



**CONCERTED ACTION  
ENERGY EFFICIENCY  
DIRECTIVE**

# **Encouraging SMEs to undergo energy audits and the subsequent implementation of the recommendations from these energy audits**

**Executive Summary 5.5**

**Energy services and ESCOs, energy auditing, solving administrative barriers**

**Juha Toivanen – FI  
Martina Berg and Lara Kruse – SE  
Carla Oliveira – LU  
Daniele Forni – IT**

**May 2015**

# 1 Summary

Central to Article 8 of the Energy Efficiency Directive (EED) is the energy audit, considered an essential tool to enhance energy efficiency from large enterprises down to the household level. For large enterprises, the only alternative to the compulsory energy audit are more comprehensive and systematic energy-oriented management systems, of which energy audits play a central part (e.g. the energy review in ISO 50001).

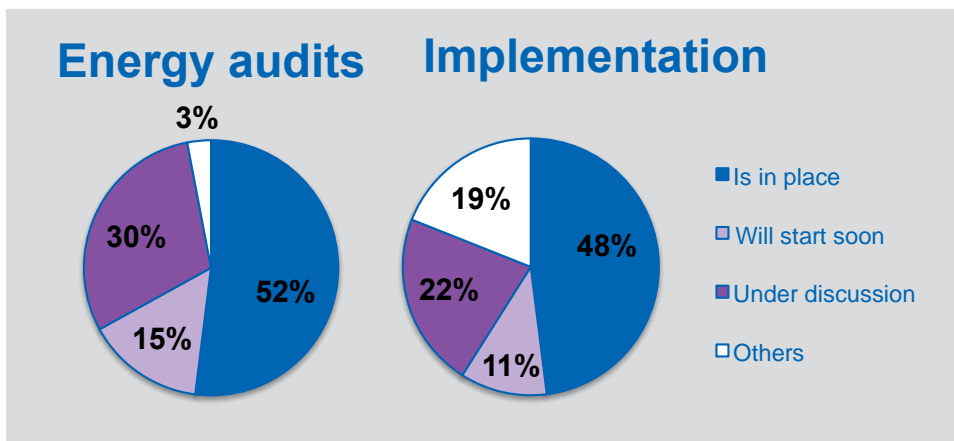
Article 8 paragraph 2 of the EED requires Member States (MS) to “develop programmes to encourage small and medium enterprises (SMEs) to undergo energy audit and subsequent implementation of the recommendations”, “set up support schemes for SMEs ... to cover costs of energy audits and of the implementation of highly cost-effective recommendations” and “bring to the attention of SMEs ... concrete examples of how energy management systems could help their business”. While for large enterprises an energy management system allows continual improvements in energy efficiency, for SMEs it is still debatable as to whether a full energy/environmental management system could be cost effective.

A questionnaire was circulated to the participants and 27 responses from 29 participating countries were received, giving an overview on the situation around Europe.

## Encouragement of energy audit and implementation of recommendations in SMEs

Schemes to encourage SMEs to undergo energy audits are already in place in half of the MS, while in most of the others they are under discussion or will start soon. Schemes to foster the implementation of the audits' recommendations are already in place in almost half of the MS, but only some of the others are about to start or are already discussing them.

**Figure 1 Schemes to encourage SMEs to undergo energy audit and to implement recommendations**



Considering past, present and schemes under discussion, the majority of the initiatives are at a national level, probably due to the more limited time and financial resources of local administrations. The implementation initiatives under discussion and those to be started soon are almost the same in number at both a national and local level. This could indicate a redistribution of roles and responsibilities and/or that to involve entities such as SMEs, usually smaller and more linked to a territory, a local actor may be considered more effective.

There are already some obligations to undergo energy audits for SMEs, in most cases only for those meeting specific criteria. There are different support mechanisms for energy audits in SMEs, from ad hoc guidelines/templates, registration/qualification of audit providers, free advice and mentoring up to subsidies covering 40-75% of the audits' costs. In some cases, these mechanisms are linked to voluntary agreements. The implementation of energy audit recommendations is supported by tax credits, low interest loans and guarantee funds. In many cases, these schemes are part of a more general framework, e.g. subsidies (which in many cases do not require an energy audit as prerequisite), local energy efficiency networks, etc. Figures on the results of some schemes in terms of savings are in the range of 7-15% (average) up to 60%.

The positive experiences reported by MS are mainly around energy audits involving a facilitator, sector organisations or local assistance. The challenges faced are linked to the differences among SMEs (e.g. difficult to reach, scarce resources SMEs can devote to energy efficiency, etc.) suggesting that the reporting obligation and bureaucracy to access the sustaining framework should be simplified as much as possible.

### **Energy management systems for SMEs**

Currently the most common management systems for SMEs in MS are ISO 50001, ISO 14001 and EMAS (Eco-Management and Audit Scheme). Simplified management systems for SMEs are in use (currently, in the past or in the future) in almost one third of the MS (not taking into account other European initiatives<sup>1</sup>).

The experiences presented also show that it is possible to simplify SMEs energy/environmental management systems by using tools (for example web-based tools) and this seems promising.

There is already implementation support for management systems in one third of the MS and in most of the remaining MS support is under discussion or will start soon. It seems that providing financial incentives (support, subsidies, etc.) or technical support for SMEs to adopt energy/environmental management systems has been one of the key challenges. Energy or environmental management systems are usually considered too laborious and expensive for SMEs requirements.

The EED requires that there should be public examples of benefits of management systems for SMEs but so far only a few MS have them.

## **2 Recommendations/Conclusions**

SMEs are very diverse and fragmented and it is difficult to find the right way to segment them; not only size matters, but also sector, energy use, etc. Regarding size, it is probably better to subdivide them into medium (<250 employees), small (<50 employees) and micro businesses (<10 employees) as the ways to reach and involve them can be very different. Various approaches are being used, from general communication (newspapers, magazines, websites, etc.) to direct phone calls or even direct personal contact by energy experts/auditors trying to sell their services. The latter can be very effective and can be an autonomous initiative, but requires the availability of a certain number of auditors/experts in the market.

An issue particularly for small SMEs are resources, particularly time and expertise. It is clear that subsidies, tax credits, low interest loans, etc. are welcome and are one of the main triggers for action, but there is a need for assistance and facilitation, usually through sector organisations, local agencies, chambers<sup>2</sup>, engineering networks, etc. A number of the support initiatives for SMEs are using structural funds and new initiatives are also looking at this funding source.

The examples provided in the parallel session showed that simplified management systems and energy networks seem to perform well, with 50-100% higher energy efficiency implementation rates than business as usual. However, these don't seem to be the right tools for SMEs with lower energy use or lower energy efficiency potential (usually smaller enterprises although this also depends on the sector, etc.). There is not a fixed minimum size of SMEs for these activities, but it is clear that they can't be too small or must at least have an interesting energy saving potential unless other benefits are also considered (e.g. public image, etc.). Energy/environment management systems are also appealing for certification. When setting up a simplified system, it is important to structure it in a way that can provide certification with the lowest additional effort.

MS combine a variety of measures to reach and support SMEs, from subsidies for audits and implementation, simplified guidelines for audits, voluntary agreements and qualification/certification for experts to simplified energy/environmental management systems and energy networks. This seems to indicate that due to the diverse nature of SMEs it is not possible to set up one-size-fits-all support. There is no extensive data, but the impression is that with various initiatives it is possible to involve only a certain number of SMEs, probably those who were already thinking about or are ready to implement the measures anyway. It seems the good practice discussed

---

<sup>1</sup> For example EMAS energy efficiency toolkit for SMEs [http://ec.europa.eu/environment/emas/pdf/general/energyeff\\_en.pdf](http://ec.europa.eu/environment/emas/pdf/general/energyeff_en.pdf)

<sup>2</sup> For example the European project STEEP, [www.steep.eu](http://www.steep.eu) involving regional and local Chambers of Commerce and Industry of 10 MSs.

would be difficult to scale up in the same territory to cover more SMEs, and even more difficult to replicate in other MS (due to cultural diversity).

## 3 Practical Examples

In the introduction to the parallel sessions, some results of the Energy Efficiency Financial Institution Group (EEFIG) report on drivers, barriers and recommendations specific to financing projects for SMEs were shared. The report recommends that energy efficiency opportunity identification and investible project pipelines should be supported with Project Development Assistance facilities for SMEs.

The key drivers for the demand of energy efficiency investment in SMEs are:

- 1) energy efficiency return on investment
- 2) existence of public subsidies for energy efficiency projects
- 3) financial support for technical assistance

When looking at the drivers for the supply of energy efficiency investment in SMEs, the list is reprioritised:

- 1) existence of public subsidies for energy efficiency projects
- 2) regulatory stability
- 3) development of easy to use standards for all steps in an energy efficiency investment project

Different approaches to supporting SMEs include:

- **France:** there are various funds to support energy efficiency. The ones for enterprises in general don't require an energy audit, but those specifically for SMEs require an energy audit according to specific guidelines and/or qualification for providers of energy audits.
- **Finland:** Voluntary Agreements have been in place since 1992, subsidising energy audits and investments in efficiency. These are not specific to SMEs but cover 60-90% of consumption depending on the sector. The requirements are: nominate a responsible person, set targets, action plan, increase know-how, and report on consumption, measures and savings.
- **Sweden:** specific support for energy audits and planning in SMEs, with templates for auditing and report. 10% savings are achieved on average. Measures with longer payback times (e.g. 10 years) are present: this is also because of the measures on buildings of non-manufacturing SMEs. Although there is no obligation to implement measures (only an obligation to report after 6 months and 2 years), 80% did try to implement the measures mostly due to increased knowledge.

Simplified management systems for SMEs and energy efficiency networks identified include:

- **Germany:** Learning Energy Efficiency Networks (LEEN). Although not designed for SMEs it could work well for them. Germany has replicated the model and launched LEEN 100 Plus at the end of 2014. Although there are currently subsidies, the model should work without public support. The model requires a local host (city, chamber of commerce, energy distributor, etc.), a moderator and an engineer counsel.

Participants get an EN 16247 audit and the work covers the most important parts of ISO 50001. On average, the enterprises in the network invested twice as much as those outside the programme. This was due in part to lower transaction costs because SMEs could check how the measures work for members of the network that had already implemented it.

- **Sweden:** the Energy Management System Light within the ENIG energy efficiency network, managed by the iron sectorial association. There are 5 stages inspired by ISO 50001 but simplified for SMEs: energy audit, targets, action plan, energy policy, investment methods and improvement methods. In two pilot projects the average saving was 15% (against 10% for energy audit only).
- **Finland:** Ecostart, a simplified environmental system for SMEs (2007-2013) co-financed by the European Social Fund. There is a certified consultant and 3-4 think tank sessions (manufacturing, energy, product and environmental programme). There were positive results in terms of energy savings, waste and emission

reduction. An affordable, certified management system was developed as a marketing tool but it was resource intensive. Not many SMEs were interested and were difficult to reach.

**For more information please email**  
[forni@fire-italia.org](mailto:forni@fire-italia.org)

### **Legal Disclaimer**

The sole responsibility for the content of this report lies with the authors. It does not necessarily reflect the opinion of the European Union or the Member States. Neither EASME nor the European Commission are responsible for any use that may be made of the information contained therein.

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 <http://www.ca-eed.eu/> or contact the CA EED Coordinator Lucinda Maclagan at [lucinda.maclagan@rvo.nl](mailto:lucinda.maclagan@rvo.nl)



Co-funded by  
the Intelligent Energy Europe Programme  
of the European Union