CLEAN ENERGY FOR ALL EUROPEANS

ENERGY AUDITS (AND ENERGY MANAGEMENT SYSTEMS) UNDER THE EED

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Energy Community
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THE CONTEXT
Keeping the effort

EU 28 - 30% Primary Energy Consumption target

- 173 Mtoe in 10 years
- 162 Mtoe in 10 years

European Commission
EE3: Final energy intensity in industry

average annual change 2005 - 2015 [%]

Source: European Commission based on Eurostat data
ARTICLE 8 OF THE ENERGY EFFICIENCY DIRECTIVE
CLEAN ENERGY FOR ALL EUROPEANS

Energy Efficiency Directive 2012/27/EU

Article 3: National energy efficiency targets
Article 4: Long term building renovation strategies
Article 5: Renovation of central government buildings
Article 6: Public procurement
Article 7: Energy efficiency obligations (or alternatives)
Article 8: Energy audits and energy management systems
Articles 9-11: Smart metering and billing
Article 14: CHP and district heating and cooling
Article 15: Energy efficiency in grids and demand response
Article 16-17: Qualification, training and information
Article 18: Energy service markets
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).
The legislative framework

- Mandatory requirements for large enterprises
- Encouragement of SMEs
- Monitoring, verification and penalties
- Minimum requirements for audits (Annex VI)
- Encouragement of ISO 50001 and 14001
- Qualification of energy auditors

Article 8
Mandatory requirements for large enterprises

- Energy audits every four years (first by December 2015).
- Applies to all sectors, not only industry, but also services. Harmonised definition of large enterprises based on a EU definition of SMEs (Commission Recommendation 2003/361/EC of 6 May 2003).

Only one exemption:
- Enterprises having in place an Energy or Environmental Management Systems (ISO 50001).

Lesson learnt from EU implementation: Important to establish a national registry of large companies.
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?

### 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>
</tr>
<tr>
<td>≥ 250</td>
<td>&gt; €50m</td>
<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>

**EU Definition**

- **Balance sheet total [EUR]**
  - ≤ 43 Mio.
  - > 43 Mio.
- **Annual turnover [EUR]**
  - ≤ 50 Mio.
  - > 50 Mio.
- **Employees [Number]**
  - < 250
  - ≥ 250

Note: Illustration focuses on the three main criteria. It does not take into account partner or linked companies.
Instruments addressing SMEs across the EU28

**Financial instruments**

Energy audits: Austria, Bulgaria, Croatia, Denmark, France, Germany, Italy, Luxembourg, Malta, Poland, Portugal, Slovakia and Sweden

Energy management systems: Austria, France, Germany, Luxembourg, Malta, Spain and Sweden

**Regulatory instruments***

Energy audits: Bulgaria, Croatia, Czech Republic, Ireland, Italy, Luxembourg, Portugal, Romania, Romania and Slovenia

Energy management systems: None

**Information instruments**

Energy audits: Belgium (Flanders) and Germany

Energy management systems: Belgium (Flanders), Denmark and Sweden

**Voluntary agreements**

Energy audits: Bulgaria, Finland, Malta** and the Netherlands

Energy management systems: Denmark, Finland and the United Kingdom

* Mainly based on energy thresholds and lower financial thresholds in the definition of large companies.

** Instrument planned, not yet in place.
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 for enterprises with clear methodologies and examples to implement these principles (beyond primary legislation transposing Article 8).
# Auditors qualifications

(Example for some countries, updated December 2015)

<table>
<thead>
<tr>
<th></th>
<th>IE</th>
<th>IT</th>
<th>LV</th>
<th>LT</th>
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<tr>
<td>Art 8 transposed</td>
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<td>x</td>
<td>x</td>
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<td>✓</td>
<td>✓</td>
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<td>x</td>
<td>✓</td>
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<td>✓</td>
<td>x</td>
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<tr>
<td>Accreditation scheme</td>
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<td>✓</td>
<td>✓</td>
<td>x</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>x</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Mandatory training (might include an exam)</td>
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<td>✓</td>
<td>x</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>x</td>
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<td>✓</td>
<td>✓</td>
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<td>✓</td>
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<td>✓</td>
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<tr>
<td>Energy auditors register</td>
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<td>x</td>
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<td>✓</td>
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<tr>
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<td>n/a</td>
<td>n/a</td>
<td>✓</td>
<td>✓</td>
<td>x</td>
</tr>
</tbody>
</table>

**Lesson learnt from EU implementation:** training and accreditations schemes are essential to ensure high quality service. A public registry needs to be kept up to date.
NEXT STEPS
### A new Guidance Document on Article 8

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

**Process:** Member State authorities involved through the EED Committee.

Update of the existing Guidance document to be adopted by the European Commission.

**Approach:** Guidance prepared on the basis of best practice in auditing, proposing voluntary methodologies, focus on small sites with low energy consumptions and multi-site and multi-national companies.
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.).
Further information


Thank you for your attention!

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DG ENER, European Commission Website:
http://ec.europa.eu/energy/efficiency/index_en.htm