Energy AID

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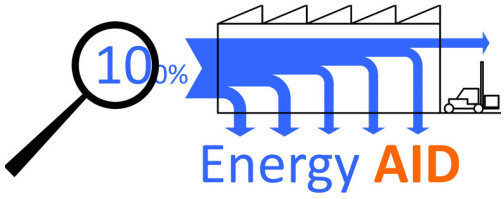
Services and products for energy costs optimisation

Remote services and consulting on energy management.
*We provide these services **via Internet from Poland**.*
Therefore price of these services is reasonable low.



Services

We provide **analyses and consulting on energy** mainly:

- **for industrial companies**,
- **for any other enterprise whose annual energy consumption exceeds** ca 100 MWh/year.

Our english services are limited to **remote services and consulting** on **energy management**. These B2B services are based on analytical, computational and expert skills. We provide these services **via Internet from Poland**.

In Poland our activity is comprehensive. We do analytical work on energy data, energy audits for industrial companies and physical measurements of energy systems.

1. Power and energy data analysis, processing and visualization, including data from building/energy management systems (BMS/EMS)

Data collected from various measurement systems, ie. SCADA/BMS/EMS systems, power meters and analyzers, should be analyzed to utilize the data, draw conclusions and reach solutions, and therefore to generate profits from expensive measurement systems.

A dynamically developing market of metering systems gives a wide range of opportunities to create integrated systems allowing to analyze energy consumption in an enterprise. However, data recorded by tens, hundreds or even thousands of meters, energy analyzers and other measuring points are difficult to analyze due to their large amount.

We offer a service for the analysis and development of measurement data in the field of energy consumption, including data collected for the cause of energy management. The service is aimed at supporting energy management in conditions of large amounts of data from meters and energy analyzers.

Purpose

The aims of energy measurement analysis service are:

- Relieving the employees of the engineering staff of the company by outsourcing the work needed for the fruitful use of measurement data,

and in relation to the data analysis:

- Identification of the share of individual receivers (groups of receivers) in the total energy consumption (energy balancing), i.e. determining which receivers consume the largest amount of energy,
- Determination of the load profile of receivers (groups of receivers), e.g. continuous operation with constant power, intermittent operation, performance requiring the use of power regulation,
- Classification of energy consumption for permanent consumption (independent of production quantity) and variable consumption (depending on the production quantity),
- Searching for unnecessary energy losses, ie. idling devices or unnecessary operation of devices in given time periods,
- Determination of energy consumption during production shutdowns and analysis of these values separately for different production areas,
- Searching for unnecessary load peaks that may cause excessive power consumption, as well as searching for energy losses of machine starts, which can be avoided using soft start devices,

- Searching for ways to reduce the inductive reactive power factor defined as tan(fi), which is the ratio of inductive reactive energy to the amount of active energy, so that tan(fi) would be below the allowed value,
- Searching for time periods and sources of capacitive reactive power, if this is significant,
- Determination of energy efficiency of devices, if the determination of such a size is possible (ie. determination of energy consumption of compressed air systems expressed in [kWh/m3 of air] with comparison to typical values),
- Correlation of energy consumption values with any measured parameters affecting this consumption,
- Diagnostics of machines (detection of abnormal state) according to power consumption.

2. Analysis of conceptual designs (concepts of technical solutions) and technical designs of energy-using devices or installations

If you are planning changes in existing systems/installations, then we can analyze the impact of such changes on energy consumption, as well as find their optimal solutions.

The service is intended for:

- Companies which develop ideas of improvements related to energy efficiency, where the assessment of the solution variants can bring tangible results in obtaining future energy savings (taking into account the value of investment costs), at the initial stage, before meeting the first investment cost,
- For companies which are recipients of technical projects, for which it may be useful to evaluate the projects, to improve them at the initial stage,
- For designers (design offices), where technical project consultations can transfer part of the work related to energy calculations and equipment selection to us, also ensuring increase of the quality of the project for the final customer due to additional analysis of alternative solutions.

Avoiding unnecessary costs

The improvement of the technical design before investment makes it possible to avoid unnecessary investment costs in a less effective solution which would later be improved.

Purpose

Purpose of audit of conceptual and technical designs:

- Assessment of the devices proposed in the project in terms of their energy efficiency,
- Assessment of the method of regulation and control of devices or installations in terms of energy efficiency,
- Assessment of the measurement scope in the installation in terms of control of its current energy efficiency (not only energy consumption, but also the measurement of the quantity of the useful effect).

3. Energy bill validation and analysis

From our experience in analyzing energy invoices (invoices for electricity, invoices for natural gas, invoices for network heat) issued to industrial customers, billings should be checked by energy buyer.

The purpose of purchase invoice analysis

The invoice analysis service is mainly aimed at:

- Verifying the correctness of invoices, i.e. checking the accrued fees for individual services based on meter readings, tariffs and contracts,
- Drawing conclusions resulting from the cost structure, i.e. the quantity of individual components of fees (energy costs, distribution costs, contracted capacity costs, reactive power charges and other charges),
- Verification of alternative energy providers to reduce the commercial price of energy,
- Drawing conclusions regarding the power structure, i.e. the number of power and gas supply connections.

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Who we are

We specialize in energy calculations and analyses in the field of thermodynamic, thermal and fluid flow calculations, but also we perform typical industrial energy audits giving our Clients current energy consumpion analysis and a list of possible actions for energy costs reduction.

In typical cases of energy audits, the team consists of 2-3 auditors, and if necessary it is extended by people with different specialities, mainly from Szczecin, Poland universities.

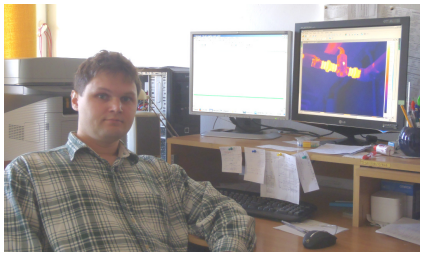
All our auditors have a university degree, as well as work experience at university, including the following areas of interest:

- energy efficiency,
- internal combustion engines,
- thermal energetics,
- local heating systems,
- cogeneration,
- pumps, fans,
- chillers, ventilation and air conditioning,
- transport (logistics, technologies),
- renewable energy sources,
- thermomoderization,
- heat transfer, thermodynamics,
- thermal measurement, data analyzes,
- power supply, electrical power measurements,
- industrial automation in the field of measuring systems,
- ship power plants.

Team leader

The team leader is Wojciech Rachtan, PhD, until 2015 associated with the West Pomeranian University of Technology (formerly the Szczecin University of Technology), since then running a business in the field of energy consulting and energy audits mainly for industrial companies.

The bussiness is run guided by the Client's needs and satisfaction.



Experience

We have years of experience in energy auditing. We conducted:

- Over 40 audits needed to acquire white certificates by our Clients. These audits include a quantitative and qualitative assessment for projects designed to improve energy efficiency,
- About 10 energy audits of a company for large industrial enterprises according to Polish Energy Efficiency Act, including a full analysis of current energy consumption and analyzes resulting in a list of projects aimed at reducing energy purchase costs. The scope of the audit is in line with Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency, in particular Article 8 and Annex VI.
- Other analyzes and studies, including assessment of innovative technologies.

Let's make your costs lower.