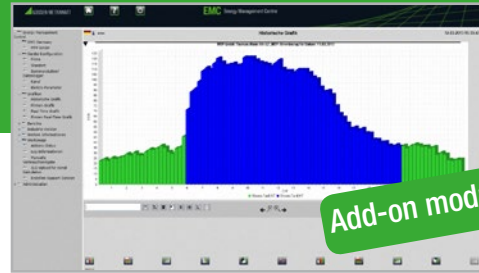
Add-on module

Industy Billing – This module makes it possible to read out energy consumption by cost center (e.g. for industrial operations) and by tenant (e.g. for rental properties).

- Billing according to cost center (including residual group administration)
- Billing by rental property (including simple building administration with convenient search routines for rental properties, tenants and meters)
- Invoice creation and transfer to MS Excel
- Including add-on modules: **Virtual Channels** and **Energy Suppliers and Tariffs**
- Includes an additional 2 users, 2 locations / types of energy, 61 channels
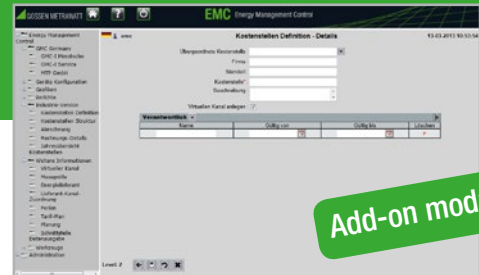
Add-on module

Consortium – EMC 5.x software can be used for several companies with this module. A single operating company can thus become active as a service provider for various enterprises, and administrate them on a common platform.

- Add new companies
- Includes additional module **Industry Billing**
- Includes an additional 4 companies, 4 users, 9 locations / types of energy, 136 channels
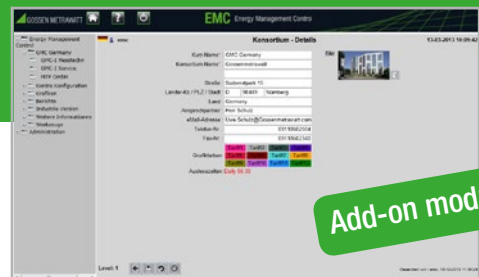
Add-on module

Real-time Display – predefined measuring quantities of various different measuring channels can be displayed and monitored in real-time mode with this module.

- Definition of the electric parameters to be displayed
- Real-time monitoring of particularly important or critical measuring points
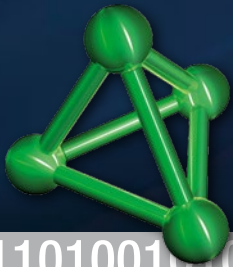

Add-on module

Export Interface – all kinds of data can be saved in various types of formats with the help of this module. This allows for the data to be fed into higher-level software solutions where they can be flexibly processed.

- Data storage as CSV, text or database file
- Convenient transfer to higher-level software solutions

Add-on module

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