

AUDITAC

Air-conditioning, audit,
buildings, EPB Directive,
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SAVE
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ABSTRACT

Summary

Under new EU legislation, governments are obliged to adopt inspection schemes for air-conditioning systems over a certain cooling output. AuditAC investigated and promoted auditing procedures as a fundamental way of achieving real savings, in both CO₂ and energy, in air conditioning systems. Part of the work was to produce tools that would help expert auditors, inspectors and energy managers identify the energy saving opportunities and avoid unnecessary waste. The ultimate goal was to get the market to accept the proposed procedures.

Results

- 'Easily understandable' technical guides allow identification of cooling systems and recognition of the requirements under the new legislation.
- A tried and tested training package of 150 slides for expert auditors and inspectors is available.
- A database and software allows users to identify actual case studies that best match their own situation.
- An exhaustive list of Energy Conservation Opportunities for auditors and inspectors gives guidance and a spreadsheet calculator demonstrates potential savings.
- The 'Eurovent-Certification' database lists performance values for existing AC conditioners.

Lessons learnt

- The European air-conditioning market is still increasing and its energy importance nowadays is widely recognised. Efforts are being made to reduce its contribution to consumption by improving energy efficiency
- Inspection of air-conditioning, although already implemented in some European countries, needs support in definition and implementation in order to target the better opportunities where savings are more important

AuditAC

www.eva.ac.at/projekte/auditac.htm

Energy Management Agency

Intelligent Energy  Europe

ENERGY EFFICIENCY

- There is a lack of knowledge about audit procedures for air-conditioning plants, and air-conditioning owners must be motivated via appropriate means to move toward better efficiency. In this respect, dissemination of the benefits of air-conditioning audit is of significant importance.



AUDITORIUM-PORTO

Case: This is the case of three auditoriums existent on the Faculty of engineering. These auditoriums are equipped with an Air-Air type system. The analysis done to this rooms was merely acoustic.

Lessons learned: The acoustic comfort can be achieved with parallel improvements on the indoor air quality and energy efficiency.



HOSPITAL BUILDING-LINZ

Case: This case concerns with the optimization of the refrigeration plant existent in the central hospital of Linz.

Lessons learned: The saving potential was even higher than estimated, achieving 30-35%.

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