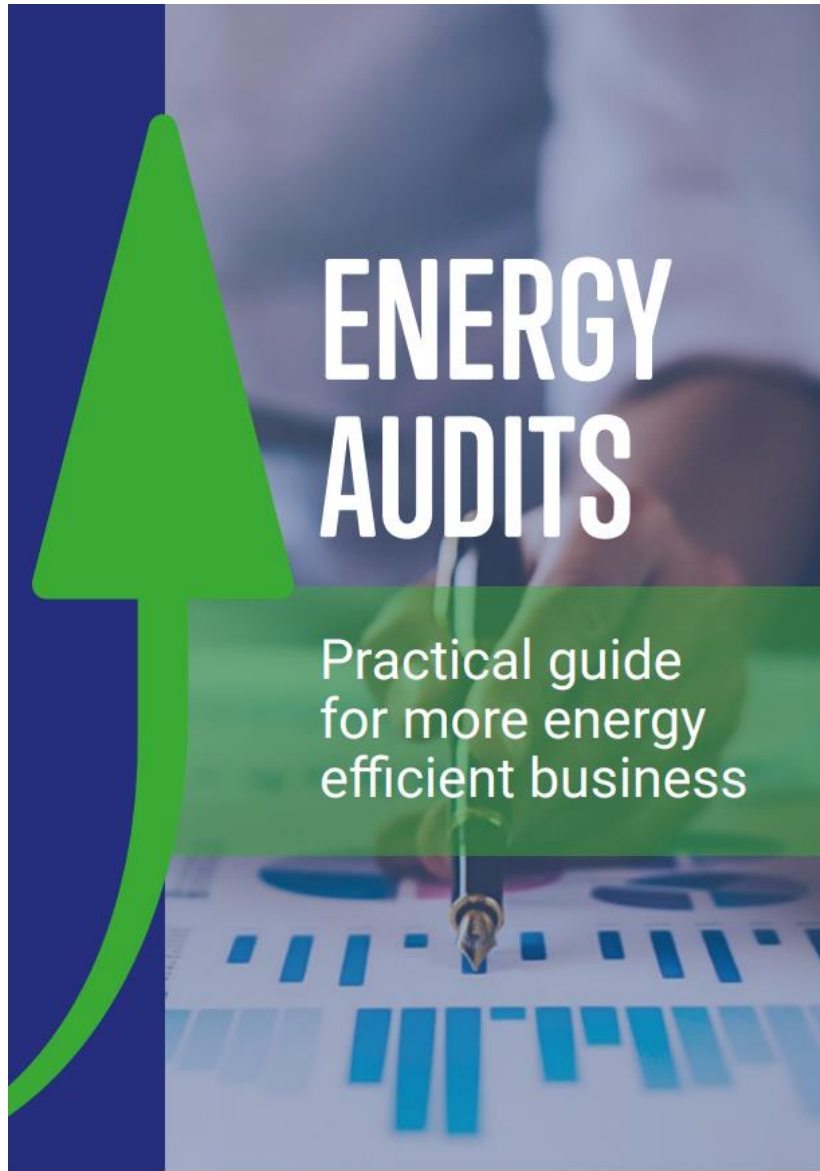


Introduction to Energy Audits

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Available from:
<https://leap4sme.eu/resources/#guide>



What is an energy audit?

An energy audit is a 'systematic procedure' with the purpose of obtaining adequate knowledge of the existing energy consumption profile of a building or group of buildings, an industrial or commercial operation or installation or a private or public service, identifying and quantifying cost-effective energy savings opportunities, and reporting the findings.

Level of complexity

ISO50002:

- **Level 1 audits** covering broad identification of energy saving opportunities including low cost/no cost opportunities and a rapid assessment of the cost benefit of identified potential improvements;
- **Level 2 audits** covering more detailed assessment of energy use data, and a focus on assessing the business case in detail;
- **Level 3 audits (investment grade)** that cover detailed analysis of specific energy using equipment or sub-systems in order to provide the detailed view for planning capital intensive investment.



Energy end uses covered in an energy audit

Three types of energy end-uses can be covered in an energy audit:

- Building energy use
- Process energy use
- Transport energy use



European Energy Efficiency Directive 2012 (still relevant to UK!)

Requires:

- National governments to establish minimum criteria for the energy audits referred to in Article 8 of the Directive. These should be – among other things, “proportionate, and sufficiently representative to permit the drawing of a reliable picture of overall energy performance and the reliable identification of the most significant opportunities for improvement.”
- Audits can be delivered by accredited, qualified experts or by an independent authority set up under national legislation.
- For large enterprises, under Article 8, governments should ensure that the companies undertake audits meeting these guidelines at least every four years.
- For SMEs there is no such mandatory requirement, though Member states shall “Develop programmes to encourage SMEs to undergo energy audits [meeting these guidelines].”



In UK –
development of
ESOS for large
businesses

In UK some
support progs
for SMEs. No
recent national
audit prog. in
England.