CLEAN ENERGY FOR ALL EUROPEANS

ARTICLE 8 OF THE ENERGY EFFICIENCY DIRECTIVE ON ENERGY AUDITS

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THE CONTEXT
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Keeping the effort

EU 28 - 30% Primary Energy Consumption target

- 173 Mtoe in 10 years

- 162 Mtoe in 10 years
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TRENDS IN Primary Energy Consumption/GDP

Changes in primary energy consumption and GDP (2005-2015)

-variation of primary energy consumption (2005-2015)
 variation of GDP (2005-2015)
Final energy efficiency in industry

average annual change 2005 - 2015 [%]

Source: European Commission based on Eurostat data
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Major requirements

Member States shall:

§1: **Promote** the availability to all final customers of cost-effective, independent and supervised high quality *energy audits*.

§2: Develop programmes to **encourage SMEs** to undergo energy audits and the subsequent implementation of the recommendations from these audits.

§3: Also develop programmes to **raise awareness** among households about the benefits of such audits through appropriate advice services.

§4-7: **Ensure** that *non-SMEs* are subject to an *energy audit* (first audit until 5 December 2015, thereafter every four years) based on minimum criteria (Annex VI) or they may implement an energy or environmental *management system* (which includes an audit).
Mandatory requirements for large enterprises

Member States shall ...

§4-7: **Ensure** that **non-SMEs** are subject to an **energy audit** (first audit until 5 December 2015, thereafter every four years) based on minimum criteria (Annex VI) **or** they may implement an energy or environmental **management system** (which includes an audit).
An overview of the SME identification process

Step 1. Am I an enterprise?

Step 2. Which criteria need to be checked and what are the thresholds?

Step 3. What do these criteria cover?

Step 4. How do I calculate these data?

Minimum requirements for audits (Annex VI)

- High-quality energy audits.
- Cost-effective energy audits.
- Up-to-date, measured and traceable data.
- Life-cycle cost analysis.
- Proportionate and representative audits.
- Detailed and validated calculations.

Lesson learnt from EU implementation: need for a dedicated Guidance document.
Why are updated guidelines needed?

• Several Guidance documents adopted – including on Article 8.

• Considerable experience accumulated on Article 8.

• Effectiveness of measures and their impact can be increased.

• Additional guidance especially for cost-effectiveness, proportionality and representativeness of energy audits.

• Who are they for.
Six questions to all EU Member States

1. The number of companies

2. Energy consumption in a given year

3. The share of audited energy consumption in total company's consumption (de minimis)

4. Estimated energy saving potential

5. Estimated energy savings achieved

6. Audit costs in euro or in man-days (in total and for each company site)
Key findings from review of literature

Key points have been drawn out from the literature*

• Cost-benefit

• De minimis

• Clustering

• Sampling

* Article 8 studies/analysis, NEEAPs, Concerted Action reporting, legislation, guidelines, FAQs, etc.
NEXT STEPS
An updated Guidance Document on Article 8

**Aim:** Prepare Guidelines for the application of the criteria on **cost-effectiveness**, **proportionality** and **representativeness** of energy audits.

**Approach:** Best practice in auditing, voluntary methodologies, small sites with low energy consumptions, multi-site and multi-national companies.

**Process:** EED Committee. Adoption by the European Commission.
Key themes for guidelines

1. Cost effectiveness
2. Proportionality
3. Representativeness
4. Compliance
De Minimis

Concept
- Proportion of energy use to be excluded
- Reduction of data to be gathered

Challenges
- Limit/threshold
- Effectiveness

Options identified
- Percentages of total energy use, energy use per energy/activity type; defined energy use; defined energy cost

Next steps
- Development of criteria/guidelines to set up a de minimis at national level (not appropriate to establish a threshold to be applied across the EU)
Clustering

Concept
• Grouping energy use into similar clusters reduces the need to audit all activities

Challenges
• Definition and level
• Representativeness and cost-effectiveness

Options identified
• Clustering by site type, by activity type, by energy use or in combination

Next steps
• Development of common methods for clustering (and sampling – see next slide)
Sampling

**Concept**
- Similar operations may have similar energy efficiency opportunities
- Samples need to be representative

**Challenges**
- Prove reasonability
- Sampling harder for some energy uses than others

**Options identified**
- Simple statistical sample
- Varying sample size based on number of sites
- Sample based on energy use
- Self determined flexible sample

**Next steps**
- Development of common methods for sampling and clustering
Updated Guidance document: Next steps

1. Feedback from national authorities by 24 November 2017

2. Draft Guidelines to be circulated in January 2018

3. Next Committee meeting in February 2018
General next steps

- Complete the work on the **Guidance document** (next round of audits in 2019).

- **Non-conformity checks of national implementation** of the EED.

- **Overall evaluation** of energy audits provisions (several studies already ongoing at national level in AT, DE, DK, IT, UK, etc.).
Important aspects

• **Focus on the follow-up of energy audits**: from the audit recommendations to a business plan.

• Better understanding of where the highest and more cost-efficient **energy efficiency potentials** exist (which sector/technology/process).

• Better understanding on the **barriers for investors – de-risking** instruments, benchmarking and indicators need to support the follow-up of energy audits.
Further information

- **Energy savings and the potential in industry:**

- **Implementation of Article 8 of the EED:**


Thank you for your attention!

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DG ENER, European Commission Website:
http://ec.europa.eu/energy/efficiency/index_en.htm
## Large companies: Definition of a non-SME

<table>
<thead>
<tr>
<th>Employees</th>
<th>Turnover</th>
<th>Balance Sheet Total</th>
<th>Outcome</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 250</td>
<td>≤ €50m</td>
<td>≤ €43m</td>
<td>SME</td>
<td>Meets all criteria</td>
</tr>
<tr>
<td>&lt; 250</td>
<td>≤ €50m</td>
<td>&gt; €43m</td>
<td>SME</td>
<td>Meets main and one secondary criteria</td>
</tr>
<tr>
<td>&lt; 250</td>
<td>&gt; €50m</td>
<td>≤ €43m</td>
<td>SME</td>
<td>Meets main and one secondary criteria</td>
</tr>
<tr>
<td>&lt; 250</td>
<td>&gt; €50m</td>
<td>&gt; €43m</td>
<td>Large</td>
<td>Only meets primary criteria</td>
</tr>
<tr>
<td>≥ 250</td>
<td>≤ €50m</td>
<td>≤ €43m</td>
<td>Large</td>
<td>Does not meet primary criteria</td>
</tr>
<tr>
<td>≥ 250</td>
<td>≤ €50m</td>
<td>&gt; €43m</td>
<td>Large</td>
<td>Does not meet primary criteria</td>
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<td>≥ 250</td>
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<td>≤ €43m</td>
<td>Large</td>
<td>Does not meet primary criteria</td>
</tr>
<tr>
<td>≥ 250</td>
<td>&gt; €50m</td>
<td>&gt; €43m</td>
<td>Large</td>
<td>Does not meet any criteria</td>
</tr>
</tbody>
</table>

**Note:** Illustration focuses on the three main criteria. It does not take into account partner or linked companies.
Encouragement of SMEs

**Question:** What have the Member States done to encourage or compel SMEs to undergo energy audits and the subsequent implementation of the recommendations from these audits?

- Approximately **50 instruments** in place across the Member States, but differently used in the countries (different number, coverage, intensity);

- General **policy approaches vary**: some countries have a stronger focus on voluntary agreements, others focus more on financial incentives.

*Some information still preliminary.*
Key themes for the guidelines

Cost effectiveness
- Ensuring that audits value is maximised
- Ensuring return on investment of audit and subsequent implementation
- Requires consideration of audit quality

Proportionality
- Balancing the administrative effort with likely benefits (focus on small sites with low energy consumption)
- Providing focus and prioritisation for an audit plan

Representativeness
- Addressing all energy uses equitably

Compliance
- Achieving the above whilst ensuring compliance with Article 8
- Providing clarity to regulated enterprises
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Implementation of the approaches

Cost effectiveness
- Return on investment of audit

Proportionality
- Reduced administrative burden
- Exclude small energy uses

Representativeness
- Clustering
  - Group energy use to represent all discreet and repeatable activities / uses

De Minimis
- Maximise return on investment of audit

Sampling
- Focus on significant energy use
- Ensure audit plan addresses all energy use