EMPURON REMO
Smart Metering

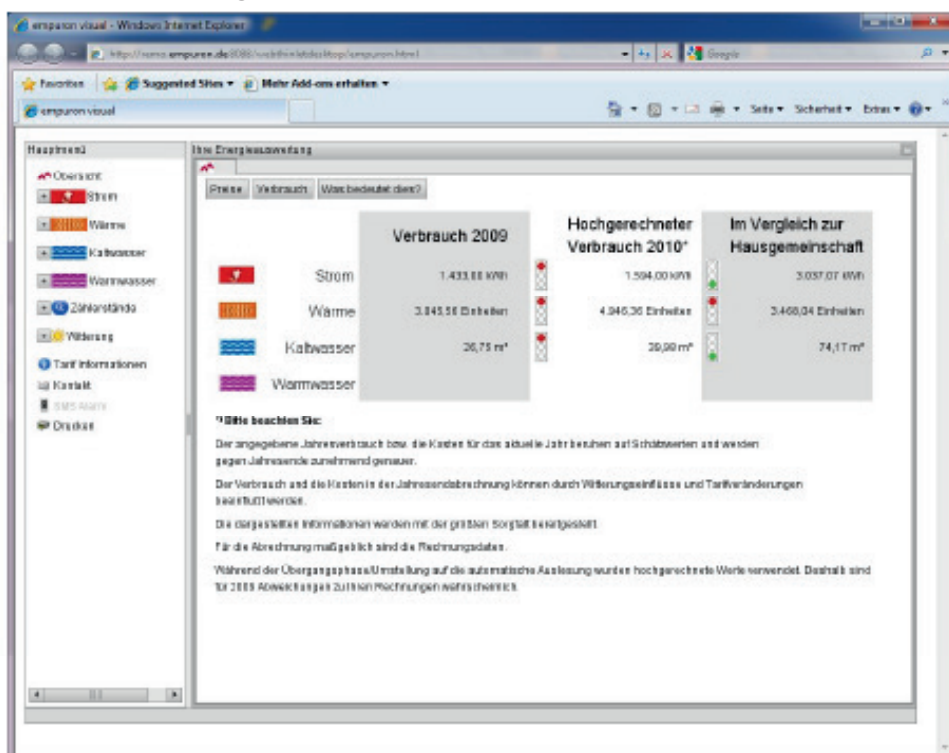## CREATING AWARENESS THROUGH ENERGY CONSUMPTION MONITORING

Transparent consumption

The consumption of electricity, water, and heat are collected digitally for each appliance and transferred into the REMO data archive. There the user can view his own data at any time via a secure internet portal. Data are represented in graphical as well as in tabular form. For each view of the data, useful data cycles are used. These are e.g. daily or monthly consumption or even hourly values in order to illustrate the consumption dependent on the time of the day. Consumers and operators are given the capability of comparing individual consumption with the average of all consumers or with the values of past years (consumption monitoring, „benchmarking"). Energy and water consumption are weighted according to configurable tariff. Thus, the consumer can compare their own expenses with the average consumer or with past expenses (cost control) and evaluate and, if necessary, adapt their individual consumption pattern.

"Traffic light" colour coding equips the user with an intuitive way to quickly judge their behaviour at a glance.

Display of the data e.g.: Overview

Benefits

- Consumtion measuring and advices - fully digital
- Individual graphical representation of elctricity, heat, and water consumption on the internet
- Prompt overview of energy use and costs
- Better planning of utilities charges
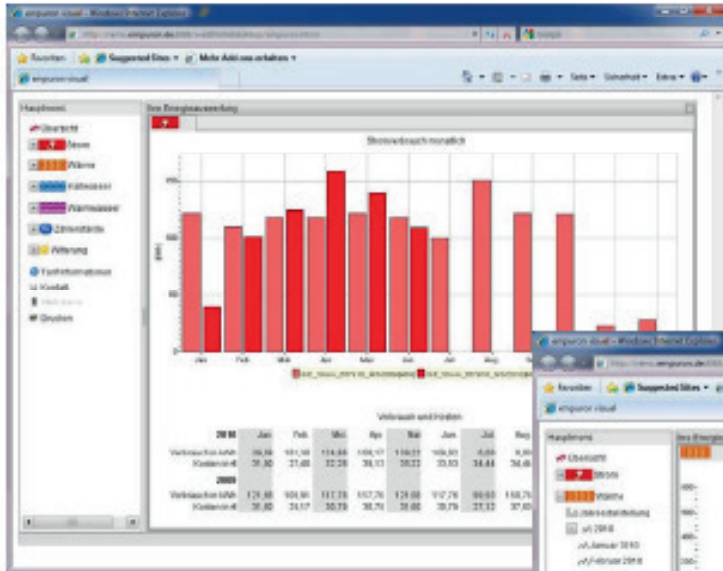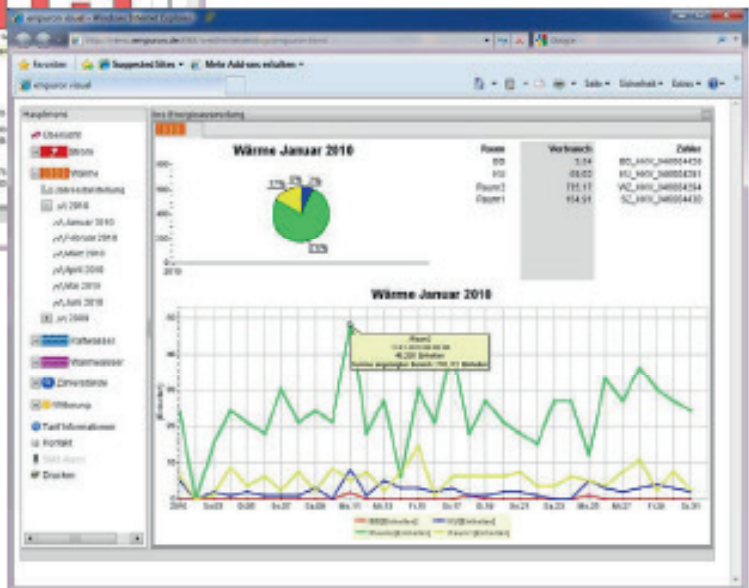- Detection of energy saving potentials

The various well-arranged display formats offer the user ways to efficiently manage their consumption:

⚬ Identification of energy-intensive „power guzzlers"
⚬ Control of energy consumption and usage of low rate times

Monthly consumption

Heat consumption in different rooms in a certain month

Data transfer

EMPURON REMO utilizes IP based standard protocols (ssh, ftp) to acquire counter data. Additionally, a file based import can be used for asynchroneous data supply, supporting varios XML and CSV based standard formats. Additional importer, based on other protocols, can be developed without difficulty thanks to the object oriented importer interface.

Use in the ESP

The data transfer from the consumers to the transformer station is based on the usual standards for ESPs. In the transformer station, the data are sent to the data centre via e.g. fibreglass.

In the data centre, the data are archived, analyzed and compiled for displaying purposes. Pre-configured templates are linked with archived data and presented to the user as self-explanatory, individual overviews.