

Energy Savings Opportunity Scheme

Secondary Legislation

This document summarises the final ESOS legislation published by the Department of Energy and Climate Change (now the Department for Business, Energy & Industrial Strategy - BEIS) on the 26th June 2014.

Background of ESOS

In 2012, Article 8 of The EU Energy Efficiency Directive ("The Directive") (2012/27/EU) stated that 'large enterprises' would be required to complete **mandatory, energy audits once every four years.**

EU Member States were subsequently given until the 5th June 2014 to implement the requirements of The Directive and until the 5th December 2015 to have undertaken energy audits of all their 'large' enterprises. The Energy Savings Opportunity Scheme (ESOS) is the UK's answer to these requests. The policy aims to minimise the cost of effective energy efficiency measures to businesses through compliance with the auditing process. The expectation is that this will increase the uptake of such measures across large organisations

Potential Benefits of ESOS

ESOS has targeted nearly one third of the British energy demand, and BEIS (formerly DECC) has estimated that the scheme will produce a £1.6bn net benefit. Enterprises involved will be given the opportunity to reduce energy waste and identify cost effective savings. A reduction in energy bills translates to financial savings that can be reinvested across different business sectors to increase profitability.

These savings will be identified through audits. Energy audits are a great way to highlight where your buildings can operate more efficiently and subsequently, where your **overheads can be reduced.** Whilst some may consider audits a burden, they are extremely useful for benchmarking, not only against your future performance but against other buildings within your group and best practice guidelines.

Scheme Qualification

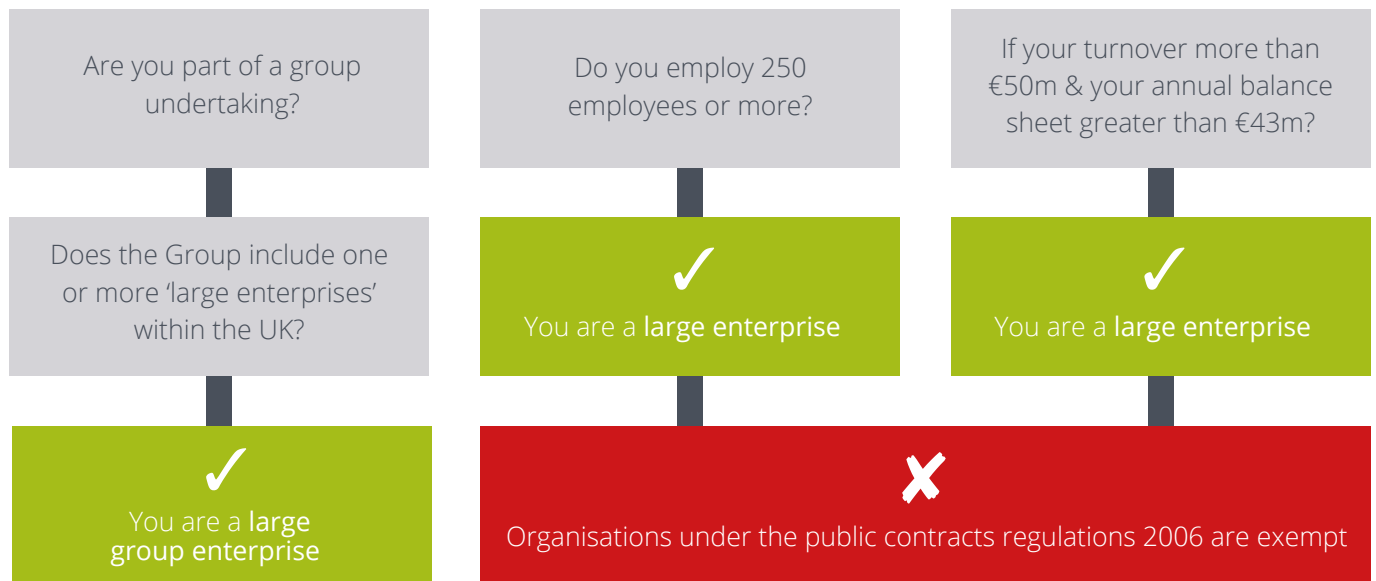
ESOS is targeting large enterprises/ undertakings, namely businesses. An undertaking, for the scope of ESOS, includes;

- ✓ Unincorporated associations;
- ✓ Partnerships
- ✓ Not for Profit Organisations engaging in a business or trade;
- ✓ Trusts;
- ✓ Limited Companies and
- ✓ Public Companies
- ✗ Public Bodies are excluded

If therefore, your organisation qualifies as a '**Large Undertaking**' you will be required to take part in ESOS. For the purposes of this policy your organisation will fall within the scope if it meets either of the following criteria;

1. Your organisation has 250 or more employees within the UK.
2. Your organisation has fewer than 250 employees, but has;
 - i. An annual turnover exceeding €50 million
 - ii. **and** a balance sheet exceeding €43 million

ESOS - Scheme Qualification and Compliance



To fully determine if your organisation falls into the scope of ESOS, you will need to assess your latest annual financial statement (ending on or before the Qualification Date) within the UK, converting your turnover and balance sheet into euros. If the size of your business has fluctuated considerably across the last few years, you will also need to consult older financial statements.

If this is the case, then the undertaking must have met the conditions for being, or not being, a 'large undertaking' for two consecutive accounting periods.

If you are a corporate group with at least one undertaking that meets the above criteria, **all** of your UK operations will be required to participate in ESOS.

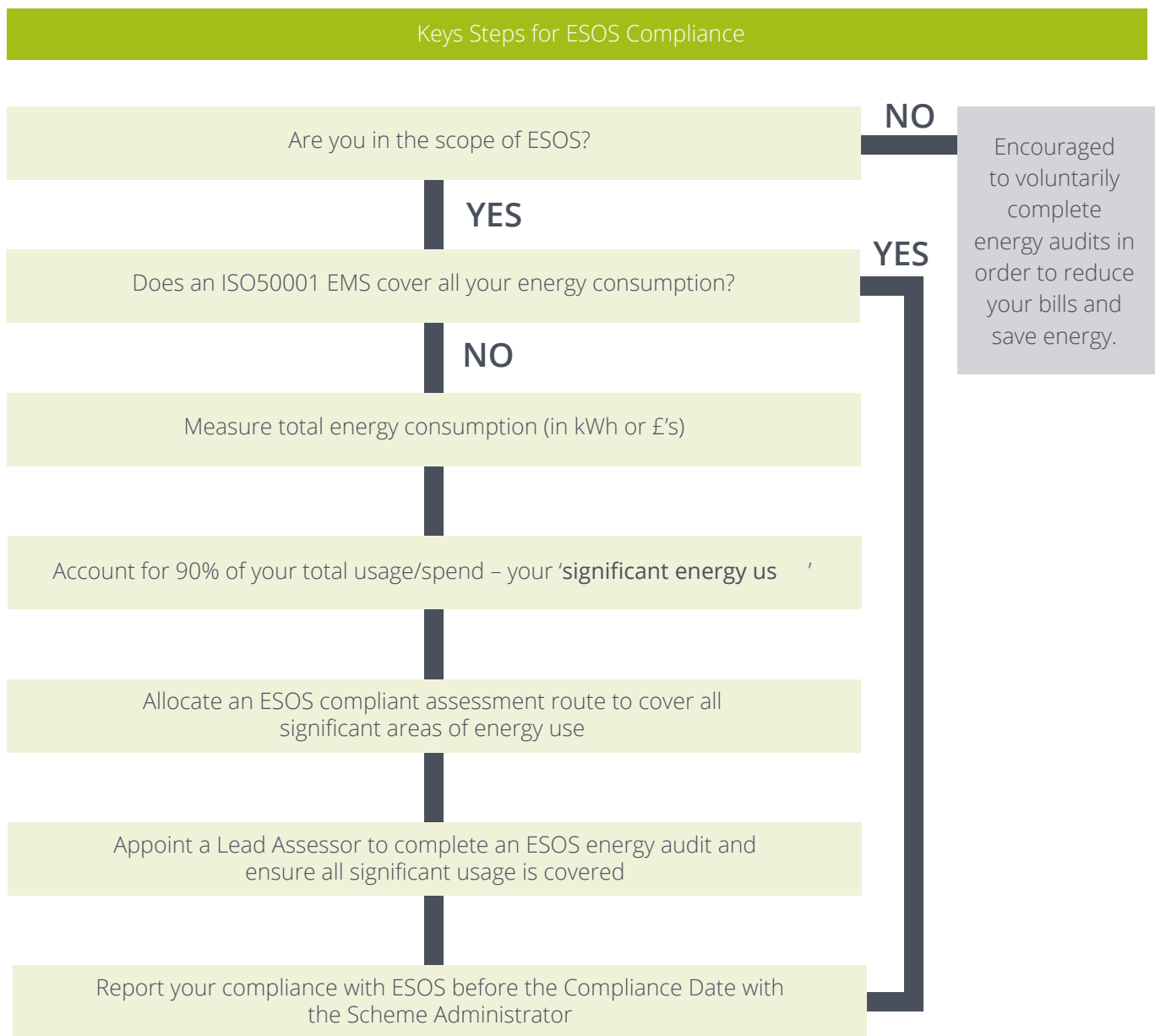
There are **four routes** to compliance - Energy Audits are likely to be the most widely adopted approach, though each has advantages and disadvantages.

- ✓ ESOS Energy Audits
- ✓ ISO 50001 Certification
- ✓ Green Deal Assessments
- ✓ Display Energy Certificates (DECs)

It is estimated that 4,400-6,400 large enterprises actively measure energy consumption under existing policies. Energy audits under ESOS however will go beyond existing energy monitoring policies so there is likely to be an **additional impact from the policy**.

If you have an Energy Management System (EMS) (ISO 50001 Certified) already in place this is considered sufficient to comply with ESOS, providing that the certification occurred during the compliance period, the certification will continue to be valid at the compliance date and the EMS covers all assets and activities your organisation is responsible for as at the qualification date.

ESOS - Scheme Compliance



If you don't have an EMS in place, you will require a certified **Lead Assessor** to assist you with ESOS. The Lead Assessor will verify that your total consumption is representative of all your organisation's activities. The level of involvement of this Assessor may vary between organisations. Apollo Energy will assist you, if required, in appointing an ESOS Assessor to conduct the monitoring process.

ESOS audits can be staggered across the four year compliance period; though new reference periods and corresponding consumption data are required for each of the three phases. Your Lead Assessor will be required to make at least one site visit, with the number of additional sites visited being based on the nature and variability of business assets and activities. The Lead Assessor will then decide whether properties can be 'sample' audited.

ESOS - Scheme Compliance

The requirements of a Lead Assessor, and also those of ESOS participants are laid out below;

Requirements	ESOS Participant	Lead Assessor
Overall responsibility for ESOS compliance	✓	
Appoint a Lead Assessor	✓	
Identify previous audit work completed	✓	
Agree on an ESOS audit methodology	✓	✓
Define the scope of your audit	✓	
Produce an audit timetable	✓	✓
Agree on a sampling approach	✓	✓
Agree on the number of site visits	✓	✓
Ensure data is available for auditing	✓	
Highlight energy saving opportunities		✓
Calculate potential energy/cost savings of opportunities identified (LCCA or SPP)		✓
Present recommendations from audit(s)		✓
Review the overall ESOS assessment		✓
Director(s) or senior management sign off	✓	
Notify Scheme Administrator before compliance date of your compliance	✓	
Maintain an ESOS Evidence Pack to validate the audit results and recommendations.	✓	✓

ESOS - Compliance Reporting

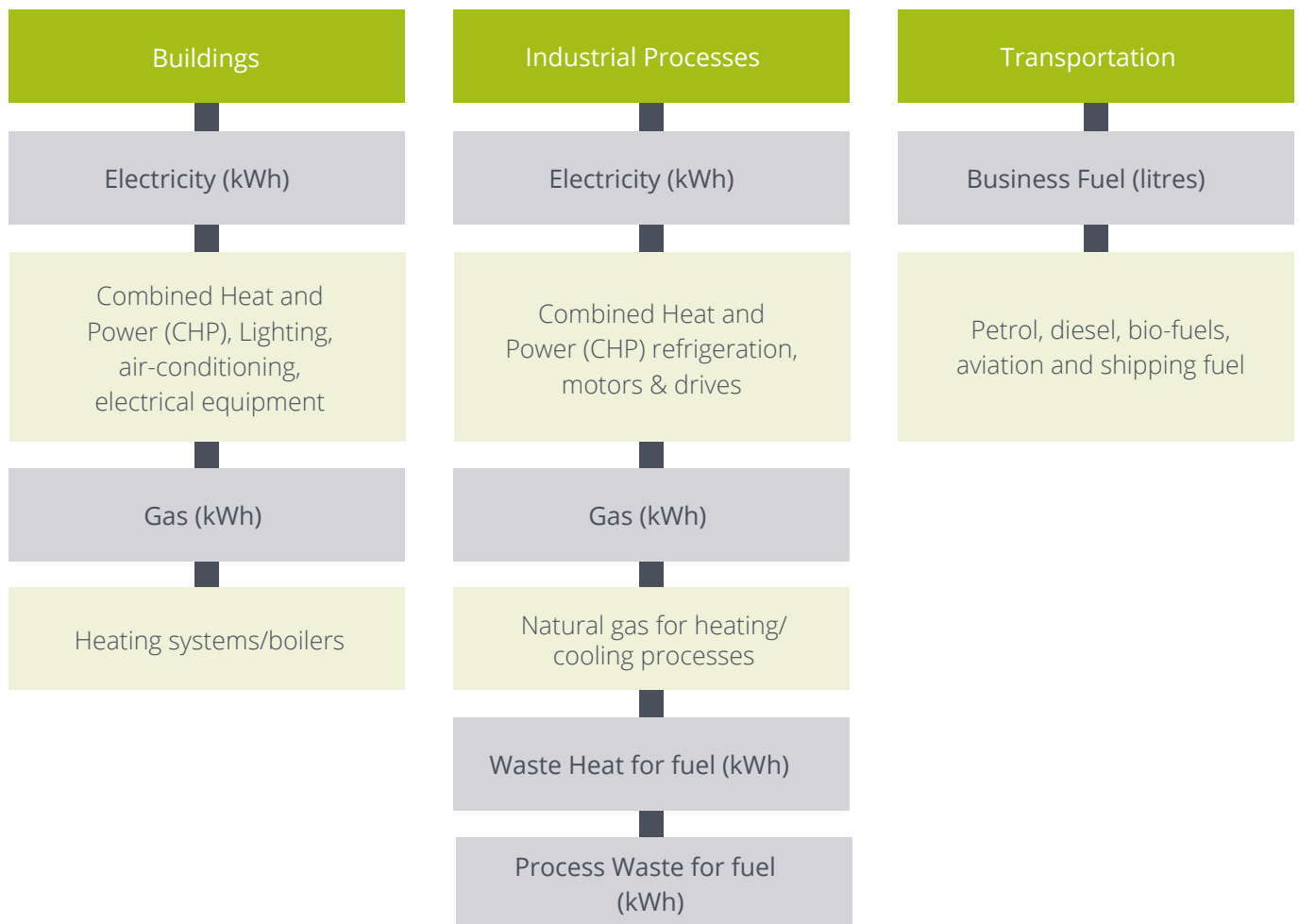
Consumed and 'Unconsumed' Supplies

Energy supplied to and consumed by a participant across all of their assets and activities, either from an energy supplier or from energy generated by the participant, will be included within the scope of ESOS.

Unconsumed supplies are defined as supplies that you do not consume, but provide to a third party.

In order for these supplies to be deducted from your total consumption you will, again, be required to provide verifiable data. If you are unable to reasonably measure the energy consumption supplied to third parties, you will be required to include this consumption within your own total consumption.

Potential sources of energy consumption are shown in the below chart;



A final monitoring metric must be agreed on – ideally, all of your energy consumption should be converted into energy units i.e. kWh.

ESOS - The Audit Process

Once you have arrived at a figure for your total energy consumption, ESOS requires that all assets and activities amounting to 90% of the total consumption are audited. This will ensure that the audits are proportionate and representative of your actual usage, but also highlight the most substantial and cost-effective saving opportunities.

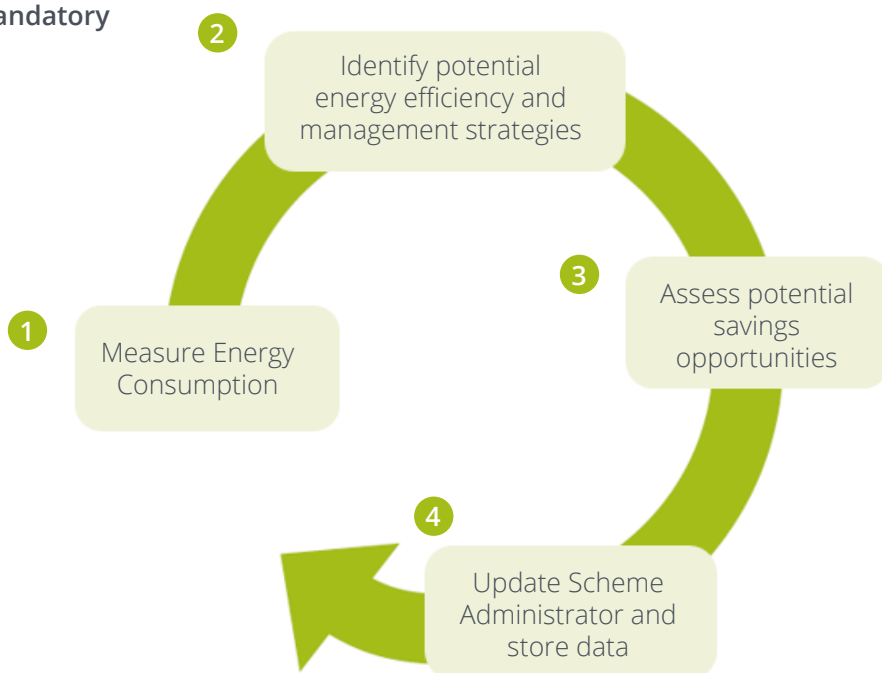
To reduce costs, a total of 10% of your consumption can be omitted from audits and allocated to de minimis - therefore sites with minimal energy consumption do not need to be audited.

ESOS requires **energy audits** to be completed by the 5th December 2019 for every organisation falling within the legislative scope.

The legislation states that the ESOS energy audits are required to deliver high-quality, bespoke advice to each enterprise on how they can improve their energy efficiency in a cost-effective manner, whilst generating substantial net cost savings.

There is **no legal requirement** for businesses to implement the suggestions – however, based on the mandatory costs of the audit, and future audit commitments it makes sense for an organisation to implement saving suggestions.

Mandatory



Voluntary



Figure 1: Route to ESOS Compliance (Adapted from DECC, 2014)

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ESOS - Scheme Operation Times

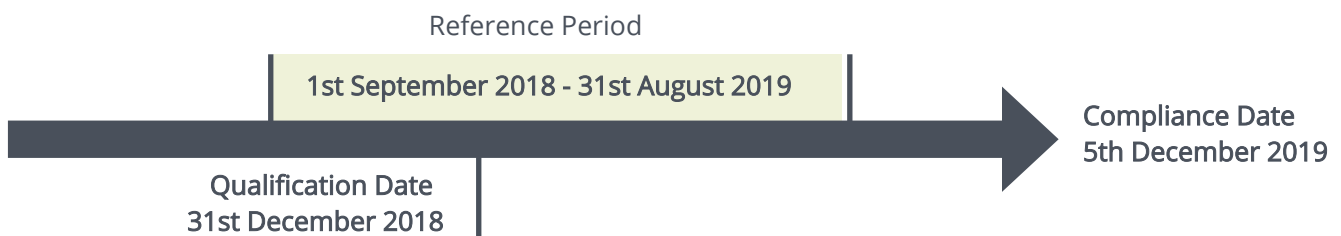
ESOS has been designed to run across three, four-yearly compliance periods. Organisations must have assessed whether they are required to take part in ESOS by the 'Qualification Date', which for phase two is the **31st December 2018**. Participants must have completed the ESOS audit and notified the

Environmental Agency of their compliance for that phase by the 'Compliance Date', which for phase two is the **5th December 2019**. Therefore, the activity data used for the phase two assessment needs to fall between the 6th December 2015 and the 5th December 2019.

Phase	Qualification Date	Four Year Compliance Phase	Compliance Date
1	31st December 2014	6th December 2011 – 5th December 2015	5th December 2015
2	31st December 2018	6th December 2015 – 5th December 2019	5th December 2019
3	31st December 2022	6th December 2019 – 5th December 2023	5th December 2023

A 'Reference Period' will need to be established, over which your **total energy consumption will be determined for 12 consecutive months**. This period

must overlap with the Qualification Date and end before the Compliance Date. For example;



Any sites or activities acquired after the qualification date are to be excluded from your total consumption. Likewise, if you cease responsibility for a site or an activity before the compliance date, associated energy consumption will be removed from your total. Areas of significant energy use will be identified and highlighted, whilst a consistent record of the assessment of total energy consumption will be presented in your 'ESOS Evidence Pack'.

Data is required to be verifiable, and summary data needs to be able to be linked back to the primary source. Invoices, for example are verifiable data sources, though meter read records, AMR meter outputs or delivery notes for stored gaseous liquid or solid fuels are also acceptable. If you don't have verifiable data, ESOS requires a detailed methodology of how an estimate has been derived.

ESOS - Compliance Reporting

'Signing Off

Once a Director within your organisation, and the Lead Assessor, has signed off your ESOS assessment, you will need to provide notification to the Environment Agency that you have complied with the terms of ESOS on or before the compliance date. Apollo Energy will issue notification on your behalf.

Penalties

Civil penalties can be enforced for organisations that qualify for ESOS but are found not to comply. Failure to notify the Scheme Administrator that your organisation has complied can result in;

- ✘ A fixed penalty of up to £5,000
- ✘ £500 charge for each subsequent day after the compliance (80 day max.)

Failure to maintain adequate records of compliance results in similar penalties, whilst an outright failure to undertake ESOS will result in;

- ✘ A £50,000 penalty,
- ✘ £500 fine for every subsequent day that the organisation remains non-compliant,
- ✘ Publication of non-compliance details.

The Provision of misleading or false statements within the ESOS assessment will result in a monetary fine in excess of £50,000.

For more information contact us today

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or email

enquiries@apolloenergy.co.uk

You will be required to keep an ESOS Evidence Pack which details;

- ✓ How your total consumption is calculated
- ✓ Identification of significant energy consumption
- ✓ How you achieved compliance for each area of significant consumption
- ✓ Company details and board-level Director who will sign off your compliance
- ✓ Details of your accredited Lead Assessor
- ✓ Details of your ESOS Assessor
- ✓ A detailed audit methodology