

ESOS: The UK Government's Energy Savings Opportunity Scheme

Questions you might be thinking.....

Who is affected?

ESOS is compulsory for all large organisations in the private sector. Only SMEs and public sector bodies are exempt.

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What if I am part of a company based overseas?

If your operation or part of your corporate group operating in the UK is classed as a large organisation then you are defined as eligible for participation in ESOS.

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What are the minimum requirements?

Measure your total energy consumption (buildings, processes, transport) conduct energy audits to identify savings and report compliance to the Environment Agency.

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How do I complete an ESOS Audit?

Use 12 months of energy data, develop consumption profiles, assess performance of key energy using systems and identify cost effective savings based on life-cycle costing.

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What is the role of the Lead Assessor?

For ESOS compliance the scope and outputs of an audit must be certified by an accredited Lead Assessor. The Lead Assessor may carry out the audit or supervise others that the Lead Assessor deems to have suitable skills.

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Will ISO 50001 Certification help?

Yes, if part of your organisation is certified to ISO 50001 then this can be exempt from energy audits. If entire organisation is certified to ISO 50001 you will only be required to demonstrate to the Environment Agency that you are certified to comply.

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How do I report on my ESOS Assessments?

Notify the Environment Agency that you have complied with the requirements of ESOS on or before 5th December 2015. You will need to have a board level Director sign-off on your assessment before submission.

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What is included in an Evidence Pack?

Details of the parts of the business that are included, key contacts for the signatories (Director and Lead Assessor), total energy consumption and identified significant areas along with any exceptions or justification.

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What about penalties and enforcement?

There is a maximum fine up to £50,000 plus additional £500 per day whilst non-compliant (maximum 80 days). The Agency may also publish a list of named companies that are non-compliant.

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What should I do now?

Review your eligibility and consider structure for corporate compliance. Review energy reporting requirements and calculate your total energy, consider alternate routes to compliance, identify board-level Director and secure resource to ensure compliance.

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Who is affected?

If you are a large¹ organisation (excluding public sector bodies – defined by the requirement to comply with public contracting regulations) on the qualification date (31st December 2014) then you are within scope of the ESOS. Limited companies, public companies, trusts, partnerships, unincorporated associations and not for profit bodies are all potentially within scope.

What if I am part of a company based overseas?

If part of your UK organisation, operating in the UK is classed as a large organisation then all of your UK operations will be included within ESOS. This applies regardless of your divisional operation having different parent companies that may be based overseas.

ESOS provides for a degree of flexibility around the issue of reporting at a group or divisional level. You can aggregate all of your UK operations into one submission through a nominated lead contact point, or you can disaggregate your response to a level that is more aligned to your business reporting structure. Disaggregation does not however allow you to exempt smaller parts of your disaggregated operation.

For organisations that operate within a franchise arrangement there is scope to include the franchisees within your submission but this is not a formal requirement of the scheme.

¹ A) more than 250 employees, B) €50 million annual turnover or a balance sheet exceeding €43m in the UK, C) Part of a corporate group which includes at least one large organisation as defined by A) or B)

What are the minimum requirements?

Compliance with ESOS requires a review of your energy consumption, including buildings, industrial processes and transportation. In the majority of cases all energy that is supplied to and used by your organisation is in scope of ESOS, and extends to energy that is generated by your organisation (with the exception of waste heat recovery). Energy consumption which occurs outside the UK (with the exception of international travel) is outside of ESOS scope.

To comply with ESOS you will need to calculate your total energy consumption over a continuous 12 month period – this is your 'reference period'. Therefore your reporting process needs to be in place before December 2014. You can draw upon data collated for other voluntary and mandatory energy efficiency schemes to help (such as EU ETS, CCA's, CRC). The ESOS coverage is wider than existing schemes and as such further work will be required to calculate your total energy consumption. When assessing your reference period your 12 months of data must include the qualification date and be based on verifiable data. Where verifiable data is not available then ESOS adopts a 'comply or explain' approach and you will need to retain records in your ESOS Evidence Pack to explain your approach. You are still required to estimate the derived energy value through calculation.

When you have calculated your total energy consumption for the reference period you will need to identify and audit areas of significant energy consumption and assess these to identify cost effective energy efficiency opportunities. You can exclude 10% of your energy consumption from further analysis under the de minimis ruling. In each future reporting phase (ESOS assessments will be required every 4 years) you will need to recalculate your total energy consumption for each phase.

You can use the findings from previous energy reviews (such as ISO 50001, Display Energy Certificates, Green Deal Assessments) to support your compliance with ESOS. Your Lead Assessor may also consider work carried out as part of other energy audit schemes (such as Green Fleet Reviews). This audit work must have been completed within the compliance review phase (for the first phase this means audits conducted after December 2011) and meet the minimum requirements of an ESOS Energy Audit. If you do not have ISO 50001 covering your whole organisation you will need to appoint a Lead Assessor to review your compliance with ESOS.

How do I complete an ESOS Energy Audit?

You will need to agree the audit methodology to be used with your Lead Assessor before starting the Energy Audit and you will need to record the methodology used in your ESOS Evidence Pack. You should also consider the timing of the Audits; it is possible to stagger your Energy Audits to avoid undue strain on internal resources or changes to operational activities. The focus of the Audit should be limited to measures that are within your operational control. A compliant ESOS Energy Audit must:

- Where appropriate develop and use energy consumption profiles for your areas of significant energy consumption – if energy consumption profiles are not used you will need to record the justification in your ESOS evidence pack.
- Use 12 consecutive months of energy consumption data (beginning no more than 12 months before the start of the compliance period and no more than 24 months before the commencement of the Energy Audit).
- Not use data that was previously used to support an earlier compliance phase.
- Provide cost-effective recommendations for the area being audited or confirm that no cost effective opportunities exist.

- Be overseen, conducted or reviewed by an approved Lead Assessor.

Where practical an ESOS Energy Audit should use life-cycle cost analysis instead of the more traditional simple payback for cost/benefit analysis (LCCA). The ultimate aim is to calculate the net present value (NPV) of energy saving investment opportunities. If you acquire a business asset during the compliance phase that has undertaken an energy audit under previous ownership this assets energy audit is not deemed to be compliant. When the Audit is complete the findings will need to be presented to a board-level Director for sign off.

What is the role of the lead assessor?

You will need to appoint a Lead Assessor to support the ESOS assessment (unless you are a large organisation that has its entire UK operation certified to ISO 50001). The Lead Assessor can be an external consultant or an internal expert and must belong to a register of energy professionals² approved for ESOS by the Environment Agency. Individuals cannot apply directly to the Environment Agency to become a Lead Assessor.

The role of the Lead Assessor will typically include:

- Agreeing the audit methodology for new audits, such as ISO 50002 or BN EN 16247.
- Defining the scope of the audits (organisation/group, buildings, sites or transport assets), the number and range of audits to be undertaken and the timetable for completion.

² A professional body must apply to the Environment Agency to have its register of energy professionals approved as one whose members meet the standards set out by the BSI PAS 51215 'Energy efficiency assessment – Competency of a lead energy assessor'

- Determine the energy consumption profiles of areas with significant energy use and identify (or oversee the identification) of cost effective energy saving opportunities based on LCCA or other methodology.
- Report and present the audit(s) recommendations.
- Review the overall ESOS assessment for compliance and maintain an ESOS Evidence Pack to substantiate the findings.

In some cases the Lead Assessor will carry out all or part of the audit process. In other situations the Lead Assessor will approve the skills of others who can carry out all or part of an audit under supervision, or the Lead Assessor will review audits already carried out. The overall legal responsibility for compliance remains with you and not the Lead Assessor, but a Lead Assessor must sign off the Energy Audit.

During the summer of 2014 the Environment Agency will develop a process for professional bodies to obtain approval for their registered list of energy professionals. Details of approved registers will be published on the Environment Agency's website.

Will ISO 50001 certification help?

If the entire UK operation of your organisation is certified to ISO 50001:2011 you can use this as an accepted compliance route under ESOS as an alternative to undertaking ESOS Audits. Where an ISO 50001 certified system only covers part of your energy consumption, there remains a requirement to measure your total energy consumption and for a Lead Assessor to oversee and approve the assessment of the areas not covered by the energy management system.

Maintaining an ISO 50001 compliant but not certified system is not accepted as a formal route to compliance with ESOS.

How do I report on my ESOS Assessments?

As an ESOS participant you will need to notify the Environment Agency that you have complied with the requirements of ESOS on or before the compliance date (5th Dec 2015 in the first phase). You will need to provide relatively basic details covering your organisation, the aggregation/disaggregation approach taken, details of your appointed Lead Assessor and high level details of the ESOS Assessment. At this time there is no requirement to provide detailed information of the identified opportunities.

Before you can submit your notification of compliance, the ESOS Assessment will need to be signed off by a board level Director. If you are using an in-house Lead Assessor then two Directors will be required to sign off that they have seen and considered the ESOS Assessment.

The Environment Agency will publish a list of participants on its website.

What is included in an Evidence Pack?

You are required to maintain an ESOS Evidence Pack detailing aspects of your compliance with ESOS. At present there is no formal template for the Evidence Pack. Key information in the pack must include:

- Details of who/what has been involved - businesses/operations included, designated operational owner, who is the board-level Director(s) that has signed off your compliance and details of the Lead Assessor.

- Energy details, including total energy consumption, list of identified areas of significant energy consumption, audit methodology used and routes to compliance used.
- Explanations and justification – e.g. for using less than 12 months data to measure your total energy consumption and/or to support your energy audits, and justification for not using energy consumption profiles.

What about penalties and enforcement?

The Environment Agency has the authority to apply civil penalties to your organisation for non-compliance and can publish your name, failure and penalty imposed. A summary of the penalties are presented below.

Area of Failure	Fixed Penalty (cap)	Per day (max 80 days)
Notification given to EA	£5,000	£500
Maintaining records*	£5,000	
Undertake ESOS Assessment**	£50,000	£500
Comply with enforcement notice	£5,000	£500
False/Misleading statement	£50,000	

* The Environment Agency may seek to recover costs associated with auditing activity to confirm your organisation has complied with ESOS

** You will still be required to undertake an ESOS assessment

What should I do now?

You need to act now to collate your data and develop an ESOS strategy that will ensure compliance. Consider the following:

- 1) You have until the 31st December 2014 (qualification date) to notify the Environment Agency that ESOS will apply to your organisation. You need to assess your business to determine if it is classed as a large undertaking, remember to take into consideration all parts of your corporate UK operation.
- 2) Determine which part of the group/business will act as the highest parent – taking ownership for compliance with ESOS
- 3) Determine which is better – an aggregated or disaggregated approach to compliance.
- 4) Review your energy data reporting capability, modify if required and calculate your total energy consumption.
- 5) Review previous energy studies that have been undertaken, these may help support your efforts with compliance.
- 6) Identify sites that may require an Energy Audit.
- 7) Consider the benefits certification to ISO 50001 – it will help with compliance and deliver added value to the business.
- 8) Set aside budget/resource for compliance with the requirements of ESOS.
- 9) Contact us to discuss your concerns/questions and for assistance with establishing your ESOS strategy.

What can Jacobs do to help? As a multidisciplinary engineering consultancy Jacobs has the breadth and depth of expertise to support your business through the initial phase of ESOS and beyond. We pride ourselves on developing long term relationships that deliver real value and cost benefit for our clients. We look forward to discussing how we can support your business and introducing you to our Lead Assessors in the future. During these coming months we are happy to answer questions on the development of this new regulation and how it may affect your organisation, please contact us at:

uk-esos@jacobs.com

The link below is to the portal where the Government has set out how organisations should comply with the requirement:

<https://www.gov.uk/government/consultations/energy-savings-opportunity-scheme>