



**CONCERTED ACTION
ENERGY EFFICIENCY
DIRECTIVE**

Energy audits: obligations, minimum criteria and qualification, accreditation and certification schemes

Executive Summary

JWGR 5-6.1

Core themes:

**5 Energy services and ESCOs, energy auditing, solving administrative barriers
6 Consumer information programmes, training and certification of
professionals**

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An energy audit is a procedure to evaluate the state of “energy health” of an organisation, service or system and to identify potential energy and economic saving opportunities. It is the first step in an energy services approach and in energy planning (eg, energy review in the energy planning phase of ISO 50001 and emissions inventory in the Covenant of Mayors). Energy audits were considered a very important tool in the Energy Services Directive. The Energy Efficiency Directive underlines the role of energy audits, encouraging their use by public authorities and setting an audit obligation for large enterprises. The Energy Efficiency Directive moreover contains a set of minimum criteria for energy audits.

According to the Energy Efficiency Directive, energy audits can be carried out by qualified and/or accredited experts according to qualification criteria. The audits may be carried out by in-house experts or energy auditors provided that the Member State concerned has put in place a scheme to assure and check their quality. There is a further option whereby audits are implemented and supervised by independent authorities under national legislation.

Energy auditors are one of the categories of energy service providers that fall under the requirements on certification in Article 16 in the Directive. This article states that in a case where a Member State finds the national level of technical competence, objectivity and reliability is insufficient, it shall ensure that, by 31 December 2014, certification and/or accreditation schemes and/or equivalent qualification schemes are being set up.

Three aspects of the transposition of the EED are considered to be urgent; they relate to the definition of the implementation framework and to deadlines. These urgent aspects are:

- 1) Qualification-accreditation-certification schemes for energy audits providers. Art. 16.1 asks Member States to ensure the availability of such schemes, by the end of 2014 to raise “the national level of technical competence, objectivity and reliability”.
- 2) Minimum requirements for energy audits, taking into consideration Annex VI and the suggestion in art. 8.7.
- 3) The obligation on large enterprises to undergo periodic energy audits. Art. 8.4 sets an obligation for large enterprises to undergo an energy audit by 5 December 2015 and every four years thereafter.

These three topics are interconnected: qualification-accreditation-certification, together with other requirements such as tools, help to set and sustain the quality and cost effectiveness of energy audits. The obligation requires a framework to be in place which guarantees the standard of energy audits.

To analyse these aspects of energy audits, a questionnaire was distributed to the participants in the Concerted Action for the Energy Efficiency Directive. Responses were received from 26 out of 29 Member States (including Croatia and Norway).

The questionnaires provided the following insights.

Availability of high quality, cost-effective energy audits

The Energy Efficiency Directive requires that Member States promote the availability to all final customers of high quality, cost-effective energy audits. According to the results of the survey, high quality and cost-effective energy audits are already to a large extent available in the **household, buildings** and **industrial** sectors while they are less common in logistics/transport, energy and agriculture. This may be the result of a lack of consideration of the potential benefits of ad hoc energy audits in these sectors or it may relate to the specificity of these sectors. Audits are carried out in most Member States by qualified or accredited/certified experts; the option of audits implemented or supervised by independent authorities under national legislation is less common.

A variety of methods have been adopted to assure the quality of energy audits. Auditor training, guidelines, tools and templates are widespread and accreditation/certification procedures are also used by a large number of Member States to guarantee the quality of audits.

Most Member States have an existing scheme or programme for qualification and/or certification of energy auditors. For those Member States that are planning to launch a qualification and/or certification scheme, there is a clear need for new or improved systems for training of energy auditors, especially in the buildings and transport sectors.

Minimum requirements for energy audits

The minimum requirements for energy audits listed in Annex VI are generally widespread among the Member States. There has been less consideration of the storability of data and of life cycle cost analysis. There is less uptake of the suggestion included in art. 8.7 on the feasibility of connecting to district heating/cooling.

There are a number of useful and cost-effective audit tools (guidelines, templates for collecting data and reporting, checklists, etc.) that should be considered in setting up or renewing an energy audit programme. A database of energy audits can be useful for managing and monitoring the programme and can also, if representative, build confidence in the results of energy audits among banks, thus making more funding available for implementation of suggested measures.

Energy audits should also contain financial indicators (eg, Discounted Payback, Internal Rate of Return, Return On Investment) if those indicators are used by the decision maker and/or if financing is required.

Energy audit obligations

Energy audit obligations were already present in five Member States, in different sectors and with different thresholds, periodicity and additional requirements. Only 2 of these Member States have a structured supporting framework. Almost half of the Member States who responded to this part of the questionnaire do not have energy audit obligations at the moment and have not started preparing for implementation.

Incentives to carry out audits or to implement audit suggestions are a key factor in engaging a high proportion of those affected by an obligation. There are also other requirements linked to incentives which should be considered, for example, simplified management systems.

A list of the organisations/users subject to the obligation would be very useful to help inform and involve them.

A web site for collection of and information about energy audits is a must.

Added Value

Further work of the CA EED participants aims to investigate some aspects of energy audits related to specific requirements of the Energy Efficiency Directive.

The information gathered through the questionnaire and other relevant material from European projects, papers and previous findings of Concerted Action research were presented together with interesting case studies at a CA EED meeting in Dublin (26-27 March 2013).

The added value of this work is to collect experiences, good practice, ideas, approaches and possible solutions from all the Member States, sharing and discussing them with the person involved in the transposition of the Energy Efficiency Directive.

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The Concerted Action for the Energy Efficiency Directive (CA EED) was launched by Intelligent Energy Europe (IEE) in spring 2013 to provide a structured framework for the exchange of information between the 29 Member States during their implementation of the Energy Efficiency Directive (EED).

For further information please visit www.eed-ca.eu or contact the CA EED Coordinator Lucinda Maclagan at lucinda.maclagan@agentschapnl.nl



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