

Home Energy Simulator

Simulation of buildings, heating installations and micro-CHP

Home Energy Simulator simulates buildings with their heating installations, micro-CHPs or photovoltaic units.

Rather than extrapolating the results from a few reference days to a complete year, as other programs do, Home Energy Simulator performs continuous simulations with a time resolution down to 30 sec. Instead of estimations it provides exact analyses of the building and the heating installation or micro-CHP, respectively. The result is a reliable analysis of any scenario most suitable for you.

Be sure of what you want

Whatever you are interested in, outdated heating installations, current models or upcoming technologies: Home Energy Simulator most rapidly analyzes any building with any type of energy installation. In just one minute you have a detailed report on heat and electricity, operational characteristics as well as costs of operation, maintenance and effectiveness. At the push of a button you have a comparison of your installation and any alternative or reference installation.

Expertise and professional competence

Our team of heating specialists, energy and control experts, and software engineers has developed an interactive easy to use application. Step by step you are guided from the definition to the analyses and appraisal of your building and installation.

Established technology

Since more than ten years EUtech develops process and plant simulations. A one-of-the-kind collaboration with leading companies of the energy and heating sectors gives us the opportunity to consequently enhance our tools. Due to our development work for nameable manufacturers we integrate today the technologies of tomorrow into Home Energy Simulator.

A special simulation tool for CHP units is part of the VDI directive „VDI 4656 - Planung und Dimensionierung von Mikro-KWK-Anlagen“.

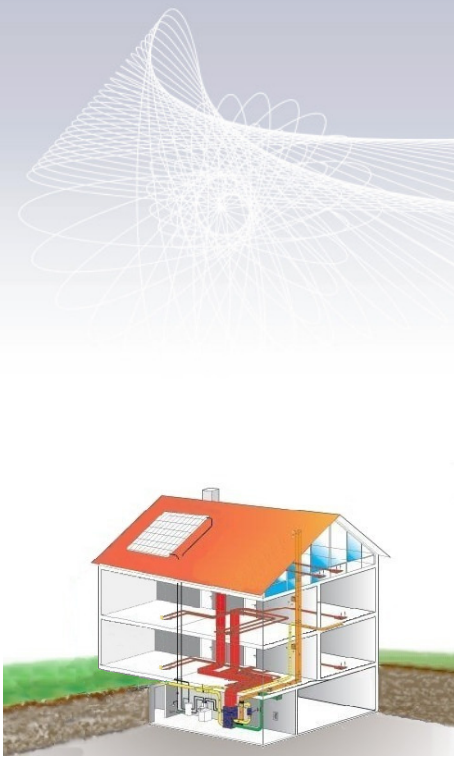
Who uses the tool?

Developers and sales engineers as well as consultants and method engineers from the heating industry and energy providers cherish the accuracy, flexibility and usability of Home Energy Simulator.

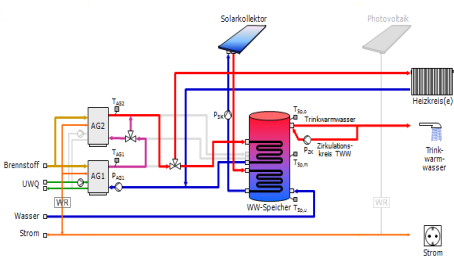
Contact

Tel.: +49 (0)241 963-3151

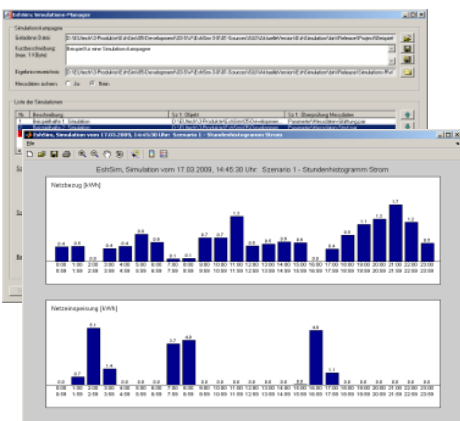
Email: info@eutech-scientific.de



Simulation of building and heating installation



Example of hydraulic



User interface



Technical data

Features

- **Project management**
Load and save of complete scenarios (building, installation, costs, incentives, etc.)
- **Building and weather**
Based on directives VDI 4655, DIN EN ISO 13790 and climate data of the „Deutscher Wetterdienst“; sampling period down to 60s
- **Heating installations and micro-CHP**
Interactive configuration: boiler, peak load heater, solar collectors, photovoltaic panels, domestic hot water tank, stratified storage tank, combi-tank, hydraulic, etc.
- **Costs, incentives and tariffs**
Capital costs, nonrecurring incentives, operational costs, additional fees and bonuses, fuel prices, profitability analysis, etc.
- **Tooltips and calculator**
Whenever you need advice, the online help and specialized calculators will assist you
- **Fast simulation runs**
A continuous simulation of one year (365 days) with a step size of one minute takes less than 60 seconds
- **Interface to product data base**
Home Energy Simulator can be connected to your product data base

Heat and power technologies

- Conventional heating installations
- Heat pumps
- Micro-CHP
- Wood stove, pellet stove
- Solar collectors, photovoltaic panels

Results and reports

- **Heat and electricity** Load demand, generation and coverage of heat and electricity
- **Characteristics** Fuel consumption, start/stops, hours of operation, etc.
- **Statistics** Degree of efficiency, capacity factor, CO2 emissions, etc.
- **Diagrams** Bar charts, duration curves, etc.
- **Cost analysis** Capital and operational costs, profitability analysis, etc.
- **Signals** Signal plots: load profile, weather data, temperatures, mass flows, power, heat losses, system control signals, etc.

System Requirements

- **Operating System** MS-Windows
- **Required Products** Microsoft Excel® (Office 2003, Office 2007)
Adobe Acrobat Reader® (Version 6.0 or higher)
- **Included in delivery** Microsoft dotnet Framework®
Microsoft Visual C++® 2010 Redistributable Package
The MathWorks Matlab Component Runtime®