



Department  
of Energy &  
Climate Change

# Energy Savings Opportunity Scheme (ESOS)

ESOS guidance notes for the offshore oil and  
gas industry

Version 2.0

November 2015

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This document is also available from our website at <https://www.gov.uk/oil-and-gas-offshore-environmental-legislation>

## Version control

Version number	Amendment	Date
1.0	First publication of guidance for the offshore sector.	March 2015
2.0	<p>Section 2.4 amendment to text for further clarification on shipping.</p> <p>Section 3.3.4 introduction of an alternative JV agreement for compliance of offshore assets.</p> <p>Section 5.3.2 clarification added for independence of lead assessors.</p> <p>Section 7.1 Amendment of sign-off requirement when using an internal LA to align with other parts of the guidance.</p> <p>Section 9.1: Addition of compliance checks and supplements section 7.1.</p> <p>Section 11, updated to account for new questions that are part of the notification, and clarification what section the offshore industry belongs too.</p>	November 2015

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# Executive Summary

## What is ESOS?

The Energy Savings Opportunity Scheme (ESOS) is a mandatory energy assessment and energy saving identification scheme for large undertakings (and their corporate groups). The scheme also applies to the offshore oil and gas industry operating on the United Kingdom Continental Shelf (UKCS).

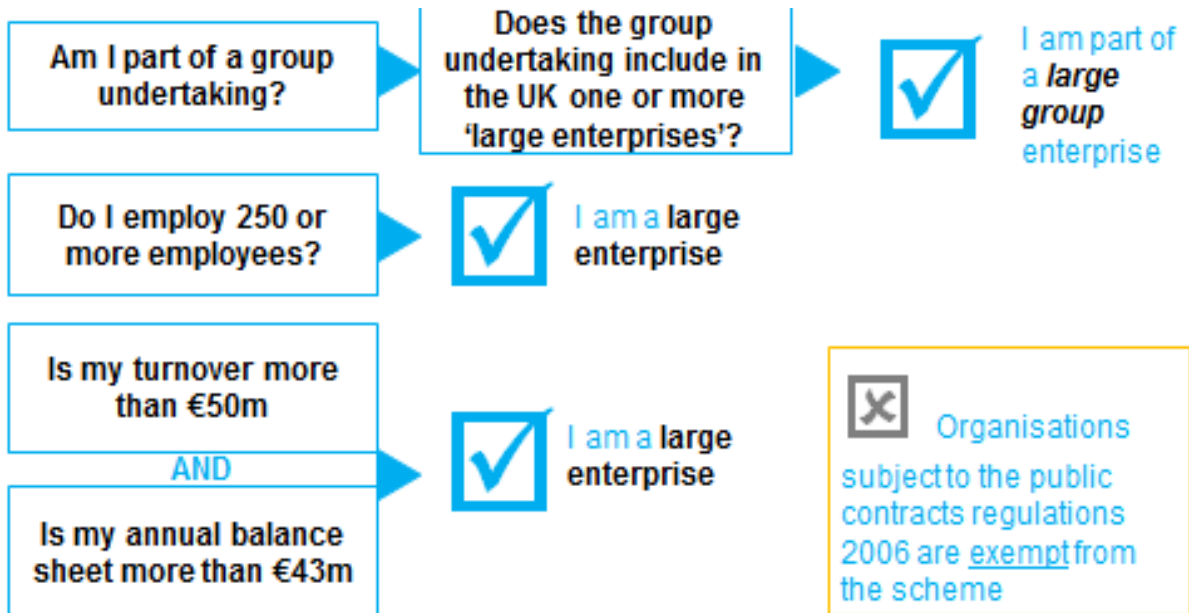
The guidance in this document is specific for the offshore oil and gas industry on the UKCS.

## Am I in scope of ESOS?

You are likely to be in scope of ESOS if, on the qualification date (31 December 2014 for the first phase of ESOS), you are:

1. An undertaking which has 250 or more employees<sup>1</sup>.
2. An undertaking which has fewer than 250 employees, but has:  
(a) an annual turnover exceeding €50m (£38,937,777\*) **and**  
(b) a balance sheet exceeding €43m (£33,486,489\*).
3. Part of a corporate group which includes an undertaking which meets criteria (1) or (2) above.

\*The financial qualification thresholds are specified in the ESOS regulations in euros. The equivalent pound sterling figures specified in brackets above were determined for the first compliance period based on the [Bank of England daily spot exchange rate on 31 December 2014](#) and is applicable for phase 1 only.



## What do I have to do to comply with ESOS?

<sup>1</sup> An 'employee' is a person employed under contracts of service. Their contracted hours and status (full time / part time) are irrelevant to their classification as an employee.

In simple terms, an ESOS Assessment for the offshore industry requires participants to do three things:

- 1. Measure your total energy consumption**
- 2. Conduct energy audits to identify cost-effective energy efficiency recommendations.**
- 3. Notify compliance to the Environment Agency (as the Scheme Administrator)**

Each of these is described in further detail within the sections below.

### **How to use this guidance document**

This guidance document is intended for ESOS participants from the oil and gas offshore industry sector only. It provides an overview of how to comply with the scheme and further detail on key aspects of how the scheme operates. It is intended to provide useful reference material to help the oil and gas industry develop approaches to comply with ESOS. It is not intended to be a technical guide for energy auditors.

# 1 Introduction

The Energy Savings Opportunity Scheme (ESOS) is a mandatory energy assessment and energy saving identification scheme for large undertakings (and their corporate groups). The scheme applies to the offshore oil and gas industry.

If you have any questions which are not addressed by this guidance or wish to provide feedback on this document, you can contact the Environmental Management Team on [emt@decc.gsi.gov.uk](mailto:emt@decc.gsi.gov.uk)

## 1.1 This document

This document provides guidance for offshore operators who are in scope of ESOS. It outlines the compliance obligations of participants in the scheme and provides advice on good practice for undertaking ESOS Assessments.

It is not intended to be a complete guide to energy auditors on how energy audits should be undertaken. ESOS Energy Audits should however meet the minimum requirements outlined in this document.

## 1.2 Why ESOS?

ESOS is being established by the Department of Energy and Climate Change (DECC) in response to the requirement for all Member States of the European Union to implement Article 8 of the Energy Efficiency Directive ('the Directive').<sup>2</sup>

ESOS Energy Audits must be carried out or reviewed by a suitably qualified Lead Assessor; this will help give assurance that savings identified are real and achievable. If energy audits have already been conducted, for instance as part of an existing scheme, you may be able to use them to contribute to your ESOS compliance.

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<sup>2</sup> Directive 2012/27/EU of The European Parliament and of The Council of 25 October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC.



## 2 Overview of ESOS

### 2.1 Scheme operation and timings

ESOS will operate in four-yearly compliance phases. Offshore operators must assess whether or not they are required to participate in ESOS on the qualification date of each phase as listed in Table 1. The last day of each compliance phase ('the compliance date') is the date by which the participant must have undertaken its ESOS Assessment and submitted their notification to the Scheme Administrator (Environment Agency).

For the first phase, this means that activity to support your ESOS Assessment must have been undertaken between the 6 December 2011 and the 5 December 2015 to be considered compliant. If you remain in scope of the scheme, you must then undertake ESOS Assessments within each subsequent phase. The timing of the phases is shown in Table 1.

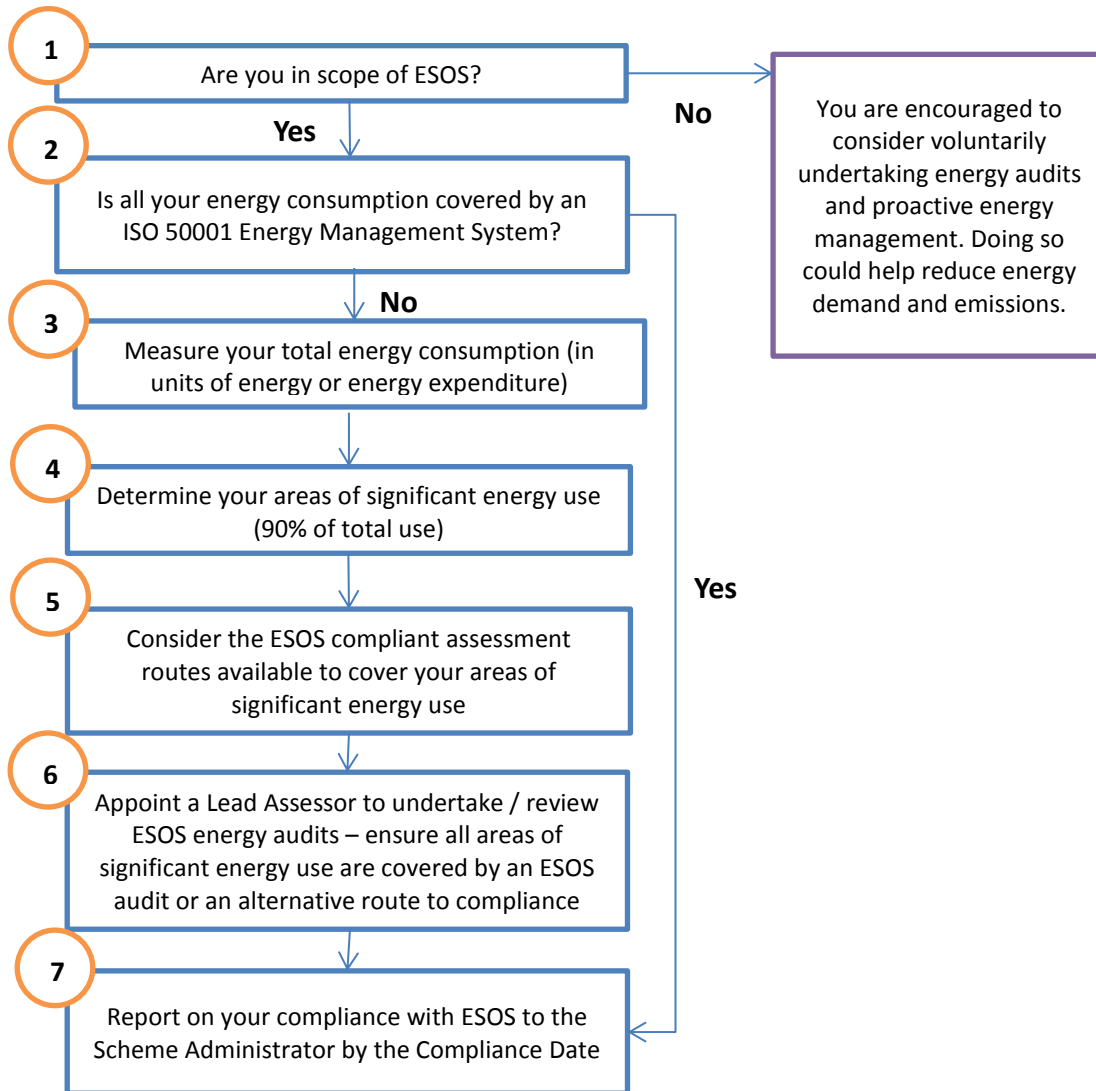
**Table 1: ESOS phase timings**

<b>Phase</b>	<b>Qualification date:</b>	<b>Four-year compliance phase:</b>	<b>Compliance date:</b>
Phase 1	31 <sup>st</sup> December 2014	6 <sup>th</sup> December 2011 – 5 <sup>th</sup> December 2015	5 <sup>th</sup> December 2015
Phase 2	31 <sup>st</sup> December 2018	6 <sup>th</sup> December 2015 – 5 <sup>th</sup> December 2019	5 <sup>th</sup> December 2019
Phase 3	31 <sup>st</sup> December 2022	6 <sup>th</sup> December 2019 – 5 <sup>th</sup> December 2023	5 <sup>th</sup> December 2023

## 2.2 Steps to determine qualification and compliance

Figure 1 shows the key steps to determining whether your organisation qualifies for ESOS and what you need to do to comply with the scheme if you do. Each step is detailed further in the sections below.

Figure 1: Key steps to complying with ESOS



## 2.3 ESOS Scheme Administrator

The Environment Agency is the ESOS Scheme Administrator for the United Kingdom, including the UKCS. As such, the Environment Agency will be responsible for receiving notifications of compliance from all ESOS participants, and approving registers of Lead Assessors (see Section 5).

Under the Scheme Administrator there are compliance bodies and these are: the Environment Agency for participants in England; and the Scottish Environment Protection Agency (SEPA), Natural Resources Wales (NRW) and the Northern Ireland Environment Agency (NIEA) for participants in Scotland, Wales and Northern Ireland respectively. The Secretary of State, acting through the Offshore Environment and Decommissioning (OGED) of the Department of Energy

and Climate Change's Energy Development Unit (EDU), will be the compliance body for participants undertaking activities wholly or mainly offshore.

The participant's compliance body is determined by the location of its registered office or its principal place of activity. In the notification submitted to the Scheme Administrator, organisations which have the majority of their energy use offshore should stipulate 'Offshore' in their answer to Q9 of the notification as this will help to assign the correct compliance body.

Compliance bodies will be responsible for monitoring the compliance of those in scope of the scheme and will be able to issue penalties for non-compliance.

#### **2.4 Offshore Mobile drilling units, supply/support vessels, and floating production and storage and offloading assets**

Vessels that support the offshore oil and gas industry are classed as shipping and as such they do not fall under the compliance body of DECC / EDU-OGED. The compliance body would be one of the onshore regulators e.g. SEPA / NRW / EA or the NIEA and participants that fall into the 'shipping category' should refer to the Environment Agency's guidance '[Comply with ESOS](#)'. Such vessels include but are not limited to: standby vessels, mobile drilling rigs, drill ships, flotels, pipe layers, construction, seismic vessels, tankers, dive support vessels, and supply vessels. Participants will still need to determine if they qualify for ESOS as defined within the guidance above. The Compliance Body is determined by the location of the vessel owner's UK registered office.

In contrast, FPSOs and FSUs are fixed designated offshore installations and receive permits from DECC-OGED and therefore must be covered as part of a participant's offshore assets, if that participant qualifies for ESOS.

## 3 Qualification for ESOS

### 3.1 Do I qualify?

#### 3.1.1 Am I an undertaking?

Only undertakings and groups of undertakings can qualify for ESOS.

An undertaking is defined as '*(a) a body corporate or partnership, or (b) an unincorporated association carrying on a trade or business, with or without a view to profit*'. As such, the scheme covers, but is not limited to, the following types of organisations in the UK:

- limited companies;
- public companies;
- partnerships.

Undertakings which meet the qualification criteria set out in Sections 3.1.2 or 3.1.3 will need to comply with ESOS.

#### 3.1.2 Qualification as a large undertaking

Your organisation will be in scope of ESOS if it qualifies as a large undertaking. For the purposes of ESOS, an undertaking is a large undertaking if it meets either of the following criteria:

1. It has 250 or more employees<sup>3</sup> in the UK;
2. It has fewer than 250 employees, but has;
  - (a) an annual turnover exceeding €50m (£38,937,777); **and**
  - (b) a balance sheet exceeding €43m (£33,486,489).

#### 3.1.3 Qualification via a corporate group

In addition to the qualification route set out above, an undertaking will also qualify for ESOS if it is part of a corporate group containing at least one 'large undertaking' (as determined by the criteria outlined above in Section 3.1.2) within the UK. See Section 3.3 for more details on qualification through participation as a group.

#### 3.1.4 Determining whether an undertaking meets the thresholds

In determining whether the undertaking meets the financial thresholds outlined above in Section 3.1.2, undertakings should use the most recent annual financial statements ending on or before the qualification date. Sterling figures must be converted into Euros using the exchange rate prevailing on the qualification date. You should use the Bank of England Pounds Sterling – Euros spot rate. See

<http://www.bankofengland.co.uk/boeapps/iadb/Rates.asp?Travel=NIxRSx&into=GBP>

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<sup>3</sup> An 'employee' is a person employed under contracts of service. Their contracted hours and status (full time / part time) are irrelevant to their classification as an employee.

However, to fully determine if an operator meets the qualification criteria, older financial statements should be considered. See Section 3.2 for more information on how growing organisations that were previously small can qualify as large (and similarly for information on how shrinking organisations may still qualify). Sterling figures in older financial statements must also be considered using the same conversion rate (i.e. that prevailing on the qualification date for the compliance period in question).

If a UK company owns overseas subsidiaries then the turnover and balance sheet of those companies are not included in the assessment of qualification for the UK undertaking.

### **Example – Company A**

Company A has a financial year running from 1<sup>st</sup> April to 31<sup>st</sup> March each year.

Company A only employs 150 people.

At the qualification date for the first phase of ESOS, 31<sup>st</sup> December 2014, Company A's most recent set of financial statements will be those for the year to 31<sup>st</sup> March 2014. These accounts show revenue of £42m and balance sheet assets, at the year-end, of £34m.

The exchange rate prevailing on the qualification date is €1.25 per GBP. The revenue and balance sheet assets of Company A should be converted to Euros using this rate, for comparison with the financial thresholds.

For ESOS purposes, Company A's revenue for the year is therefore €52.5m ( $42 \times 1.25 = 52.5$ ) and its balance sheet assets are €42.5m ( $34 \times 1.25 = 42.5$ ).

Company A therefore exceeds the revenue threshold of €50m but does not exceed the balance sheet threshold of €43m. Considering just this financial year, Company A would therefore be considered small. (However, to fully confirm it is in fact small Company A would also need to consider its financial statements for the year 2012/13, see Section 3.2 for details).

In determining whether the employee threshold is being met, undertakings should add the total number of people they employed (including employees and other persons engaged in the business of the organisation) in each of the months of the relevant accounting period (i.e. the period which the financial statements used to consider the financial thresholds relate to) and divide that figure by the number of months in that period.

### **Example – Company B**

Company B has a financial year running from 1<sup>st</sup> April to 31<sup>st</sup> March each year.

At the qualification date for the first phase of ESOS, 31<sup>st</sup> December 2014, Company B's most recent set of financial statements will be those for the year to 31<sup>st</sup> March 2014. Therefore, it should consider the number of employees during that period.

At 1<sup>st</sup> April 2013, Company B has 5 Directors and 235 employees. On the 10<sup>th</sup> July 2013 Company B hires 20 more employees. There are no changes in employee or Director numbers before the end of the year.

For three months in its financial year (April, May and June) Company B has a total of 240 staff (5 Directors plus 235 employees). For nine months of the year (July 2013 to March 2014) the company has a total 260 staff in the month (5 Directors and 255 employees).

For ESOS purposes, Company B's number of employees for the year is therefore 255, calculated as:

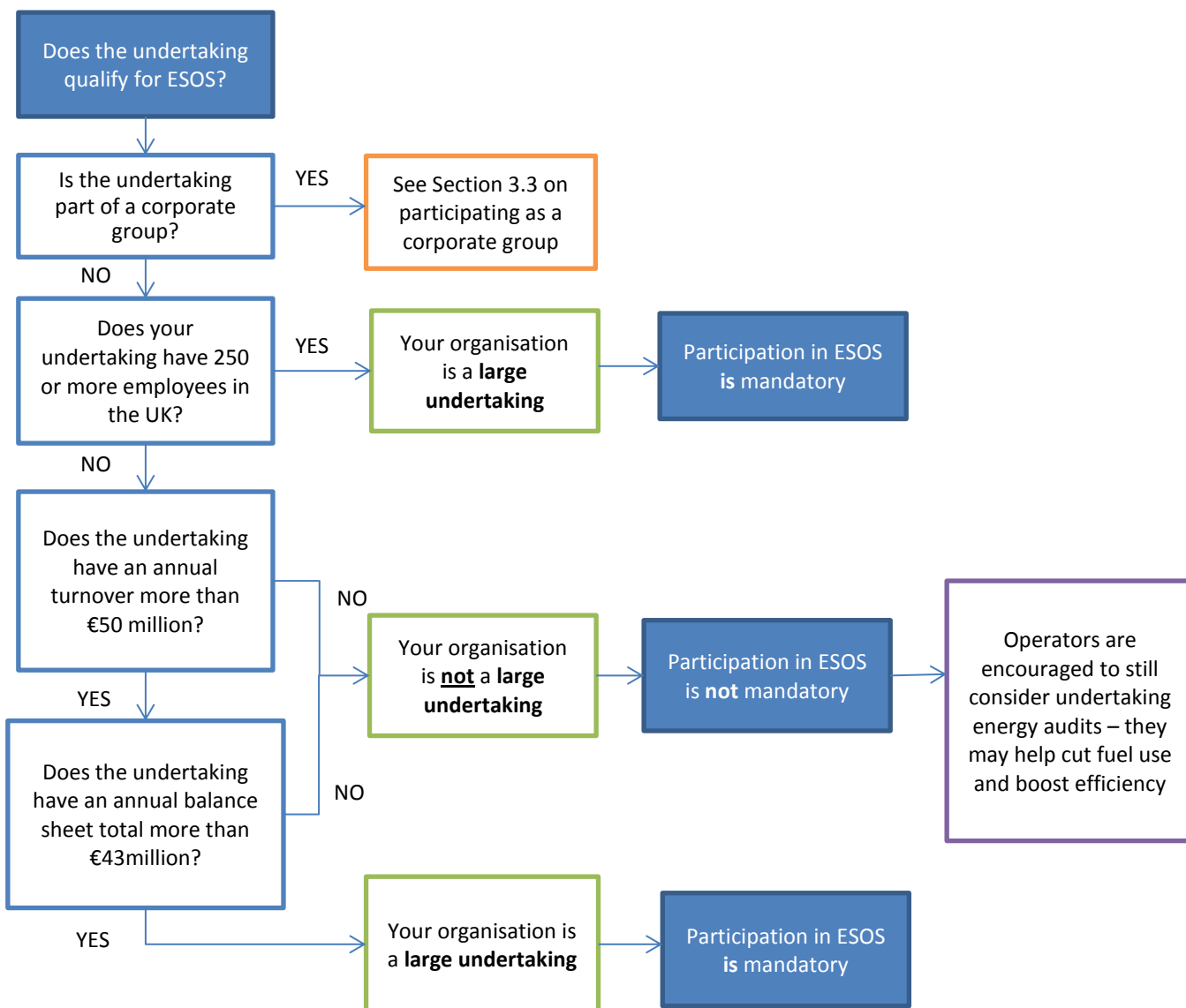
$$((240 \times 3) + (260 \times 9)) / 12 = 255$$

The company therefore exceeds the employee threshold at the qualification date.

As described in Section 3.1.3 above, if your organisation does not meet the criteria laid out in Section 3.1.2, you will still qualify for ESOS if you are part of a corporate group that includes one or more undertaking(s) that meets the thresholds – see Section 3.3 for more details on qualification through participation as a group.

To determine whether an operator is an ESOS participant, the decision tree in Figure 2 may be useful.

**Figure 2: Are you a participant?**



### 3.2 Change of status; two-year rule

For an organisation to move from not being a large undertaking to being one it must meet either or both of criteria (1) and (2), outlined in Section 3.1.2, for two successive accounting periods. Similarly, to move from being a large undertaking to not being one, the undertaking must fail to meet both criteria for two successive accounting periods.

### 3.3 Participating as a corporate group

#### 3.3.1 Qualification through a corporate group

Where a corporate group contains at least one undertaking in the UK which:

1. has 250 or more employees; or
2. has fewer than 250 employees, but has:
  - (a) an annual turnover exceeding €50m (£38,937,777); **and**
  - (b) a balance sheet exceeding €43m (£33,486,489);

then the entire UK operations of the corporate group will need to participate in ESOS for their offshore assets.

#### 3.3.2 Highest parents

The default expectation is that corporate groups will participate in ESOS in their highest parent groups. A highest parent is a member of the group which has no parent, or only has parents which are overseas undertakings. The highest parent group would include this highest parent and any other undertakings in the group which are its subsidiaries.

The default expectation is that the highest parent will take lead responsibility for completing the ESOS Assessment and submitting the notification on behalf of the other undertakings in the highest parent group. For ESOS purposes, the highest parent is therefore termed the 'responsible undertaking'. Another undertaking within the highest parent group may act as the responsible undertaking, providing there is written agreement to this effect between all the undertakings in the highest parent group.

In some cases, the highest parent group will be the same as the corporate group. However, in cases where the corporate group contains overseas undertakings, the corporate group may be comprised of more than one highest parent group.

Undertakings within a highest parent group will have the option (providing they agree in writing with their highest parent) to disaggregate from one another for the purposes of compliance with ESOS, in which case they will notify as two or more separate participants (see Section 3.3.3 below).

#### 3.3.3 Disaggregation of highest parent groups

Highest parent groups are able to disaggregate, and undertakings within the groups will be able to participate in ESOS as smaller groupings or individually. To disaggregate from the highest parent group, an undertaking must agree in writing with the highest parent.

Disaggregation may be attractive if it helps to manage ESOS participation more effectively. For example, if parts of the group operate separate energy management processes or company finances. However, disaggregation does not exempt subsidiaries from participating in ESOS and participants in the offshore oil and gas sector must clearly notify the Scheme Administrator of any disaggregation when submitting their ESOS Assessments

Where highest parent groups choose to disaggregate, individual undertakings participating on their own will act as their own responsible undertaking, and undertakings participating as smaller groups must agree which will act as the responsible undertaking. Where agreement in writing for the disaggregation for both parties can be evidenced and one party has not complied then liability for compliance will rest with the responsible undertaking of the participant that has not complied.



Where operators hold upstream and downstream assets, these can be aggregated or disaggregated and it is the responsibility of the operator to choose. Joint Venture (JV) partners who do not have to undertake an assessment of an offshore asset (as they are not an operator of that asset held), must still determine if they qualify for the scheme, and if so, any relevant onshore facilities (e.g. buildings) must still be assessed. In this case, the participant is still required to submit the notification to the scheme administrator as normal, however this will not account for the offshore asset. Such participants should refer to the [guidance issued](#) by the Environment Agency.

If a participant decides to disaggregate assets, the offshore assets could be considered as a separate entity and therefore the demarcation would be obvious. Irrespective of the Compliance Body assigned, it should be noted that, Compliance Bodies are under an obligation to cooperate and share information with one another to support each other to fulfil their functions under the ESOS Regulations. As such, where there are participants with assets on- and offshore, the relevant compliance bodies will cooperate with each other to check the compliance of an ESOS participant.

### **3.3.4 Aggregation of highest parent groups**

Where there is more than one highest parent in a corporate group, the highest parent groups will be able to aggregate, if the participant chooses to do so and therefore apply as one participant for all their offshore assets. Aggregation between highest parents (and their undertakings) will require the mutual consent of the highest parents.

The aggregation of two or more highest parent groupings does not prevent parts of any of those groups from disaggregating from the larger whole for the purposes of compliance, provided that all the UK organisations in the overall corporate group comply<sup>4</sup>.

Where a participant is the operator of multiple assets held and the JV partnership arrangements are the same for each of those assets, that operator should be undertaking the ESOS assessment in agreement with other partners of the JV. In order to avoid duplicating an assessment by other partners of the JV, there are two options available that provide flexibility and either is acceptable:

(i) a letter of agreement which should be signed between all partners within that JV. This letter should be retained within the evidence pack (see section 6.5.1 for further details) and should:

- state the asset(s) that are within the JV partnership,
- state whom is the responsible undertaking within the JV partnership for completing the assessment(s) to remain compliant with the Regulations, and
- be signed by each JV partner. The signatory should be a senior manager with management control of the assets held.

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<sup>4</sup> How a “relevant undertaking” participates in ESOS is determined in accordance with regulation 17 and Schedule 2 of the ESOS Regulations 2014 (as amended) and the “responsible undertaking” - which must carry out the ESOS assessment – is determined under regulation 19 and Schedule 2 of the ESOS Regulations 2014 (as amended). An unincorporated association such as a joint venture (JV) partnership may be a relevant undertaking on its own account. As the definition of “undertaking” in section 1161(1)(b) of the Companies Act 2006 covers unincorporated associations, such as a JV. However, where the responsible undertaking is the operator they can account for the offshore installation, as Regulation 22 – under which the participant’s total energy consumption is to be calculated – includes offshore installations within the definition of “assets held” under regulation 22(4) of the ESOS Regulations 2014 (as amended).



Where the JV partnership arrangements are different for each asset held, a separate letter of agreement is required, that must also be retained within the evidence pack, as above. Should the JV partnership change, after the qualification date, there is no requirement to have the letter amended if this has already been signed by each JV partner; or

ii) compliance will be part of the Joint Operator Agreement (JOA) whereby the nominated operator shall conduct the joint operations in compliance with applicable legislation which includes the ESOS regulations (as amended). The evidence would be a declaration that there is a JOA in place and this captures the environmental regulations. As with option (i) above, evidence of this agreement should be retained within the evidence pack.

In either of the circumstances above for aggregation or disaggregation, the letter of agreement is not required to be submitted to the Scheme Administrator, but has to be retained within the evidence pack to support compliance in the event that the participant is selected for a compliance check by the compliance body.

Where participants choose to aggregate their onshore and offshore assets, they should consult the wider [ESOS guidance](#) published by the Environment Agency, which provides a more detailed approach on how to include assets which are not part of their offshore assets.

### **3.3.5 Changes to group undertakings (asset transfers/acquisitions)**

If an undertaking, or a number of undertakings, leave or join a qualifying group between the ESOS qualification date (31<sup>st</sup> December 2014 for the first phase) and the compliance date (5<sup>th</sup> December 2015 for the first phase) they must still comply with ESOS.

An undertaking can comply:

- with its previous group,
- with its new group,
- on its own, in the absence of a written agreement with the previous or new group

If a qualifying group purchase an undertaking (between the qualification date and the compliance date) from an organisation that did not qualify for ESOS, then the energy supplies do not need to be included in your total energy consumption calculation and will not need to be audited or covered by an alternative route to compliance.

If a qualifying group sell an undertaking to an organisation that did not qualify for ESOS then the energy supplies of the purchaser do not need to be included in ESOS, just the energy supplies of the undertaking that has been sold will be subject to ESOS.

## 4 Steps to complete an ESOS Assessment

### 4.1 Conducting an ESOS Assessment – planning stages

To determine what energy audit activity is required to be undertaken to comply with ESOS, operators need to:

- Consider any existing Energy Management Systems in place;
- Consider how to involve an ESOS Lead Assessor;
- Measure total energy consumption; and
- Identify areas of significant energy consumption.

The Sections below give more guidance on these processes.

### 4.2 Considering your Energy Management System

If operators have an Energy Management System in place that is certified by an approved certification body to ISO 50001, this will be considered sufficient to comply with ESOS, providing all of the following conditions are met:

- The Energy Management System has been certified to ISO 50001 during the compliance period;
- The certification remains valid at the compliance date; and
- The Energy Management System covers all of the assets held and activities carried out by the organisation as at the qualification date.

If there is no Energy Management System, or it does not meet all three of the above criteria, then further activity to complete your ESOS Assessment will be required to remain compliant. The remainder of Section 4 and Section 6 outlines the required activities.

### 4.3 Consider how to involve an ESOS Lead Assessor

Most participants will not have an Energy Management System in place which meets all the requirements outlined in Section 4.2. If operators fall into this category, the participant will be required to measure their total energy consumption (Section 4.4), identify areas of significant energy consumption (Section 4.5) and ensure these are covered by one of the two routes to compliance (see Section 6).

Offshore participants will require an ESOS Lead Assessor to undertake at least some parts of this process. For example, a Lead Assessor will have to sign-off the overall ESOS Assessment once complete (see Section 5.3 for more information on roles and responsibilities in ESOS). The Lead Assessor may help to oversee other parts of the ESOS Assessment process, such as the measurement of the total energy consumption and the identification of areas of significant energy consumption. The Lead Assessor will need to review these calculations in order to verify that the overall ESOS Assessment meets all the requirements of the scheme.

Offshore participants may either ask their Lead Assessor to lead the calculation of total energy consumption and the identification of areas of significant energy consumption, or, only to review how this has been determined. The level of engagement with the Lead Assessor is a matter of agreement between the operator and their chosen Lead Assessor. Section 5 provides more detail on who can act as a Lead Assessor, and their role in the ESOS process.

## 4.4 Measuring total energy consumption

Participants must measure their total energy consumption as part of their ESOS Assessment as fuel used and then converted into energy units (such as kWh). Participants can choose what energy unit is used, but the same energy unit must be applied consistently across all the assets.

When measuring total energy consumption, participants should include all energy used on the respective offshore assets held. Items that are temporary should only be included within the audit if such items are on the installation throughout the reference period and are likely to be present for a longer duration. If the item being used belongs to a contractor and is not using any fuel that is sourced from the installation then this can be excluded from the audit.

The purpose of this calculation is to help to identify what energy your assets/activities use and which assets/activities will subsequently need to be covered by a route to compliance.

This figure does not need to be provided in the ESOS notification, however if you are audited by your compliance body, you may be required to provide this figure and the evidence used to determine it.

In determining total energy consumption the following should be taken into account:

- The definition of energy consumption in the scheme; and
- The supply rules, including the rules on unconsumed supply.

### 4.4.1 Definition of energy consumption

Under ESOS, energy consumption includes: all forms of energy products, combustible fuels, renewables, electricity, or any other form of energy. This does not include waste heat recovery or flaring as both of these are determined as a waste stream and therefore do not need to be measured for the purposes of audits. There are no fuel type exemptions in ESOS.

### 4.4.2 Determining energy consumption

For most participants, determining what energy is in scope of ESOS will comprise fuels used on the asset held, for example fuel gas, diesel and propane.

Below are a set of rules that set out what energy participants must consider as part of their energy consumption. In general terms, energy that is supplied to and consumed by a participant is in scope of ESOS and this includes fuel gas from the host installation's reservoir or satellite fields that are tied back to the installation.

#### 4.4.2.1 Energy supplied

Energy supplied to a participant means energy that is provided to a participant further to an agreement with a supplier, such as supply of diesel, electricity (supplied from an installation to another or from shore), imported fuel gas from another installation/field.

Where two offshore assets are part of the same corporate group and one of the assets provides the other with a supply of energy, the asset using fuel to create that energy will assess the efficiency of energy production; and the asset using the energy supplied will assess the efficiency of energy use. Even where, assets are not part of the same corporate group, the same principle applies.

#### 4.4.2.2 Energy consumed

Energy consumed by a participant means:

- Energy that is consumed by assets held by the participant; and
- Energy that is consumed as part of the activities of the participant, where activities means any work that the participant is engaged in.

#### 4.4.2.3 Unconsumed supply

The intention of the supply rules are that they cover energy that participants are supplied with for consumption, i.e. opening and closing stock levels of diesel. As such, unconsumed supplies of energy should be excluded from the measuring of total energy consumption and subsequent auditing activities.

Unconsumed supplies include: any supplies of energy that are not consumed but instead sold/provided to a third party. These can be deducted from the unconsumed supplies, provided:

- the supply is measured (e.g. with metering), or
- can be calculated based on verifiable data, or
- can be reasonably estimated.

If supplying energy to a third party that consumes that energy, but you do not measure this supply and cannot calculate or reasonably estimate it, then you cannot deduct the supply to the third party as unconsumed supply and you will need to include it within your total energy consumption.

In some circumstances, an offshore asset may supply helifuel, or occasionally, diesel, and this is not required to be included within the audit by the offshore participant. It will count as unconsumed supply and is the responsibility of the transport company in both situations to conduct their own assessments as the participant supplying the fuel has no or little influence on energy saving opportunities.

#### 4.4.3 Types of energy use

ESOS does not prescribe a list of specific energy sources/fuels considered within the scope of an ESOS Assessment. The calculation of total energy consumption should include all qualifying supplies of energy, determined in line with the ESOS supply rules and definition of energy given in Article 2(1) of the Directive. 'Energy' means all forms of energy products, combustible fuels, heat, renewable energy, electricity, or any other form of energy, as defined in Article 2(d) of Regulation (EC) No 1099/2008 of the European Parliament and of the Council of 22 October 2008 on energy statistics.

Total energy consumption may include energy associated with the use of electricity and the combustion of gaseous, liquid and/or the use of other direct supplies of energy.

Information on how to convert various forms of energy consumption into common units is provided below.

#### Determining total energy consumption

In determining total energy consumption and areas of significant energy consumption the following should be considered to facilitate the process:

- collection of and access to energy consumption data;
- aggregation of data – across different areas of energy consumption/different group companies; and
- conversion of energy consumption into standard units and metric (energy units).

The fuels listed in the *UK Government conversion factors for Company Reporting* cover the most common sources of energy and should be referred to as part of an energy use mapping exercise.<sup>5</sup>

In measuring total energy consumption, this will need to be converted into common units. Table 2 on conversion factors may be helpful in this regard.

**Table 2: Energy conversion factors**

		GJ	kWh	therm	toe	kcal
Energy	Gigajoule, GJ		277.78	9.47817	0.02388	238,903
	Kilowatt-hour, kWh	0.0036		0.03412	0.00009	860.05
	Therm	0.10551	29.307		0.00252	25,206
	Tonne oil equivalent, toe	41.868	11,630	396.83		10,002,389
	Kilocalorie, kcal	0.000004186	0.0011627	0.000039674	0.000000100	

A list of fuels and their properties from the 2013 *UK Government conversion factors for Company Reporting* is provided at the following link [www.ukconversionfactorscarbonsmart.co.uk/](http://www.ukconversionfactorscarbonsmart.co.uk/) Where fuel gas is being used, data on the Net calorific value (NCV) should be taken from EU-ETS data. Where an asset held by a participant that does not have an EU-ETS permit and the NCV is unknown the NCV should be taken from the National Inventory database.

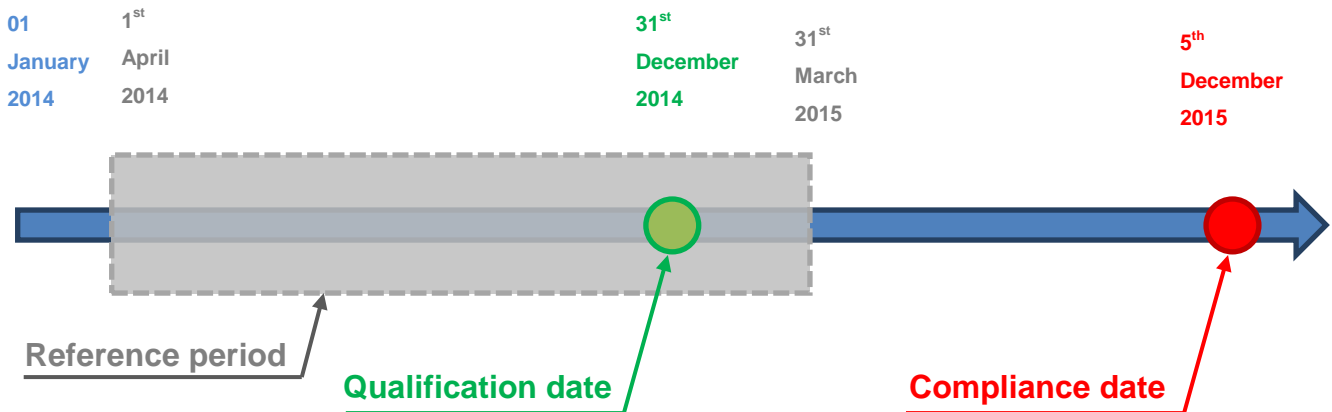
#### 4.4.4 Reference period

Offshore participants must determine their total energy consumption over a consecutive 12-month period, known as the ‘reference period’. The reference period **must overlap with the qualification date, and** the end date of this period must also occur prior to the compliance date (see Figure 2). This is to ensure that calculation of the total energy consumption is based on energy consuming assets and activities at the qualification date. Participants are free to select any reference period, provided it meets these requirements.

**For example**, Phase 1 of ESOS, the reference period must cover a consecutive 12-month period starting no earlier than the 1<sup>st</sup> January 2014 and ending before the 5<sup>th</sup> December 2015. An example is illustrated below (Figure 2) of a suitable reference period.

<sup>5</sup> UK Government conversion factors for company reporting (<http://www.ukconversionfactorscarbonsmart.co.uk/>)

**Figure 2: Phase 1 reference period.**



Where a participant is unable to use data for a consecutive 12-month period, for example, due to an extended shutdown, then data should be used which is as close to twelve months as practically possible. Justification for this must be recorded within the ESOS Evidence Pack (Section 6.5.1). Similarly where there are data gaps during the reference period these should be reasonably estimated and justified (Section 4.4.6.1).

#### **4.4.5 Organisational changes, determining total energy consumption and decommissioning of assets held**

Where an asset is transferred to a different undertaking/company, or ceases an energy-consuming activity (i.e. decommissioned), *prior to* the compliance date, the energy use from this asset may be excluded from the determination of the total energy consumption. An asset that has entered cessation of production (CoP) prior to, or during the reference period can be excluded from the audit.

You will need to retain records that demonstrate that you have undertaken an assessment of your total energy consumption, including the identification of areas of significant energy consumption, within your ESOS Evidence Pack (see Section 6.5.1).

##### **4.4.5.1 Organisational Changes after the qualification date**

Any organisation that qualifies for ESOS on the qualification date will need to comply with ESOS, including organisations that qualify via their group on the qualification date, but leave this group prior to the compliance date. Such an undertaking (or group thereof) can do this by either:

- Agreeing in writing with its previous highest parent that it will participate in ESOS along with this previous group.
- Agreeing in writing with its new highest parent that it will participate in ESOS as part of its new group.
- Participating separately from either its previous or new group and notifying the scheme administrator of its compliance independently.

Assets/activities commencing (i.e. a new offshore development) after the qualification date but before the compliance date do not need to be audited. The energy use of such assets/activities in the reference period does not need to be included in the participant's total energy consumption, but will be captured within the next phase of ESOS.

#### 4.4.6 Verifiable data

When calculating total energy consumption, 'verifiable data' (for energy use or energy spend) will be required to be used for the purposes of identifying areas of significant energy consumption.

**Verifiable data** means data that can be evidenced or otherwise proven and, in the case of summary data, can be traced back to the primary data source.<sup>6</sup>

Actual records of energy use/spend should be used where practicable. For example, diesel invoices are considered a source of verifiable data. Other examples of verifiable energy use data include:

**Table 3: Examples of verifiable data sources**

Verifiable data source:	Energy use (examples only):
Meter reading	Electricity, fuel gas
Bunkering records and opening and closing stock tank records	Stored gas bottles e.g. propane, liquid fuels, diesel

##### 4.4.6.1 What if I don't have verifiable data?

Operators should be recording all fuel use offshore under EU-ETS and PPC permits which therefore should be verifiable data. Where assets do not hold these permits, ESOS adopts a 'comply or explain' approach regarding the requirement to use verifiable data. It may be impracticable or disproportionately burdensome to obtain verifiable data for example, where no invoices have been received.

If verifiable data of energy use/spend is not obtainable operators should:

- use a reasonable estimate derived through calculation (where possible based on other verifiable data);
- retain records within the ESOS Evidence Pack (see Section 6.5.1):
  - i. outlining the methodology used to determine estimates; and
  - ii. explaining why it has not been possible or practicable to obtain verifiable data.

#### Illustrative methods for estimating energy consumption

There are a number of estimation techniques that can be used to fill data gaps:

- **Direct comparison** –uses a comparable time period (i.e. the same day/week/month in another year) and uses the consumption in that period to fill the gap if levels of production and activity were at a similar level. This is useful in taking into account seasonal variations of energy consumption.
- **Pro-rata** – uses a period of known data to derive an average consumption over a defined, shorter period of time (e.g. using a known monthly total to derive a daily average consumption). This average is then used to estimate the data for the unknown period by a process of extrapolation.

<sup>6</sup> Summary data means data taken from a primary data source and handled/manipulated in the production of a more useable summary for a given user.



#### 4.4.6.2 Data used in other schemes

Participants may also fall within the scope of other energy management/reporting schemes for some offshore assets, such as the EU Emissions Trading System (EU ETS). The energy data already collated as part of the compliance with the EU-ETS can be used, at least in part, for the purposes of determining total energy consumption as part of an ESOS Assessment for that asset held.

**Note:** The scope of energy required to be included in the assessment of your total energy consumption under ESOS is broader than the mandatory EU-ETS. Therefore, operators should not rely solely on data reported in accordance with the EU-ETS when determining the total energy consumption.

### 4.5 Identifying areas of significant energy consumption

When the total energy consumption has been determined, you are required to audit the assets held and activities that amount to not less than 90%, which is classed as the 'areas of significant energy consumption'.

Offshore participants can exclude the remaining 10% (or less) of the total energy consumption, from the requirement to undertake an energy audit, by allocating it as *de minimis*. This is to reduce the overall administrative cost of auditing areas with little energy consumption, and to ensure that energy audits are proportionate, cost-effective and identify the most significant and cost-effective energy saving opportunities

Under ESOS, there are no additional constraints on which energy using activities may be allocated to the *de minimis*. As such you may either apply the *de minimis* at or a combination of:

1. A **group level** – to exclude the energy consumption of a group undertaking or number of undertakings.
2. An **organisational level** – to exclude the energy consumption of an asset and/or activity, or a defined list of assets and/or activities of the organisation.
3. A **fuel level** – to exclude the energy consumption associated with the use of a particular fuel or fuels.

The *de minimis* rule provides flexibility to exclude some energy using activities and to subsequently focus the ESOS audit(s) on areas of significant energy consumption.



## 5 Lead Assessors

### 5.1 Lead Assessors

Participants in ESOS must have a Lead Assessor to undertake various roles in relation to their ESOS Assessment. The exception to this is where a participant has an ISO 50001 certified Energy Management System meeting the criteria outlined in Section 4.2.

There are some activities the Lead Assessor will have to undertake. For example, to undertake, oversee or review the ESOS Energy Audits (Section 6.2), sign-off the overall ESOS Assessment when complete, to confirm it fully meets the ESOS requirements.

Energy management and energy auditing professionals will be able to demonstrate competence as a Lead Assessor through registering with a professional body whose professional register has been approved by the Environment Agency. A register of approved energy professional bodies is [published on the DECC website](#).

An energy professional body must apply to the Environment Agency, as scheme administrator, to have its register of energy professionals approved as one whose members meet the standards set by the British Standards Institution (BSI) Publicly Available Specification (PAS) 51215, '*Energy efficiency assessment – Competency of a lead energy assessor*'.<sup>7</sup> Professional bodies must have their registers re-approved by the scheme administrator for each phase. It is intended that the Environment Agency's re-approval process for the first ESOS professional registers will take place in 2018.

Registers approved by the scheme administrator are known as 'approved registers' and individuals who are members of an 'approved register' are considered 'Lead Assessors'. Individuals wishing to become ESOS Lead Assessors should not apply directly to the scheme administrator.

### 5.2 Finding a Lead Assessor

Offshore participants can either have an internal or external Lead Assessor. In both cases the Lead Assessor must be registered with an approved energy professional.

#### Selecting an appropriate Lead Assessor:

When selecting an appropriate Lead Assessor from an approved register, offshore participants should consider what other qualifications and/or experience that individual holds and how these might best benefit you in attaining the best results from your audit(s). It is therefore advisable to consider prospective auditors based on:

- sector-specific experience;
- familiarity with industry specific technologies and processes; and
- accreditation / certification to audit against prescribed standards (ISO standards).

When contacting an energy professional body to identify a potential Lead Assessor, you should detail your requirements and state what sector of industry you are from. This will aid the professional body to determine potential suitable Lead Assessors from their database.

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<sup>7</sup> The PAS was finalised in May 2014 and is available through BSI's website at <http://shop.bsigroup.com>

## 5.3 Roles and responsibilities

### 5.3.1 Participants and Lead Assessors

The roles of both the participant and Lead Assessor in completing ESOS Assessments is summarised in Table 4. However, it is important to note that overall legal responsibility for compliance remains with the participant. The table is only a guide as to what actions you may expect your chosen Lead Assessor to complete.

The table is based on the assumption that the Lead Assessor conducts the audits. However, the allocation of roles would differ for a participant that used a Lead Assessor to review energy audits that had been conducted by unqualified individuals. For example, in the case that an external Lead Assessor was contracted to review in-house work by unqualified staff, it would be up to the participant to identify energy saving opportunities.

**Table 4: Role of ESOS participants and Lead Assessors**

Requirement/action:	Work to be undertaken by	
	ESOS participant	Lead Assessor
Overall responsibility for compliance with ESOS	✓	
Appoint Lead Assessor	✓	
Highlight any audit work already undertaken	✓	
Agree audit methodology for new audits	✓	✓
Define scope of audits	✓	
Agree audit timetable	✓	✓
Agree sampling approach	✓	✓
Agree no. of site visits required	✓	✓
Make available data for audit	✓	
Identify energy saving opportunities		✓
Calculate energy/cost savings of measures identified (LCCA or SPP) (these are defined below)		✓
Determine energy use profiles		✓
Present audit(s) recommendations		✓
Review overall ESOS Assessment		✓
Obtain director(s)/senior managers sign off of audit(s) findings and recommendations	✓	
Notify the Scheme Administrator of compliance by the compliance date	✓	
Maintain an ESOS Evidence Pack to substantiate the audit(s) and its findings and recommendations	✓	✓

### **5.3.2 Independence of Lead Assessors**

Where participants use an external Lead Assessor, then there is no question regarding the independence of the lead assessor from assets and data being considered.

Where an internal Lead Assessor is undertaking the audit, they should be independent of the asset(s) being audited, i.e. the Lead Assessor should not be directly engaged in activities on the asset(s). Individual expert technical staff engaged in activities on the asset can support the Lead Assessor, by providing technical detail and data to inform the audit process. This does not mean that the lead assessor cannot be a staff member, but in instances where internal personnel are conducting the audit process they should not be directly engaged in the installation activities, such as working on a rotation or permanently assigned to work on that offshore asset. This is to ensure that there is an unbiased assessment and limit the potential for a successful challenge to the audit process / outcomes.

## 6 ESOS routes to compliance

### 6.1 Overview

ESOS provides offshore participants with two possible routes to demonstrate compliance of their organisation or group.

These are:

- ESOS Energy Audits; or
- ISO 50001 certification.

A single compliance route may be selected to demonstrate compliance under ESOS. However, the selected route chosen must cover all areas of significant energy consumption.

If complying with ESOS through an existing certification (ISO 50001), you will need to check that the certification/assessment will still be valid at the compliance date and was issued in the current compliance phase. For the first phase of ESOS, a relevant certification and/or assessment must be valid on the 5<sup>th</sup> December 2015 and have been issued on or after 6<sup>th</sup> December 2011.

Unless operators are able to demonstrate compliance with ESOS, via a certified ISO 50001 energy management system that covers your whole organisation, or the group of organisations with whom you are participating, you will also need a Lead Assessor to review your compliance with ESOS.

### 6.2 ESOS Energy Audits

Energy audits are a valuable tool in understanding and improving the energy performance of your organisation. Undertaking energy audits will allow operators to:

- Measure and understand the energy consumption of assets and activities.
- Build an energy consumption profile showing where and how your organisation consumes energy. This data can also be used to identify any variations in energy use, between areas and over time.
- Identify patterns, build explanations for these and identify opportunities to reduce overall energy use through increased levels of efficiency.

Implementing such opportunities will provide long-term savings and improved efficiency can also boost productivity.

#### 6.2.1 Audit requirements

##### 6.2.1.1 Use 12 months of energy consumption data from within a specific period

In summary, the timing of data used for ESOS Energy Audits must:

- Comprise of a period of 12 consecutive months data on energy use.
- Begin no earlier than 12 months before the commencement of the compliance period of each phase (for the first compliance period they must begin no earlier than 6 December 2010).
- Begin no earlier than 24 months before the commencement of the first ESOS Energy Audit that the participant undertakes in the compliance period.
- Not extend beyond the compliance date (i.e. does not extend beyond 5th December 2015 for the first ESOS phase).

The same data set can be used in both the audit and the total energy consumption reference period as long as the time period overlaps the qualification date. Equally, if it is easier, then different datasets can be used for the audit and the total energy consumption reference period. Installations experiencing extended shutdowns, should time the audit/reference period to avoid these where possible. Otherwise, the 'comply or explain' policy approach can be used to explain why a shorter time period of data had to be used. Defining the de minimis remains the same even though a shorter time period has been used.

**Energy cost data is not sufficient to inform ESOS Energy Audits – the use of units of cost in measuring energy consumption is only appropriate for the initial measurement of total energy consumption and identification of areas of significant energy use. This is only applicable for a limited range of fuels offshore, i.e. diesel.**

### **6.2.1.2 New data for each compliance period**

Energy consumption data used for the purposes of an audit conducted in one compliance period may not be used to support an audit undertaken in the subsequent compliance period.

### **6.2.1.3 Role of Lead Assessor in ESOS Energy Audit**

ESOS Energy Audits must be undertaken or approved by a Lead Assessor, who may be an internal expert or an external individual or organisation. See Section 5 for more information on Lead Assessors in ESOS.

A Lead Assessor would be responsible for one or more of the following:

- directly conducting compliant ESOS Energy Audits; or
- overseeing and/or approving the conduct and quality of ESOS Energy Audits conducted by others.

In relation to the latter point, energy audits can be undertaken by an unqualified energy auditor (an 'auditor'), provided the audit is overseen or approved by a qualified Lead Assessor prior to the participant notifying the Scheme Administrator that it has complied.

## **6.2.2 Planning for an ESOS Energy Audit**

An ESOS Energy Audit must cover all areas of significant energy consumption.

In planning how to undertake the ESOS Energy Audits and compliance via other routes, you and/or your selected Lead Assessor should consider and make provisions for:

- identifying any work already undertaken in the compliance phase that may contribute towards compliance;
- agreeing on the audit methodology to be used, for example BS EN 16247-1 or ISO 50002.
- defining the scope of the audits to be undertaken (e.g. an audit of a defined organisation/group member or a defined number of offshore assets);
- ensuring relevant staff are available to inform an audit and work with the Lead Assessor;
- agreeing an audit timetable, ensuring all audits will be completed suitably in advance of the compliance date; and

- agreeing a sampling approach\_– it is expected that a site visit will be undertaken during the phase to adequately determine that an audit has been effective. This can be conducted by a qualified lead assessor or by an internal staff member.

### Examples of approaches to select an audit methodology:

BS EN 16247-1 and ISO 50002 Energy Audits set out a good practice method for identifying energy savings opportunities. It is for in-house managers or external consultants carrying out an energy audit, or as a guideline for organisations who want to understand what a good energy audit comprises.

The *EN16247* series of standards includes more detailed standards setting out possible auditing approaches to industrial processes.

There are also more technical standards, such as *ISO 14414: pump system energy assessment* (see below). These may be suitable to deploy for particular aspects of a participant's energy audits.

Individual auditors or energy auditing companies may also have their own in-house methodologies designed to meet the requirements of ESOS.

Other potentially relevant standards:

ISO 11011:2013 - Compressed air -- Energy efficiency – Assessment. This standard sets out requirements for conducting and reporting the results of a compressed air system assessment from the energy input through the work performed by the compressed air system. This standard may be applicable as an auditing methodology when seeking to determine the energy saving potential associated with an upgrade/change to a compressed air system as part of an industrial process.

ISO/DIS 14414 - Pump system energy assessment. This Standard sets the requirements for conducting and reporting the results of a pumping system assessment. This standard may be applicable as an auditing methodology when seeking to determine the energy saving potential associated with an upgrade/change to a pump system as part of an industrial process.

### 6.2.3 Audit methodology

The audit methodology should be agreed with the Lead Assessor, as well as any other auditors, before the audit(s) starts as part of maximising the effectiveness of, and standardising the audit. This methodology will also need to be recorded within the evidence pack.

### 6.2.4 Identifying energy saving opportunities

ESOS Energy Audits are required to include recommendations for cost-effective energy efficiency improvements, where opportunities for such improvements exist. Recommendations should directly or indirectly lead to an energy saving through improved energy management. Any recommendations must be for cost-effective measures, where these exist.

These might include:

- improvements to service and maintenance strategy to ensure efficient operation;
- capital investment projects; and
- behavioural change.

Where practicable, an ESOS Energy Audit should:

- use life-cycle cost analysis (LCCA) instead of simple payback periods (SPP) for cost/benefit analyses (see Section 6.2.4.1 for more details), and
- be informed by a minimum of 12 months of energy use data.

Energy saving opportunities and measures identified as part of an audit will need to be reported to the participant. These opportunities/measures will then need to be presented to a director(s) or senior manager(s) for sign-off (see Section 7.1). Directors will need to review a summary of all ESOS recommendations and audits; they will also need to satisfy themselves that, to the best of their knowledge, their organisation (and any organisations they are reporting on behalf of) have complied with the scheme.

#### **6.2.4.1 Life-Cycle Cost Analyses (LCCAs) and Simple Payback Periods (SPPs)**

For ESOS purposes, the cost savings of energy saving measures under an energy audit should be based on a life-cycle cost analysis (LCCA) where practicable, rather than a simple payback period (SPP) assessment.

However, it may not always be practicable to undertake a LCCA for an identified energy saving measure in every case and other approaches may be used, such as the SPP. It may be more appropriate to apply a SPP where the energy saving measure identified has, low asset life; and no, or low, associated capital and maintenance costs.

For more costly measures that might be more complicated to implement, doing a Life-Cycle Cost Analysis (LCCA) may be necessary to make an informed sound decision that benefits over the lifetime of the project.

It may be more appropriate to apply a LCCA where the energy saving measure identified has, for example:

- a long asset life;
- a high upfront capital cost;
- an initial downtime period (i.e. a process has to be shutdown to implement the measure) that falls out-with the planned annual shutdown; or
- associated maintenance costs.

#### **6.2.4.2 Energy consumption profiles**

ESOS requires an Energy Audit to include the development of 'energy consumption profiles'. These provide the breakdown of how energy is used within a particular asset held or activity and how that energy use varies over time. The profiles are a demonstration of how energy is used, and the Department acknowledges that the profiles will vary according to specific energy requirements. The use of energy should be known and it should therefore be easy to demonstrate how it is used - the method of demonstration is the choice of the participant and their selected Lead Assessor. If the auditor does not consider an energy consumption profile for an area of significant energy consumption, then a justification to support this decision should be retained within the ESOS Evidence Pack.

#### **6.2.4.3 Recommendations**

The audit should include recommendations that you, as the recipient of the energy audit, can act upon. Thus, the audit recommendations should be focussed on areas of significant energy consumption and limited to measures that are within operational control for cost-effective

energy saving measures. Where the LCCA or SPP approach has been used, any recommendations should refer to these.

Participants are not required to implement any of the recommendations arising from ESOS assessments. They are also under no obligation to report the recommendations to the scheme administrator as part of the notification process. However, participants must maintain a record of the ESOS assessment recommendations as part of their evidence pack, and the Compliance Body may wish to discuss these with the offshore participant as part of any compliance check.

### **6.2.5 Undertaking site visits as part of an ESOS Energy Audit**

It is expected that site visits are conducted by your appointed auditor(s) as part of an ESOS Energy Audit. This is to ensure that the audit findings and recommendations are practical, cost-effective and applicable to your organisation – and not simply theoretical. However, site visits are not expected to be carried out in unreasonable or impracticable circumstances. Furthermore, where site visits are carried out, they may be done by relevant experts (such as internal specialist staff) rather than the selected Lead Assessor. Offshore participants may utilise internal specialist staff to determine any potential / further 'energy saving' opportunities, and then present findings to the Lead Assessor in such a manner that the Lead Assessor is confident of the data or information provided.

The site visits conducted should be sufficient to give the Lead Assessor a confidence that the audit findings and recommendations for the participant will be complete, applicable and accurate.

The decision on how many site visits to undertake as part of an audit should be agreed between the Lead Assessor and the participant. It is expected that an auditor will carry out at least one site visit as part of an audit. Conducting a site visit can also be coupled with other offshore visits (e.g. EMS/EU-ETS), and provided the auditor is competent for each requirement.

#### **6.2.5.1 Audit timetable**

How offshore participants develop energy auditing timetables within each compliance phase is at your discretion and you are not required to implement the same timetable for each compliance phase.

It may be timely to conduct audits before and/or after:

- significant group acquisitions/transfers/decommissioned assets;
- upgrading an asset;
- upgrading offshore IT equipment or controls; or
- implementing a new working procedure for staff.

Conducting audits before such changes may inform such investment/operational decisions. Undertaking audits following these changes may help to identify how effective they have been from an energy efficiency perspective, and if further changes are necessary.

### **6.3 ISO 50001 certification**

Certification under international standard ISO 50001:2011 (energy management system, EnMS) is permitted as a compliance route under ESOS as an alternative to undertaking ESOS Audits.



ISO 50001:2011 provides a framework of requirements<sup>8</sup> for organisations to:

- develop a policy for more efficient use of energy;
- fix targets and objectives to meet the policy;
- use data to better understand and make decisions about energy use;
- measure the results;
- review how well the policy works; and
- continually improve energy management.

A certified ISO 50001 energy management system can be applied across all of the assets and activities of an organisation/group or applied to a specific asset/activity (e.g. utilised to manage a high energy using asset/activity).

To be valid as a route to compliance under ESOS, your ISO 50001:2011 energy management system **must** be certified by one of the following:

1. a [United Kingdom Accreditation Service](#) (UKAS) accredited certification body
2. a body accredited by another EU member states' national accreditation body
3. a body which is accredited by a member of the [International Accreditation Forum](#).

Where an ISO 50001 certified system covers all of the organisation or group, at the time the certification was undertaken, this shall constitute compliance with ESOS provided the certification is still valid at the compliance date (5<sup>th</sup> December 2015 for the first ESOS phase). In this circumstance, there is no requirement for an organisation or group holding such a certification to have its ESOS compliance verified or reviewed by a Lead Assessor.

### ISO 50001 Guidance

If you are considering an ISO 50001 certified energy management system, guidance is available online. See the links below:

- [Getting Started](#) - ISO 50001 Energy Management – Part 1
- [Important Terms](#) - ISO 50001 Energy Management – Part 2
- [Measuring Performance](#) - ISO 50001 Energy Management – Part 3
- [Top 10 Tips](#) - ISO 50001 Energy Management – Part 4

Case studies are available on the [BSI website](#).

### 6.3.1 Acquisitions and ISO 50001

If you acquire new undertakings, assets in the compliance period and your ISO certification covers your entire organisation or group then the acquisition will not prompt a requirement for recertification for continuing compliance with ESOS, provided the newly acquired undertaking/asset is within the scope of the certification.

### 6.3.2 Partial coverage

Where an ISO 50001 certified system covers only part of your energy consumption or part of offshore assets held, there will remain a requirement to measure the total energy consumption

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<sup>8</sup> Source: ISO (International Organization for Standardization) <http://www.iso.org/iso/home/standards/management-standards/iso50001.htm> Accessed February 2014.

and for a Lead Assessor to oversee or approve that the system addresses all the areas of significant energy consumption identified in the reference period (i.e. at least 90% of your total energy consumption).

If the certification doesn't cover all the identified areas of significant energy consumption, additional assessment work – via another route to compliance, the ESOS Energy Audit – will be required for any areas of significant energy consumption that is not addressed by the certified management system.

If you are complying with the requirements of ESOS through more than one compliance route, this should be documented, and detail the areas of significant energy consumption and their coverage by one of the recognised compliance routes. This must be retained as part of the ESOS Evidence Pack (Section 6.5.1).

## 6.4 Other sources of activity which may be used to support ESOS compliance

### 6.4.1 ISO 14001

The ISO 14001:2004 (Environmental management systems, EMS) certification does not expressly require energy audits that would meet the minimum requirements of the Energy Efficiency Directive. As such, ISO 14001 in itself does not demonstrate compliance with ESOS.

However, ISO 14001 certified organisations may wish to use their ISO 14001 management system to support ESOS compliance.

One of the requirements of ISO 14001 is that organisations establish, implement and maintain procedures to ensure that legal requirements are taken into account in establishing, implementing and maintaining its environmental management system. Therefore, organisations which operate a certified ISO 14001 environmental management system should either:

- 1) already be managing and auditing their energy and fuel use to some extent, as part of their existing environmental management system; or
- 2) will be driven by legal compliance requirements of ISO 14001 to engage in a process to integrate the requirements of ESOS into their EMS.

#### **Integrating ESOS and an ISO 14001 certified Environmental Management System**

Participants may be able to integrate ESOS compliance with their ISO 14001 environmental management system through some of the following steps:

- Establish energy efficiency targets or energy auditing programmes as part of complying with the requirement of ISO 14001 to establish objectives & targets and implement programmes to achieve these.
- Consider the qualification of in-house energy managers under the ISO 14001 provisions relating to resources & roles, and competence, training and awareness.
- Using EMS documentation to support ESOS data collection and maintain ESOS Evidence Pack in line with EMS documentation procedures.
- Using an ESOS Lead Assessor to conduct ISO 14001 internal audits as well as considering an organisation's ESOS compliance.
- Incorporating sharing audit findings with top management through the management review processes established under the EMS.

ESOS participants may also wish to use their existing ISO 14001 EMS as a basis for gaining ISO 50001 certification.

## 6.5 Additional compliance activities

### 6.5.1 ESOS Evidence Pack

Each participant in ESOS is required to maintain an ESOS Evidence Pack detailing certain aspects of their compliance with ESOS.

The responsibility for maintaining the Evidence Pack lies with the participant.

The ESOS Evidence Pack should include:

- contact details of the participating undertakings and the responsible undertaking
- details of any board level directors or equivalents who've reviewed the ESOS assessment findings
- written confirmation from the director(s) to evidence that they reviewed the ESOS assessment
- contact details of your lead assessor and the name of the approved register which they are a member of
- written confirmation from the lead assessor to evidence that they signed off the ESOS assessment
- the calculation of the total energy consumption
- a list of identified areas of significant energy consumption
- details of the energy audits undertaken including the audit methodology used in the ESOS Energy Audits
- details of the energy saving opportunities identified
- details of the routes to compliance used to cover each area of significant energy consumption and where applicable evidence (e.g. certificates) of the alternative routes to compliance
- written agreements to support any disaggregation or aggregation of group members
- written agreements to support any alternative responsible undertaking chosen (other than the default highest UK parent)
- reasons for using less than 12 months of data for the measurement of total energy consumption, if you couldn't do this
- reasons for using less than 12 months of data to support an ESOS Energy Audit, if you couldn't do this
- reasons for being unable to use verifiable data on energy use or energy expenditure to support your calculation of total energy use
- the methodology you used for any estimates made for energy use or energy expenditure
- justification, where applicable, where your auditor does not consider an energy consumption profile in their audit of an area of significant energy use

Participants must keep the evidence pack for two subsequent compliance periods after the compliance period it relates to.

### 6.5.2 Making available previous audit results

From the second compliance period onwards, operators will need to provide their chosen Lead Assessor with the ESOS Evidence Pack, including audit results, for the ESOS Assessment undertaken as part of the first compliance phase. From the third phase onwards operators will need to provide the results and records of the previous two compliance phases.

This requirement does not apply to new entrants undertaking their first ESOS Assessments.

### *Considering previous results*

You may find that continuing to monitor the energy performance of certain aspects of your business, after taking energy efficiency measures, can inform your decision to roll-out the measures elsewhere in the organisation to achieve similar savings. This process of comparing sites or activities across time, or to other comparable sites/activities is referred to as benchmarking.

Benchmarking is crucial for assessing your organisation's energy performance. This allows comparisons to be drawn over a period of time, between sites / facilities, or between your teams. The key is that they provide your organisation with the starting point for setting goals and evaluating future efforts and overall performance.

There are numerous methods for benchmarking as outlined in guidance provided under the Climate Change Agreement scheme. Determining which method is best for you will depend on which metric is most applicable to your core activity.

## 7 Notification of compliance

As an ESOS participant you will need to provide a notification via [online notification system](#) to the Scheme Administrator (Environment Agency), that you have complied with the requirements of ESOS on or before the compliance date of each phase.

### 7.1 Signing off on your Assessments

Before operators can submit their notification they will need to have their ESOS Assessment signed off by a director or, if your organisation does not have a director, an equivalent senior manager (see definition in the box below).

A **director** is any person occupying the position of the director as per Section 250 of the Companies Act. If the participant does not have any directors, then a senior manager may provide this sign-off. A **senior manager** is a person exercising management control in an undertaking.

The requirement for sign-off and notification applies irrespective of the compliance route(s) chosen.

Making a senior representative take responsibility for reviewing whether an organisation has complied with ESOS will help to ensure that senior figures within the organisation or group are fully aware of the compliance requirements as well as highlighting the opportunities for improved energy efficiency.

If using an in-house Lead Assessor to conduct, oversee, or verify assessments, two directors (or senior managers if there are no directors within the participant) are required to sign-off that they have seen and considered the ESOS Assessment. This is to provide an additional safeguard as to the independence and quality of the report, given that it is being conducted in-house. Using an external Lead Assessor requires one director or senior manager (if there is no director within the participant) to sign-off the ESOS Assessment.

### 7.2 Confirming compliance with the Scheme Administrator

As an ESOS participant you will need to submit a formal notification to the Environment Agency on or before the compliance date stating that the requirements of ESOS in that compliance period have been met. This is done via an [online notification system](#). The notification also asks participants some voluntary questions which participants may wish to answer.

The notification of compliance will need to include some basic details about your compliance and the questions to be answered are detailed in Appendix A. This information will be used by the relevant scheme compliance body to check compliance and, if necessary, undertake audit/enforcement activities.

There are no standard templates provided by the compliance bodies or the scheme administrator for how data has to be collated, recorded or how the findings of the assessment have to be presented to directors, the format is the decision of the participant.

Offshore participants can start the notification at any time. You can also partially complete the notification and save it for submission at a later stage. The system will send an email with a link to use to resume. Do not lose this email, otherwise you will be required to start again.

Anyone can submit the notification on behalf of a participant (therefore you could instruct a consultant or lead assessor to do this on your behalf) but remember that the responsible undertaking is liable for the compliance of the participant so they should be content with accuracy of the information being submitted.

If it is later discovered the information submitted was inaccurate, you must email [ESOS@environment-agency.gov.uk](mailto:ESOS@environment-agency.gov.uk) **and** [emt@decc.gsi.gov.uk](mailto:emt@decc.gsi.gov.uk) to explain the inaccuracy in your original submission, **do not just resubmit the information online.**

You will need to quote:

1. Date of the original notification was submitted
2. Name
3. Companies House registration number of the organisation

To minimise the risk of late submission, it is recommend you submit the notification as soon as possible before the compliance date of each compliance period.

### **7.2.1 Other mandatory communications with the Environmental Management Team**

As an ESOS participant you are required to notify DECC's Environmental Management Team by email at [emt@decc.gsi.gov.uk](mailto:emt@decc.gsi.gov.uk) (as the scheme compliance body) of a breach in compliance as soon as you become aware of it.

### **7.3 After submission of the notification**

After submission of the notification you will be emailed a copy of your responses and this should be retained in your evidence pack as a record of the submission.

The Environment Agency will publish the information provided in your notification, apart from personal or commercially sensitive details and feedback. The Environment Agency will not publish any information on organisations which are believed to qualify for ESOS prior to the compliance date for a compliance period.

The information will be published on the [ESOS web pages](#) in 2016.

You may be selected by the compliance body to have your compliance with the scheme checked. This could happen any time in the 12 years following the compliance date. In the event of a compliance check you will be required to provide evidence of how you have complied with the scheme. The regulators will not be providing details of exactly what will be requested in a compliance check, however please be in a position to send information if requested.

## 8 Implementing audit recommendations

ESOS is intended to provide high quality and targeted advice to large enterprises on cost-effective energy efficiency opportunities, which will ultimately lead to financial savings.

Optimising energy use leads to improved profitability and increased competitiveness. It also constitutes an integral part of the UK's climate change mitigation effort, as demonstrated by the CCA scheme, the CRC Energy Efficiency scheme and the EU-ETS for both onshore and offshore. There is significant potential to decrease energy consumption across all sectors, and yet opportunities to improve energy efficiency are often under-exploited.<sup>9</sup>

DECC estimates that ESOS could realise £1.6bn net present value of benefits to the UK, with the vast majority of these being directly felt by businesses in the form of reduced energy bills.<sup>10</sup> This benefit would be realised if participants in ESOS reduced their energy consumption by an average of 0.7%.

### 8.1 Government support for implementing energy saving opportunities

The implementation of energy saving measures will be case and organisation specific. However, there are many sources of information and financial support available to organisations looking to implement energy saving measures.

#### Sources of financial support for implementing audit recommendations

The following list outlines some sources of Government financial support to help cover the cost of implementing audit recommendations.

##### Enhanced Capital Allowances (ECAs)

ECAs provide businesses with enhanced tax relief for investments in equipment that meets published energy-saving criteria.

[ECA information](#)

Energy Technology List under the [ECA scheme](#).

#### 8.1.1 Energy Performance Contracting

Energy Performance Contracting is a way for organisations to reduce the cost of investing in energy efficiency measures and mitigate the risk that can arise from uncertainty about benefits that will be realised. Energy Performance Contracts are typically delivered by Energy Service Companies (ESCOs). An ESCO typically conducts an energy audit for a client and then identifies and implements energy efficiency opportunities and guarantees that these will be self-funding through energy savings generated. In the event that the savings are not realised, the ESCO will generally make up the difference. The ESCO will realise any energy savings for the duration of the contract, with the client receiving any benefits once the contract ends.

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<sup>9</sup> [Energy Management Programmes for Industry](#)

<sup>10</sup> Central estimate from final policy Impact Assessment calculated as Net Present Value (2015-2030).



## 9 Penalties, enforcement, appeals

### 9.1 Enforcement and penalties

The scheme's compliance bodies will have the authority to apply civil penalties against an organisation/group that is required to participate in ESOS but is found to be non-compliant with its requirements.

- **For all non-compliances**, the compliance bodies will have the power to publish information on non-compliance on their website such that this information is available to the public. This will include:
  - the name of the ESOS participant;
  - details of the failure in respect of which a civil penalty has been imposed; and
  - the penalty amount.
- For **failure to notify the Scheme Administrator** by the required date and/or failure to provide basic details, there will be a fixed penalty and an additional penalty for each day of non-compliance. This is in order to encourage compliance as soon as possible. For failure to do so, the compliance bodies may impose some or all of the penalties outlined below:
  - a fixed penalty of up to £5,000; and/or
  - an additional £500 for each day starting on the day after the date of compliance until the notification is completed, subject to a maximum of 80 days; and/or
  - publication of details of non-compliance by the compliance bodies.
- For **failure to maintain adequate records to demonstrate compliance** with ESOS the penalty will be:
  - a fixed penalty of up to £5,000; and/or
  - the cost to the compliance body for undertaking sufficient auditing activity to confirm that an organisation has complied with ESOS; and/or
  - publication of details of non-compliance.
- For **failure to undertake an ESOS Assessment** there will be a discretionary penalty allowing the compliance body to require the participant to take a number of steps toward compliance and a fixed monetary penalty. Failure to comply with any aspect of an ESOS Assessment (not using sufficient data, not using a Lead Assessor etc.) would be considered failure to comply. Where non-compliance is explained under 'comply or explain' provisions then the compliance body will consider whether the justification given is reasonable before determining whether to impose a penalty. The penalty is:
  - a requirement to conduct an ESOS Assessment by a date specified by the compliance body; and/or
  - a penalty of up to £50,000; and/or
  - an additional £500 per day penalty for each day starting on the day after the compliance date that the organisation remains non-compliant, subject to a maximum of 80 days; and/or
  - publication of details of non-compliance.



- **Failure to comply with an enforcement notice** will incur a fixed penalty and an additional penalty for each day of non-compliance. This is in order to encourage compliance as soon as possible. The penalties are:
  - a fixed penalty of up to £5,000; and/or
  - an additional £500 for each day starting on the day after the date of compliance until the notification is completed, subject to a maximum of 80 days; and/or
  - publication of details of non-compliance.
- For **making a statement which is false and misleading** there will be a monetary penalty that is flexible enough to take account of the nature of the misdemeanour and large enough that it can act as a deterrent to this offence. The penalty is:
  - a monetary penalty of up to £50,000; and
  - publication of details of non-compliance.

The compliance bodies will be able to pursue corrective action and will also have the power to reduce and waive penalties after issuing them to participants.

## 9.2 Appeals

Participants will be able to appeal enforcement actions undertaken by the compliance bodies. Participants have the right to appeal any determination, enforcement notice or penalty notice that is based on an error of fact; wrong in law; or unreasonable.

For enforcement activity conducted on participants registered in England, Wales, and offshore participants can appeal to the First-tier Tribunal. Participants registered in Scotland can appeal to the Scottish Ministers, and participants in Northern Ireland can appeal to the Planning Appeals Commission.

To find out more information on appeals, you should contact your relevant compliance body.

## 10 ESOS and other policies

Other UK climate change policies applicable for the offshore industry also require organisations to measure and manage energy consumption accurately via EU Emissions Trading System (EU-ETS) and mandatory company reporting. However, the eligibility requirements and scope of the EU-ETS is focussed on the emissions of carbon dioxide. ESOS is different as it places a greater emphasis on the identification of energy saving opportunities, however data gathering can be coupled with that of the EU-ETS to reduce the administrative burden.

To assist with this, ESOS allows participants flexibility when they set their reference period (i.e. the window in which they measure their energy use).

### **EU-ETS**

The EU-ETS requires the measurement and reporting of direct emissions from eligible installations on an annual basis with a calendar year monitoring, reporting and verification cycle. ESOS participants may align their data measurement period with that of the EU-ETS; therefore, data reported under the EU-ETS could be used. For ESOS Assessments, offshore participants need to consider data collection processes for other sites and activities not included in the EU-ETS.

### **PPC**

- The PPC assessment is only applicable to individual installations that hold a PPC permit, i.e. installations above the 50 MWth threshold.
- The PPC energy audit is related to a specific assessment and recommendations, and an additional audit or review of the recommendations is not required on a fixed regular basis.
- A key feature of the assessment is a demonstration that industry is applying BAT.

### **ESOS**

- There is no MWth threshold limitation, and the scheme covers **all** assets, subject to a 10% de minimis exclusion. How the latter is defined is flexible, but some non-PPC installations *are* expected to be captured.
- ESOS is a mandatory requirement with an assessment every four years. It is expected that opportunities will be identified in subsequent audits that were possibly not relevant in the previous audit, or a PPC energy audit (changes in aggregation, undertakings, etc.).
- The ESOS compliance timelines are fixed and cannot be amended.
- The PPC assessment undertaken some years ago falls outwith the ESOS timeline.
- A key feature of ESOS is to identify opportunities to save energy.

PPC energy efficiency audits are undertaken at an individual asset level whereas ESOS Audits consider energy at the company level and may potentially be across grouped assets held. Therefore it is not possible for one audit to satisfy both requirements. However, elements from either process could be used to support or provide guidance to the other.

With respect to new developments, there may be scope for coupling both assessments (PPC and ESOS), and this should be discussed with the operator (this could also be dependent upon whether the operator chooses to aggregate assets and timing of the qualification date). Although, any energy audit undertaken for PPC could be outwith the timeline for ESOS, the data gathered could provide substantial background information for the Lead Assessor, and data and recommendations acquired under ESOS could also be used to advise any PPC requirements.

## 11 Appendix A: Completing the notification form

Section 11.1 shows the questions that appear in the notification system, with the possible answers that can be selected. Mandatory questions are marked with an asterix \*.

Questions shown in a green italic text will only appear if certain responses to previous questions have been provided.

Please ensure you have all the information gathered before starting your notification.

Or alternatively fill in the basic organisational questions early and save it and then come back at a later date to complete the questions that can only be filled in once you are compliant.

Clicking save in the notification prompts you to enter an email address and a unique link will be sent to that address for you to access the saved notification.

Do not lose this link otherwise you will have to start your notification again.

You can access the notification by clicking the link [here](#).

You do not need to log in to submit your notification. Anyone can submit the notification on behalf of a participant (therefore, you could instruct a consultant or lead assessor to do this on your behalf) but remember that the responsible undertaking is liable for the compliance of the participant so they should be happy with the accuracy of the information being submitted.

For the offshore oil and gas industry, participants should select 'S' – Other service activities to question 5.

**Please do not send a printed or PDF version of this appendix as your submission - it will not be accepted.**

It is recommended to submit your notification online before the compliance deadline of 5 December 2015.

### 11.1 Notification questions

**Q1 Registered name of the organisation \***

**Q2 Trading name or other name by which your UK organisation is commonly known \***

Same as UK organisation name

Trading name is different [and you will be required to enter the name]

**Q3 Is your UK organisation registered at Companies House? \***

Yes [and you will be required to enter the 8 digit number e.g. 00123456 or SC123456]

No

**Q4 Which of the following statements applies as to why your organisation is submitting this notification? \***

Our organisation qualifies for ESOS and is therefore required to comply with the ESOS regulations

Our organisation doesn't qualify for ESOS but we want to show our commitment to saving energy.

**Q5 Sector that your organisation belongs to \***

The possible answers that can be selected from a drop down box are:

A - Agriculture, forestry and fishing

B - Mining and quarrying

C - Manufacturing

D - Electricity, gas, steam and air conditioning supply

E - Water supply; sewerage, waste management and remediation activities  
F - Construction  
G - Wholesale and retail trade; repair of motor vehicles and motorcycles  
H - Transportation and storage  
I - Accommodation and food service activities  
J - Information and communication  
K - Financial and insurance activities  
L - Real estate activities  
M - Professional, scientific and technical activities  
N - Administrative and support service activities  
O - Public administration and defence; compulsory social security  
P - Education  
Q - Human health and social work activities  
R - Arts, entertainment and recreation  
S - Other service activities  
No response

**Q6 Is the ESOS notification on behalf of a franchise group? \***

No, we are not a franchisor or franchisee

Yes, we are a franchisor/franchisee and we are participating separately from one another

Yes, we are a franchisor/franchisee and although we are not in the same corporate group we have decided to participate together

If Yes, provide the name of the franchise group

**Q7 Is the ESOS notification on behalf of a trust for which the UK organisation making this notification is responsible? \***

Yes

No

If Yes, name of the relevant trust

**Q8 Registered office or principal place of activity (where no registered office exists) of the UK organisation making this notification \***

Address including Town/City, County and Postcode

**Q9 Location of registered office or principal place of activity \***

England

Wales

Northern Ireland

Scotland

Off-shore (where an organisations energy use is wholly or mainly consumed by offshore activities e.g. drilling platforms)

**Q10 Do you have an overseas global parent company? \***

Yes, the organisation has a global parent company based outside of the UK (Q11 and Q12 will be displayed)

No, the organisation does not have a global parent company that is based outside of the UK (you will jump to Q13)

*Q11 Overseas global parent company \**

*Overseas Parent Name:*

*Q12 Overseas trading name \**

*Same as the overseas global parent company organisation*

*Overseas trading name is different [If so you will be required to enter the name]*

**Q13 Details of the individual who is the primary contact regarding details submitted in this notification \***

Name, Job title or position, Email address, Telephone number

**Q14 Primary contact address \***

Same address as the registered office or principal place of activity (where no registered office exists)  
Different address [if so enter Address, Town/city, County, Postcode, Country]

**Q15 Details of the individual who is the secondary contact regarding details submitted in this notification**

Name, Job title or position, Email address, Telephone number

**Q16 Secondary contact address**

Same as the address of the primary contact  
Same as the address of the registered office or principal place of activity (where no registered office exists)  
Different address [if so enter Address, Town/city, County, Postcode, Country]

**Q17 Contact details (for general information queries to your organisation) \***

Same as the email and telephone number of the primary contact  
Same as the email and telephone number of the secondary contact Different email and telephone number [if so provide the email address and telephone number]

**Q18 Number of UK organisations (i.e. legal entities) that this notification covers? \***

Just one UK organisation  
More than one UK organisation [If so then 'How many organisations does the notification cover (including the legal entity making the notification)?']

**Q19 Have any UK organisations ceased to be part of your group since the qualification date, 31 December 2014? \***

Yes (Q20 will be displayed) [If 'Yes' then list them. Enter one per line - UK organisation name followed by the Company Registration Number, if applicable, in brackets for example ABC Company (01234567)]  
No (you will not answer Q20)

*Q20 Are you including in this notification any of the UK organisations that have ceased to be part of your group since the qualification date, 31 December 2014? \**

*Yes [If 'Yes' then list them. Enter one per line - UK organisation name followed by the Company Registration Number, if applicable, in brackets for example ABC Company (01234567)]*  
*No*

**Q21 Are you the highest UK parent company in your group or does this notification include the highest UK parent for your group? \***

Yes, this notification covers the highest UK parent company in the group  
No, the highest UK parent company in the group have submitted a separate notification (you will jump to Q25)

**Q22 Are there any UK organisations (i.e. legal entities) which are part of your group that have decided to make separate notifications for ESOS compliance purposes? \***

Yes [If 'Yes' then list the UK organisations who are making separate notifications. Enter one per line - UK organisation name followed by the Company Registration Number, if applicable, in brackets. For example ABC Company (01234567)]  
No

**Q23 How many highest UK parent companies in the group are covered by this notification?\***

Just one highest UK parent company in the group (you will jump to Q25)  
More than one highest UK parent company in the group (Q24 will be displayed)

*Q24 Level to which the highest UK parent companies have agreed to participate together for the purpose of this ESOS notification \**

*All of the highest UK parent companies in the group have agreed in writing to participate together.*

*Some, but not all, of the highest UK parent companies in the group have agreed in writing to participate together*

*None of the highest UK parent companies in the group have agreed to participate together. If some or all of the highest UK parent companies have agreed in writing to participate together then list the organisations who have agreed to participate together. This should include the name of the highest UK parent or responsible undertaking which is taking responsibility (if applicable) for making this notification.*

*Enter one per line - UK organisation name followed by the Company Registration Number, if applicable, in brackets for example ABC Company (01234567), DEF Company (12345678)*

**Q25 Do you have any energy supply responsibility? \***

*Yes (you will jump to Q30)*

*No, we have no energy supply responsibility and our total energy consumption is therefore zero (you will answer Q26 and Q29)*

*Q26 Confirm that a board director (or, in the absence of a board director, an individual with management control)*

-

- has confirmed that they agree that the organisation has no energy supply responsibility despite qualifying for the scheme*
- is satisfied, to the best of their knowledge, that the organisation is within the scope of the scheme*
- is satisfied, to the best of their knowledge, that the information provided in this notification is correct*

*Note that leaving ANY of the above boxes un-ticked means that you are non-compliant with the requirements of ESOS. We recommend that you keep a record of any evidence to support any omission in your ESOS evidence pack.*

*Q27 Contact details for the board director (or, in the absence of a board director, an individual with management control) who has confirmed the points above \**

*This must be a different individual to the person named as the primary contact for this notification.*

*Name of board director, Job title or position, Email address, Telephone number*

*Q28 Board director address \**

*Same as the address of the primary contact*

*Same as the address of the secondary contact*

*Same as the address of the registered office or principal place of activity (where no registered office exists)*

*Different address [if so enter Address, Town/city, County, Postcode, Country]*

*Q29 These details were confirmed by the board director above \**

*Date of review (DD/MM/YY)*

**Q30 To what extent are the UK organisations/sites/energy supplies in this ESOS notification covered by ISO 50001? \***

*All of the UK organisations/sites/energy supplies in this ESOS notification are fully covered by ISO 50001 (you will jump to the Q36)*

*Some, but not all, of the UK organisations/sites/energy supplies in this ESOS notification are covered by ISO 50001*

*None of the UK organisations/sites/energy supplies in this ESOS notification are covered by ISO 50001*

**Q31 Details of the Lead Assessor who has reviewed your ESOS assessment \***

*Lead Assessor*

*Email address*

**Q32 Professional body or approved register of which the lead assessor is a member \***

*Lead Assessor body*

Membership number

**Q33 Professional has your Lead Assessor determined that your assessment meets the requirements of ESOS \***

Yes

No [your notification will be reviewed by the relevant compliance body]

**Q34 Enter the percentage of your total energy consumption that is covered by each of the following ESOS compliance routes or included in the ESOS de minimis \***

You must enter a percentage figure in the first 5 boxes. Enter 0% where you have not used that method of compliance. The total figure in the 6th box must add up to 100%.

ISO 50001		%
Display Energy Certificate		%
Green Deal Assessment		%
Energy audits compliant with ESOS		%
Not audited (de minimis) ( $\leq 10\%$ )		%
Total		%

**Q35 Did you have to estimate any of the data to calculate your total energy consumption or energy spend? (i.e. you didn't have 12 months actual data for all supplies) \***

Yes (Q36 will be displayed)

No (you will not answer Q36)

**Q36 Confirmation that the following information is recorded in your ESOS evidence pack - Details of the method(s) used and the extent to which, and the reasons why, verifiable data was not used \***

I confirm that these are all recorded in our ESOS evidence pack

I confirm that these are not recorded in our ESOS evidence pack and I recognise that this is not in compliance with the obligations of ESOS

**Q37 Did you use 12 months verifiable data for the purpose of all your ESOS energy audit(s)?\***

Yes (you will not answer Q38)

No (Q38 will be displayed)

Not applicable - all significant energy consumption is covered by ISO 50001 certification, Display Energy Certificates or Green Deal Assessments (you will not answer Q38)

**Q38 Confirmation that the following information is recorded in your ESOS evidence pack -**

Details of the extent and the reasons why 12 months of verifiable data was not used \*

I confirm that these are all recorded in our ESOS evidence pack

I confirm that these are not recorded in our ESOS evidence pack and I recognise that this is not in compliance with the obligations of ESOS

**Q39 Did you use energy consumption profiling for the purpose of analysing your energy consumption for all your ESOS energy audit(s)? \***

Yes (you will not answer Q40)

No (Q40 will be displayed)

Not applicable - all significant energy consumption is covered by ISO 50001 certification, Display Energy Certificates or Green Deal Assessments (you will not answer Q40)

**Q40 Confirmation that the following information is recorded in your ESOS evidence pack -**

Details of the alternative method of analysis used and the extent to which, and the reasons why, the energy audit does not include an analysis based on energy consumption profiles \*

I confirm that these are all recorded in our ESOS evidence pack

*I confirm that these are not recorded in our ESOS evidence pack and I recognise that this is not in compliance with the obligations of ESOS*

**Q41 Confirm that a board director (or, in the absence of a board director, an individual with management control) –**

- has reviewed the recommendations of your organisation's ESOS assessment or alternative routes to compliance (e.g. ISO 50001)
- is satisfied, to the best of their knowledge, that the organisation is within the scope of the scheme
- is satisfied, to the best of their knowledge, that the organisation is compliant with the scheme
- is satisfied, to the best of their knowledge, that the information provided in this notification is correct

Note that leaving ANY of the above boxes un-ticked means that you are non-compliant with the requirements of ESOS. We recommend that you keep a record of any evidence to support any omission in your ESOS evidence pack.

**Q42 Contact details for the board director (or, in the absence of a board director, an individual with management control) who has confirmed the points above \***

This must be a different individual to the person named as the primary contact for this notification.

Name of board director, Job title or position, Email address, Telephone number

**Q43 Board director address \***

Same as the address of the primary contact

Same as the address of the secondary contact

Same as the address of the registered office or principal place of activity (where no registered office exists)

Different address [if so enter Address, Town/city, County, Postcode, Country]

**Q44 ESOS Assessment recommendations were reviewed by the board director above \***

Date of review (DD/MM/YY)

**Q45 Was your Lead Assessor internal or external to your organisational group? \***

Internal (details of a second director will need to be provided)

External (you will jump to the 'Voluntary Questions' page)

No Lead Assessor because this ESOS notification is covered by ISO 50001 or has no energy supplies (you will jump to the 'Voluntary Questions' page)

**Q46 Confirm that a second director (or, in the absence of a second director, an individual with management control) -**

- *has reviewed the recommendations of your organisation's ESOS assessment or alternative routes to compliance (e.g. ISO 50001)*
- *is satisfied, to the best of their knowledge, that the organisation is within the scope of the scheme*
- *is satisfied, to the best of their knowledge, that the organisation is compliant with the scheme*
- *is satisfied, to the best of their knowledge, that the information provided in this notification is correct*

*Note that leaving ANY of the above boxes un-ticked means that you are non-compliant with the requirements of ESOS. We recommend that you keep a record of any evidence to support any omission in your ESOS evidence pack.*

**Q47 Contact details for a second board director (or, in the absence of a board director, an individual with management control) who has confirmed the points above \***

Name of board director, Job title or position, Email address, Telephone number

**Q48 Second board director address \***

Same as the address of the first board director

Same as the address of the primary contact

Same as the address of the secondary contact



*Same as the address of the registered office or principal place of activity (where no registered office exists)  
Different address [if so enter Address, Town/city, County, Postcode, Country]*

*Q49 ESOS Assessment recommendations were reviewed by the second board director above \**

*Date of review (DD/MM/YY)*

*Voluntary Questions*

*Answers to these questions are voluntary.*

*The answers you provide will be included with the other information provided in your ESOS notification and will be published on [www.gov.uk/energy-savings-opportunity-scheme-esos](http://www.gov.uk/energy-savings-opportunity-scheme-esos).*

**Q50 Does your UK organisation have a quantitative energy efficiency target and/or benchmarks?**

Yes (Q51 will be displayed)

No (Q52 will be displayed)

No response

*Q51 If your UK organisation does have a quantitative target and/or benchmarks can you disclose a key target or benchmark?*

*Q52 If your organisation does not have a quantitative target and/or benchmarks will you adopt any such measures in light of your ESOS assessment?*

*Yes*

*No*

*No response*

**Q53 Have the board of directors of your organisation discussed the results of your ESOS assessment?**

Yes

No

No response

**Q54 Have senior management within your organisation discussed the results of your ESOS assessment?**

Yes

No

No response

**Q55 Have you published any information relating to your ESOS energy audit report?**

(e.g. key findings, or key actions taken in light of your ESOS assessment)

Yes

No

No response

**Q56 Link to the web page where this information has been published**

You are then asked to answer some questions about your experience on the system and then you will see the submit screen. Your primary and secondary contact will both be sent an email containing the information you have just entered and if you want one other person to be sent this information their email address can be entered on this final screen. Do not submit until you are happy with the information that has been entered.

## 12 Further information and support sources

Further details about ESOS can be found at [www.gov.uk/esos](http://www.gov.uk/esos)

A helpdesk to support offshore participants to comply with ESOS is available by emailing: [emt@decc.gsi.gov.uk](mailto:emt@decc.gsi.gov.uk)

### Helpdesk support – onshore participants

Email: [ESOS@environment-agency.gov.uk](mailto:ESOS@environment-agency.gov.uk)

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

### Scheme administrator

Environment Agency [www.gov.uk/government/organisations/environment-agency](http://www.gov.uk/government/organisations/environment-agency)

### Compliance Bodies (Regulators)

England: Environment Agency [www.gov.uk/government/organisations/environment-agency](http://www.gov.uk/government/organisations/environment-agency)

Wales: Natural Resources Wales [www.naturalresourceswales.gov.uk](http://www.naturalresourceswales.gov.uk)

Scotland: Scottish Environment Protection Agency [www.sepa.org.uk](http://www.sepa.org.uk)

Northern Ireland: Northern Ireland Environment Agency [www.doeni.gov.uk/niea](http://www.doeni.gov.uk/niea)

Offshore: Department of Energy and Climate Change <https://www.gov.uk/oil-and-gas-offshore-environmental-legislation>

### Other source of information

#### British Standards Institute (BSI)

Website: [www.bsigroup.co.uk](http://www.bsigroup.co.uk)

ISO 50001 case studies: <http://shop.bsigroup.com/Browse-By-Subject/Energy-Management/BS-ISO-50001-case-studies>

## 13 Glossary

**Aggregation** – Where organisations choose to group together for the purposes of compliance.

**Areas of significant energy consumption** – Energy consuming activities/assets that consume at least 90% of the participant's total energy consumption in the **reference period**.

**Approval body** - An organisation which manages one or more **approved registers**.

**Approved register** - A register of individuals which has been approved by the Scheme Administrator as demonstrating that registered individuals are competent to act as **Lead Assessors**.

**Compliance date** - The deadline by which participants must submit the report to remain compliant with ESOS. This is: 5<sup>th</sup> December 2015 (phase 1), 5<sup>th</sup> December 2019 (phase 2), 5<sup>th</sup> December 2023 (phase 3), and every 4 years thereafter.

**Compliance period** - The period in which participants may conduct an ESOS Assessment. This is 6<sup>th</sup> December 2010 to 5<sup>th</sup> December 2015 (phase 1), 6<sup>th</sup> December 2015 to 5<sup>th</sup> December 2019 (phase 2), etc.

**De minimis** – The proportion of an organisation's total energy consumption (measured as energy units used or energy expenditure) for which audits are not required. This is to allow participants to focus on areas of significant energy use.

**The Directive** – The EU Energy Efficiency Directive 2012/27/EU.<sup>11</sup> Article 8 of this Directive relates to energy audits, while Article 8(4) is the major basis for the ESOS policy.

**Disaggregation** – Where organisations (a highest parent and its subsidiary organisations) choose to separate for the purposes of compliance.

**ESOS** – The Energy Savings Opportunity Scheme.

**ESOS Assessment** – Includes all activities required to ensure compliance including the measurement of total energy use; the calculation of the *de minimis* and identification of areas of significant energy consumption; the ESOS Audits undertaken; and any use of alternative routes to compliance.

**ESOS Audit** – An energy efficiency audit meeting the minimum requirements of the ESOS scheme.

**Evidence Pack** – An organisation's record of their ESOS Assessment, including justifications for any allowable deviations from the scheme requirements.

**Financial year** – The 12 month period for which an organisation prepares its financial statements and annual report.

**Fixed monetary penalty** - A fixed sum of money due by a specific date.

**Highest parent** – An organisation that does not have a parent organisation that is captured by the scheme.

**Individual accounts** – As defined by paragraph 396 of the Companies Act 2006. As per paragraph 396(1):

*Companies Act individual accounts must comprise—*  
(a) a balance sheet as at the last day of the financial year, and  
(b) a profit and loss account.

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<sup>11</sup> <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:315:0001:0056:EN:PDF>

**Large undertaking** - An undertaking which:

- has 250 or more employees; or
- has fewer than 250 employees, but has an annual turnover exceeding £42.5m **and** a balance sheet exceeding £36.5m.

**Lead Assessor** – A person included on an approved register held by a professional body.

**Life cycle cost analysis** – A way to demonstrate an investment will be economical over its entire life by accounting for all the costs that could reasonably be incurred over the period, including in manufacture/installation and disposal. For instance, this would include maintenance and depreciation costs.

**Operator** - will normally be the company holding the environmental permits / consents etc. issued by DECC / EDU-OGED, who are therefore responsible for compliance with the associated regulatory requirements at the time of the proposed audit.

**Public body** – Any organisation that is required to comply with public contracting regulations in force in the UK, as either a contracting authority or as an organisation which receives a majority of its funding from public sources.

**Qualification date** – The date on which organisations must determine whether or not they qualify for the ESOS scheme in that phase. The qualification date shall be 31<sup>st</sup> December 2014 and every four years thereafter.

**Reference period** - The period of time for which undertakings must measure their total energy consumption in order to identify their 'areas of significant energy consumption' that they are required to assess.

The reference period must:

- a. Comprise a period of 12 consecutive months;
- b. Begin less than 12 months before the qualification date (in the first compliance period, this means the reference period can begin no earlier than 1<sup>st</sup> January 2014 and every 4 years thereafter); and
- c. End by the compliance date.

**Simple Payback Period assessment** - The period of time required for the financial savings from reduced energy usage to equal the amount of the investment in an energy saving measure.

**SME undertaking** - An undertaking which:

- has fewer than 250 employees; **and**
- has an annual turnover below £42.5m or a balance sheet below £36.5m (or both).

**Total assets** – The value included in the top half of an organisation's balance sheet, or equivalent.

**Turnover** – Money generated by an organisation's business activities.

**Undertaking** – As defined by paragraph 1161 of the Companies Act 2006:

*In the Companies Acts "undertaking" means— (a) a body corporate or partnership, or (b) an unincorporated association carrying on a trade or business, with or without a view to profit.*

**UK organisation** – An undertaking which exists in the UK and which may qualify for ESOS if it meets the qualification requirements.

**Verifiable data** - Data that can be proven and traced to a particular and objective source – e.g. a meter reading, invoices.

