

Energy Audit



Energy Efficiency Solutions

Identifying energy cost saving solutions through the implementation of an energy efficiency approach

Conducting an energy audit is the first essential step to ensuring a good definition of energy management actions.

Based on our in-depth knowledge of energy needs of different sectors, Tractebel supports its clients by providing customised energy audits. Our aim is to provide a service that pays for itself by putting money back into your company through smart energy efficiency solutions and actions.

Our approach

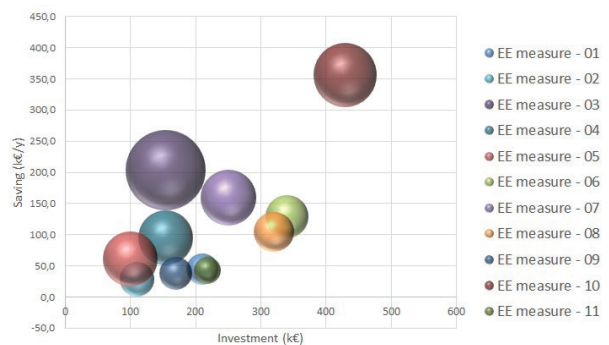
- We focus the audits on identifying commercially-viable energy, CO₂ and cost-saving projects
- A procedure in 3 inseparable phases
 - Data collection (collecting documents, on-site observations, interviews, measures)
 - Analysis (with technical expertise in energy systems, building envelope, analysis of actual consumption, theoretical calculations)
 - Improvement measures (identification, quantification, ranking)
- Solutions attuned to each client's specificities & objectives as the result of a co-creation process

Our added value

- Holistic approach in close collaboration with the client
- The use of powerful software tools for theoretical calculations providing more accurate energy saving potentials
- The use of several measurement and instrumentation tools for accurate data analysis
- Full report with matrix choice of appropriate improvement interventions based on benchmarking analysis, with cost-benefit analysis

Client benefits

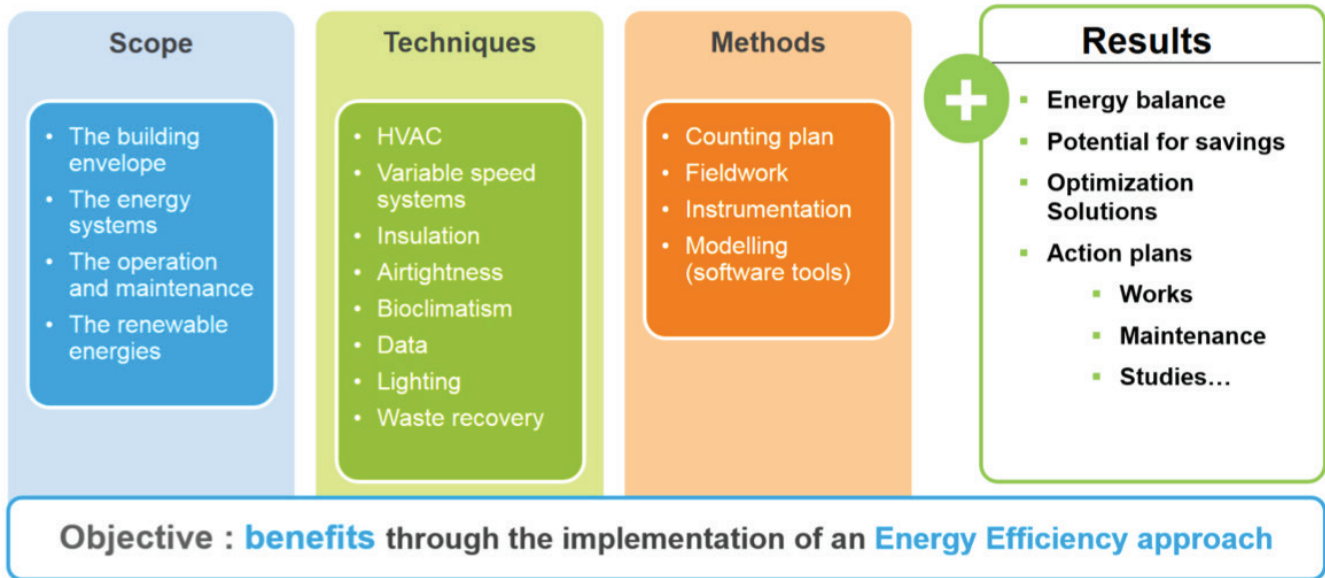
- Fast, accurate identification of the best cost saving solutions to implement with lower payback in all aspects of energy generation and usage
- Action plans to invest in high-performance technologies available on the market:
 - To gain competitiveness
 - To reduce the energy bill
- Co-created approach: customer involvement in thinking and identifying improvements



Energy Audit:

Our approach allows us to perform a detailed study of your current operations, to evaluate future needs according to your objectives and to define the optimisation possibilities, with or without investment, to improve your profitability.

Expert studies geared to help reach a relevant energy decision



Some references

Energy Efficiency Solutions

Automotive Industry: Belgium

Energy audit and energy management

Objective:

Performing a complete Energy Efficiency audit of the whole industrial site comprising factories, offices and technical rooms with an operational energy management approach.

Solutions:

- Modification on cooling pumps
- Solution for shut-down of cooling machines during winter
- Changing technologies of some heat exchangers to improve their efficiency
- Optimisation measures in the secondary circuit
- Waste heat recovery solutions

Results:

- 10% energy savings in 1 year
- Representing 40% of the whole client's Group effort on energy efficiency in 2016

Building: Belgium

Building Energy audit

Objective:

Energy audit of a 12.000 m² building to ensure accordance with current updated energy and environmental legislation.

Methodology:

- Data collection / On-site visit / Measurement / Analysis / Thermal load calculation / Improvement solutions with costs and benefits

Solutions:

- Set point optimisations (boilers temperature, ventilation temperature, ventilation schedule)
- Boilers management system
- Heat recovery
- Optimisation of lighting

Results:

- Precisely identified energy savings potential
- 18 technical solutions identified with immediate profitability
- Selection of 8 solutions after "quickscan"
- Global simple payback < 1 year

Food Manufacturing: Italy

Energy audit of the CHP and HVAC systems

Objective:

Performing an Energy Efficiency audit to optimise the CHP and HVAC system to meet client's sustainability compass (reduce CO₂ emissions, water consumption...with projects that must have simple payback < 3 years).

Solutions:

- Re-assess and repair compressed air leaks
- Upgrade of HVAC Systems
- Valves & steam pipe insulation
- Waste heat recovery solutions on the process

Results:

- Increase of CHP efficiency by 18% (from 64% to 82%)
- 2 750 MWh energy savings per year (-28%)
- 530 000 € reduction in energy savings and operating costs
- CO₂ reductions of 1130 tons per year
- Global simple payback < 2,5 years