

**UK'S APPROACH TO MEETING THE REQUIREMENTS OF
ARTICLE 8
ENERGY SAVINGS OPPORTUNITY SCHEME (ESOS)**

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ENERGY SAVINGS OPPORTUNITY SCHEME (ESOS)

- **Transposes Article 8**
 - **Energy Audits and Energy Management Systems**
 - Requirement for large undertakings to do audits every 4 years unless ISO 50001 certified
 - Promotion of availability of audits and EnMS
 - Encourage Training programme for energy auditors
- **Assists towards Article 16**
 - Qualification, Accreditation and Certification schemes for energy service providers

WHO DOES ESOS APPLY TO

- Organisations must take part in ESOS if they, or at least one of their UK group members, are a 'large undertaking'.
- A 'large undertaking' is an organisation engaged in a trade or business which:
 - employs at least 250 persons
- or
 - has an annual turnover above €50 million (approximately £42.5 million) and an annual balance sheet above €43 million (approximately £36.5 million).
- Does not apply to Public Sector or organisations subject to an insolvency procedure

WHAT ABOUT CORPORATE GROUPS

- If corporate groups have one “large” UK organisation, then all UK components of that group **MUST** comply with ESOS.
- **Note** Whilst in UK law there is no requirement to undertake ESOS audits when this is not the case members of large corporate groups should check other jurisdictions and seek corporate guidance as some European Communications about the underlying directive suggest a requirement to look across borders within EU

COMPLIANCE PERIODS

Compliance Period	Qualification Date	Compliance Deadline
First period: 6 Dec 2011 – 5 Dec 2015	31 Dec 2014	5 Dec 2015
Second period: 6 Dec 2015 – 5 Dec 2019	31 Dec 2018	5 Dec 2019
Subsequent periods: every following four-years	31 Dec 2022, 2026, etc.	5 Dec 2023, 2027, etc.

REQUIREMENTS (SUMMARY)

- If ALL organisation covered under “accredited” ISO 50001 management system – deemed to comply – inform Environment Agency
- If some but not all under ISO 50001 then you must conduct an ESOS assessment
- Note: Just because you have an ISO 50001 Certificate on the wall does not mean you comply
 - (90% energy within scope –including transport
 - Accredited – Is your CB Accredited (to ISO 50001)
 - If not on the Cert ask them for proof.

WHAT REQUIRED TO DO?

- measuring their total energy consumption
- identifying their areas of significant energy consumption (at least 90% of the total)
- selecting a route to compliance in respect of each area of significant energy consumption and undertake the activity to comply (see next slide)
- appoint a 'lead assessor' to undertake, oversee or review their audits and overall assessment.

SIGNIFICANT ENERGY USE

- At least 90% of total energy use must be covered by
 - ESOS compliant energy audit
 - Display Energy Certificate
 - Green Deal Assessment
 - ISO 50001 Certified Energy Management System
- Unless you have an ISO 50001 Certified Energy Management System (for all of scope of ESOS) you **MUST** have a Qualified lead assessor review your activities

AUDIT REQUIREMENTS

- Can take place any time during compliance period
- Audits already carried out before ESOS was introduced can contribute to its implementation as long as they meet the scheme's requirements.

AUDIT REQUIREMENTS (CONTINUED)

- An ESOS-compliant energy audit is one that:
 - Is based on 12 months' verifiable data for a continuous period, beginning no earlier than 6 December 2010 for the first compliance period and
 - Data from no more than 24 months before the start of the audit
 - The data also may not have been used for an energy audit in a previous compliance period)

AUDIT REQUIREMENTS (CONTINUED)

- Audit must analyse the participants energy consumption and energy efficiency
 - Auditor should break down the uses of energy in the organisation and analyse the variations in energy use to identify efficiencies that may be present.
 - Essentially the audit is required to identify the areas of significant energy use within the organisation

AUDIT REQUIREMENTS (CONTINUED)

- Identify the energy and cost saving opportunities within the organisation
 - Reasonably practical and cost effective
 - Outline approx. cost and benefits of implementation
 - Analyse over lifetime – LCC/ NPV
- No obligation on organisation to implement.

SITE VISITS

- These are required
 - Sampling may be used for multiple sites of similar/ identical nature
 - Number of visits must ensure collection of adequate data and analysis of all areas of significant energy use.
 - Evidence of sound justification required for approach taken for sampling etc (Records of decision taken)

WHO CAN DO AUDIT

- Needs to be “signed off” by an ESOS approved Lead Assessor.
- Can be organisation employee (as long as approved lead assessor)
- Reviewed at director level within organisation.

REPORT COMPLIANCE

- Must report compliance with environment Agency by 5th Dec 2015 for Phase 1.
- Must retain Evidence Pack containing:
 - Details of the undertakings making up your participant and identification of the responsible undertaking (see Section 3.3).
 - Details of the responsible board-level Director(s) or equivalents that have taken the lead on signing-off your compliance with ESOS.
 - Details of your Lead Assessor (see Section 5).
 - The calculation of your total energy consumption.
 - A list of your identified areas of significant energy consumption.

EVIDENCE PACK (CONTINUED)

- Details of the routes to compliance used to cover each area of significant energy consumption.
- Your reasons, where applicable, for using less than 12 months of data for the measurement of total energy consumption (see Section 4.4.4).
- Your reasons, where applicable, for using less than 12 months of data to support an ESOS Energy Audit (see Section 6.2.1.1).

EVIDENCE PACK (CONTINUED)

- Details of the audit methodology used in your ESOS Energy Audits (see Section 6.2.4).
- Your reasons, where applicable, for being unable to use verifiable data on energy use or energy expenditure to support your calculation of total energy use and the methodology of any estimation made.
- Justification, where applicable, where your auditor does not consider an energy consumption profile in their audit of an area of significant energy use (see Section 6.2.5.3).

BENCHMARKING

- Benchmarking – comparison of your energy performance to organisations/ systems/ processes of similar activity is important to get a good assessment of the potential for improvement and should be done where possible
 - Buildings
 - Transport
 - Industrial processes
 - Equipment (eg boiler efficiency v/s stated manufacturer levels)

LEAD ASSESSORS

- AEE CEM and CEA registers approved for Lead Assessor Role for ESOS (other registers also)
 - Assessed against PAS 51215 requirements
- Required to
 - Abide by the AEE code of Ethics and deliver work of the best professional standards
 - Co-operate with any investigation into any complaint made against any AEE Certified Professional
 - Keep up to date with developments in the industry by undertaking Continuous Professional Development Activities

There is no such thing as a stupid question
If in doubt - ASK!!!!

