Transposition Study
17 June 2015

Energy Audits for Europe
Assessment of the transposition of Article 8 of the Energy Efficiency Directive (2012/27/EU) into Member State legislation
Executive Summary

“What can be measured, can be improved.” Following this principle, the EU gave a high profile to energy audits when adopting the Energy Efficiency Directive in 2012. Accordingly, large companies are now required to regularly undergo mandatory energy audits or to implement energy management systems. At the same time, EU Member States must develop programmes to promote voluntary energy checks to SMEs, including through financial incentives.

By early June 2015, one year after the implementation deadline, 18 EU Member States have, at least partly, transposed the Directive into their national legislation. However, provisions on energy audits obligations, auditor requirements and audit conditions vary considerably, leading to unnecessary bureaucratic burden in several Member States. The additional absence of secondary legislation has led to legal uncertainty for businesses in some countries.

Key Findings

- Delayed transposition in 10 Member States and missing secondary legislation in some countries are creating a high degree of legal uncertainty on the conditions for carrying out energy audits.
- Gold plating of EU legislation risks leading to significant levels of bureaucratic burden in several Member States.
- About half of EU Member States are behind schedule in the provision of support programmes for SMEs to undergo energy audits and to implement identified energy saving measures.

Key recommendations

- Laggard Member States must ensure swift and full transposition of Article 8 of the Energy Efficiency Directive in order to provide full legal certainty to businesses.
- Member States that have not yet transposed the directive should keep the administrative burden, particularly with regard to minimum requirements and reporting obligations, to a minimum.
- More tailor-made support programmes are required to provide appropriate incentives to SMEs to undergo energy audits.
- Chambers of Commerce and Industry are trusted and experienced facilitators for the uptake of energy efficiency measures and practices in businesses. Public Authorities, Chambers and other intermediary organisations should, therefore, collaborate more effectively to ensure the promotion of energy audits to SMEs.
Acknowledgment

The following organisations have contributed to this publication:

- AUSTRIAN Federal Economic Chamber
- BULGARIAN Chamber of Commerce and Industry
- CROATIAN Chamber of Economy
- CYPRUS Chamber of Commerce and Industry
- CZECH Chamber of Commerce
- ESTONIAN Chamber of Commerce and Industry
- The Central Chamber of Commerce of FINLAND
- Voka, FLANDERS Chamber of Commerce and Industry
- CCI FRANCE
- Association of GERMAN Chambers of Industry and Commerce
- Chambers IRELAND
- Association of ITALIAN Chambers of Commerce, Industry, Craft and Agriculture
- LATVIAN Chamber of Commerce and Industry
- Association of LITHUANIAN Chambers of Commerce, Industry and Crafts
- Chamber of Commerce of the GRAND-DUCHY of LUXEMBOURG
- MALTA Chamber of Commerce, Enterprise and Industry
- NETHERLANDS Chamber of Commerce
- POLISH Chamber of Commerce
- PORTUGUESE Chamber of Commerce and Industry
- Chamber of Commerce and Industry of ROMANIA
- Chamber of Commerce and Industry of SLOVENIA
- Chamber of Commerce of SPAIN
- The Association of SWEDISH Chambers of Commerce and Industry
- Federation of Small Businesses (UK)

List of abbreviations

BE-V Belgian Region of Flanders
CCI Chamber of Commerce and Industry
CZK Czech koruna
EED Energy Efficiency Directive
EMAS Eco-Management and Audit Scheme
EPC Energy Performance Certificate
ESOS Energy Savings Opportunity Scheme
EU European Union
GJ gigajoule
GWh gigawatt-hours
ISO International Organization for Standardization
HRK Croatian kuna
KWh kilowatt-hours
MWh megawatt-hours
PLN Polish zloty
SME small and medium-sized enterprise
STEEEP Support and Training for an Excellent Energy Efficiency Performance
toe tons of oil equivalents
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1. Introduction

“In business, being efficient paves the way to success”
Richard Weber, President of EUROCHAMBRES

The Energy Efficiency Directive (2012/27/EU) is not only a key instrument to achieve the EU target to become 20% more energy efficient by 2020. It is also a legal tool to modernise the European economy and provides an opportunity for EU businesses to become more efficient and hence, more competitive.

From an energy consumer and business perspective, article 8 of the Directive is of particular interest, as it lays out the obligations and conditions for energy audits. Gaining a picture of a business’ energy consumption, its processes, infrastructure and transport is an important first step to control and consequently cut production costs.

According to the energy audit provisions of the Directive, business that are not SMEs, are obliged to undergo comprehensive energy audits by 5 December 2015 and at least every 4 years from the date of the previous audit. Enterprises that regularly carry out energy audits in the context of a certified energy or environmental management system are, however, exempted from the obligation.

Audits can be carried out by external energy experts or by in-house auditors. Member States are free to define schemes to ensure that energy auditors have a relevant educational background and appropriate work experience.

Furthermore, annex IV of the Directive establishes guidelines for minimum criteria which should apply to energy audits. Accordingly, audits have to be based on current and traceable data, include detailed consumption profiles, build on life-cycle cost analysis and be sufficiently representative in order to identify significant energy saving opportunities.

Apart from the audit obligations for large companies, Member States also have to develop programmes to encourage SMEs to undergo audits. In order to incentivise SMEs, financial support may be considered. Moreover, national governments, with the support of the European Commission, are required to promote best practices on energy management systems to SMEs, also through their respective representative intermediary organisations.

One year after the deadline for transposition of the directive (5 June 2014) and half a year before the closing date for performing first energy audits in large companies (5 December 2015), this report takes stock of the transposition process of article 8 EED and identifies bureaucratic burden that emerges from implementing energy audits in various countries. Moreover, it assesses the availability of national support programmes for businesses and in particular for SMEs.
2. Report

2.1 Status of Transposition

By 5 June 2015, exactly one year after the deadline for transposition of the Energy Efficiency Directive, 18 Member States\(^1\) have, at least partly transposed Art. 8 EED into their national legislation. Slovenia and Croatia have not yet adopted the secondary legislation required to set out the conditions for conducting energy audits, and in the case of the latter, also for defining the qualification criteria for auditors.

Map: Status of Transposition of Art. 8 EED by 5 June 2015

While seven countries (BE-V, HR, DK, FR, MT, SI, SE, UK\(^2\)) managed to adopt the (primary) legislation transposing Art. 8 EED, before the 5 June 2014 deadline, another six Member States (AT, FI, IE, SK, RO, IT) transposed it later in 2014. Four countries (BG, PT, CZ, DE) adopted the legislation between January and May 2015. Among the remaining ten Member States, several countries (e.g. ES, EE, LT) are currently at the very final stages of the transposition process.

\(^1\) In Belgium, energy efficiency legislation falls under the competence of the three regions. As a case study for Belgium, the transposition in the Region of Flanders (BE-V) has been selected.

\(^2\) Main transposition act (ESOS) was adopted in 2015
2.2 Obligations for large companies

All 18 Member States which have transposed Art. 8 EED by 5 June 2015 adopted the obligation for “non-SMEs” to carry out mandatory energy audits. In 11 countries (AT, BE-V, DK, FI, FR, DE, IE, MT, SK, SE, UK) the EU SME definition was defined as the only criterion for whether a business is subject to a mandatory audit. Two countries (HR, SI) applied national SME definitions with a narrower scope:

<table>
<thead>
<tr>
<th></th>
<th>employees</th>
<th>annual turnover</th>
<th>total assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU</td>
<td>&lt; 250</td>
<td>&lt; EUR 50 m.</td>
<td>&lt; 43 m.</td>
</tr>
<tr>
<td>Croatia*</td>
<td>&lt; 250</td>
<td>&lt; HRK 130 m. (=EUR 34 m.)</td>
<td>&lt; HRK 130 m. (= EUR 17 m.)</td>
</tr>
<tr>
<td>Slovenia</td>
<td>&lt; 250</td>
<td>&lt; EUR 35 m.</td>
<td>&lt; EUR 17.5 m.</td>
</tr>
</tbody>
</table>

*In Croatia, only two out of 3 criteria need to be fulfilled in order to be considered a large company

Five Member States also adopted an energy consumption criterion for defining audit obligations:

- In Malta, large companies whose energy consumption is below 50,000kwh (4.3 toe) per annum are excluded from the energy audit obligation.
- In Denmark, large companies with a very low energy consumption of less than 100 MWh/year, are exempted from audit obligations.
- In Italy, energy intensive businesses, defined as entities consuming more than 2400 MWh/year and that have ratio cost of energy used / turnover > 3%, are required to conduct audits.
- In Bulgaria, industrial systems that consume more than 3000 MWh/year have to be audited, independent from the size of the business.

<table>
<thead>
<tr>
<th>MWh/year</th>
<th>Above</th>
<th>below</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malta</td>
<td>50 large companies</td>
<td>no obligation</td>
</tr>
<tr>
<td>Denmark</td>
<td>100 large companies</td>
<td>no obligation</td>
</tr>
<tr>
<td>Italy</td>
<td>2400 all companies whose energy ratio cost of energy used / turnover &gt; 3%</td>
<td>only large companies</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>3000 industrial systems</td>
<td>only large companies in the manufacturing and service sector</td>
</tr>
<tr>
<td>Czech Rep.</td>
<td>10000 large companies</td>
<td>no obligation</td>
</tr>
<tr>
<td>Romania</td>
<td>11630 all companies</td>
<td>only large companies</td>
</tr>
</tbody>
</table>

A Medium-sized enterprise is defined as an enterprise which employs fewer than 250 persons and whose annual turnover does not exceed EUR 50 million or whose annual balance-sheet total does not exceed EUR 43 million.
In the Czech Republic, only large companies whose total energy consumption exceeds 10,000 MWh/year, have to carry out quadrennial audits.

In Romania, all companies that consume more than 1,000 toe/year (roughly 11,630 MWh) are, besides large companies, subject to energy audit obligations.

Regarding the deadline for conducting the first energy audit in large businesses, Austria (30/11/2015), Flanders (01/12/2015) and Bulgaria (06/05/2016) set different time limits. All other Member States adopted 5 December 2015 as deadline.

In all Member States, mandatory energy audits have to be carried out within every four years of the previous audit. Only Portugal specified an exemption: In case the periodic energy audits are not ‘profitable’, they can be carried out every eight years. According to the Portuguese implementation act, an energy audit is profitable when the costs of the audit itself, cumulated with the implementation costs of the energy efficiency measure identified, are lower than the monetary value of the energy savings realised as a result of the energy efficiency measures undertaken.

### 2.3 Exemptions

<table>
<thead>
<tr>
<th>Member State</th>
<th>Certified management systems According to</th>
<th>Other Exemptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT</td>
<td>EN 16001/ISO 50001 or ISO 14001</td>
<td>Nationally recognised management systems</td>
</tr>
<tr>
<td>BE-V</td>
<td>EN 16001 or ISO 50001</td>
<td>Signatories of Flemish energy agreements; sites required to have an energy plan according to Flemish law;</td>
</tr>
<tr>
<td>BG</td>
<td>European or international standards</td>
<td></td>
</tr>
</tbody>
</table>

All 18 Member States that have so far translated Art. 8 EED defined exemptions from the audit obligations for large (and in some countries energy-intensive) companies. The option to put energy and environmental management systems in place, that include an energy audit, can be used in all 18 countries. While some transposition acts only refer, in general terms, to European and international standards which have to apply to these management systems, others require certification according to concrete standards, like ISO 50001/EN 16001 for energy management or ISO 14001/EMAS for broader environmental management.

In addition, Flanders, Finland and Slovenia grant exemptions to signatories of voluntary national Energy (Efficiency) Agreements. Malta also excludes small vessels of less than 5,000 gross tons (provided that these represent less than 10% of a company’s total energy consumption), buildings and civil engineering projects in construction and parts of enterprises or processes that are covered by other audits/certification schemes. Also, Finland excluded certain means of transport from the audit obligation.
### 2.4 Qualification criteria for auditors

<table>
<thead>
<tr>
<th>Member State</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>HR</td>
<td>European or international standards</td>
</tr>
<tr>
<td>CZ</td>
<td>ISO 50001 or ISO 14001</td>
</tr>
<tr>
<td>DK</td>
<td>European or international standards</td>
</tr>
<tr>
<td>FI</td>
<td>ISO 50001 or ISO 14001; Signatories of voluntary energy efficiency agreements (e.g. ETJ+); airplanes, ships, trains and cars</td>
</tr>
<tr>
<td>FR</td>
<td>ISO 50001 or ISO 14001</td>
</tr>
<tr>
<td>DE</td>
<td>ISO 50001 or EMAS</td>
</tr>
<tr>
<td>IE</td>
<td>European or international standards</td>
</tr>
<tr>
<td>IT</td>
<td>ISO 50001 or ISO 14001, EMAS</td>
</tr>
<tr>
<td>MT</td>
<td>European or international standards (e.g. ISO 50001, ISO 16247, ISO 14001); small vessels, buildings/civil engineering in construction, parts of enterprises/processes that are covered by other audits/certification schemes</td>
</tr>
<tr>
<td>PT</td>
<td>European or international standards</td>
</tr>
<tr>
<td>RO</td>
<td>European or international standards</td>
</tr>
<tr>
<td>SK</td>
<td>ISO 50001 or ISO 14001</td>
</tr>
<tr>
<td>SI</td>
<td>European or international standards; Signatories of voluntary agreements if these include energy audits</td>
</tr>
<tr>
<td>SE</td>
<td>European or international or national standards</td>
</tr>
<tr>
<td>UK</td>
<td>ISO 5001</td>
</tr>
</tbody>
</table>

So far, 17 Member States have adopted qualification criteria for energy auditors. Among those countries that have already transposed Art. 8 EED, Croatia and Flanders have not defined any requirements in this context. Lithuania specified such criteria, although primary legislation has not been adopted by 5 June 2015.

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4 Exemptions only apply to companies consuming more than 1000 toe/year
Slovenia has qualification criteria in place that apply to persons carrying out energy audits in building only.

Minimum education requirements based on certain (academic) degrees exist in 8 Member States (BG, CZ, FI, FR, DE, LT, MT, SI). Austria and Ireland just require completion of adequate training. However, in addition to that, Austria adopted a comprehensive rating scheme according to which auditors need to obtain a certain amount of points for theoretical and practical skills. Denmark, Italy and the UK demand a certain professional status instead of a degree. Portugal and Sweden have no minimum requirements for education.

With regard to work experience, the minimum requirements in most Member States depend on the educational background of the respective auditors. As a general rule, 2-6 years of professional experience are required. The only exceptions to this general rule are Malta and Portugal, where shorter periods of work experience may suffice. At the other extreme, Sweden stands out where, under certain circumstances, even 10 years of energy management experience need to be proved.

None of the countries assessed exclude a company’s own staff from carrying out energy audits. However, five Member States defined special requirements for internal auditors. France and Lithuania lowered the minimum work experience for internal auditors. In Austria, three years of employment are required. In Denmark, internal auditors do need to be registered as energy consultants, but need to prove the same level of qualification. A company’s own staff needs to have “suitable experience and training” in Malta.

Moreover, several Member States also demand the successful completion of an exam (e.g. BG, CZ, IT, PT, SK). Romania even requires energy auditors to present clean criminal record. As a general rule applying in all Member States, internal experts may not be directly involved in any of the activities audited. Auditors that have legally been approved in other Member States are usually allowed to perform energy audits throughout the EU.

<table>
<thead>
<tr>
<th>Member State</th>
<th>educational background</th>
<th>work experience</th>
<th>special requirements for internal auditors</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT</td>
<td>Completion of adequate training</td>
<td>AND 3-5 years energy management experience depending on level of education</td>
<td>3 years of employment</td>
</tr>
<tr>
<td>BE-V</td>
<td>Not defined</td>
<td>Not defined</td>
<td></td>
</tr>
<tr>
<td>BG</td>
<td>Degree in engineering (at least secondary education)</td>
<td>AND 2-6 years energy management experience depending on level of education</td>
<td></td>
</tr>
<tr>
<td>HR</td>
<td>Not defined</td>
<td>Not defined</td>
<td></td>
</tr>
<tr>
<td>CZ</td>
<td>Degree in engineering (at least technical school level)</td>
<td>AND 3-6 years energy management experience depending on level of education</td>
<td></td>
</tr>
<tr>
<td>DK</td>
<td>External experts must be registered as energy consultants or be employed with an accredited company.</td>
<td></td>
<td>Internal auditors need to prove same level of qualification as external experts.</td>
</tr>
<tr>
<td>FI</td>
<td>Completion of training and degree in engineering or energy (at least polytechnic level)</td>
<td>OR at least 3 years of experience in the fields of energy, manufacturing, property, environment or similar</td>
<td></td>
</tr>
<tr>
<td>Country</td>
<td>Level of Education</td>
<td>Minimum Energy Management Experience</td>
<td>Qualification Requirements</td>
</tr>
<tr>
<td>---------</td>
<td>-------------------</td>
<td>--------------------------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>FR</td>
<td>Level 1, level 2 or other diploma</td>
<td>AND 3-7 years energy management experience depending on level of education</td>
<td>Minimum energy management experience of 2-5 years and understanding of EN 16247</td>
</tr>
<tr>
<td>DE</td>
<td>University/master craftsman/state certified technician degree</td>
<td>AND at least 3 years energy management experience</td>
<td></td>
</tr>
<tr>
<td>IE</td>
<td>Completion of approved training course</td>
<td>Not defined (accreditation scheme under development)</td>
<td></td>
</tr>
<tr>
<td>IT</td>
<td>Audits can be conducted by energy service companies, experts in energy management or energy audits and ISPRA.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LT</td>
<td>Bachelor or equivalent degree</td>
<td>3 years of professional experience in energy efficiency activities</td>
<td>1 year of professional experience</td>
</tr>
<tr>
<td>MT</td>
<td>Bachelor or higher degree in engineering or in a related applied science</td>
<td>OR employment by a reputable firm with expertise and track record in energy management</td>
<td>Need to have suitable experience and training</td>
</tr>
<tr>
<td>PT</td>
<td>No minimum requirements</td>
<td>3 years work experience in an energy-intensive company OR 1-2 years energy consulting/energy auditing experience</td>
<td></td>
</tr>
<tr>
<td>RO</td>
<td>Either Master degree in Energy Efficiency, Doctorate degree in energy-related engineering or completion of a training course</td>
<td>AND 2-3 years energy management experience depending on level of education</td>
<td></td>
</tr>
<tr>
<td>SK</td>
<td>University or secondary technical vocational education degree in certain fields</td>
<td>AND 2-5 years energy management experience depending on level of education</td>
<td></td>
</tr>
<tr>
<td>SI*</td>
<td>Degree in relevant discipline and completed training</td>
<td>AND at least 2 years of relevant work experience</td>
<td></td>
</tr>
<tr>
<td>SE</td>
<td>No minimum requirements</td>
<td>3-10 years energy management experience depending on the level of education</td>
<td></td>
</tr>
<tr>
<td>UK</td>
<td>Professional status of Principal Environmental Audit or Full Member of IEMA and status of an Environmental Auditor</td>
<td>at least 2 years professional energy assessment and energy audit experience and Involvement with two or more energy efficiency assessments/audits</td>
<td></td>
</tr>
</tbody>
</table>

* Only defined for persons carrying out energy audits in buildings
2.5 Minimum criteria for energy audits

Several countries transposed the guidelines, as outlined in Annex VI of the directive, without major changes (AT, BE-V, DE, IE, PT, SE, LV). However, some of these countries added detailed provisions for buildings, processes and transport, particularly Austria. Detailed criteria have also been defined in the Czech Republic, Italy and Malta. In France and Germany, audits have to meet DIN EN 16247 standard and in Sweden, energy audits must comply with any international, European or national standard. Some countries have not yet defined minimum criteria, including Bulgaria, Ireland and Slovenia.

According to Annex VI of the EED, energy audits have to be sufficiently representative. Against this background, four Member States defined minimum percentages of a company’s total energy consumption, that should be covered by an energy audit. Audits have to cover 90% of the total energy consumption of a large company in the UK, Germany and Latvia, 80% in France (only 65% for audits conducted before 5 December 2015) and only 10% in Finland.

<table>
<thead>
<tr>
<th>Minimum coverage rates of energy audits in various Member States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latvia, UK, Germany</td>
</tr>
<tr>
<td><img src="chart1.png" alt="Pie chart showing coverage rates" /></td>
</tr>
</tbody>
</table>

Also in Denmark, large companies may exclude from the audit insignificant energy consuming elements representing at most 10% of its total energy consumption.

Furthermore, some Member States adopted very long record keeping obligations. In particular, in Croatia (10 years), Finland (10 years), France (8 years) and Sweden (7 years), companies are required to keep their energy audit reports for a significantly longer period than the validity of four years of a mandatory audit.

2.6 Support programmes

In general, few programmes have, so far, been developed specifically to help SMEs to undergo energy audits, although several countries (e.g. BG, IR, MT, PT, RO, SK) have included legal self-commitments into their transposition acts; these oblige them to introduce support schemes, but without setting clear time frames in which to do so.

Only in around half of the Member States is public co-financing for energy efficiency measures in general and for energy audits in particular available or has recently been set up. However, the co-financing rates

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5 According to draft legislation.
and maximum amounts differ significantly. While in France, SMEs can benefit from up to 70% and total amounts of EUR 50,000 for energy audits and EUR 100,000 for implementing energy saving measures, in Portugal SMEs can apply for a refund of 50% of the costs of an energy audit – limited to EUR 750. Also in the Czech Republic and in Finland co-financing rates of up to 50% are available.

In Italy, a call for proposals has recently been published, which will make EUR 30 million available for co-financing energy audits and the introduction of energy management systems (in accordance with ISO 50001) in SMEs. However, the co-financing rates will only amount to 25% and a maximum of EUR 5,000 (for audits) and EUR 10,000 (for management systems) excluding VAT.

In Germany and in Croatia, so called Energy Efficiency Networks have been launched. German SMEs participating in the network, launched by the Federal Government and 20 German business organisations and associations, agree to join a group of 8 to 15 companies. Each company uses the services of an experienced energy consultant to set an individual energy efficiency target. In an exchange of experience in the network, moderated by the energy consultant, the companies then set themselves a joint efficiency target. Ideally, 500 networks will be formed by 2020, leading to energy savings of up to 75 petajoule of primary energy and 5 million tonnes of greenhouse gas emissions. In return for the companies’ voluntary commitment, the German government has agreed to refrain from any additional energy efficiency legislation.

In Croatia, the groups of enterprises are called Industrial Energy Efficiency Networks. The basic objective is to increase the awareness and knowledge of energy management among employees of industrial companies. In all participating companies, energy consumption management structures will be established at company and at industrial group level and targets will be set. By employing this method, a comprehensive database on energy consumption in industry will be created and indicators will be developed to be used for benchmarking against companies in the same sector in Croatia and the EU.

2.7 Support measures by CCIs

SMEs in particular need support to unleash their full energy savings potential. This is why Chambers of Commerce and Industry across Europe deliver practical services to help SMEs be more energy efficient. Chamber actions range from basic information on low cost efficiency measures or access to financial support, to offering comprehensive training on how to implement energy management tools and practices on the ground. Such concrete initiatives address the economic needs of businesses most effectively and will continue to multiply and expand. Five successful examples of Chamber projects in Europe are presented below:

**STEEEP – EUROCHAMBRES and CCIs in 10 countries**

“Support and Training for an Excellent Energy Efficiency Performance” is a 3-year European project which is helping 600 European cross-sector small and medium sized enterprises (SMEs) to reduce their energy consumption and become more energy-efficient. Companies participating in STEEEP benefit from tailored training and guidance on effective energy management tools and practices provided by an established network of CCI intelligent energy advisors in 10 different countries. The companies learn to measure and consequently control energy costs more efficiently. Moreover, as a pilot project, 8 local energy communities for SMEs will be established across Europe.

**SME Initiative “Energiewende” – CCI Germany**

The German CCI is part of the “SME Initiative Energiewende” which aims to help, in particular, SMEs to identify energy savings potential and to put efficiency measures into practice. The initiative’s main activities include training for apprentices to become qualified “energy scouts”, identification of obstacles to the
implementation of efficiency-enhancing measures in companies and setting up networks between SMEs to learn from each other’s experience.

**EUREMplus – CCI Poland**

The ambitious standardised training programme and successful network for European energy managers, is already provided in 21 countries throughout the world, counting now more than 3500 alumni guaranteeing energy efficiency in their companies. The programme comprises of courses, learning and practical work, combined with access to the network for continued knowledge exchange. EUREMplus aims to make the well-established EUREM programme available to additional companies, especially SMEs from the manufacturing sector in six new partner countries.

**Milieucharter – CCI East Flanders**

In Flanders (Belgium), the Environmental Charter stimulates companies to take actions in order to reduce their impact on the environment. The actions cover all areas of environmental and energy management. Participating companies are screened according to their compliance with environmental legislation. For every non-conformity, the candidates have to propose corrective actions. During a company visit, a team of auditors assesses the effective implementation of the actions.

**2.8 Conclusions**

By early June 2015, one year after the implementation deadline, 18 EU Member States have, at least partly, transposed Article 8 of the Energy Efficiency Directive into their national legislation. Delayed transposition in 10 Member States and missing secondary legislation in additional countries create considerable legal uncertainty for businesses. Large companies are generally aware of the December 2015 deadline for conducting mandatory audits. However, the conditions under which these audits have to be performed are, in many Member States, still unclear.

Moreover, in some countries, the provisions on energy audits obligations deviate considerably from the Directive, leading to unnecessary bureaucratic burden. In Member States like Slovenia, Croatia, Italy, Bulgaria and Romania small and medium enterprises can be made subject to mandatory energy audits, although they comply with the EU SME definition and should therefore be exempted.

Further bureaucratic burden can be identified in the national provisions transposing the minimum criteria for energy audits. Although clear rules are to be welcomed, several countries put in place very detailed provisions, going far beyond the guidelines stated in Annex VI of the Directive. Also, record keeping obligations exceeding 5 years serve no purpose.

When it comes to promoting energy audits to SMEs, only half of Member States currently ensure sufficient financial incentives. Co-financing rates are in some cases considered to be too low. Also, national governments have, so far, largely failed to involve representative intermediary organisations in awareness raising actions for promoting energy audits and management systems in the EU.

A survey among EUROCHAMBRES members reveals result that 80% of national CCIs have not yet been contacted by public authorities in the context of implementing the energy audit provisions of the Energy efficiency Directive.
3. Assessment of Transposition Acts

Austria

Legislation

Art. 8 EED has been transposed through


Other documents

- Quality Requirements for Energy Auditors, issued by the Ministry of Economy

Legal provisions

Mandatory energy audits apply to

- large companies (non-SMEs according to EU definition)
- between 30 November 2015 and 2020 every 4 years

There are different provisions for energy suppliers.

Exemptions apply to

- large businesses using an energy management system (in compliance with EN 16001 or ISO 50001), an environmental management system (in compliance with ISO 14000 or EMAS) or a nationally recognised management system.

If a large business has an EMS in place or plans to introduce such a management system, it had to inform the monitoring authority by 31 January 2015. (§ 32)

Requirements for auditors

- Audits maybe carried out by in-house experts or energy auditors. In both cases, they can be registered as energy auditors by the monitoring authority. Auditors need to prove completion of adequate trainings in each area where they perform audits as well as practical experience (at least 3 years in case of an educational background in engineering or economics that covers energy efficiency and at least 5 years in case this education background cannot be presented).
- In-house auditors have to present the same qualification as external auditors and, in addition, need to prove at least 3 years of employment.
- The Ministry of Economy defined a rating scheme, where auditors need to obtain at least 20 points (at least 6 points for each, theoretical and practical skills) in all areas where they apply for registration.

Minimum criteria for carrying out energy audits

- The minimum criteria for energy audits (Annex III EEffG) are based on guidelines as laid out in Annex VI EED. However, there are very detailed provisions for buildings, processes and transport in Annex III of the Austrian Energy Efficiency Act.
**Support programmes**

**According to legislation**

- Energy suppliers that supply end-users in Austria with energy (all energy carriers) are obliged to achieve savings at final consumers of 0.6% of the sales of the previous year. Measures in all sectors are eligible and 40% of savings have to be achieved in households. Alternatively, suppliers can opt for compensation payments of EUR 0.20/kWh instead of reporting measures. These compensation payments should be earmarked for SME energy efficiency support schemes (e.g. Kommunal Kredit, Climate and Energy Fund). The relevant legislation is not yet approved. Instead of compensation payments energy suppliers can also “buy” energy efficiency measures from businesses and households.

- However, there are no programmes to encourage SMEs particularly to undergo energy audits.

**Gold plating**

- Strict and complicated rating scheme for energy auditors
- The minimum criteria for energy audits go significantly beyond the guidelines in the Directive.

**Support measures by Chambers**

The Austrian Federal Economic Chamber offers two training programmes for energy managers:

- **EUREM** - as a standardised training of further education – that enhances the skills of technical experts in the field of energy efficiency improvement

- WIFI (Wirtschaftsförderungsinsitut), an organization of the Austrian Federal Economic Chamber, offers [specific energy efficiency trainings](#)
Flanders (BE)

Legislation
Art. 8 EED has been transposed through
- VLAREM train 2013 (Article 93) which was adopted on 16 May 2014 and entered into force on 24 September 2014

Legal provisions
Mandatory energy audits apply to
- for each site of a large company not meeting the EU SME definition
- by 1 December 2015 and (valid for four years).

Exemptions apply to
- energy intensive industries that have signed so called energy agreements,
- sites covered by the requirement to have an energy plan (according to Flemish law all companies that consume more than 0.5 petajoules (=0.5 x 1015 joules) annually)
- sites having EN16001 or ISO 50001 in place.
- sites that possess a EPC (Energy Performance Certificate) for public buildings

Requirements for auditors
- The energy audit can be performed either by an internal or by an external energy expert. The present legislation does not define any accreditation or training requirements.
- The Flemish Energy Agency performs quality control on energy audits and energy experts through the supervision of a web application. Energy experts can apply for accreditation via this web application. By early June 2015, the web application has not been online.

Minimum criteria for carrying out energy audits
- The minimum criteria of the directive have been transposed without changes.
- The results of each energy audit (also those carried out in the context of an energy management system) have to be submitted via a web application, set up by the Flemish Energy Agency. Only companies that have signed so called energy agreements are exempted from this obligation. The access to the submitted data will be limited to the monitoring body and, upon request, to the submitting company.

Support programmes
- In addition to opportunities for free advice (selfscan SME and primary scan Agentschap Ondernemen), businesses can benefit from financial support for external energy advice.
- Through the SME portfolio, SMEs can benefit from co-financing for, inter alia, training, consulting and innovation.
- In the most recent government coalition agreement, the intention has been expressed to raise
awareness among SMEs through developing benchmark tools, creating “mini-agreements” and developing ESCO’s.

### Support measures by Chambers

- Milieucharter
- STEEEP-project
- Network learning events (e.g. for energy auditors)
- Chambers have been involved in the development of energy agreements
Legislation

Art. 8 EED has been transposed through

- Articles 57-60 of Decree No. 84 (adopted on 30/04/2015 and entered into force on 06/05/2015), amending the Energy Efficiency Act
- Ordinance No RD-16-301 of 10/03/2014 on energy audits.

Legal provisions

Mandatory energy audits apply to

- large companies in the manufacturing and service sector ("non-SMEs" according to EU definition), industrial systems with an annual energy consumption of more than 3,000 MWh and external lighting systems located in towns with more than 20,000 inhabitants
- by 6 May 2016 and then at least every four years

Exemptions apply to

- companies having in place energy or environmental management systems (certified by an independent body complying with European and international standards), provided that the applied system already includes an energy audit.
- industrial installations consuming less than 3000 MWh per year, independent from the size of the business

Requirements for auditors

- Auditors have to apply for registration in a public register (as defined by ordinance RD-16-301) and need to meet certain requirements.
- Auditors (1) need to be registered as a legal entity referred to as ‘traders’ under Bulgarian commercial law, (2) need to present a degree in technical sciences (as defined by ordinance RD-16-301) and several years of professional experience (Master degree: 2 years, Bachelor degree: 3 years, secondary technical education: 6 years) and (3) must hold a certificate for successfully passing an exam.
- Auditors are not entitled to carry out energy audits of industrial system if they are designers of industrial systems, participants in the construction and/or operation of the industrial system or participants in the implementation of energy saving measures in the industrial system.
- Energy Auditors have to submit each year by 31 January a list of businesses, industrial systems and external lighting systems, which have carried out audits in the previous year.

Minimum criteria for carrying out energy audits

- Minimum requirements could not be identified in the present decree and ordinance.
Support programmes

According to legislation

➢ The Minister of Economy shall propose schemes to promote the performance of energy audits of small and medium-sized enterprises and the implementation of measures recommended in the audits. (Art. 8)

Gold-plating

➢ The requirements for energy auditors are very restrictive (e.g. regarding the form of legal entity and the restrictions on using internal staff for energy audits). Moreover, the registration in the public register has to be renewed every three years.

Support measures by Chambers

➢ The Bulgarian Chamber of Commerce and Industry recently established an Energy Efficiency Committee and had its experts present at the energy efficiency group meetings of the Bulgarian Parliament.

➢ Chambers provide energy efficiency consultation for SMEs and municipalities and participate in the regional energy councils.
Croatia

Legislation

Art. 8 EED has been transposed through

- the Law on Energy Efficiency (NN 127/14), which entered into force on 11 May 2014.
- In addition, the government is currently preparing secondary legislation on energy audits.

Legal provisions

Mandatory energy audits apply to

- large companies (defined as businesses that meet at least two of the following conditions: (1) total assets of at least HRK 130m. (~ € 17m.); (2) an annual income of at least HRK 260m. (~ € 34m.); (3) an average of at least 250 employees during the business year)
- by 5 December 2015 and at least every 4 years.

Exemptions apply to

- large companies introducing an energy or environment management system, which contains the obligation of implementing regular energy audits, based on a certificate issued by an accredited independent body under the relevant European or international standards.

Requirements for auditors

- Auditors have to apply for registration in a public register, managed by the Ministry of Economy.
- The government is currently preparing a decree prescribing the method of conducting an energy audit, the terms of issuance and cancellation of authorisation for energy audits and other issues related to the authorisation for energy audits for large companies, as well as the content and method of keeping the register.
- In the meantime, the provisions of the ordinance on energy audits of buildings and energy certification of buildings (insofar as it relates to energy audits of buildings) and the ordinance on conditions and criteria for persons who perform energy audits of buildings and energy certification of buildings will apply.

Minimum criteria for carrying out energy audits

- Minimum requirements will be defined in the forthcoming decree.
- Large companies are obliged to keep the report of the energy audit at least ten years.

Support programmes

- The Croatian government set up so called Industrial Energy Efficiency Networks (MIEE). These voluntary agreements comprise a series of activities targeted at industrial plants. The basic objective is to increase the awareness and knowledge of the management and employees of industrial companies in order to fully utilise the potential of achievable energy savings measures. Energy consumption management structures should be established at company level and at industrial group
level, monitoring and analyses of energy consumption should be introduced and targets should be set. By employing this method, a comprehensive database on energy consumption in industry will be created and indicators will be developed, to be used for benchmarking against companies in the same sector in both Croatia and the EU. An activities plan for key industrial sectors should be drawn up under the measure, and the implementation of target energy efficiency measures will be co-financed.

- According to the National Energy Efficiency Action Plan (measure 1.4), the government will provide HRK 2 million of financial support to small and medium-sized enterprises (SMEs) in order for them to introduce and implement activities for improving energy efficiency, and primarily for conducting high-quality energy audits and continuous energy management.
- Croatian funds for environmental protection and energy efficiency provide co-financing opportunities for energy audits, certain energy efficiency measures and refurbishment.

**Gold-plating**

- Long record keeping of audit reports
- The definition of large companies significantly differs from EU definition. Consequently, companies that meet the EU SME definition can be subject to energy audit obligations.

**Support measures by Chambers**

- The Croatian Chamber of Economy is one of the executive bodies involved in the Industrial Energy Efficiency Networks and a monitoring body with regard to financing energy audits in SMEs.
- The Chamber regularly organises free workshops to promote energy efficiency measures and tools.
- Regional Chambers provide simple advice on energy efficiency and refer companies to energy experts for more comprehensive consultation.
- **STEEP**
Czech Republic

Legislation

Art. 8 EED has been transposed through
- amendment 103/2015 to the Energy Management Act 406/2000 which will enter into force on 1 July 2015.
- Secondary legislation: Ministerial Decree No. 213/2001

Legal provisions

Mandatory energy audits apply to
- large enterprises (non-SMEs according to EU definition) whose total energy consumption exceeds 35000 GJ/year (10 GWh).
- by 5 December 2015 and at least once in four years.

Energy audits that have been carried out after 1 July 2012 can be considered valid.

Exemptions apply to
- large enterprises that have an energy management (CSN EN ISO 50001) or an environmental management system (CSN EN ISO 14001) in place, in case energy audits are included.

Requirements for auditors
- Energy auditors need to apply for registration in a public register
- In order to qualify as an energy auditor applicants need to present a university degree of technical character and 3 years of practical experience or a technical school degree and 6 years of practical experience. In addition, applicants have are required to pass specific exams.

Minimum criteria for carrying out energy audits
- Energy audits must cover, inter alia, the current condition of a building/premise, an identification of insufficiencies, proposals for energy efficiency improvements (classified into low, medium and high capital intensive solutions), the selection of an optimum variant/project in terms of efficiency potential and economic and environmental benefits/costs as well as final recommendations and an overview sheet summarising all major results of the audit. Moreover, the audit has to include an assessment of costs/benefits to ensure combined heat and power production, of using waste heat from nearby industrial operators (500m).
- The State Energy Inspectorate may order the public sector to implement measures identified through the energy audit.

Support programmes
- According to §5(4) n) subsidies may be granted to promoting the efficient use of energy for small and medium businesses and households and for the advice and the promotion of energy services.
- Already in 1998, a public programme (EFEKT) was set up to support energy savings and the use of...
renewable sources energy. The main aim of this program is to promote energy efficiency measures to businesses and the wider public, to assist regional municipalities to introduce energy management systems and to help local municipalities and small entrepreneurs perform investments resulting in direct energy savings. For 2015, CZK 30 million (≈ € 1.094 million) are available. Energy advice for businesses can be (co-)financed by up to 100% and a maximum amount of CZK 300,000 (≈ € 10,900).

- On 29 May 2015, the Czech Ministry of Industry and Trade published a call for programmes supporting energy savings. CZK 5 billion (≈ € 182 million). Co-financing rates will be up to 50% for small enterprises, up to 40% for medium-sized enterprises and up to 30% for large enterprises.

- New projects financed by cohesion funds are currently being prepared within the current programming period but details about their content and aims are not yet available.
Energy Audits for Europe

Denmark

Legislation

Art. 8 EED has been transposed through

- Act No. 345 of 08 April 2014 amending the Law on the promotion of savings in energy consumption, the Heat Supply Act, Act on Municipal cooling and various other acts
- Secondary legislation: Order no. 846 of the Danish Energy Agency of 1 July 2014

Legal provisions

Mandatory energy audits apply to

- large enterprises and subsidiaries of large enterprises in Denmark and Danish subsidiaries of large foreign enterprises
- by 5th December 2015 and at least every 4 years.

Exemptions apply to

- enterprises with a total energy consumption of less than 100,000 kWh/year
- buildings of large enterprises covered by a valid energy label based on a building review, (under the rules on energy labelling on buildings).
- Large enterprises having an energy or environmental management system in place that is certified by an accredited body in accordance with the relevant European or international standards in case it contains an energy audit.

Requirements for auditors

- Audits maybe carried out by in-house experts or energy auditors.
- External experts my conduct energy audits if (1) the expert is employed by an enterprise that is accredited by DANAK or an equivalent body to organise energy audits in accordance with international standards, (2) the expert is a registered energy consultant or approved under similar schemes recognised by the Energy Agency, (3) the expert is an energy labelling consultant employed by a certified energy enterprise in trade and services.
- An enterprise may use its own independent expert, if the expert or group of experts meet the above mentioned requirements, or if the enterprise can demonstrate that the expert has qualifications equivalent to those mentioned above by submitting proof to the Energy Agency. The expert cannot be directly involved in activities that ate being investigated in the energy audit.

Minimum criteria for carrying out energy audits

- Denmark transposed the minimum requirements of the Directive. Moreover, the Energy Agency will publish a list of standards that are approved for energy audits on its website www.ens.dk
- A large enterprise may exclude the following from the energy audit: Lesser or insignificant energy consuming elements representing at most 10 % of its total energy consumption
**Support programmes**

- In the context of the Danish Energy Efficiency Obligation Scheme, Danish energy companies have a duty to ensure energy savings of 12.2 PJ / year in 2015-20. Therefore, they promote energy saving measures to final consumer by providing advice, energy audits, subsidies to companies and households.
Finland

Legislation

Art. 8 EED has been transposed through

- Energy Efficiency Act (2014/1429), which was adopted on 30 December 2014

Legal provisions

Mandatory energy audits apply to

- large companies (non-SMEs according to EU definition)
- by 5 December 2015 and at least every 4 years

Exemptions apply to

- large companies using a European scale or international standards certified energy or environmental management system (at least ISO 50001 or ISO 14001)
- large companies participating in a voluntary energy efficiency agreement that includes energy audits and was signed with a government agency (e.g. the national tool ETJ+)

Requirements for auditors

- External and in-house auditors have to comply with equal requirements and need to apply for registration in a public register, managed by the Energy Agency.
- The requirements for auditors include an appropriate degree (=lower university or polytechnic degree or other qualification of equivalent level) in engineering/technology, environment or energy or an appropriate work experience (=at least three years) as specialist in the fields of energy, manufacturing, property, environment or similar.
- Auditors have to complete trainings and must be familiar with carrying out energy audits in companies as well as with the legal provisions, as demonstrated by a successfully completed test.

Minimum criteria for carrying out energy audits

- Finland transposed the minimum requirements of the Directive.
- Moreover, the law specifies that energy audits have to contain energy profiles of all activities, including buildings, industrial and commercial processes and transport. In total, the audit must cover a sufficiently representative share of the company’s total energy consumption (at least 10%) in order to provide a reliable picture and to make it possible to reliably identify the key opportunities to improve energy efficiency.
- Audits always have to include the inspection of at least one object (except if the company does not have a single energy consuming object where this is appropriate and economically justified). Airplanes, ships, trains and cars are excluded. Moreover, proposals for action to improve energy efficiency have to be clearly described. The energy audit reports must be kept for at least 10 years.
Support programmes

- The Ministry of Employment and Economy (MEE) subsidizes comprehensive energy auditing for commercial and public buildings, industry and the energy sectors (Economic Development Centres). The maximum amount of a subsidy is as a rule 40% of the approved audit’s working costs. The exception to this concerns subsidies for municipalities and micro-enterprises and SMEs linked to the energy efficiency agreement regime, for which the maximum subsidy is 50% of approved costs.

- In addition, companies and communities that have joined the energy efficiency agreements can obtain subsidies on a case-by-case basis for carrying out conventional technical savings investments.

Gold-plating

- Long record keeping obligations.
Energy Audits for Europe

France

Legislation

Art. 8 EED has been transposed through

- Article L. 233-1 du code de l'énergie, adopted on 16 July 2013

Legal provisions

Mandatory energy audits apply to

- large companies (companies that do not meet the EU SME definition for two consecutive years)
- by 5 December 2015 and at least every 4 years
- The audits have to cover at least 80% of energy bills paid by the company. For audits before 5 December 2015, coverage rates can be reduced to 65%. For the first audit, companies can present the results of audits already carried out since 4 December 2012.

Exemptions apply to

- large companies with a certificate in compliance with ISO 50001, valid until at least 5 December 2015 and issued before 1 December 2015 and businesses having certified Environmental Management Systems (ISO 14001) in place.

Requirements for auditors

- Audits maybe carried out by in-house experts or external energy auditors.

  External experts need to hold certain quality labels in each area where they perform audits. In addition, depending on their diploma, they need to present a minimum professional experience between 3 and 7 years (level 1 diploma: 3 years, level 2 diploma: 4 years, others: 7 years).

  Internal auditors need to be able to understand and apply energy audits according to standard EN 16247 and need to have a minimum energy management experience of between 2 and 5 years, depending on the level of their diploma (level 1 diploma: 2 years, level 2 diploma: 3 years, others: 5 years). Moreover, auditors must not be directly involved in the audited processes.

Minimum criteria for carrying out energy audits

- Energy audits have to meet the requirements of certain European standards (EN 16247).
- Moreover, there are special provisions for buildings, processes and transport.

Support programmes

- The French Energy and environment agency ADEME provides financial support to SMEs that decide to make an energy audit. The help covers up to 70% of the cost for small companies, and the maximum eligible budget of the action cannot exceed EUR 50,000.
- Additional funding is also available for helping implementing the recommended energy efficiency actions and investments (the help covers up to 70% of the cost for small companies, and the maximum eligible budget of the action cannot exceed 100,000 euros). To receive the subsidy, the consultant / auditor must comply with the specifications defined by ADEME.

**Gold-plating**
- Extensive reporting and record keeping obligations (8 years);
- Minimum criteria for audits in the “Arrêté” go far beyond the guidelines outlined in the EED and have to meet the requirements of EN 16247 standard.
- Strict requirements for external and internal energy auditors.

**Support measures by Chambers**
- Many French CCIs offer support on energy efficiency to businesses through the means of energy pre-checks and energy checks, and support in the implementation of energy management systems (increasingly up to ISO 50001 certification). 2013 figures of actions by French CCIs on energy efficiency:
  - 200 information and awareness-raising meeting with 5000 participating businesses
  - 800 energy pre-check and checks performed
  - 50 energy clubs, with 1400 participating businesses
  - 200 company employees trained on energy efficiency
  - Chambers and ADEME, with the support of regional public authorities (Conseils régionaux), jointly participate in awareness raising actions.
Germany

Legislation

Art. 8 EED has been transposed through

- a modification of the “Law on Energy Services and Other Energy Efficiency Measures of 4 November 2010” (EDL-G), which was adopted on 15 April 2015 and took legal effect as of 22 April 2015.
- Guidance documents: Guidance on registration of energy auditors, information leaflet on energy audits.

Legal provisions

Mandatory energy audits apply to

- large companies (non-SMEs according to EU definition)
- by 5 December 2015 and at least every 4 years

Exemptions apply to

- companies using a certified energy management system compliant with DIN EN ISO 50001 or an environmental management system compliant with EMAS.

In these two cases companies are given time to fully implement their systems by 01/01/2017. A mixed-system-approach of applying EMAS, ISO and energy audits at several sites is possible.

Requirements for auditors

- Audits maybe carried out by in-house experts or energy auditors. Persons meeting certain requirements can apply for registration in a database run by the Federal Office for Economic Affairs and Export Control (BAFA). So far, 1200 qualified energy auditors are included in this list.
- In order to be eligible for registration, applicants are required to present a degree from a university/university of applied science or a master craftsman certificate or state certified technician degree in a relevant field.
- Additionally he/she must have gained practical work experience in energy management consulting during a period of at least 3 years.
- The auditor’s services must be conducted independent of any producers’, suppliers’ and service providers’ interest. In case an audit is conducted by an in-house expert he/she must not be involved in any activity that is directly related to or part of the energy audit. It is allowed for the auditor to hire subcontractors.

Minimum criteria for carrying out energy audits

- An energy audit has to conform with DIN 16247-1, which provides requirements for a systematic assessment and analysis of the energy consumption.
- An energy audit is deemed to be representative if at least 90 % of the total energy consumption is taken account of in the analysis. A proper analysis implies that all energy sources are taken into account and comprises a detailed assessment of the energy profile of all plants, operations,
processes and buildings, including transportation.

- The DIN 16247-1 further provides that the energy auditor has to carry out a site inspection in order to better evaluate the input of energy, work processes and user behaviour – as well as their impact on the business’s energy consumption. In case of a large number of similar sites it is not necessary to carry out multiple site inspections (multi-site-approach).

- After completion of an energy audit, a final report must be issued containing a list of potential measures for energy efficiency improvements and potential energy savings. All proposed measures must be assessed in terms of their economic profitability, ideally based on a life-cycle cost analysis.

- The BAFA may ask for proof of the energy audits to be provided.

**Support programmes**

**According to legislation**

- SMEs participating in the new Energy Efficiency Networks Initiative launched by the Federal Government and 20 German business organisations and associations agree to enter a network of 8 to 15 companies. Each company uses the services of an experienced energy consultant to set an individual energy efficiency target. In an exchange of experience in the network, moderated by an energy consultant, the companies then set themselves a joint efficiency target. Ideally, 500 networks will be formed by 2020, leading to energy savings of up to 75 petajoule of primary energy and 5 million tonnes of greenhouse gases. In return for the companies’ voluntary commitment, the German government has agreed to refrain from any additional energy efficiency legislation.

- The Energieberatung Mittelstand is a support program specifically designed for SMEs. The goal of this BAFA-run program is to inform and advise SMEs on their economically viable energy efficiency potentials. Eligible companies with annual energy costs of more than 10,000 euros may profit from benefits covering up to 80% of their eligible energy consulting costs. The maximum aid a company may receive is 8,000 euros. Energy assessments can be conducted only by energy consultants that have been approved by BAFA. The assessments are heavily based on the requirements laid out in DIN 16247-1.

**Support measures by Chambers**

- The Association of German Chambers of Commerce and Industry (DIHK) is one of the 20 signatories of the Energy Efficiency Networks Initiative described above. By co-signing this agreement, the DIHK agrees to foster the spread of networks amongst companies throughout the entire term of the agreement, not least by serving as initiator of networks.

- In addition, the DIHK is part of the SME Initiative Energiewende and Climate Protection, a joint project of the DIHK, the Federal Ministry of Economics and Energy, the Federal Ministry of Environment and the German Confederation of Skilled Crafts (ZDH). The initiative’s main activities include training for apprentices to become qualified “energy scouts”, identification of obstacles to the implementation of efficiency-enhancing measures in companies and setting up networks between SMEs to learn from each other’s experience.
Ireland

**Legislation**

*Art. 8 EED has been transposed through*

- secondary legislation (statutory instrument *SI 426 of 2014*), which was adopted on 29 September 2014

**Legal provisions**

*Mandatory energy audits apply to*

- large companies (non-SMEs according to EU definition)
- public bodies with individual buildings with a total useful floor area of more than 500m² or an annual energy spend of more than €35,000 audits.
- by 5 December 2015 and at least every 4 years

Energy audits that have been undertaken since September 2014 and that met the minimum criteria of Annex VI EED an be considered eligible.

*Exemptions apply to*

- large companies implementing an energy or environmental management system, certified by an independent body according to the relevant European or international standards.

**Requirements for auditors**

- Audits can be conducted by registered external auditors or in-house auditors that are registered under the national energy audit scheme.
- Before registering an energy auditor, the Sustainable Energy Authority of Ireland (SEAI) should be satisfied that the applicant is sufficiently qualified or has successfully completed an approved training course in relation to different classes of energy audits.

**Minimum criteria for carrying out energy audits**

- The Sustainable Energy Authority of Ireland (SEAI) shall publish on its website minimum criteria for energy audits based on guidelines as laid out in Annex VI EED. As of late May 2015 this has not happened.

**Support programmes**

*According to legislation*

- According to SI 426/2014, the Sustainable Energy Authority of Ireland has to develop programmes to promote audits to SMEs and disseminate best practice studies.
- The SME Support Centre of the SEAI provides free on-site advice and different training courses for SMEs, energy-intensive SMEs and large companies.
Support measures by Chambers

- The SEAI and Chambers Ireland regularly liaise on the promotion of services, tools and policy initiatives.
- The SEAI has also directly engaged with regional Chambers of Commerce in the Irish Network. For example, Dublin Chamber, Dundalk Chamber and Cavan Chamber have all hosted events on how businesses can benefit from sustainable energy practices.
- Dublin Chamber runs workshops on “ISO 500001” and on “an energy efficient future-identifying new opportunities”.
Italia

Legislation

Art. 8 EED has been transposed through
- Decreter Legislativo n. 102 of 4 July 2014
- Directive for climate and energy of 12 March 2015

Legal provisions

Mandatory energy audits apply to
- large companies (according to EU definition) and
- energy-intensive companies (= energy consumption ≥ 2.4 GWh/year and ratio cost of energy used/turnover > 3%)
- by 5 December 2015 and every 4 years.

Exemptions apply to
- companies implementing a certified energy (ISO 50001) or environmental (ISO 14001) management system or EMAS (Eco-Management and Audit Scheme).

Requirements for auditors
- Audits can be conducted by energy service companies, experts in energy management or energy audits and the Institute for Protection and Environmental Research (ISPRA).
- Auditors must be certified by bodies which are accredited under EU Regulation. 765 2008 or by signatories of international agreements of mutual recognition (according to UNI CEI 11352, UNI CEI 11339) or meet certain standards outlined in UNI-CEI EN 16247-5 (publication expected for spring 2015).

Minimum criteria for carrying out energy audits
- The minimum criteria of the directive have been transposed without changes.
- Italy makes use of Art. 8(7) EDD and requires that for audited companies which are in close vicinity of district heating networks or high-efficiency cogeneration plant, the diagnosis has to assess effects of a possible linkage to these systems.

Support programmes
- On 12 May 2015, Italian regions launched a tender for co-financing aimed at supporting the implementation of energy audits in SMEs or the adoption SME management systems (according to ISO 50001). In this context, the government will make available up to 15 million Euros p.a., deriving from the auction revenues of CO2 emission allowances. Another 15 million Euros will be provided by the Regions. Hence, in total, 30 million Euros will be available for co-financing energy audits and the introduction of energy management systems (in accordance with ISO 50001) in SMEs by up to 25 % and a maximum amount of € 5,000 (for audits) and € 10,000 (for management systems) excluding VAT. The deadline for submitting support programmes is 30 June 2015.
Gold-plating

- Energy intensive companies, independent from their size, are subject to mandatory energy audits and are obliged to implement energy saving measures identified by the auditor or adopt a management system that complies with ISO 50001.

- The Italian Energy Agency (ENEA) will set up a comprehensive database comprising all diagnostic reports. ENEA has to verify a sample of annually 3% of all mandatory audits and 100% of the audits conducted by internal auditors. This process will be (partially) financed through ETS auction revenues - up to 0.3 million Euros per year.

- Strict requirements for external auditors. The secondary legislation outlining the requirements for internal auditors has not been adopted by early June 2015.

Support measures by Chambers (selection)

- Some local CCIs provide direct funding for the implementation of energy efficiency measures in SMEs. For example, Bari Chamber of Commerce recently made € 800,000 (up to 10,000 per SME) available for this purpose.

- CCI Isernia created an info pint on energy issues. This free service is called “La Città delle Energie” and offers tailored advisory in order to test experience and assess a wide portfolio of information related to energy efficiency solutions. The programme provides funding for energy check-ups and support related to energy efficiency (50% of eligible costs up to a maximum of € 6,000).

- CCI Ancona, in cooperation with the Italian National Research Council, conducts on board efficiency audits on fishing vessels and provides ad-hoc solutions to vessel operators.

- STEEP
Malta

Legislation

Art. 8 EED has been transposed through

- Secondary legislation: ([Subsidiary legislation 423.27](#)) on energy efficiency and cogeneration regulations, adopted in January 2014
- [Guidance note](#) on the carrying out of mandatory energy audits, issued by the Sustainable and Water Conservation Unit and the Malta Resources Authority

Legal provisions

Mandatory energy audits apply to

- large companies (non-SMEs according to EU definition)
- by 5 December 2015 and at least every 4 years

Audits of a similar standard that have been carried out after 4 December 2013 may be considered valid.

Exemptions apply to

- large companies that are implementing a certified energy or environmental management system, certified by an independent body according to the relevant European or international standards, such as EN ISO 50001 or EN 16247-1 or EN ISO14001, if it includes an energy audit according to the defined minimum requirements.
- large companies whose energy consumption is below 50,000 KWh per annum.
- vessels of less than 5000 gross tons (provided that these represent less than 10% of its total energy consumption),
- building and civil engineering projects in construction,
- parts of the enterprise that are already covered by other statutory audits (e.g. inspections under the Energy Performance of Buildings Directive)
- parts of processes covered by other certification schemes (so long as the equivalence in standards and criteria of these schemes to those in the LN are demonstrated by the enterprise.)

Requirements for auditors

- Audits maybe carried out by in-house experts or energy auditors.

**External experts** must be registered with the Malta Resource Authority and need to present a Bachelor (or higher) degree in engineering or in related applied science or a reputable firm with expertise and a track record in energy management.

**In-house experts** need to have suitable experience and training, must not be directly engaged in the activity being audited must act in an independent manner in the performance of the audit.

Minimum criteria for carrying out energy audits

- The minimum criteria of the directive have been transposed without changes.
- Moreover, the assessment of the technical and economic feasibility of communal (centralised...
building) heating and cooling system based on chillers/heat pumps, possibly with a building energy management system and incorporating Combined Heat and Power technology must be considered in the audit.

- Large enterprises may adopt a sampling method for the audit of a number of similar operations. The findings of the audit shall promptly be submitted to the Minister upon being demanded and in any case by not later than seven days from such demand being made.

### Support programmes

**According to legislation**

- The Minister shall develop programmes to encourage small and medium-sized enterprises to undergo energy audits.
- Energy audits of SME’s will be partly financed through Malta Enterprise Schemes funded from national funds similar to past practice.

### Support measures by Chambers

- The Malta Chamber of Commerce organised some information sessions and visits to companies with best practices on energy efficiency. It participated in IEE funded projects “CHANGE” and “Build Up Skills” which specifically focused on skills required in the Building industry to improve the energy efficient of infrastructure.
Portugal

Legislation

Art. 8 EED has been transposed through

- Decreto-Lei n.º 68-A/2015.
- The requirements for auditors are stipulated in Lei n.º 7/2013 and Lei n.º 58/2013

Legal provisions

Mandatory energy audits apply to

- large companies (according to EU definition).
- by 5 December 2015 and at least every four years.

Exemptions apply to

- large companies that are implementing an energy or environmental management system – certified by an independent body according to Regulation 765/2008, provided that the management system includes an energy audit complying with the minimum criteria laid down in Annex VI of Decreto-Lei n.º 68-A/2015 (which is identical with Annex IV of the EED).
- In case the periodic energy audits are not profitable they have to be carried out only every eight years. An energy audit is profitable when the costs of the audit itself cumulated with the implementation costs of the energy efficiency measure identified are lower than the monetary value of the energy savings realised as a result of the energy efficiency measures undertaken.

Requirements for auditors

- The requirements for auditors differ according to the object of the audit.
- In case of an energy audit of industrial installations or equipment related to transport:
  - the auditor has to be an engineer recognized either by the “Ordem dos Engenheiros” or by the “Associação Nacional dos Engenheiros Técnicos”.
  - The auditor has to dispose of an adequate professional experience. This requirement is fulfilled if the respective person proves that they have worked as an engineer in an energy-intensive company for three years or that they have already performed energy consulting or energy auditing activities for two years. In case the respective person disposes of a university education in the field of energy auditing the requirement of an adequate professional experience is fulfilled after they have performed energy consulting or energy auditing activities for one year.
  - Auditors need to dispose of the necessary technical equipment.
- In case of an energy audit of residential buildings or buildings in the commerce and services sector, auditors
  - have to be architects or a certain type of engineer (inter alia civil engineer, mechanical engineer, electro-technical engineer, air-conditioning and energy engineer).
  - need five years of professional experience in the building construction sector.
Auditors are required to pass a specific exam organised by the entity responsible for the Portuguese energy certification system (“SCE”).

**Minimum criteria for carrying out energy audits**

- The Portuguese legislation transposes Annex VI of the EED without any modification.

**Support programmes**

- According to Decreto-Lei n.º 71/2008, installations with an annual energy consumption of less than 1000 toe are entitled to apply for a refund of 50% of the costs of an energy audit – limited to 750€.
Romania

Legislation

Art. 8 EED has been transposed through

- Law on energy efficiency (lege privind eficiența energetică) of 1 August 2014

Legal provisions

Mandatory energy audits apply to

- companies which consume more than 1000 toe per year, irrespective of the companies’ size and
- companies that consume less than 1000 toe per year, unless they are SMEs.
- by 5 December 2015 and every 4 years

Exemptions apply to

- companies which consume more than 1000 toe/year, if they implement a certified energy or environmental management system according to relevant European or international standards.

Requirements for auditors

- The authorization to conduct energy audits is issued by ANRE – the Romanian National Regulatory Authority for Energy.
- Energy auditors need to have full legal capacity and a clean criminal record.
- Auditors need to dispose of a certain work experience. In case they are graduates of an undergraduate school for power engineering, work experience needs to amount to 2 years. If they are graduates of an undergraduate school for other types of engineering (civil engineering, electrical engineering, industrial engineering, mechanical engineering or engineering in the field of mines, oil and gas) 3 years of work experience are required.
- Furthermore, individuals have to undergo a special training for energy audits offered by institutes acknowledged by ANRE (Romanian National Regulatory Authority for Energy), unless they present a Master’s Degree in energy efficiency (from certain universities) or a Doctorate in one of the fields mentioned above.
- Finally, auditors must be equipped with special measuring equipment.

Minimum criteria for carrying out energy audits

- The minimum criteria of the directive have been transposed without major changes.

Support programmes

According to legislation

- The Department for SMEs of the Ministry of Economic Affairs develops programs to encourage SMEs to carry out energy audits and to implement the resulting recommendations. No concrete measure
executing this provision could be identified so far.

- The Department for SMEs of the Ministry of Economic Affairs may establish support schemes for SMEs to cover costs of an energy audit and the subsequent implementation measures in compliance with state aid legislation.

Gold-plating

- SMEs that consume more than 1000 toe per year are subject to mandatory audits.
- Relatively strict requirements for external and internal energy auditors.

Support measures by Chambers

- CCI Romania plans to organizing training courses for energy auditors in the near future. The courses will include “Energy audit for new and existing buildings and for the related heat supply systems”, “Implementing unconventional renewable sources of energy” and “Risk evaluation in case of fire for buildings and installations”. In this context, CCI Romania will collaborate with the Technical Construction University of Bucharest.

- STEEEPP (Timis Chamber of Commerce, Industry and Agriculture)
Slovakia

Legislation

Art. 8 EED has been transposed through
- law on Energy Efficiency (321/2014) which entered into force on 1 December 2014
- Secondary legislation (429/2009) on the conditions for carrying out energy audits.

Legal provisions

Mandatory energy audits apply to
- all 614 large companies (according to EU definition)
- by 5 December 2015 and at least every 4 years

Exemptions apply to
- large companies that have a certified energy (ISO 50001) or environmental management system (ISO 14001) in place, if it includes an energy audit.

Requirements for auditors

- Energy audits can be carried out by external and internal auditors. In both cases, they need to be listed in a register, managed by the Ministry of Economy.
- In order to be eligible for registration, applicants have to pass an exam and meet certain qualification criteria. Firstly, they need to present a degree in secondary technical vocational education or a university degree in technical, economic, natural science with a focus in mathematics, physics or chemistry disciplines.
- Secondly, auditors need to have professional experience in energy consulting or technical-economic analyses of energy conversion, energy distribution and energy consumption: five years in the case of a full secondary vocational education; three years in the case of higher education; two years in the case of a master degree.
- Energy auditors also have to do refresher courses at least once every three years and must annually report their audits to the operator of the monitoring system.

Minimum criteria for carrying out energy audits

- The audit has to include, inter alia, an assessment of the current energy consumption, a draft of the measures to reduce energy consumption and an economic and environmental evaluation of a set of measures.
- Large enterprises are obliged to keep the audit reports and have to submit comprehensive information sheets on their energy audit, no later than 30 days from the finalisation of the report. If the energy audit was financed or co-financed by public funds, the information sheets will be published on the website of the ministry or a designated organisation (Art. 14(3)). Upon request of the monitoring authority, large enterprises are also obliged to present the entire written report of their energy audits.
- SMEs that carry out energy audits which have been financed by public funds or through aid
Energy Audits for Europe

Programmes financed by international financial institutions are subject to the same record keeping and reporting obligations.

**Support programmes**

**According to legislation**

- The ministry shall designate organisations in its scope to provide SMEs with information on the possibilities of using energy efficiency support schemes and the possibilities of support programs for the development and implementation of energy audits.

**Gold-plating**

- SMEs are subject to the same reporting and record keeping obligations as large enterprises, in case their audits have been supported by public funds. This could have discouraging effects.
Slovenia

Legislation

Art. 8 EED has been transposed through

- through Art. 345 of the Energy Act (nergetski zakon) which entered into force on 4 March 2014.
- The methodology for the implementation and content of compulsory energy audits will be defined by secondary legislation, which has not yet been adopted.

Legal provisions

Mandatory energy audits apply to

- large companies, as laid down in the provisions on commercial companies (according to Art. 55 of the Companies Act 544-VI: more than 250 employees, annual turnover above € 35 m., value of assets above € 17.5 m.).
- at least every 4 years.

Exemptions apply to

- large companies that carry out energy audits in the framework of voluntary agreements, energy or environmental management systems (approved by an independent body in accordance with relevant European and international standards) or in the context of a broad environmental assessment

Requirements for auditors

- The Energy Act specifies requirements for persons carrying out energy audits in buildings only: They need to have (1) a minimum education or degree in a relevant discipline; (2) at least two years of relevant work experience in the professional field of energy efficiency and renewable energy in buildings; and (3) a successfully completed training for independent experts to issue energy performance certificates in the last five years prior to submission of the application for a license.

Minimum criteria for carrying out energy audits

- The methodology for the production and content of compulsory energy audits will be defined in secondary legislation (not yet adopted.)

Support programmes

According to legislation

- The legislation does not refer to support programmes, particularly designed to encourage SMEs to undergo energy audits. However, the government will, in general, promote energy efficiency measures and renewable energy sources through information and public awareness raising, encouragement to carry out energy audits, preparation of regulations, financial incentives and other support programs.
**Gold-plating**

- Definition of large companies significantly differs from EU definition. Consequently, companies that meet the EU SME definition can be subject to energy audit obligations.

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**Support measures by Chambers**

- CCI Slovenia and its branch associations were invited to cooperate in national programmes for the promotion of energy audits to SMEs. Many member companies within the Association of Consulting Engineering are involved in implementing those audits.

- In order to promote energy audits for SMEs, CCI Slovenia organised several conferences. The best known one is the traditional annual conference organised at the Megra fair, involving the Chamber of Construction and Building Materials Industry of Slovenia, Energy Industry Chamber of Slovenia, the National Association of Consulting Engineers of Slovenia and the Association of Engineering.
Sweden

Legislation

Art. 8 EED has been transposed through

- law on Energy Audits in Large Enterprises (2014:266) which was adopted on 30 April 2014

Legal provisions

Mandatory energy audits apply to

- large companies (non-SMEs according to EU definition)
- by 5 December 2015 and at least every 4 years

Exemptions apply to

- Large companies that perform their energy audits in the framework of an energy or environmental management system - certified according to international ISO standard, European EN standards, Swedish SS Standard or equivalent requirements.

Requirements for auditors

- Audits maybe carried out by in-house experts or energy auditors.
- The Energy Agency ensures that there is a list of people who are certified as energy auditors which need to have (1) a technical college degree and at least three years of working experience, or (2) a relevant university degree and at least four years of work experience or (3) technical secondary education or advanced vocational training and at least five years of work experience or (4) at least ten years of experience. (In all cases the work experience has to be gained in the fields of energy efficiency, energy audits and energy management.)
- Auditors need to prove its knowledge by passing a test, including a written and practical part.
- Auditors need to be independent, meaning that they may not be related to the person who hires him or her.
- Internal auditors may not be directly involved in the activity to be audited.
- The certification for energy audits is valid for a period of five years.

Minimum criteria for carrying out energy audits

- Ordinance 2014:347 transposes the minimum criteria of energy audits as set out in Annex VI of the Directive without adding major additional requirements.
- Moreover, the audit and the report have to meet the requirements of an international ISO standard, European EN standards, Swedish SS standard or a standard containing similar requirements.
- Companies have to maintain their records for 7 years.
Support programmes

According to legislation

- In the present legislation, no support programmes for SMEs have been specified.

Gold-plating

- Long record keeping obligations and audits have to meet the requirements of certification standards.
- Up to ten years of work experience are required for energy auditors and their certificates have to be reviewed every five years.
United Kingdom

Legislation

Art. 8 EED has been transposed through


Legal provisions

Mandatory energy audits apply to

- large UK undertakings (non SMEs according to EU definition) and their corporate groups. (It mainly affects businesses but can also apply to not-for-profit bodies and other non-public sector undertakings that are large enough to meet the qualification criteria.) An overseas company with a UK registered establishment which has 250 or more UK employees (paying income tax in UK) qualifies as large undertaking, too. Corporate groups qualify if at least one group member meets the ESOS definition of a large undertaking.
- by 5 December 2015 and at least every 4 years.

Exemptions apply to

- Organisations fully covered by ISO 50001 do not need to carry out an ESOS assessment.

Requirements for auditors

- Audits maybe carried out by in-house experts or energy auditors.
- Professional bodies will hold a register of suitably qualified energy professionals approved to act as lead assessors for ESOS. The Environment Agency has developed an application process for approvals. To become an ESOS lead assessor one needs to be a member of an approved professional body register such as the Association of Energy Engineers, CIBSE or ECMK. Lead assessors can be employees or external contractors.
- Members of a professional register have to meet the competence requirements established by PAS 51215:2014. Auditors need to prove a minimum length of two years professional energy assessment and energy audit experience and Involvement with two or more energy efficiency assessments/audits (either as an assessment team member or as the lead assessor). Moreover, all applicants have to attend a one day training course.

Minimum criteria for carrying out energy audits

- An energy audit must be based on 12 months’ verifiable data and must analyse the participant’s energy consumption and energy efficiency. This must be done using energy consumption profiling. Profiling involves breaking down the different ways in which energy is used by a participant’s activities and assets (including energy consumed by buildings, industrial processes and transport). As long as 90 % of an organisation’s total energy consumption is covered, a mix of approaches with some of this energy consumption covered by ISO 50001, some by DECs or GDAs and some by ESOS
energy audits is possible.

- An energy audit must identify energy saving opportunities. Energy saving opportunities should be reasonably practicable and cost effective to implement. Recommendations should include the estimated costs and benefits of implementation. There is no regulatory requirement for participants to implement the energy saving opportunities identified. Furthermore, organisations are expected to carry out site visits as part of their ESOS audits. Organisations with multiple sites or assets that are identical or very similar can take a proportionate approach and apply the energy saving opportunities identified in their site visits to their wider portfolio. Finally, there is an obligation to keep records, although there is no set format for this.

**Support programmes**

- There is not national programme in the UK that supports energy audits of small businesses. The Energy Company Obligation (ECO) ensures suppliers deliver energy efficiency measures to domestic premises only. However, around a third of small businesses are home based and are therefore covered by the Green Deal initiative.

- A recent research by the Federation of Small Businesses has shown that rented accommodation is the leading barrier to energy efficiency investment for almost a third of UK businesses. It shows that small businesses are hugely in favour of energy efficiency, but require more information, support and certainty to invest up front.

**Gold-plating**

- Only companies have ISO 50001 certified management systems in place qualify for exemptions.
- Minimum criteria go far beyond the guidelines published in Annex VI of the EED.
- Strict eligibility requirements for energy auditors.
4. Assessment of other Member States

Cyprus

Legislation

- The Energy Efficiency Directive has been largely transposed through amendments to Law on Energy End-Use Efficiency and Energy Services Act of 2009 (31(I)/2009) and Law on the Promotion of Combined Heat and Power Generation (174(I)/2009). However, initial draft amendments on Article 5 of the former were not implemented.

- Secondary legislation: Decree on the Methodology and Other Requirements for Conducting Energy Audits (RAA 171/2012) and Regulations for the Energy End-Use Efficiency and Energy Services (Energy Auditors) (KPD184/2012).

Legal provisions

Mandatory energy audits apply to

- Not transposed yet

Exemptions apply to

- Not transposed yet

Requirements for auditors

- Energy auditor need to apply for registration in a public register. In order to qualify for registration it is necessary to complete training programmes in various areas (80 hours for audits of buildings, 80 hours for audits of industrial processes, 32 hours for audits of transport; or combined 120 hours for audits of buildings and industrial processes) followed by an exam. The ratio of theoretical and practical content of the training has to be 70%-30%.

Minimum criteria for carrying out energy audits

- RAA 171/2012 contains a comprehensive technical guide for energy audits.

Support programmes

- The Energy Department participates in events for the exchange of best practices on energy management systems in SMEs. For this purpose, the Cyprus Organisation for Standardisation holds information events in order to inform all enterprises on the benefits arising from the implementation of energy management systems, involving the exchange of good practices.

- To encourage the implementation of measures for energy saving and for the uptake of renewable energy, the Ministry of Commerce, Industry and Tourism provides, since 2004,
special grants scheme which are available for individuals and companies.

**Support measures by Chambers**
- Cyprus Chamber of Commerce and Industry (CCCI) constantly informs its members about the importance of energy savings and energy efficiency.
- CCCI has participated in the development of the national grant scheme and promoted it to all of its members. In order for a grant, and energy audit has to be conducted.

## Estonia

### Legislation
The Estonian government has published a draft Energy Sector Organisation Act (13-1343), which will transpose Art. 8 EED into the national legislation.

### Legal provisions (according to draft legislation)

**Mandatory energy audits apply to**
- large companies (non-SMEs)
- by 5 December 2015 and at least every 4 years

**Exemptions apply to**
- large companies implementing an energy or environmental management systems (certified in accordance with relevant European and international standards), if they can prove that the system includes an audit in accordance with the minimum requirements.

**Requirements for auditors**
- Energy audits can be carried out by external or internal auditors. The government will develop qualification criteria.

**Minimum criteria for carrying out energy audits**
- The draft legislation does not refer to minimum criteria.

### Support programmes

**According to legislation**
- The Energy Efficiency Coordinator will develop programs to encourage SMEs to carry out energy audits or to introduce an energy management system. The Energy Efficiency Coordinator promotes, together with stakeholders, including local and regional
authorities, information and awareness-raising and training initiatives carried out in order to inform residents of the benefits of energy efficiency improvement measures and practical details.

### Greece

**Legislation**
- Greece has not yet transposed Art. 8 EED. The conditions for carrying out energy audits are currently defined in law 3855/2010 and in secondary legislation 11038/1999.

**Support programmes**
- Greece provides financial support for energy efficiency measures through a “Green Fund”. The Fund’s resources are available to all providers of energy efficiency improvement measures, such as ESCOs, independent energy consultants, energy distributors, distribution system operators, retail energy sales companies and installers, as well as the final customers.

### Hungary

**Legislation**
- The Hungarian parliament is currently preparing a draft legal act and intends to adopt it before summer 2015.

**Support programmes**
- No support programmes could have been identified.

**Support measures by Chambers**
- **STEEEP** (BOKIK and GYMS County Chambers)
- The Heves County Chamber created energy purchasing communities for SMEs in northern Hungary which work similarly to a joint procurement group. Apart from that, the County Chamber offers advice on how to switch from fossil fuels to renewable energy and on rationalising overall energy consumption.
Latvia

Legislation

- The legal basis for energy efficiency action is the Energy End-use Efficiency Law. Detailed provisions for industrial energy audits are included in Cabinet Regulation No 138 of 12 March 2013.

- Article 8 of the Energy Efficiency Directive has not yet been transposed into Latvian law. According to the Ministry of Economy, it is expected that a new Energy Efficiency Act and the relevant Cabinet Regulations will be adopted in autumn 2015. However, the Ministry of Energy published Recommendations for mandatory energy audits for large companies. Also, large companies have directly been informed on their obligations by Ministry of Economy. However, due to the delayed transposition, there is legal uncertainty on how to conduct mandatory energy audits. The following is based on the ministry’s recommendations.

Legal provisions (according to government’s recommendations)

Mandatory energy audits apply to

- large companies (non-SMEs according to EU definition)
- by 5 December 2015 and at least every 4 years
- The Central Statistical Bureau maintains a list of the large companies (currently 272) that are subject to the mandatory audit. It must cover at least 90% of a company’s total energy consumption and has to include all forms of energy (heat, electricity, fuel, transport fuel).

Exemptions apply to

- large companies having energy or environmental management systems (according to ISO 50001 or ISO 14001) in place, which cover at least 90% of the total energy consumption.

Requirements for auditors

- According to Regulation 138, energy auditors must, inter alia, (1) be legal entities; (2) have a master degree in engineering industries like energy, heat, environmental sciences; (3) have knowledge of the industrial energy audit procedures; (4) must be familiar with the audited companies technological processes etc.
- Company staff or any of its equipment designers/manufacturer, suppliers or installers are excluded from carrying out energy audits.

Minimum criteria for carrying out energy audits

- The government recommendations repeat the minimum criteria included in Annex VI of the Directive.

Support programmes
According to legislation

- Current legislation does not include support programmes for SMEs. However, in order to support energy efficiency measures in manufacturing and to improve heat insulation of buildings, the Ministry of Economy is working on setting up support programmes with a total budget of 32 million Euros. (see Ministry of Economy)

Support measures by Chambers

STEEEP

Lithuania

Legislation

Art. 8 EED has been transposed through

- A new energy efficiency law (LIETUVOS RESPUBLIKOS ENERGIJOS EFEKTYVUMO STATYMAS) is currently being prepared.
- Secondary legislation 1-148 has recently (07/02/2015) been amended in order to clarify the requirements for energy auditors.

Legal provisions (according to draft legislation)

Mandatory energy audits apply to

- large companies (non-SMEs according to EU definition)
- by 5 December 2015 and at least every 4 years

Exemptions apply to

- companies that have energy or environmental management systems (certified in accordance with relevant European and international standards) in place are exempted if these management systems already include an audit.

Requirements for auditors

- Audits maybe carried out by in-house experts or energy auditors.
  - External experts auditors need to hold a university degree in the field of ‘sciences and technology’ (bachelor’s or professional bachelor’s degree) or an equivalent education; must complete a training course for auditors and obtain a certificate. Moreover, they need to have at least 3 years of personal experience of practical work in any energy efficiency activities (like energy audits, energy management; technological processes management etc.). Moreover there are specific qualification requirements for auditing of buildings (degree in civil engineering or energy) and auditing of devices/processes (degree
in electrical engineering or energy or industrial engineering).

- **Internal auditors** must have at least 1 year of work experience in energy efficiency activities and may not perform audits of activities their work is directly linked to. Apart from this, they are subject to the same rules as external energy auditors.

### Minimum criteria for carrying out energy audits

- Minimum criteria could not have been identified in the current draft legislation.
- The company has to keep its audit reports for at least four years.

### Support programmes

#### According to draft legislation

- The government will develop programmes and support schemes in order to encourage SMEs to perform energy audits and implement the recommendations deriving from the audits. Moreover, the government will inform SMEs of the benefits of energy audits.

### Support measures by Chambers

- The Lithuanian Chamber cooperates with the Institute of Environmental Engineering and offers basic advice on energy efficiency.
- In the past the Lithuanian Chamber participated in two EU co-financed energy projects (Better Environment Better Business and PRISM) In this context, it organised advice and workshops for companies with experts in energy efficiency.

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### Luxembourg

#### Legislation

- The majority of the provisions of the EED will be implemented by a new law replacing “Loi modifiée du 5 août 1993 concernant l’utilisation rationnelle de l’énergie”.
- Energy audits in businesses are currently regulated by the “Règlement grand-ducal du 11 août 1996 concernant la réalisation d’audits énergétiques dans les bâtiments du secteur résidentiel et tertiaire, ainsi que dans les entreprises”.

#### Legal provisions

- According to the règlement gand-ducal, energy audits are mandatory for industrial, craft, agricultural and commercial enterprises provided that their total consumption exceeds 3 GWh per year.

#### Exemptions apply to
In the current legislation, no exemptions are foreseen.

Requirements for auditors

According to the Règlement, energy audits must be carried out by offices of consulting engineers and specialized companies in the field of energy, which are approved by the Minister of Energy.

Minimum criteria for carrying out energy audits

According to the Règlement, energy audits have to assess the relative thermal and electrical energy consumption of the production and related process, heating and ventilation of the premises, the domestic hot water, cooling of the premises, lighting and office automation in buildings.

The written audit report must contain concrete proposals for saving measures and a cost benefit analysis.

Support programmes

According to the règlement, energy audits can be co-financed by up to 50%. An applicant can only benefit once from such a grant.

Moreover, "Voluntary Agreement on improving energy efficiency in Luxembourg industry" have been set up by the Luxembourg Government, myenergy and the Business Federation Luxembourg. It brings together 56 medium and large, energy-intensive, industrial companies which perform regular energy audits, which are co-financed by the ministry of economy.

Support measures by Chambers

The Chamber of Commerce of Luxembourg actively supports the activities of the national energy agency “MyEnergy”, which offers tailored advice to companies based on their characteristics and needs in terms of energy saving measures. For instance, MyEnergy encourages SMEs and companies from the service sector to seek professional support if they wish to perform an energy audit.

Netherlands

Legislation

The EED has partly been transposed through law (2015/102) amending the Law implementing the Energy Efficiency Directive, Electricity Law, the Gas Law and the Heat Law in connection with the implementation of Directive 2012/27 / EU on energy efficiency, which entered into force on 10 March 2015.

Art. 8 EED will be transposed through secondary legislation (Activities Decree under the
Support programmes

- In the Netherlands Voluntary Long Term Agreements (LTA) and Long Term Agreements for the ETS sector (LEE) have been signed by over 1000 companies which stand for some 25% of the overall Dutch energy consumption. The agreements between the government, businesses and regional authorities aim at promoting energy savings in industry. LTA participants perform systematic energy management. The Dutch Energy Agency supports LTA participants in implementing the agreements in practice. Companies can benefit from the expertise and experience of advisers, for instance for drawing up energy efficiency plans and monitoring the realized energy efficiency.

Support measures by Chambers

- The Netherlands Chamber of Commerce participates in two (regional) projects related to energy-efficiency, aimed at matching supply and demand. By organising workshops and providing individual advice, it supports SMEs to develop & sell demand-oriented energy-saving solutions for house-owners. The projects are called Slim Energie Thuis! in the eastern Province of Overijssel and BIK (Bouwen aan Integrale Ketensamenwerking) in the Province of North-Holland.

Poland

Legislation

- The Polish government is currently preparing an Act Law on Energy Efficiency that will replace the old Energy Efficiency legislation, expiring by the end of 2015. A draft of the new law will be published in Summer 2015.

Support programmes

- Poland provides funds for general energy-efficient investments in small and medium-sized enterprises (PLN 60 million) and in large businesses (PLN 150).

Support measures by Chambers

- The Polish Chamber of Commerce is one of nine partners from six EU countries who implement the project entitled Boost Energy Efficiency in Manufacturing SMEs by Extending European Energy Manager Training and Network, acronymed EUREMplus, co-funded by the Intelligent Energy Europe network. The project aims to make the well-established EUREM programme available to additional companies, especially SMEs from the manufacturing sector, enabling them to increase their energy efficiency and
Energy Audits for Europe

The programme comprises of courses, self-learning and practical work, combined with access to the network for continued knowledge exchange.

Spain

Legislation

- The Directive has not yet been formally transposed into Spanish law.
- A draft Royal Decree has been elaborated and is in the legislative process.

Legal provisions (according to draft legislation)

**Mandatory energy audits apply to**

- large companies (according to EU definition)
- by 5 December 2015 and at least every 4 years

**Exemptions apply to**

- large companies, implementing an energy or environmental management system - certified by an independent body according to the relevant European or International Standards - provided that the management system concerned includes an energy audit on a set of minimum criteria which correspond to Annex VI of the EED.
- Furthermore, the draft legislation provides for two partial exemptions:
  - A company’s buildings do not have to be energy audited if the company presents a valid energy efficiency certificate according to Royal Decree 235/2013
  - A company’s transport services do not have to be energy audited if the company has implemented an energy management system concerning its transport services

**Requirements for auditors**

- Auditors require a certificate proving that they have the theoretic knowledge which is necessary to perform energy audits. These certificates can only be issued by an organization which is itself accredited by the “National Accreditation Body” (“Entidad Nacional de Acreditación” – ENAC)

**Minimum criteria for carrying out energy audits**

- The Spanish draft legislation transposes Annex VI of the EED without any modification.

Support programmes

**According to legislation**

- The draft Royal Decree does not include provisions on SME support programmes.
- JESSICA-FIDAE is a fund worth about € 123 million which aims to finance sustainable
urban development projects that improve energy efficiency and/or renewable energy use.

Support measures by Chambers

- STEEEP
- Spanish Chambers of Commerce organise workshops in order to promote the JESSICA-FIDAE funds to SMEs.
- Many regional Chambers in Spain provide direct energy efficiency advice to SMEs.

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EUROCHAMBRES – The Association of European Chambers of Commerce and Industry represents over 20 million enterprises in Europe – 98% of which are SMEs – through members in 43 countries and a European network of 1700 regional and local Chambers.

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