



Department
of Energy &
Climate Change

Energy Savings Opportunity Scheme (ESOS)

Helping UK enterprises improve profitability through better information on how to save energy

Consultation on implementation of Article 8 of the European Union Energy Efficiency Directive ('energy audits')

URN: 13D/169
July 2013



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The consultation [and consultation-stage Impact Assessment] can be found online:
<https://www.gov.uk/government/consultations/energy-savings-opportunity-scheme>

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General information

Purpose of this consultation

This consultation document seeks views on the Government's approach to implementation of Article 8 of the EU Energy Efficiency Directive.

Issued: 11 July 2013

Respond by: 3 October 2013

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Territorial extent:

England, Wales, Scotland and Northern Ireland

How to respond:

Your response will be most useful if it is framed in direct response to the questions posed, though further comments and evidence are also welcome.

Electronically submitted responses would be preferred. **A template for responding has been published alongside this consultation document and can be accessed here:**

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

Additional copies:

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Other versions of the document in Braille, large print or audio-cassette are available on request. This includes a Welsh version. Please contact us under the above details to request alternative versions.

Confidentiality and data protection:

Information provided in response to this consultation, including personal information, may be subject to publication or disclosure in accordance with the access to information legislation (primarily the Freedom of Information Act 2000, the Data Protection Act 1998 and the Environmental Information Regulations 2004).

If you want information that you provide to be treated as confidential please say so clearly in writing when you send your response to the consultation. It would be helpful if you could explain to us why you regard the information you have provided as confidential. If we receive a request for disclosure of the information we will take full account of your explanation, but we cannot give an assurance that confidentiality can be maintained in all circumstances. An automatic

confidentiality disclaimer generated by your IT system will not, of itself, be regarded by us as a confidentiality request.

We will summarise all responses and place this summary on our website at:

https://www.gov.uk/government/publications?keywords=&publication_filter_option=consultations&topics%5B%5D=all&departments%5B%5D=department-of-energy-climate-change

This summary will include a list of names or organisations that responded but not people's personal names, addresses or other contact details.

Quality assurance:

This consultation has been carried out in accordance with the Government's consultation principles, which can be found here:

<https://www.gov.uk/government/publications/consultation-principles-guidance>

If you have any complaints about the consultation process (as opposed to comments about the issues which are the subject of the consultation) please address them to:

DECC Consultation Co-ordinator

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Email: consultation.coordinator@decc.gsi.gov.uk.

Executive Summary

This consultation document seeks views on the Government's approach to implementing Article 8 of the EU Energy Efficiency Directive, which was agreed by Member States on 25 October 2012 and came into force on 14 November 2012.

Background

1. Article 8 of the EU Energy Efficiency Directive ('the Directive') requires all Member States to introduce a programme of regular energy audits for 'large enterprises'.¹ Audits must be undertaken by 5 December 2015, and then at least every four years from the date of the previous audit. Government believes that this programme offers a significant opportunity for the UK. It will help drive the take-up of cost-effective energy efficiency measures by participants, benefiting their competitiveness and contributing to the wider growth agenda.
2. The 'Energy Savings Opportunity Scheme' (ESOS) is the Government's proposed approach to implementing this requirement. Under the scheme, approved assessors will carry out Article 8 compliant ESOS assessments to identify energy saving recommendations. While the Directive prescribes many of the key features that ESOS must include, there is some limited scope for flexibility and interpretation. This consultation document seeks views on a range of detailed issues around the implementation of ESOS.
3. Following this consultation, the Government will analyse consultation responses and then develop secondary legislation, setting out the legal framework for the operation of ESOS. The Government also proposes to develop good practice guidance to support organisations and ESOS assessors in conducting ESOS assessments.
4. The Government's guiding principles for implementing ESOS are to:
 - ensure that ESOS provides high quality and well-targeted advice to large enterprises on cost-effective energy efficiency opportunities, driving significant net cost savings;
 - ensure a proportionate approach to implementation is taken, minimising the administrative burdens placed on UK businesses;
 - ensure ESOS fits with and is complementary to the landscape of existing energy efficiency and climate change policy instruments; and
 - ensure our implementation of Article 8 avoids 'gold plating' that disadvantages UK businesses relative to their European competitors.
5. The Government's Energy Efficiency Strategy set out the substantial, untapped and cost-effective energy efficiency potential which exists in the UK economy.² Through the right action we can unlock more of this cost-effective potential, and help to reduce energy bills at

¹ As defined by the EU Energy Efficiency Directive, energy audits will be mandatory for all non-SMEs ('large enterprises'). SMEs are defined as 'enterprises' which employ fewer than 250 persons and which have an annual turnover not exceeding EUR 50 million, and/or an annual balance sheet total not exceeding EUR 43 million.

² *The Energy Efficiency Strategy: The Energy Efficiency Opportunity in the UK*, DECC, November 2012.

a time of increasing gas and electricity prices, balance the UK's future energy demand and supply needs, and cut our carbon emissions.

6. The current economic climate makes it more important than ever for individuals, businesses and the country to realise the benefits available from reducing energy demand. Doing so will help support productivity of UK firms and improve the UK's international competitiveness.

Who will this scheme apply to?

7. The proposed scheme would apply to all large enterprises in the UK (primarily businesses but also charities and any other UK organisations outside the public sector, if large enough).
8. Small and medium enterprises (SMEs) will not be required to participate, unless they are part of a large corporate group enterprise.³ SMEs will be able to carry out ESOS assessments on a voluntary basis and the Government encourages SMEs to consider such voluntary action.
9. To make it easier to determine whether a corporate group would be included in ESOS, the Government proposes that the scheme would only target those corporate groups where there are one or more large (i.e. non-SME) UK companies within the corporate group. If every UK company in the group enterprise was an SME, the group would *not* be covered by the scheme.
10. The scheme does not extend to public bodies.

What is an ESOS assessment?

11. The Energy Efficiency Directive sets out 'minimum criteria' for 'energy audits'.⁴ To meet these criteria, the Government considers that ESOS assessments must provide the following information at a minimum:
 - a review of the total energy use and energy efficiency of the organisation. This would include the organisation identifying and measuring an energy intensity ratio (e.g. energy use per employee) and, as appropriate, considering the variation in energy use over time within key buildings, key industrial operations, and key transport activities (exempting *de minimis* energy use). The review would need to be proportionate and sufficiently representative 'to permit the drawing of a reliable picture of overall energy performance' of the organisation;⁵ and
 - clear information on potential savings, which identify and quantify cost-effective energy savings opportunities. These should be, wherever practical, based on life cycle assessment (LCA) instead of simple payback periods (SPP).

³ An enterprise is defined as a SME if it employs fewer than 250 people, and meets one (or both) of the following criteria: (a) It has an annual turnover no greater than EUR 50 million, and (b) an annual balance sheet total not exceeding EUR 43 million

⁴ Annex VI to the Directive, which is reproduced in Annex C to this consultation document.

⁵ Ibid.

12. In practice, ESOS assessments are intended to recommend cost-effective measures to save organisations energy and money. These might include, for example, advice on updating lighting systems, taking steps to encourage staff to adopt more energy efficient behaviour, or (*if cost-effective*) replacing elements of a transport fleet.
13. Organisations within the scheme would need to identify an approved ESOS assessor (either an in-house expert or an external consultant) to conduct the ESOS assessment, gather data on energy usage at an appropriate level of detail, and undertake an ESOS assessment by December 2015, renewing the assessment at least every four years thereafter.
14. This consultation includes a number of options on compliance reporting of ESOS assessments. A scheme administrator will be established to ensure compliance with the scheme to conduct ESOS assessments. Depending on the compliance route chosen, organisations may need to notify the scheme administrator that they have conducted an energy audit, and potentially disclose any key action taken in their annual reports.
15. The Government will also be developing a route to accredit/qualify individuals as fit to carry out ESOS assessments.
16. **Chapters 1 and 2** of this consultation set out the background and context to the Energy Savings Opportunity Scheme in more detail. **Chapters 3 to 7** focus on proposals for the implementation of ESOS.

What will be the impact of ESOS?

17. The consultation stage Impact Assessment published alongside this consultation document concludes that the potential net benefit of this policy to the UK is between £0.8bn and £3bn,⁶ with a central estimate of £1.9bn Net Present Value between 2015 and 2030 – through the implementation of energy efficiency measures. The central estimate is based on the conservative assumption that audits would lead to an average 0.7% energy saving per enterprise. To put this in context, in the industrial and commercial sectors this is equivalent to 6% of the potential energy savings identified actually being implemented.
18. **Chapter 2** highlights the key conclusions from the Impact Assessment. A further update of the Impact Assessment will be developed alongside the Government response, which we intend to publish in spring 2014.

Ensuring our approach fits with the wider policy landscape

19. The Government recognises that ESOS will have synergies with a number of existing policies. These include the organisation-based CRC Energy Efficiency Scheme, Climate Change Agreements, the EU Emissions Trading System and mandatory greenhouse gas reporting. The Government proposes that, as a part of ESOS, organisations would be allowed to make use of the energy data they have collected under existing schemes in order to minimise the costs of compliance.

⁶ <https://www.gov.uk/government/consultations/energy-savings-opportunity-scheme>

20. This consultation also includes a range of more detailed proposals designed to make it as easy as possible for organisations to comply with the requirements of the scheme.
21. **Chapter 3** sets out proposals on determining which organisations are in scope of the policy, including issues around subsidiary companies. It includes proposals to:
- align the definition of group undertakings with that set out in the Companies Act 2006.⁷ This follows the approach adopted by the CRC, thereby making it easier for those organisations already measuring their energy use under the CRC to comply with energy audits;
 - allow corporate groups to ‘disaggregate’, so that their subsidiaries could undertake ESOS assessments separately if they so wish (irrespective of the size of the subsidiary). This might be helpful where group companies consider that a disaggregated approach would better align with their energy management and/or financial arrangements across the group;
 - not require franchisors to account for energy use by their franchisees; and
 - allow some flexibility regarding the period of time for which energy data is required. This is intended to make it easier for organisations to use data measurements from existing schemes – such as the CRC, EU Emissions Trading System, and Climate Change Agreements – to inform an ESOS assessment.

Proportionate and effective ESOS assessments

22. **Chapter 4** considers some points of detail around the scope of the ESOS assessment. These are designed to ensure that ESOS assessments will be effective and provide meaningful findings to help organisations save money, while also ensuring that they are cost-effective and straightforward to comply with.
23. The Government recognises that, once the policy is implemented, a very wide-range of organisations will be undertaking ESOS assessments. The Government therefore proposes to develop a broad legislative framework, supported by good practice guidance, to enable a proportionate approach. In this way, ESOS assessors will be given the discretion to use their professional judgment, rather than being shoe-horned into a ‘one size fits all’ approach.
24. To help define what should constitute a ‘proportionate and sufficiently representative’ ESOS assessment, Chapter 4 seeks views on excluding *de minimis* energy use. It proposes that the *de minimis* should be defined in terms of energy spend to make it easier to calculate. This would mean that organisations could exclude certain buildings, transport activities or processes from their audits provided that, when added together, these totalled no more than a set percentage of total energy spend
25. To comply with the Directive, an ESOS assessment would not only need to record an organisation’s overall energy use but also measure its relative energy efficiency. Rather than adopting a literal reading of the Directive and requiring organisations to develop energy consumption ‘profiles’ (identifying energy use over time) for all key sites, transport and processes, the Government proposes that ESOS assessments should include an energy intensity ratio for the organisation as a whole. For example, this could be a metric such as

⁷ <http://www.legislation.gov.uk/ukpga/2006/46/contents>

energy used per member of staff, or per unit turnover. Organisations would then track this over time with each subsequent assessment carried out (which will need to be at least every 4 years in line with the Directive).⁸ This is intended to provide a light-touch way of meeting the Directive's requirements and is similar to the approach adopted in related policies such as the Government's mandatory greenhouse gas reporting scheme (which also requires affected companies to report on the basis of an intensity ratio). In relation to site and activity based profiling, the Government proposes that ESOS assessors would have discretion to determine when these are appropriate and cost-effective.

26. In addition, Chapter 4 considers a number of technical issues around the scope of ESOS assessments, including:
- **on buildings:** proposals that assessors exercise discretion as to the number of site visits that they undertake. It also contains proposals that sites which have valid Display Energy Certificates (or the equivalent in Scotland), or have undertaken Green Deal Assessments within the previous four years could be deemed to have complied with the requirements of ESOS for those buildings;⁹
 - **on industrial processes:** Government proposes that while industrial processes should be covered by ESOS assessments, in line with the Directive's requirements, the data used may be that already collected if, for example, a process is covered by a Climate Change Agreement; and
 - **on transport:** seeks views on options for determining what energy usage should, as a minimum, be included within ESOS assessments in relation to international aviation and shipping. It also proposes that transport fleet could be deemed to be compliant with the transport requirements of ESOS if it has been subject to a 'Green Fleet Review' in the previous four years.¹⁰ The chapter also considers how to include 'grey fleet' mileage (i.e. vehicle mileage billed on business expenses) within ESOS.
27. Chapter 4 also explores this issue of alternative routes to compliance with the requirements of ESOS. It seeks views on whether organisations certified to ISO50001 or ISO14001 (where this meets the minimum standards of the Directive) could be deemed to be ESOS compliant.
28. The chapter also sets out proposals on transitional arrangements for audits in 2015, in recognition that many companies already take part in initiatives that may potentially meet the requirements of the Directive such as the Carbon Trust Standard. Under these arrangements, the ESOS scheme administrator would have the power to decide whether any initiatives currently operating within the UK met the minimum requirements set out in the Directive. Following 2015, the expectation would be for all future assessments to be undertaken by ESOS assessors in order to create a level playing field for all organisations and ensure a consistent standard of advice to support businesses in saving energy. So for example, the Carbon Trust Standard (if adopted as a transitional scheme) could

⁸ An Energy Intensity Ratio is a way of relating energy use to an organisation's key information about its performance; e.g. energy use per unit-turnover, per m² floor space, or per passenger mile.

⁹ Green Deal applies only in Great Britain and not in Northern Ireland where other energy efficiency programmes apply.

¹⁰ Green Fleet Reviews in England are funded by the Department for Transport. Further details can be found here: <http://www.energysavingtrust.org.uk/Organisations/Transport/Products-and-services/Fleet-advice/Green-Fleet-Consultancy> [accessed: 11 June 2013]

subsequently be certified for their approach in the same way as any other organisation wishing to conduct ESOS assessments in the future.

Who will conduct ESOS assessments?

29. **Chapter 5** considers the Directive's requirement that audits be undertaken by appropriately qualified or accredited individuals. The Government intends to sponsor the development of a Publicly Available Specification (PAS) by the British Standards Institute – the UK's national standards body – setting out the level of competence required to conduct ESOS assessments.
30. This consultation seeks views on two options for how to approve ESOS assessors to then undertake assessments. One approach would be for assessors to be certified to conduct ESOS assessments through Certification Bodies approved by the United Kingdom Accreditation Service (UKAS). Alternatively, the scheme administrator could be charged with approving related registers of ESOS assessors maintained by professional bodies. Professional bodies would need to apply to the scheme administrator to secure approval for their registers, and the scheme administrator would need to consider each application in relation to the agreed PAS.

Compliance Reporting

31. We are particularly keen to hear consultees' views on the different potential approaches to reporting on compliance with the scheme. There are a range of options outlined in **Chapter 6**, which are also highlighted in the Impact Assessment. These options, which are not mutually exclusive, are as follows:
- requiring organisations to provide basic notification to the scheme administrator that they are in scope and have conducted an ESOS assessment (or complied by another approved means), in order to allow for effective targeting of the scheme's enforcement regime;
 - requiring (or encouraging through good practice guidance) public disclosure in the annual report (or, if the organisation does not publish an annual report, via an alternative means) as to whether an organisation has conducted an ESOS assessment and a narrative summary of key action taken as a result of it. A 'lighter touch' approach to enforcement (i.e. a lower probability of being inspected) could be offered to those organisations notifying the scheme administrator of such disclosure;
 - requiring organisations to report details of the ESOS results to a central body. This information could then be used to identify the potential size of the market for different energy efficiency measures, supporting the development of the market. It would facilitate a more targeted enforcement and compliance system and would also strengthen the evaluation of the ESOS policy, improving the evidence base used to develop future energy efficiency policy. Data could also be made available to the academic community for use in wider research.
 - relying only on an ex-post survey of organisations to estimate levels of compliance. This would incur least direct cost to organisations on average, but it would mean that the enforcement regime could not be effectively targeted, creating the risk that companies following best-practice would be subject to inspection, rather than those where there was deemed to be greatest risk of failure to comply; or

- requiring organisations to install Display Energy Certificates (DECs) for all buildings over 250 m², in addition to requiring organisations to notify the scheme administrator. We believe that this approach would be disproportionate and are strongly inclined against it.

Administration of the ESOS

32. As noted above, a scheme administrator will be established to undertake on-going regulation of ESOS. This will include considering whether certain EU/International Energy/Environmental Management Systems meet the requirements of the scheme and, under the proposed transitional arrangements, deciding whether any UK initiatives met the minimum requirements of the Directive for the purpose of ESOS assessments conducted in 2015.
33. The Directive requires that member states develop penalties for non-compliance, and the administrator would have an enforcement and compliance role in relation to the scheme. While the scheme administrator's role would be to promote compliance by working with organisations, Government nonetheless proposes that the scheme administrator should have the power to impose civil sanctions for certain breaches of the scheme as an option of last resort.
34. **Chapter 7** considers three options for who could be the scheme administrator:
 - The Environment Agency
 - The National Measurement Office
 - Trading Standards
35. Individual Trading Standards Services operate within local authority boundaries. Many large firms will have multiple premises in many local authority areas and it may be administratively more straightforward for them to report to a single body than to a number of organisations across multiple local authorities.
36. Given that most of the organisations covered by ESOS will already be targeted by the CRC Energy Efficiency Scheme, the Government recognises there are some advantages and efficiencies in an integrated approach, extending the model used for administering the CRC. This would mean that the Environment Agency would act as a UK-wide administrator, with devolved bodies in Scotland, Wales and Northern Ireland administering the scheme locally. At the same time, we are open to alternative suggestions in terms of scheme administrators, including but not limited to the NMO. In any case, we consider that there may be considerable scope for the scheme administrator to outsource some of its work to the private sector through competitive tendering. We would welcome views on options for implementing the scheme, so we can ensure value for money.

Catalogue of consultation questions

You can respond to this consultation using the electronic template, available here: <https://www.gov.uk/government/consultations/energy-savings-opportunity-scheme>

Chapter 1 – Introduction

Consultation Questions

- Q1. Do you have any evidence which could assist us in calculating the impact of the options set out in this consultation document and the consultation stage Impact Assessment?**
(Further detailed questions are also included in the Impact Assessment)
- Q2. Do you agree that there should be one energy audits scheme applied on a UK-wide basis, and are there any regionally specific needs that should be taken into account for enterprises operating in England and Wales, Scotland and Northern Ireland?**
Yes / No / Qualified Support (Please give reasoning)

Chapter 3 – Which organisations need to undertake an ESOS assessment?

Consultation Questions

- Q3. Do you agree with this overall approach to defining the ‘enterprise’, and could you currently identify if you (or organisations you are familiar with) are in scope? Specifically are you content with the approach proposed with respect to:**
- Group enterprises
 - Voluntary disaggregation of group enterprises
 - Non-UK firms
 - Franchisors
 - Subcontractors
 - Universities
- Yes / No / Qualified Support (Please give reasoning)*
- Q4. What do you think should be the initial ‘qualification date’ for organisations to determine if they are in scope of the scheme?**
For example, 1 January 2015 or 31 March 2015 (Please give reasoning).
- Q5. Which of the following approaches do you prefer in terms of when new entrants are required to undertake ESOS assessments?**
- ESOS would operate in 4 year phases. Organisations identify if they are in scope once every four years and then undertake an ESOS assessment within a year of the qualification date.
 - Every year, organisations determine whether they are sufficiently large to be included in ESOS based on their size at the qualification date. If in scope, that organisation carries out an ESOS assessment within a year of the qualification date, unless the entire organisation is covered by compliant assessment undertaken within the last four years.
- Prefer A / Prefer B // Propose alternative / Comments (Please give reasoning)*

Chapter 4 – What is required?

Consultation Questions

- Q6. Is our proposed interpretation of the minimum requirements for ESOS reasonable, on the basis that ESOS assessors would need to exercise professional judgment and discretion as to their application?**
Yes / No / Comments (Please give reasoning)
- Q7. Do you support our proposals to develop good practice guidance for organisations? (Yes/No) If yes, what do you think should be included?**
- Minimum ESOS requirements? *Yes / No*
 - A draft template for ESOS reports? *Yes / No*
 - Best practice options? *Yes / No*
 - Anything else? (*Comments*)
- Q8. Should the Government set a legal energy spend based percentage threshold, to allow organisations to exempt energy that collectively amounts to no more than this *de minimis* percentage of total energy spend?**
Yes / No (Please give reasoning)
- If yes, what percentage should this be and why?**
- If no, what approach should be adopted to set a statutory *de minimis* and why?**
- Q9. Do you agree with the Government's proposed approach to calculating energy usage by:**
- Allowing use of existing data sets in order to simplify compliance? (i.e. organisations can draw on data gathered over any period during the two years prior to the ESOS assessment being conducted)?
 - Setting a minimum six month time period which energy use data should cover to inform an ESOS assessment?
 - Promoting use of 12 months data, with the onus on organisations to comply or explain deviations from this good practice approach?
- Yes / No (Please give reasoning)*
- Q10. Do you think that ESOS assessments should include an energy intensity ratio as opposed to HMG requiring in law energy consumption profiles for all key buildings, transport and industrial processes?**
Yes / No / Comments (Please state reasoning)
- Q11. Do you agree that ESOS assessments should only include all significant energy use *directly paid for or produced by the organisation*?**
Yes / No / Comments (Please give reasoning)
- Q12. Do you agree that ESOS assessors should be given discretion as to the number of site visits they undertake as part of an audit?**
Yes / No / Comments (Please give reasoning)

Q13. With respect to buildings, do you agree that where an organisation has installed DEC's or chooses to comply by undertaking Green Deal assessments for some or all of its buildings within the past four years, those buildings should not need to have an ESOS assessment conducted too in order to comply with the requirements of the Directive?

Yes / No / Comments (Please give reasoning)

Q14. With respect to transport, which one of the following approaches should be adopted in relation to international aviation and/or shipping:

- a. All fuels purchased within the UK should be considered within scope of ESOS
- b. Energy usage of all flights/shipping departing the UK should be considered within scope of ESOS
- c. All fuels purchased anywhere in the world should be considered within scope of ESOS

Prefer A / Prefer B / Prefer C / prefer different approaches for aviation and shipping / prefer an alternative approach (Please give reasoning)

Q15. With respect to transport, should an organisation's vehicle fleet be deemed to have undertaken the equivalent of an ESOS assessment if it has been subject to a Green Fleet review conducted within four years prior to the energy audit deadline, and are there other reviews similar to Green Fleet reviews that should also be considered?

Yes / No / Comments (please give reasoning)

Q16. With respect to transport, do you agree with our proposed approach to employee travel on company business?

- a. That 'grey fleet' should be included within the scope of ESOS;
- b. That travel purchased via contractual arrangements (e.g. train tickets) should not be included as a minimum requirement for ESOS;
- c. That commuting should not be included within scope of ESOS; and,
- d. That good practice guidance should promote the advantages of going beyond the minimum requirements of ESOS

Yes / No / Comments (please give reasoning)

Q17. With respect to industrial processes, should ESOS assessments cover all energy use, including waste heat recycling and use of process waste as fuel?

Yes / No (please give reasoning)

Q18. With respect to industrial processes, are there any specific issues that you wish to raise in relation to implementing the requirement to conduct ESOS assessments, including with regards to the overlap with existing schemes?

Yes (please give reasoning) / No

Q19. In addition to ISO50001 and ISO14001 (where it includes an energy audit), are there any other EU / international management systems which you think should also provide an 'exemption' (i.e. an alternative compliance route)?

If answering this question with any proposed additional EMSs, please provide evidence of why you think they would meet the minimum audits standard set by the Directive

Q20. Do you agree with the proposed transitional arrangements to consider whether certain existing UK schemes can be deemed compliant with the Directive's requirements for audits conducted in 2015?

In particular,

- a. Do you think the Carbon Trust Standard meets the minimum audits criteria set in the Directive?
- b. And are there any other UK initiatives that you think should be deemed to be compliant for audits conducted in December 2015?

Yes / No / Comments (Please give reasoning)

Chapter 5 – Who can conduct an ESOS assessment?

Consultation Questions

Q21. Is there sufficient capacity within the energy efficiency advice sector to meet the demand that will be generated by ESOS, and particularly to ensure all organisations are able to conduct assessments by December 2015?

Yes / No / Comments (Please give reasoning)

If no, what further steps need to be taken to generate that capacity:

- a. By industry and professional bodies?
- b. By the Government?

Q22. Are there existing industry specific qualifications / standards which we should take account of in developing an ESOS assessors PAS specification?

Yes / No / Comment. If yes, what do you think should apply as the minimum?

Q23. Do you agree with the Government's proposals on lead ESOS assessors:

- a. That a 'lead assessor' should sign off each ESOS assessment, drawing on the input and assessments of more technical specialists as appropriate, as part of checking that all significant energy use across the organisation has been considered?
- b. That minimum qualifications should apply to lead assessors only, rather than to all those participating in an assessment?

Yes / No / Comment (Please give reasoning) If no, should there be different minimum qualifications for more technical members of an audit team and what should these be?

Q24. What particular steps will need to be taken by organisations to ensure that in-house experts had the 'necessary independence' to audit business activity?

Yes / No / Comments (Please give reasoning)

Q25. Which approach to accreditation would you prefer to be put in place and why?

- a. UKAS accredit certifying bodies to certify ESOS assessors
- b. The scheme administrator approves lists of ESOS assessors which are managed by professional bodies

Approach A / Approach B / Comments (Please give reasoning)

If you prefer Approach B please set out details of any registers already in existence which could be easily modified to meet the needs of the ESOS scheme.

Q26. Do you have any views on the proposed quality assurance arrangements for ESOS assessments; in particular, what percentage of audits should be subject to quality assurance (e.g. 10% as is the case with the CRC or 2% as is the case with EPCs and DECs)?

Yes / No / 10% / 2% / Other (Please give reasoning)

Chapter 6 – Compliance and reporting

Consultation Questions

Q27. Should ESOS assessment records should be stored for 6 years, as with the CRC?

Yes / No / Comment – If no, please suggest an alternative length of time, with reasoning.

Q28. Would a survey based approach to collecting data on the number of large enterprises participating in ESOS / complying by means of EMS (option 1) be adequate, given the UK's obligation to report to the European Commission on uptake of energy audits, and the aim to develop a targeted enforcement regime?

Yes / No / Comments (Please give reasoning)

Q29. To support an effective enforcement regime, should large enterprises be required to notify the scheme administrator that they are in scope and have conducted an ESOS assessment (or complied by another means)? (option 2 in the Impact Assessment)?

Yes / No / Comments (Please give reasoning)

Q30. What is your preferred approach to disclosure of an ESOS assessment (option 3 in the Impact Assessment)?

- a. Do nothing
- b. Mandatory disclosure that an ESOS assessment has been conducted
- c. Mandatory disclosure of an organisation's overall response to ESOS assessment
- d. Voluntary disclosure of an organisation's overall response to an ESOS assessment with a light-touch enforcement regime for those organisations which do so

Approach A, B, C or D? Please state your reasoning

Q31. If you are in favour of public disclosure, what sort of information would you like to see disclosed? For example:

- cost savings available from audit recommendations
- action taken in light of an ESOS assessment
- the organisation's energy intensity ratio

And should a Director of a large enterprise be required to sign off on the corporate ESOS disclosure?

Yes / No / Comment. Why?

Q32. Should large organisations be required to report on key ESOS assessment findings to the scheme administrator (option 5 in the Impact Assessment)?

Yes / No / Comments Please state your reasoning

If yes:

- a. what information should be collected and how?
- b. Should the scheme administrator store information internally or publicly disclose some information (and if so, what)?

Q33. What is your preferred option or combination of options for meeting the UK's reporting obligations to the European Commission and ensuring a cost-effective scheme, and are there any options that you think the Government should definitely not pursue?

Please give reasoning.

Q34. Should the same compliance route should be adopted for organisations complying via an approved EMS as for those undertaking ESOS assessments?

Yes / No / Comment

Chapter 7 – Scheme Administration and Enforcement

Consultation Questions

Q35. Who do you think should be appointed as the scheme administrator?

- a. The Environment Agency working alongside devolved agencies
- b. The National Measurement Office
- c. Trading Standards
- d. Other (and if so, who)?

A / B / C / D (if 'D' then please suggest an alternative approach). Please give reasoning.

Q36. Do you agree there should be some form of penalty applicable in the following instances, and are civil sanctions sufficient to address these misdemeanours?

- a. Failure to notify the scheme administrator.
- b. Failure to carry out an audit to the required standard.
- c. Failure to provide information when requested by the scheme administrator.
- d. Deliberately misleading the scheme administrator in response to a formal information request.
- e. Refusing to allow the enforcement body access to premises, where access is reasonable (e.g. in order to ensure accuracy of audit findings).

Yes / No / Comments

Q37. Are there any other issues you wish to raise in relation to the Energy Savings Opportunity Scheme that have not been covered in other consultation questions?

Glossary of acronyms and abbreviations

CCAs	Climate Change Agreements
CRC	The CRC Energy Efficiency Scheme
DECs	Display Energy Certificates
'The Directive'	The EU Energy Efficiency Directive
EMSs	Environmental and Energy Management Systems
EPCs	Energy Performance Certificates
ESOS	Energy Savings Opportunity Scheme
EU ETS	EU Emissions Trading System
GHG Reporting	Mandatory Greenhouse Gas Reporting
NIEA	Northern Ireland Environment Agency
NRW	Natural Resources Wales
RES Act	The Regulatory Enforcement and Sanctions Act 2008
SEPA	The Scottish Environmental Protection Agency

1. Introduction

This chapter sets out the background to the Energy Savings Opportunity Scheme, and provides information on the consultation stage Impact Assessment and proposed territorial extent.

The Energy Efficiency Directive and the ‘Energy Savings Opportunity Scheme’ (ESOS)

1.1. The Government’s ambition is to realise the cost-effective energy efficiency potential in the UK economy, stimulating growth and innovation, cutting emissions and supporting a sustainable and secure energy system.

1.2. The EU Energy Efficiency Directive (2012/27/EU) (the ‘Directive’) entered into force on 14 November 2012. The Directive is a major step forward, establishing a common framework of measures to promote energy efficiency across different sectors of the economy throughout the EU.

1.3. Article 8 of the Directive establishes a significant new requirement for Member States to carry out energy audits.¹¹ It requires all ‘large enterprises’ to undertake an energy audit by 5 December 2015, and then at least every 4 years from the date of the previous audit.¹²

1.4. The ‘Energy Savings Opportunity Scheme’ (ESOS) is the Government’s proposed approach to implementing the energy audits requirement. This consultation seeks views on how to develop the scheme.

1.5. Under ESOS, approved assessors will carry out Article 8 compliant assessments to identify energy saving recommendations. Following this consultation, the Government proposes to develop secondary legislation, setting out the requirements of the ESOS scheme. Government proposes that this would be supported by good practice guidance to support organisations in meeting their ESOS obligations.

What is an ESOS assessment?

1.6. ESOS assessments will look at key buildings, transportation and industrial/commercial processes, and examine data about their energy usage in order to recommend cost-effective measures to save organisations energy and money.

1.7. ESOS will apply to an organisation’s total energy use across all of its operations, providing enterprises and their senior management with detailed information about their energy use and recommendations on cost-effective ways to improve energy efficiency. The Directive sets out some broad criteria which member states energy audits programmes must meet. They must:

¹¹ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:315:0001:0056:EN:PDF> [accessed 11 June 2013]

¹² Note: as defined by the EU Energy Efficiency Directive, energy audits will be mandatory for all non-SMEs (large “enterprises”). SMEs are defined as “enterprises” which employ fewer than 250 persons and which have an annual turnover not exceeding EUR 50 million, and/or an annual balance sheet total not exceeding EUR 43 million.

- identify recommendations for energy efficiency improvement across the organisation as a whole; and
- be carried out in an independent manner by qualified and/or accredited experts according to qualification criteria.

1.8. Practical recommendations of cost-effective measures might include advice on updating lighting systems, taking steps to encourage staff to adopt more energy efficient behaviour, or replacing elements of a transport fleet, if it were cost effective to do so. A scheme administrator will be established to ensure compliance with the scheme, and the Government will also be developing a route to accredit/qualify individuals to conduct ESOS assessments.

1.9. Organisations within the scheme's scope will need to identify an approved ESOS assessor (either an in-house expert or an external consultant) to conduct the assessment, gather data on energy usage at an appropriate level of detail, and undertake the assessment by December 2015, renewing the assessment at least every four years thereafter. Depending on the compliance route chosen, organisations may need to notify the scheme administrator that they have conducted an ESOS assessment, and potentially disclose any key action taken in their annual reports.

Box 1: Case Study – JCB reduce its energy costs by £728,000 in six months.

Business case:

In 2007, keen to reduce costs and carbon emissions, JCB made energy management a strategic priority and started working with the Carbon Trust to develop own a carbon management plan.

The approach:

An initial scoping study at the company's Cheadle site identified 18 measures that could deliver energy savings. A number of steps were taken to implement these, including:

- the installation of half-hourly metering, which enabled JCB to start tracking energy consumption in real time;
- using lighting only when needed and ensuring temperature controls were adjusted to avoid overheating;
- monitoring air compressors more closely, pre-empting and preventing leaks before they occur;
- raising staff awareness; and
- integrating energy saving measures into standard shutdown procedures.

The results:

The project cost around £300,000 compared to projected annual cost savings are of £1.5 million and projected annual CO₂ savings of 7,800 tons.¹³

Fit with the Government's Energy Efficiency Strategy

1.10. *The Energy Efficiency Strategy (2012): The Energy Efficiency Opportunity in the UK* sets out the direction of energy efficiency policy for the coming decades as well as the main barriers

¹³ <http://www.carbontrust.com/our-clients/ijcb> [accessed: 03 June 2013]

that we need to overcome if we are to embed energy efficiency at the heart of the UK economy (see Box 3 below for details).¹⁴

1.11. The energy audit requirement under the Directive is an opportunity that can be central to our energy efficiency strategy. A well-designed policy, which encourages organisations to take up the recommendations made through an energy audit, could have a significant role in supporting UK enterprises to make productivity improvements, while also helping to reduce carbon emissions and improve security of energy supply. The reach of this policy is significant; as set out in the consultation stage Impact Assessment, in 2012 UK large enterprises employed around 10.7 million people and had a turnover of over £1.6 trillion. Their business activities were responsible for around one-third of UK energy demand.

Box 2: Key benefits of energy efficiency set out in the Energy Efficiency Strategy¹⁵

Economic growth: The installation of energy efficiency measures can boost employment in local labour markets and drive economic growth, where there remains untapped labour potential. It can also drive technological innovation, through investment in energy efficient technology.

Economic studies show that improved energy efficiency can bolster productivity, increasing growth and reducing inflation. For example, one study of the Government's energy efficiency policies between 2000 and 2007 estimated that these policies increased the annual rate of economic growth by around 0.1 percentage points within that period. This study estimated that these policies created roughly 270,000 additional jobs in 2010, owing to the cumulative impact of higher growth.¹⁶

Cost savings: Energy efficiency is at the heart of steps being taken to drive down costs for consumers and industry.

Emissions reductions: Implementing energy efficiency measures is often one of the quickest and cheapest ways to cut carbon emissions. Energy efficiency measures have a key role to play in achieving the UK's legally binding carbon budgets, which require 50% lower emissions (on 1990 levels) by 2023-2027.

Managing demand: Reducing energy consumption will improve the UK's energy security. An energy efficient economy is less exposed to international energy market prices and volatility, and will require less investment in future energy generation infrastructure.

1.12. The Energy Efficiency Strategy set out the four barriers to the deployment of cost effective energy efficiency investments: embryonic markets, a lack of appropriate and trusted information, misaligned financial incentives and society undervaluing energy efficiency. These barriers are interrelated and work together to reduce investment in energy efficiency.

¹⁴ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/65602/6927-energy-efficiency-strategy--the-energy-efficiency.pdf [accessed on 27 May 2013]

¹⁵ Ibid.

¹⁶ Barker, T., Ekins, P., & Foxon, T. (2007). The macro-economic rebound effect and the UK economy. Energy Policy, 4935-4946

Box 3: Barriers to energy efficiency take-up

Embryonic markets: The UK already has an energy efficiency market but it is small relative to the size of the opportunity. There are significant economic benefits to be realised from growing this market and making energy efficiency a mainstream activity.

Information: There is currently a lack of access to trusted and appropriate energy efficiency information. Where information is available it may be generic and not tailored to specific circumstances, which means that enterprises are not able to fully assess the benefits of an energy efficiency investment. While information on overall energy consumption is available, it is often difficult to identify which specific energy efficiency improvements should be prioritised.

Misaligned financial incentives: Those investing in energy efficiency measures are not always the ones receiving the direct benefit. For example, where an office space is rented out and the tenants are responsible for the energy bill, it is the tenants, not the landlords, who would receive the benefits of energy efficiency measures. In terms of wider benefits such as improved security of energy supply, those individuals making the investment will not always appreciate the benefit to them.

Undervaluing energy efficiency: Partly as a result of the lack of trusted information, the long term benefits of improved energy efficiency are often regarded as less certain. Consequently, energy efficiency is undervalued relative to other investment options and not prioritised as it might otherwise be.

Source: *The Energy Efficiency Strategy: The Energy Efficiency Opportunity in the UK*, DECC, November 2012.

1.13. The barrier that ESOS primarily aims to address is that of information failure; although the Government also anticipates a positive impact in terms of developing the energy efficiency market and improving awareness of the potential benefits of energy efficiency. The Government intends that ESOS will:

- help close the existing energy efficiency information gap whilst avoiding unnecessary administrative overlaps by highlighting energy efficiency cost saving opportunities and by building on existing policies;
- facilitate the transition of the embryonic energy efficiency market to a mainstream level in the UK by driving action and building the market for energy efficiency products and services; and
- strengthen awareness of the value of improved energy efficiency by complementing existing policies and raising the profile of targeted energy efficiency measures at the Board level of large UK enterprises.

What are we consulting on?

1.14. This consultation seeks views on how the UK should implement ESOS to meet the energy audits requirements set out in the Directive. The Government's guiding principles for implementing ESOS are to:

- ensure that ESOS provides high quality and well-targeted advice to large enterprises on cost-effective energy efficiency opportunities, driving significant net cost savings;
- ensure a proportionate approach to implementation is taken, minimising the administrative burdens placed on UK businesses;

- ensure ESOS fits with and is complementary to the landscape of existing energy efficiency and climate change policy instruments; and
- ensure our implementation of Article 8 avoids ‘gold plating’ that disadvantages UK businesses relative to their European competitors.

1.15. The key questions we are consulting on are:

- Which enterprises will need to carry out an energy audit?
- What will an energy audit involve?
- Who will conduct the energy audits?
- How will the scheme be administered and enforced?

1.16. Following this consultation, the Government intends to bring forward secondary legislation establishing the legal framework for the operation of ESOS. The Government also sees merit in the scheme administrator developing good practice guidance to help organisations take advantage of the scheme and consider where they may wish to go beyond its minimum requirements.

Assessing the likely impact of ESOS on organisations

1.17. There is a significant level of uncertainty around the costs and benefits of implementing the requirements of the Directive. The analysis presented in the Impact Assessment published alongside this consultation suggests that around 7,300 enterprises are likely to fall within the scope of the policy. These enterprises are estimated to currently occupy 170,000 to 200,000 buildings (of which 8,000 to 10,000 are industrial plants) and account for around 35% of the UK’s energy consumption.

1.18. The analysis suggests that between 4,400 and 6,400 large enterprises are already measuring and reporting on their energy consumption under existing policies (in particular the CRC, but also CCAs and EU ETS). However, the requirements of the Directive go beyond measurement of energy consumption to include detailed recommendations for improvements, so ESOS is expected to have an additional impact on top of existing policies. The evidence base on the impacts of energy audits is limited. We are drawing on evidence from a range of sources. Alongside this consultation, we are publishing a qualitative research project on Display Energy Certificates in 2012.¹⁷ The research involved in-depth qualitative interviews and case studies with 23 public sector organisations and 15 private sector organisations. The research found that one of the more significant benefits of DEC was the actual process of data collection required to acquire a DEC. This raised awareness of energy use and encouraged monitoring among organisations that had not previously given much thought to energy efficiency.

DECC analysis of 48,000 premises with DECs, published in June 2013¹⁸, provides tentative evidence to suggest that DECs in particular have had a slight impact on the energy performance of a property. **The analysis found that energy intensity (energy consumption per meter**

¹⁷ <https://www.gov.uk/government/publications/>

¹⁸ <https://www.gov.uk/government/publications/energy-trends-june-2013-special-feature-articles-display-energy-certificates>

squared of floor space) fell by 2% more between 2008 and 2009 for public sector offices with a DEC than comparable private sector offices.

1.19. The Impact Assessment, therefore, uses a range of illustrative assumptions to estimate the benefits from ESOS, informed by a review of available evidence. The central assumptions suggest that ESOS assessments could generate annual savings of around 2.5TWh per year (with a range of 1.3TWh to 3.8TWh) from buildings and industrial processes (which is equivalent to an average energy saving per organisation of 0.7% - with a range of 0.4% to 1.1%) and 0.8TWh per year (with a range of 0.4TWh to 1.2TWh) from transport. These energy savings are estimated to generate social benefits worth between £1.6bn and £4.8bn between 2015 and 2030 (these would arise from energy savings, reduced carbon emissions, lower EUA purchases and improved air quality), with a central estimate of £3.2 billion, and reductions in the energy bills of large enterprises of around £300 million in 2016.

1.20. This estimate of energy savings delivered has been compared with our estimates of technical potential for energy efficiency in buildings and industrial processes. The analysis presented in the Impact Assessment suggests there are 43TWh of potential savings with a payback of less than 2 years in scope of the policy (about 13% of energy consumption in these sectors). An average saving of 2.5TWh is, therefore, equivalent to around 6% of the potential energy savings in buildings and commercial processes identified by assessments actually being implemented. This does not include the potential for energy savings to be realised from behavioural measures, including better energy management. The estimate is based on the assumption that ESOS will have no impact on reducing energy covered by CCAs (on the basis that any cost-effective energy efficiency opportunities covered by CCAs should already have been taken up) or used by the fuel, rail, aviation, public buses, coaches and shipping industries.

1.21. The total cost of conducting the ESOS assessments themselves is estimated at around £100 million for the proportionate approach set out in chapter 5.¹⁹ The administrative burden to enterprises in scope of the policy would be between £120 and £160 million between 2015 and 2030 (depending on which of the compliance regime discussed in chapter 6 is adopted). The accreditation and scheme administration regime is estimated to cost £41 million over the assessed period (of 15 years).

1.22. The most significant elements of costs to participating organisations are expected to be the capital and hassle costs of (voluntarily) implementing ESOS recommendations (£1bn over the 15 year period). These should be outweighed by the benefits in terms of energy savings. Overall, our analysis indicates that the scheme should provide a net positive benefit to the UK of between £0.8bn and £3bn, with a central estimate of £1.9bn between 2015 and 2030.

1.23. The cost of conducting an ESOS assessment for an individual enterprise will vary according to the size and complexity of its operations. The average cost per enterprise for the first round of ESOS assessments is estimated at around £17,000, with subsequent assessments costing around £10,000 (including the cost of the assessors' visits and the administrative burden, but excluding the cost of implementing recommendations). Box 4, below, provides some illustrative examples showing how much an ESOS assessment could cost different enterprises.

¹⁹ The roll out of DECs option discussed in chapter 6 would result in higher auditing costs.

Box 4: Illustrative costs of ESOS assessments

The costs of conducting an ESOS assessment will vary according to the size and complexity of an organisation's operations. The table below shows some illustrative examples that demonstrate how much an ESOS assessment might cost different types of organisation.

	Estimated cost of first round of assessments per organisation
Distribution company with a 5 large warehouses and a small fleet of vehicles	£23,000
Estate Agent with 50 small offices	£15,000
High street retailer with 100 small shops	£16,000
Manufacturing company with one large site	£25,000
Road haulage business running a large fleet of vehicles	£23,000

The details of how these estimates were made can be found in the draft Impact Assessment. We welcome comments on the analysis and assumptions used.

Source: DECC analysis

The Impact Assessment

1.24. A consultation-stage Impact Assessment has been published alongside this consultation document. For the purposes of conducting the options analysis in the Impact assessment, six high-level options have been developed. These reflect the strategic choices that need to be made when implementing the Directive and which will have a significant impact on the costs and benefits of the policy. Notably, Option 6 goes well beyond the requirements of the Directive and has a substantially higher cost than the other options. The Government is strongly inclined against this option, given the cost that it would impose on organisations and the fact that it goes significantly beyond the requirements of the Directive.

1.25. The high-level options are:

- Option 1: Minimum requirement (without notification of compliance).
- Option 2: Minimum requirement (with notification of compliance).
- Option 3: Minimum requirement (with public disclosure).
- Option 4: Minimum requirement (with cost recovery charges for the scheme administrator).
- Option 5: Central reporting of audit results.
- Option 6: Energy audits with compulsory Display Energy Certificates (DECs) (or the equivalent in Scotland) for all large buildings.

1.26. There are a number of ways in which these options could be implemented and they are not mutually exclusive. Different aspects of the options could be combined.

1.27. There are a number of other issues discussed in this document on which we are seeking views of stakeholders, but which have not been included in the accompanying Impact

Assessment as we assess that they are unlikely to have a significant impact on the aggregate costs or benefits of the policy.

Consultation Questions

Q1. Do you have any evidence which could assist us in calculating the impact of the options set out in this consultation document and the consultation stage Impact Assessment?

(Further detailed questions are also included in the Impact Assessment)

Devolution and territorial extent

1.28. The Directive applies UK-wide and requires UK-wide compliance. The fact that many businesses operate across the UK suggests that there is a good case for implementing ESOS on a UK-wide basis.

1.29. A UK-wide approach would likely simplify the administrative requirements and compliance costs for large enterprises participating in the scheme, creating a 'level playing field' across the UK and ensuring a more straightforward approach for those businesses which operate throughout the UK.

1.30. The development of policy in the area of energy efficiency, however, does need to take account of the devolution settlement in each of the Devolved Administrations. In Northern Ireland the regulation and promotion of energy efficiency is devolved. In Scotland and Wales, the promotion of energy efficiency is devolved unless it is to be achieved by regulation or prohibition – as is the case for the Energy Savings Opportunity Scheme – in which case it is a reserved matter.

1.31. This consultation has been developed with the Devolved Administrations in Scotland, Wales and Northern Ireland, and applies on a UK-wide basis.

1.32. With respect to any practical enforcement, as discussed with the Devolved Administrations, the Government's preferred approach is to use local agencies responsible for scheme administration in Scotland, Wales and Northern Ireland, as is the case with CRC scheme administration. This is explored further in Chapters 6 and 7002E

Consultation Questions

Q2. Do you agree that there should be one energy audits scheme applied on a UK-wide basis, and are there any regionally specific needs that should be taken in to account for enterprises operating in England and Wales, Scotland and Northern Ireland?

Yes / No / Qualified Support (Please give reasoning)

2. Fit with the wider policy landscape

This chapter is included for information purposes and sets out how the Energy Savings Opportunity Scheme will fit with the wider energy efficiency policy landscape.

Existing schemes and the ESOS opportunity

2.1. Although a number of schemes covering large UK enterprises require accurate energy measurement, such as the CRC Energy Efficiency Scheme, forthcoming mandatory GHG reporting, EU Emissions Trading System (EU ETS), and Climate Change Agreements (CCAs), there are currently no schemes in place that require enterprises to identify cost-effective energy efficiency opportunities. Requiring large enterprises to undertake regular energy efficiency audits – through ESOS – targets this existing policy gap.

2.2. Furthermore, ESOS will target energy use across each organisation as a whole, including from buildings, transport, and industrial processes. As such, it differs from energy efficiency instruments that focus only on particular buildings, or only on specific industrial processes or installations (e.g. DECAs, CCAs and EU ETS respectively).

Box 5: Existing energy efficiency schemes

CRC Energy Efficiency Scheme (CRC) – This is a mandatory scheme aimed at improving energy efficiency and cutting emissions in large non-energy intensive public and private sector enterprises. It includes around 2,100 participants in the public and private sector (which we assess to include between 4,400 and 6,400 subsidiary organisations that would fall within scope of ESOS). Its aim is to encourage organisations to prioritise investment in energy efficiency and cut carbon emissions -- through a tailored combination of drivers, including a carbon price, mandatory standardised monitoring and reporting of energy consumption (which raises awareness of energy use at the Board level of participating enterprises), and the publication of enterprises' emissions and energy use data.²⁰

Mandatory greenhouse gas (GHG) reporting – From October 2013, all quoted companies will be required to report on their greenhouse gas emissions or explain why such a report is not necessary. This includes energy use emissions. The UK is the first country to make it compulsory for quoted companies to comment on emissions for their entire organisation in their annual reports. The introduction of these reports is intended to help investors see which companies are effectively managing the potential hidden long-term costs of greenhouse gas emissions.

EU Emissions Trading System (EU ETS) – The EU ETS puts a price on greenhouse gas emissions creating financial incentives on business and consumers to reduce emissions. It places a cap on emissions from electricity generation and the main energy-intensive industries, including around 1,000 installations in the UK.²¹

Climate Change Agreements (CCAs) – CCAs provide energy-intensive industries with tax discounts (worth £170 million a year)²² in return for meeting energy efficiency targets. As such, measurement of energy use is one of the requirements of the scheme. Targets are set using evidence submitted by

²⁰ <https://www.gov.uk/crc-energy-efficiency-scheme> [accessed on 27 May 2013]

²¹ <https://www.gov.uk/government/policies/reducing-the-uk-s-greenhouse-gas-emissions-by-80-by-2050/supporting-pages/eu-emissions-trading-system-eu-ets> [accessed on 27 May 2013]

²² <http://www.hmrc.gov.uk/statistics/expenditures/table1-5.pdf> [accessed on 27 May 2013]

industry on abatement potential. CCAs cover over 9,000 facilities (often within the companies targeted by CRC and EU ETS, with the CRC targeting the non-CCA and non-EU ETS energy use).²³

The Green Deal provides finance, attached to the building rather than the occupant, to promote energy efficiency in homes and businesses, with the savings on the energy bills offsetting the cost of repaying the loan. Potential energy savings are identified through a two-stage independent assessment, with the first part based on the existing Energy Performance Certificate (EPC), which is mandatory on sale of a property, and by a second, more tailored report, based on actual occupancy information to identify the most cost effective measures. Energy saving improvements available through the Green Deal include: insulation (loft, cavity or solid wall); draught-proofing; improved heating controls; double glazing; and renewable energy technologies (e.g. solar panels)²⁴.

Energy Performance Certificates (EPCs) – EPCs were introduced as part of the EU Energy Performance of Buildings Directive and present energy efficiency ratings of domestic and non-domestic buildings on a scale from A to G, based on an assessment of the age, size and fabric of the building. The EPC also contains recommendations on a range of measures to improve building energy efficiency. EPCs must be presented whenever a property is constructed, rented out or sold.²⁵

Display Energy Certificates (DECs) – From 1 October 2008, buildings occupied by a public authority have been required to have a DEC (as required by the Energy Performance of Buildings Directive) – where the building has over 1000m² of usable floor space and is frequently visited by the public. Since January 2013, the threshold has been 500m². DECs provide information on actual energy use, not just the theoretical energy rating of a building. Using an A-G rating, DECs take into account the location and size of a building and the way this infrastructure is used. The DEC is accompanied by a recommendation report which contains a range of possible improvements, including cost effective measures to improve the energy performance of the building.²⁶

2.3. As highlighted in the Impact Assessment, the current evidence base on the impact of energy audits is limited. However, providing enterprises actually implement around 6% of the [potential energy saving identified in buildings and industrial processes](#), preliminary analysis suggests energy audits could potentially result in total savings of around 3.3TWh per year by 2016, equivalent to an annual average saving of 0.7% (with a range of 0.4% and 1.1%) of energy in scope. These energy savings are estimated to generate social benefits worth between £1.6bn and £4.8bn, with a central estimate of £3.2bn to the UK economy between 2015 and 2030. Of course, there is potential to achieve much more if businesses systematically act on the recommendations they receive from the audits.

Synergies with existing policy measures

2.4. The Government considers that there are several opportunities to take forward ESOS in a way that ensures there is a good fit with the existing policy landscape. We are consulting widely and openly now because we are committed to avoiding unnecessary costs being imposed on UK businesses, and we want to ensure ESOS is implemented in a proportionate, consistent, transparent and targeted way, in line with better regulation principles.

²³ <https://www.gov.uk/climate-change-agreements> [access on 27 May 2013]

²⁴ <https://www.gov.uk/green-deal-energy-saving-measures/how-the-green-deal-works>

²⁵ <https://www.gov.uk/buy-sell-your-home/energy-performance-certificates> [accessed on 27 May 2013]

²⁶ <https://www.gov.uk/energy-performance-certificate-commercial-property/display-energy-certificates> [accessed on 27 May 2013]

Box 6: Opportunities for ensuring cost-effective implementation of ESOS

Avoiding 'double counting'. By aligning ESOS requirements with existing schemes wherever possible.

Allowing flexibility with regard to group company subsidiaries. Specifically, we are inviting views on the idea of allowing companies the flexibility to 'disaggregate' their group, if they so wish. This would enable organisations to conduct separate ESOS assessments for subsidiaries within the group, if they found this approach preferable.

Ensuring a well-targeted, 'light touch' approach to enforcement. We are also inviting views on options for reducing the extent of enforcement action necessary. For example, the Government could encourage or potentially require simple public disclosures, which could facilitate a lighter touch enforcement regime, with fewer and more targeted inspections, and encourage take-up of ESOS assessment recommendations.

2.5. Of the existing schemes in place, our analysis suggests that ESOS has the greatest synergy with the CRC Energy Efficiency Scheme – given the number of organisations that scheme covers, its energy measurement requirements, and its focus on organisations rather than sites / processes. As noted in the Impact Assessment, we consider that most large enterprises covered by ESOS will already be measuring some of their energy use under the CRC.²⁷ Consequently, these enterprises will already be generating data that they can draw on to subsequently comply with ESOS. The Government will aim to avoid creating additional data requirements where possible.

2.6. There is also a significant policy synergy with the Government's mandatory greenhouse gas reporting regime, which will come into force later in 2013. This applies to listed companies (also defined by Companies Act 2006) and effectively requires energy use measurement from those companies covered.²⁸ As such, these enterprises should already have processes in place for recording data required for an ESOS assessment that they can draw on to subsequently comply with the requirements of ESOS.

2.7. There are also more limited synergies with other policy instruments, which do not target whole enterprises or all energy use, such as voluntary uptake of building DEC's, and specific building energy assessments under the non-domestic Green Deal. The Government proposes that an organisation that only has building energy use (i.e. with no significant transport energy use or industrial process energy use) could choose, if they so wished, to undertake a non-domestic Green Deal assessment (or obtain a DEC) for specific buildings, removing those buildings from the scope of the ESOS assessment. If DEC's / Green Deal assessments were undertaken for all buildings, then an ESOS assessor (who could be an in-house expert) would only need to confirm that the organisation had no other significant energy use. DEC's for buildings over 1000m² are currently valid for one year, and so large enterprises that chose this approach would need to ensure they were compliant with the reporting cycle of the energy audits requirements in the Energy Efficiency Directive.

²⁷ Organisations will also need to measure their transport energy use as part of energy audits, which is not covered by CRC

²⁸ The regulations target all quoted companies under section 385(2) of the UK Companies Act 2006 - i.e. a company that is UK incorporated and whose equity share capital is officially listed on the main market of the London Stock Exchange, or listed in an EEA State, or on the New York Stock Exchange or Nasdaq. See: <http://www.defra.gov.uk/consult/files/consult-ghg-regulations-document1.pdf>

2.8. Following the response to the Electricity Demand Reduction (EDR) consultation (published in May 2013), the Government has brought forward legislation so that a financial incentive to deliver permanent reductions in electricity demand could be delivered via the capacity market. Like the steps being taken to implement ESOS, the Government's actions on EDR recognise the substantial benefits that improving efficiency can have for our energy systems and the economy. It will, for the first time, allow efficiency projects to compete with power stations for investment. There are however some uncertainties so we are planning to pilot the proposed approach prior to making final decisions on implementation.

2.9. ESOS will complement the Government's proposals for EDR in several ways. ESOS assessments have the potential to highlight cost-effective efficiency projects to a huge range of businesses. Both can therefore support each other in raising awareness of efficiency potential and so overcome this barrier that prevents some businesses taking up electricity efficiency measures.²⁹ An incentive for EDR could also mean that more measures recommended through ESOS assessments become attractive and viable propositions for investment.³⁰ As EDR is taken forward we will further explore the links and potential synergies with ESOS.

Learning lessons from international schemes

2.10. To help inform the development of the ESOS scheme, the Government has also considered lessons from comparable schemes overseas, such as the Australian example outlined in Box 7. We will also be in regular contact with other EU member states to ensure that our proposals are broadly in line with the models adopted elsewhere in the EU.

Box 7: Australia's 'Energy Efficiency Opportunities' programme

The Australian Government launched an audit programme called "Energy Efficiency Opportunities" in 2006. The programme was mandatory and covered large private sector energy users.³¹ By 2011, the audits covered 92% of total energy used by businesses captured by the programme. The recommendations made as part of the audit process were very specific, focused on measures with a payback of less than four years and included a cost-benefit analysis.

The end of the cycle review, published in 2013,³² found that, in the period up to 2011, firms had committed or already implemented around 54% of the identified energy opportunities.³³ The review suggested the average savings were around 5% of energy covered, although these savings were unadjusted, meaning they were not corrected for the possibility that some of the savings may have been achieved even in the absence of the programme. Out of these savings, the programme review concluded that approximately 41% of the total energy efficiency improvements were additional benefits driven by the EEO programme.

Broader reform across the policy landscape

2.11. The Government recently simplified the CRC, CCAs and EU ETS following extensive consultation.

²⁹ Capturing the Full Electricity Efficiency Potential of the UK -

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/66564/7035-capturing-full-elec-eff-potential-edr.pdf

³⁰ EDR will only apply in GB because Northern Ireland has a different electricity market, the Single Electricity Market (SEM) with the Republic of Ireland

³¹ Energy use greater than 0.5PJ/year (139 GWh/year)

³² <http://eeo.govspace.gov.au/files/2013/05/EEO-Program-Review-Final-Report.pdf> [accessed 11 June 2013]

³³ In 2011, 89PJ out of 164PJ identified were implemented or committed to be implemented.

2.12. The revised CCAs Scheme has removed any overlap with the EU ETS and the previous Scheme's 'Double Counting Mechanism'. The new CCAs, which came into effect on 1 April 2013, are now administered by the Environment Agency via a web based portal. This replaces the previous paper based system. It is estimated that policy simplifications will provide a net financial benefit to business of £2.4 million during the life of the scheme.

2.13. The recent simplification to the CRC came into force on 20 May 2013. This has reduced the number of fuels against which companies report, removed the 90% rule, whereby participants were required to ensure that at least 90% of their energy use was covered by CRC, CCA or EU ETS, and abolished the Performance League Table. The new revised CRC aims to remove the overlap with CCAs and reduce administrative costs by 55% (equating to a £272 million reduction up to 2030).³⁴

2.14. In addition, the legal requirements for EU ETS participants were recently simplified, establishing a more proportionate and consistent penalties system, improving the independence and efficiency of the appeals process and streamlining existing regulations. A small emitters (<25ktCO₂e a year) opt out has also been introduced, offering 248 installations (around a quarter of the total covered by the EU ETS in the UK) an estimated £39 million³⁵ in savings between 2013 and 2020.³⁶

2.15. The recent changes to the CRC and CCAs will need time to take effect before the full benefits are realised. The Government has committed to reviewing the CRC in 2016. CCA targets will also be reviewed in 2016. The first round of energy audits will also have been completed in December 2015.

2.16. We also intend to conduct an initial review of the operation of ESOS in 2016, following completion of the first round of assessments (which must be completed by December 2015).

³⁴ <https://www.gov.uk/government/consultations/simplifying-our-energy-efficiency-scheme-crc> [accessed on 27 May 2013].

³⁵ DECC Impact Assessment (<http://www.decc.gov.uk/assets/decc/11/cutting-emissions/eu-ets/7179-impact-assessment-eu-ets-small-emitter-and-hospita.pdf>) [accessed on 03 June 2013]

³⁶ http://www.decc.gov.uk/en/content/cms/emissions/eu_ets/phase_iii/phase_iii.aspx [accessed on 27 May 2013]

3. Which organisations need to undertake an ESOS assessment?

This chapter considers which organisations will fall within the Energy Savings Opportunity Scheme, and seeks views on specific proposals aimed at helping organisations easily identify if they are in scope.

The breadth of coverage

3.1. Article 8(4) of the Directive states that ‘enterprises that are not SMEs’ are required to undertake an energy audit by 5 December 2015, and at least every 4 years from the date of the previous energy audit.³⁷

3.2. For the purposes of the Directive, ‘enterprise’ is defined as ‘*any entity engaged in an economic activity, irrespective of its legal form*’³⁸ which means that ESOS will not only apply to large companies. In light of this, the Government considers that a wide range of organisations (unless they are SMEs) may potentially need to undertake ESOS assessments, including:

- companies;
- partnerships;
- community interest companies;
- charitable incorporated organisations;
- corporations sole;
- unincorporated associations; and
- certain universities.³⁹

3.3. Public bodies will not fall within the scope of the energy audits requirement of Article 8. Other parts of the Directive directly address public sector energy efficiency; for example, Article 5 of the Directive requires Member States to achieve energy savings in central government

³⁷ As stated at EU Energy Efficiency Directive 2012/27/EU Article 8(4), ‘Member States shall ensure that enterprises that are not SMEs are subject to an energy audit carried out in an independent and cost-effective manner by qualified and/or accredited experts or implemented and supervised by independent authorities under national legislation by 5 December 2015 and at least every four years from the date of the previous energy audit.’

³⁸ ‘Enterprise’, referred to in the EU Energy Efficiency Directive, is defined in Article 1 of the Annex to Commission Recommendation 2003/361/EC

³⁹ Public bodies will not fall within the scope of Article 8 of the Directive. The Directive defines a ‘public body’ in Article 2(8) as being a ‘contracting authority’ as defined in Directive 2004/18/EC. In terms of universities, Directive 2004/18/EC states that ‘universities and colleges financed for the most part by other contracting authorities’ will be contracting authorities, and these universities will therefore be public bodies for the purposes of the Energy Efficiency Directive. This means that some universities may not, however, be public bodies depending on their particular financing arrangements and will be within scope of Article 8 of the Directive.

buildings. Article 5 also encourages the wider public sector to put in place energy management systems,⁴⁰ including energy audits, as part of implementing energy efficiency plans.

The SME exemption

3.4. SMEs that are not part of a large corporate group enterprise are exempt from the requirement to conduct regular energy efficiency audits. Article 2(26) of the Energy Efficiency Directive, defines SMEs as enterprises that employ 250 persons or fewer and which satisfy one or both of the following criteria: (i) an annual turnover that does not exceed €50 million, and/or (ii) an annual balance sheet total that does not exceed €43 million.

Encouraging uptake of energy audits by SMEs and households

3.5. The Directive requires EU Member States to develop programmes to raise awareness of energy efficiency audits among households. It also requires Member States to bring energy efficiency audits to the attention of SMEs as well as concrete examples of how energy management systems could help their businesses.

3.6. The Government considers that the UK already takes a number of steps to promote energy efficiency audits to household and to non-domestic organisations via the Green Deal and the non-domestic Green Deal. The Government will continue to work closely with bodies which represent businesses, including SMEs, in order to promote energy efficiency – and will also raise awareness of the ESOS scheme specifically, including with trade organisations representing SMEs.

3.7. Action is also being taken by the Devolved Administrations. For example, since April 2013, Scotland has had its own programme, ‘Resource Efficient Scotland’, which aims to provide a holistic approach to advice and support for SMEs and large enterprises. In Northern Ireland, Invest NI provides advice, information, finance and technical support for companies with large expenditure on water, energy and raw materials. Periodically, it also provides capital grants for SMEs for this purpose. Given this context, the Government considers that the UK is committed to sufficient activity to comply with this aspect of the Directive.

Alternative routes to compliance

3.8. The Directive also allows for alternative routes to compliance for non-SMEs, based on appropriate EU/international energy/environmental management systems. For instance, it states that, if an enterprise as a whole was certified with Energy Management System ISO 50001, then the organisation could be ‘exempted’ from the requirement to carry out a separate ESOS assessment. This issue is explored in more detail in Chapter 4.

Definition of a ‘large enterprise’

3.9. There are a range of technical issues to consider when identifying whether an organisation should be considered a ‘large enterprise’ for the purposes of ESOS. The following sections address each of these issues and invite views on the Government’s proposals.

Corporate groups

3.10. With regards to ‘group enterprises’, the Government proposes to target the highest UK parent company in respect of all UK legal entities within the group as a whole, using the

⁴⁰ Within the context of the Directive, Energy Management Systems (EnMS) refer to a set of interrelated or interacting energy policies and objectives, and the processes and procedures required to achieve these (such as under ISO 50001).

definitions contained in the Companies Act 2006. All organisations within a 'large group enterprise', irrespective of whether some subsidiaries are SMEs, will need to be subject to an energy audit. If the group as a whole qualified as a SME, as defined by the Directive, then it would be exempt. The Government also proposes that if every single UK legal entity within the group was an SME then the group would also be exempt; this is discussed further below).

3.11. This approach is aimed at ensuring the UK properly transposes and complies with the requirements of the Energy Efficiency Directive. Our initial view is that the proposed approach provides a transparent mechanism to make it clear that 'group enterprises' need to include both their SME and large subsidiaries. Government does not propose that companies should have discretion to determine the inclusion or exclusion of particular subsidiaries based on how group enterprises arrange their financial accounts. Such an approach could lead to substantial inconsistency between organisations, and with some subsidiaries being excluded, against the intent of the Directive. The approach aligns with the thinking set out in the European Commission's draft Interpretative Note on Article 8 of the EU Energy Efficiency Directive,⁴¹ - which makes clear that such large group enterprises should be covered by energy audits, including their SME subsidiaries.

3.12. The inclusion of subsidiaries is also a feature of the CRC Energy Efficiency Scheme;⁴² this means that enterprises that already measure their energy use under the CRC should find it easier to comply with energy audits. The Government wishes to avoid the administrative burden of organisations having to count their energy use twice.

3.13. To make it easier to determine whether a corporate group is included in ESOS, the Government proposes that ESOS assessments would only be required if a corporate group includes one or more large (i.e. non-SME). However, if every single UK company in the group enterprise was an SME, this group would then not be covered by ESOS. This approach avoids the need for a group enterprise to add up the number of employees, its turnover and balance sheet across each subsidiary.

3.14. In some cases, a corporate group may include more than one highest UK parent organisation (e.g. two separate UK parent organisations, both owned by a non-UK global corporate). In this case, all the UK companies within this global group would participate in the energy audits scheme, providing at least one of the UK companies in the global group was large – i.e. not an SME.

3.15. The UK Government considers that these proposals take a proportionate approach to implementation. We invite views on whether the substantial majority of corporate groups with UK operations are likely to remain covered on the basis that such groups are likely to include at least one large UK company - and on whether respondents agree that this meets the requirements of the Directive in a proportionate way. We also invite views on the proposal to exempt corporate groups in which all the UK entities are SMEs.

Disaggregation of corporate groups

3.16. The Government proposes to allow corporate groups to 'disaggregate', so that their subsidiaries can participate in ESOS separately (irrespective of the size of the subsidiary). This may be helpful where group companies consider that a disaggregated approach would better

⁴¹ The latest draft of the EC Interpretative Note is published here:

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

⁴² In turn, the CRC draws on definitions from Companies Act (2006)

align with their energy management and/or financial arrangements across the group. If they so wished, group companies would be able to conduct separate ESOS assessments for individual subsidiaries as defined by the accounts, providing that no significant subsidiaries were excluded by this route.

3.17. Disaggregation would not exempt subsidiaries. Any subsidiaries that the ESOS assessor would consider *de minimis* could similarly be left out of a single group organisation assessment (note proposals on *de minimis* energy use are set out in Chapter 4). Government proposes that organisations wishing to disaggregate would need to notify the scheme administrator accordingly. This approach corresponds with the disaggregation that the Government has allowed under the recently simplified CRC.

Non-UK Firms

3.18. Organisations would be included in ESOS if they are sufficiently large, providing there is at least one large UK legal entity in the corporate group. This means that a large company registered in the UK owned by a non-UK organisation would therefore be included. However, the Government proposes that a non-UK enterprise that has some UK energy use but for which there is no UK legal entity would not be required to comply with ESOS.

Franchising, universities and sub-contracting

3.19. In terms of identifying large enterprises, the Government does not propose attributing the employees, turnover or balance sheet of franchisees to their respective franchisor, as has taken place under the CRC. The Government considers that this would go beyond the scope of the Directive.

3.20. For the same reason, for the purpose of ESOS, the Government:

- does not propose ‘grouping’ colleges together where they are part of a college based university (i.e. where the governing body of a college has a legal identity separate from the governing body of the university); and,
- does not propose including the energy use of subcontractors in an organisation’s ESOS assessment.

Consultation Questions

- Q3. Do you agree with this overall approach to defining the ‘enterprise’, and could you currently identify if you / organisations you are familiar with are in scope? Specifically are you content with the approach proposed with respect to:**
- a. Group enterprises**
 - b. Voluntary disaggregation of group enterprises**
 - c. Non-UK firms**
 - d. Franchisors**
 - e. Subcontractors**
 - f. Universities**
- Yes / No / Qualified Support (Please give reasoning)*

The ‘qualification date’ for inclusion in ESOS

3.21. The number of ‘large enterprises’ operating in the UK is not static given that organisation’s change size over time. It is therefore important to set a ‘qualification date’ at which

the size of an organisation will determine whether it is in scope of ESOS. The Directive is silent on this issue, but it is clearly important in order to make ESOS practical and workable.

Start-up qualification date

3.22. For the initial start-up of ESOS, the Government proposes that ESOS assessments need to be conducted by 'large enterprises' that exist on a 'qualification date' preceding the 'audit deadline'. For instance, this could be 1 January 2015 or 31 March 2015. The Government invites views on the most suitable 'qualification date'.

The 'qualification date' for future ESOS assessments

3.23. The Directive requires all organisations to undertake an energy audit once every 4 years. After 2015 there will inevitably be organisations that for a variety of reasons, such as no longer meeting the SME criteria, have not previously conducted an ESOS assessment but are required to do so in future. In addition, there will be organisations that have previously conducted an assessment but no longer meet the qualifying criteria. For example, because they now meet the SME definition. In order to determine when the qualification date for future ESOS assessments should be, the Government is consulting on two options:

Approach A: ESOS would operate in 4 year phases. Once every four years (e.g. based on status as of 1 January 2015, 1 January 2019, 1 January 2023 and so on), organisations would need to determine whether they were included in the scope of ESOS. If included, organisations would then need to undertake an ESOS assessment within a year of the qualification date. However, organisations would have the option to complete an ESOS assessment earlier if this fitted with their business plans, for example, to coincide with a large change in organisational structure. Organisations wishing to do this would need to notify the scheme administrator, as this would of course bring forward the date when the subsequent assessment would be due. Organisations would need to ensure that the gap between assessments across the whole organisation never exceeded 4 years (for the UK parent organisation responsible for the group enterprise as a whole, and for any non-SME subsidiaries).

Approach B: Every year, organisations would determine whether they are sufficiently large to be included in ESOS based on their size at the qualification date (e.g. 1 January). If in scope, that organisation would need to carry out an ESOS assessment within a year of the qualification date, unless all parts of the organisation had undertaken an ESOS assessment within the last four years. In the scenario that some elements of the organisation, had completed a compliant assessment within the last four years, those specific parts of the organisation could be excluded.

3.24. Under either model, organisations which fell out of scope of the scheme following the qualifying date could apply to the scheme administrator for exemption from the scheme's requirements.

Consultation Questions

Q4. What do you think should be the initial 'qualification date' for organisations to determine if they are in scope of the scheme?

For example, 1 January 2015 or 31 March 2015 (Please give reasoning).

Q5. Which of the following approaches do you prefer in terms of when new entrants are required to undertake ESOS assessments?

- a. **ESOS would operate in 4 year phases. Organisations identify if they are in scope once every four years and then undertake an ESOS assessment within a year of the qualification date.**
- b. **Every year, organisations determine whether they are sufficiently large to be included in ESOS based on their size at the qualification date. If in scope, that organisation carries out an ESOS assessment within a year of the qualification date, unless the entire organisation is covered by compliant assessments undertaken within the last four years.**

Prefer A / Prefer B // Propose alternative / Comments (Please give reasoning)

4. What is required?

This Chapter sets out proposals on the criteria that ESOS assessments must meet and explores ways in which we can maximise energy efficiency savings and their uptake in the most cost-effective way for business.

Minimum requirements

4.1. The Directive includes some detailed provisions on what must be included as a minimum in energy audits:

Box 8: Minimum criteria for energy audits including those carried out as part of energy management systems.⁴³

They must:

- (a) be based on up-to-date, measured, traceable operational data on energy consumption and (for electricity) load profiles;*
- (b) comprise a detailed review of the energy consumption profile of buildings or groups of buildings, industrial operations or installations, including transportation;*
- (c) build, whenever possible, on life-cycle cost analysis (LCCA) instead of Simple Payback Periods (SPP) in order to take account of long-term investments and discount rates;*
- (d) be proportionate, and sufficiently representative to permit the drawing of a reliable picture of overall energy performance;*
- (e) allow detailed and validated calculations for the proposed measures so as to provide clear information on potential savings; and*
- (f) ensure the data used as part of the energy audit is storable for historic analysis and tracking performance.*

4.2. In light of this, the Government considers that ESOS assessments must:

- identify recommendations for energy efficiency improvement across the organisation as a whole;
- be carried out in an independent manner and on the basis of minimum criteria (the issue of who can carry out audits is explored further in Chapter 5); and
- be transferrable to any energy service provider (i.e. organisations which might sell services to implement audit recommendations), providing the customer does not object. The intention of this is to help facilitate uptake of audit recommendations.

A proportionate approach

4.3. The Energy Savings Opportunity Scheme will impact on every large enterprise in the UK, and what is appropriate in terms of how each individual organisation is audited will vary considerably.

⁴³ These are based on Annex VI to the Directive, reproduced in Annex A to this consultation document.

4.4. In order to take account of the wide variety of organisations covered, ESOS assessors will need flexibility to adjust their approach for each organisation they assess. The Government proposes to let ESOS assessors to use their professional judgment to determine how they approach individual organisations, including in determining what it is ‘proportionate’ to take in to account (e.g. determining what counts as ‘key’ buildings and when site visits are merited). At the same time, we believe that it is important that there are minimum standards defined in law to ensure UK compliance with the Directive, secure a level playing-field for participant organisations, and to ensure we realise the energy efficiency potential that is being targeted.

4.5. The UK Government has sought to interpret the guideline requirement of the Directive in a practical and proportionate manner. We propose legislating to require that ESOS assessments provide the following information at a minimum:

- a review of the total energy use and energy efficiency of the organisation. This would include the organisation measuring an energy intensity ratio of the organisation’s choice (e.g. energy use per employee or per unit turnover) and, as appropriate, considering the variation in energy use over time within key buildings, key industrial operations, and key transport activities (exempting *de minimis* energy use). The review must be proportionate and sufficiently representative in order ‘to permit the drawing of a reliable picture of overall energy performance’ of the organisation;⁴⁴ and
- clear information on potential savings, which identify and quantify cost-effective energy savings opportunities, with such opportunities based wherever practical on life cycle assessment (LCA) instead of Simple Payback Periods (SPP).⁴⁵

4.6. The Government recognises that the corollary of giving ESOS assessors discretion (e.g. to judge when life cycle assessment is practical, and when site visits are merited) is ensuring that a suitable system is in place to safeguard the quality of energy efficiency auditors and, thereby, the audits. Through such a system, the Government intends to help ensure that organisations can trust the advice they receive and that ESOS recommendations are realistic and cost-effective. This issue is considered in detail in Chapter 5.

Consultation Questions

Q6. Is our proposed interpretation of the minimum requirements for ESOS reasonable, on the basis that ESOS assessors would need to exercise professional judgment and discretion as to their application?

Yes / No / Comments (Please give reasoning)

Supported by non-statutory good practice guidance

4.7. The Government considers that it would not be appropriate to set out the detail of what an ESOS assessment should include in legislation. Given the diversity of large organisations that will be covered by ESOS, prescriptive legislation defining in detail ‘one size fits all’ minimum

⁴⁴ Ibid.

⁴⁵ Life cycle assessments (LCA) refer to examining the performance of a system or process from-cradle-to-grave. In the context of energy, LCA refers to the consumption of energy right from manufacture through to its use and, ultimately, disposal. On the other-hand, simple payback period (SPP) refers to the amount of time it takes for the return on an investment to repay the sum invested.

requirements could impose considerable unnecessary cost and potentially reduce the energy efficiency benefits achieved.

4.8. Instead, in addition to setting out the minimum requirements for ESOS in legislation as described above, we propose developing non-statutory good practice guidance to help inform the detailed assessment (for instance, on what constitutes 'key buildings' and when it is practical to use life cycle assessment rather than simple payback periods) while leaving the decision to the judgment of the ESOS assessor.

4.9. Good practice guidance for organisations and assessors could also include, for instance, examples and case-studies to provide guidance on deciding what energy usage it would be proportionate to include for the purposes of ESOS assessments, and advice on sources of support for implementing recommendations. Subject to respondents' views, the guidance could also potentially include draft templates for ESOS assessment reports; this might be particularly beneficial to businesses in cases where ESOS assessments reports are passed from one organisation to another with the sale of a subsidiary organisation.

4.10. The Government envisages that good practice guidance will be developed by the scheme administrator as soon as possible once the key decisions on the structure of ESOS have been decided. We plan to publish the Government response to this consultation in spring 2014, in advance of the guidance being developed.

Consultation Questions

Q7. Do you support our proposals to develop good practice guidance for organisations? (Yes/No) If yes, what do you think should be included?

- a. Minimum ESOS requirements? Yes / No**
- b. A draft template for ESOS reports? Yes / No**
- c. Best practice options? Yes / No**
- d. Anything else? (Comments)**

Setting a *de minimis* level for assessing energy usage

4.11. In common with other schemes, the Government recognises the importance of exempting *de minimis* energy use in order to secure a cost-effective approach. We also believe that it is important to provide clarity on what can be excluded as *de minimis* energy use so as to provide a level playing field for organisations.

4.12. One approach would be to set a percentage threshold for energy usage to be considered *de minimis*. However, while this has the advantage of simplicity it also poses challenges. For instance, it would require the ESOS assessor to measure total energy usage in order to decide what usage fell below the minimum threshold.

4.13. Instead, we propose using a percentage of energy *spend* to determine the *de minimis* level for inclusion in ESOS assessments. Organisations would be allowed to exclude energy usage that collectively amounted to no more than a percentage (e.g. 5%) of total organisational energy spend. This would have the advantage of not requiring calculation of energy use in every instance, recognising that in certain instances it could involve disproportionate effort to convert a small bill into actual energy use. In addition, this approach would allow organisations the flexibility to exclude small uses of energy from a variety of fuels, or small sites, or small transport / industrial activities, rather than being restricted to only being able exclude specific fuels.

4.14. This approach would require calculation of total energy spend, but the amount of money spent on energy should be known to organisations. Moreover, this approach aligns with the aim of helping to raise the profile of energy spend with senior management in organisations. We invite views on this proposal, including on what percentage of energy spend should be considered *de minimis*, and on any alternative cost-effective ways to provide appropriate clarity on determining *de minimis* energy sources.

4.15. Depending on the organisation, assessors may decide to focus primarily or solely on buildings, processes, and/or transport as appropriate, should other energy usage by an organisation be deemed insignificant.

Consultation Questions

Q8. Should the Government set a legal energy spend based percentage threshold, to allow organisations to exempt energy that collectively amounts to no more than this *de minimis* percentage of total energy spend?

Yes / No (Please give reasoning)

If yes, what percentage should this be and why?

If no, what approach should be adopted to set a statutory *de minimis* and why?

Calculating energy usage

4.16. In order for ESOS assessments to be meaningful, they will need to be based upon up-to-date, measured, traceable data on energy consumption, including, as appropriate, electricity load profiles.⁴⁶

Interface with existing schemes

4.17. As outlined in Chapter 2 there are a range of energy and climate policies which are already in place (or shortly to enter into force) and these require many large enterprises to capture data on energy usage. These include:

- The CRC Energy Efficiency Scheme (CRC);
- Climate Change Agreements (CCAs); and,
- The EU Emissions Trading System (EU ETS);
- Mandatory Greenhouse Gas (GHG) emissions reporting by quoted companies.

4.18. Organisations which already collect data under one or more of the schemes above will generally already have some of the information required to complete ESOS assessments.

4.19. The Government recognises that existing schemes have different reporting periods – for example, EU ETS uses a calendar year, whilst CRC uses a financial year. We therefore propose letting each organisation decide the period of time which data collected for their ESOS assessment covers, providing that the period is within 2 years of the assessment taking place

⁴⁶ Electricity load profiles capture the variation in electrical power use over time.

and providing that at least 6 months' worth of data is used. This could include data from different time periods covering different installations. This approach is intended to allow flexibility while also ensuring that data is suitably up-to-date (and so meets the requirements of the Directive).

4.20. This would mean, for example, that data from the 2014/15 financial year could be used for the first round of ESOS assessments, which must be completed by December 2015.

4.21. At the same time, in order to ensure ESOS assessors can provide meaningful and cost-effective recommendations, our preference is for assessments to be based in practice upon 12 months' worth of data (rather than just the proposed minimum of 6 months), wherever this is practicably available, on the grounds that this will take in to account seasonal variations in energy usage and production cycles over the course of a year. With regards to deviations from this, the Government proposes to adopt a 'comply or explain' approach – whereby ESOS assessments would need to outline why it would be impractical or unnecessary to use data for a 12-month period. However, we would welcome suggestions if organisations believe that a different approach would be more suitable.

Consultation Questions

- Q9. Do you agree with the Government's proposed approach to calculating energy usage by:**
- a. Allowing use of existing data sets in order to simplify compliance? (i.e. organisations can draw on data gathered over any period during the two years prior to the ESOS assessment being conducted)?**
 - b. Setting a minimum six month time period which energy use data should cover to inform an ESOS assessment?**
 - c. Promoting use of 12 months data, with the onus on organisations to comply or explain deviations from this approach?**

Yes / No (Please give reasoning)

Organisation energy intensity ratio

4.22. In addition to assessing absolute energy consumption, the Directive requires organisations to consider their 'energy consumption profile' (i.e. energy use over time).⁴⁷ A literal interpretation of the Directive would be to require separate profiling of each aspect of energy usage over time, including: all buildings over a threshold size, each significant transport energy use, and every sizable industrial process. The Government considers that mandating this level of detail as a minimum would be disproportionate but, given that profiling may constitute best practice, we propose to encourage consideration of it through the voluntary good practice guidance. It would then be for the ESOS assessor to determine when such site and activity based profiling was appropriate.

4.23. In terms of the regulatory minimum, we propose that a proportionate approach would be to require ESOS assessments to include a single energy intensity ratio for the whole organisation, which the organisation would track over time with each audit every 4 years or more frequently.⁴⁸ The Government believes that this approach would meet the Directive's intent by

⁴⁷ Annex VI to the Energy Efficiency Directive, sub-paragraph (b).

⁴⁸ An Energy Intensity Ratio is a way of relating energy use to an organisation's key information about its performance; e.g. energy use per unit-turnover, per m² floor space, or per passenger mile.

including a measure of an organisation's overall energy efficiency. This will ensure that organisations are able to consider their energy efficiency taking in to account growth over time rather than just their total energy usage.

4.24. This approach would align with the Government's mandatory Greenhouse Gas reporting scheme, which requires affected companies to include an emissions intensity ratio (of their own choosing) when reporting on their emissions. It is also similar with the approach that has been taken in the CRC, under which large enterprises have been encouraged to report on energy use emissions per unit turnover.

4.25. As is the case with the Greenhouse Gas reporting scheme, the Government proposes allowing each organisation to choose the energy intensity ratio that best suits their business, rather than mandating measurement of a 'one size fits all' metric. An airport company, for example, may wish to consider 'energy use per passenger', whilst a wholly office-based firm may wish to consider 'energy use per square metre'. By contrast, a manufacturer may wish to consider 'energy use per unit of production'. Naturally, organisations would also be free to use the same energy intensity ratio as they do for the Greenhouse Gas reporting scheme or for the CRC, if they considered that most appropriate. We consider that this would provide a light-touch way of prompting consideration and review of an organisation's overall energy intensity over time, rather than just absolute energy consumption. Organisations could, of course, choose to measure several energy intensity ratios targeting different types of site or activity, or different subsidiaries, if they so wished (which would be necessary if they chose to disaggregate their corporate group). The Government would be willing to engage in dialogue with sector associations to help associations consider potential suitable measures for their respective sectors to enable a comparison between peer organisations.

Consultation Questions

Q10. Do you think that ESOS assessments should include an energy intensity ratio as opposed to HMG requiring in law energy consumption profiles for all key buildings, transport and industrial processes?

Yes / No / Comments (Please state reasoning)

Energy Coverage

4.26. We propose that ESOS assessments should only cover energy use which organisations *directly* pay for or produce themselves (e.g. including energy generated from by-products of industrial processes). This means that, unless explicitly stated otherwise, all energy use that an organisation does not pay for directly would be excluded. For instance, a large property management organisation would be responsible for assessing its own energy use, such as energy used in common areas. It would only be responsible for assessing the energy use of its tenants if the property company was the counter-party to the energy supply contract (i.e. paying the energy bill to the energy supplier, irrespective of how such costs are recovered from tenants).⁴⁹ Conversely, it would not be responsible for undertaking ESOS assessments of the energy use of tenants where they paid their own bills (i.e. the tenants were directly contracted

⁴⁹ In the case of tenant/landlord relationships this can create an imbalance in incentives to increase energy efficiency. The Government recognises the importance of improving the energy efficiency of rental properties, and the market failures which can hinder this (often referred to as "landlord/tenant misaligned incentives") and has accordingly brought forward specific measures in the Energy Act 2011 to specifically target energy efficiency action by landlords. <http://www.legislation.gov.uk/ukpga/2011/16/contents/enacted> [Accessed 11 June 2013]

with the energy supplier). This is intended to meet the Directive's intention that organisations' *own* energy usage is audited.

Consultation Questions

Q11. Do you agree that ESOS assessments should only include all significant energy use *directly paid for or produced by the organisation?*

Yes / No / Comments (Please give reasoning)

Site visits

4.27. The Government proposes giving ESOS assessors discretion as to how many site visits they conduct as part of their assessment (a 'site' could be a building or industrial process or even transport activity). This is intended to ensure that ESOS assessments are proportionate and allow assessors to target sites where it makes most business sense. The Government considers that it would be disproportionate and unnecessarily prescriptive to require assessors to visit every large site. Equally, mandating that assessors must visit a certain percentage of sites risks leading to them either visiting too few or too many sites depending on the organisation concerned. We invite views on this approach.

4.28. The Government is mindful that, in some cases, organisations will own multiple sites of a similar design and with similar energy efficiency potential. In such circumstances, assessors could visit a single site or sample of sites and use the information gathered, alongside information from Head Office, to extrapolate recommendations for the wider set of buildings/processes.

Consultation Questions

Q12. Do you agree that ESOS assessors should be given discretion as to the number of site visits they undertake as part of an audit?

Yes / No / Comments (Please give reasoning)

Technical issues around the scope of audits

4.29. To meet the requirements of the Directive, ESOS assessments will cover all significant energy use by an organisation, irrespective of whether this energy use is already measured under existing schemes.⁵⁰ This should enable ESOS assessors, having considered the whole organisation, to provide well targeted recommendations to organisations as to cost-effective energy savings opportunities. Where organisations are already measuring some energy usage under an existing scheme, they can use that data to contribute to their ESOS assessment.

4.30. The remainder of this chapter considers some technical issues around the scope of ESOS in more detail and considers in turn the application of ESOS to buildings, industrial processes and transport.

⁵⁰ The Directive requires energy audits to include an assessment of the organisation's total energy use, including energy use from transport and buildings and other sources, to 'be proportionate and sufficiently representative' in order 'to permit the drawing of a reliable picture of overall energy performance' of the organisation.

Building energy use

Display Energy Certificates and Green Deal Assessments

4.31. There may be some organisations whose energy use is solely from buildings (i.e. where transport or industrial process energy use is insignificant or non-existent). The Government proposes that such organisations could, should they wish, commission Display Energy Certificates (DECs) or take out a Green Deal assessment for all buildings as an alternative route to compliance with the requirements of the Directive. We would welcome views on this.

4.32. The Government is aware that the Green Deal and DECs are not available UK-wide and that the non-domestic Green Deal scheme is a relatively new initiative. Scotland currently uses Energy Performance Certificates (EPCs) for all qualifying buildings as the means of complying with the Energy Performance of Building Directive. However, Scotland intends to introduce Display Energy Certificates (DECs) as one means of complying with the regulations for section 63 Energy performance of non-domestic buildings, Climate Change (Scotland) Act 2009.

4.33. Under either approach, to ensure compliance with the Directive, we consider that an ESOS assessor (who could be an in-house expert) would need to confirm that non-building energy use was *de minimis* to the organisation's overall energy consumption.

Consultation Questions

Q13. With respect to buildings, do you agree that where an organisation has installed DECs or chooses to comply by undertaking Green Deal assessments for some or all of its buildings within the past four years, those buildings should not need to have an ESOS assessment conducted too in order to comply with the requirements of the Directive?

Yes / No / Comments (Please give reasoning)

Transport energy use

4.34. The Directive makes clear that energy audits should include an assessment of transportation energy usage, identifying recommendations for improving energy efficiency as appropriate. As set out above, we propose that this should be the case except where an assessor concludes that transportation energy usage falls below the *de minimis* level set for inclusion within scope of the scheme.

4.35. Where an organisation owns or operates (e.g. by leasing) a fleet of vehicles and the organisation is paying the fuel bill, there is a clear potential for ESOS assessments to recommend energy efficiency measures that will provide cost savings to the organisation. For example, assessments might identify the potential to reduce the size of vehicle fleet through improved logistics management, lowering overall transport costs. Large transportation companies, including in the rail, road haulage, aviation and shipping sectors, for example, will need to have the energy efficiency of their fleets included in their ESOS assessments.

4.36. Where an organisation has contractual agreements with other companies to outsource their transportation requirements, such that the organisation is no longer directly paying the fuel bill, we propose that the organisation would then not be required to assess that element of energy usage. Instead, it would be for the transport company to consider energy usage of its organisation as a whole should it fall within scope of ESOS. This approach has advantages in

terms of administrative simplicity, given the difficulty an organisation may face in gathering and disaggregating data from a sub-contractor, and is in line with the principle that organisations should only be required to audit energy use they directly pay for.

Calculating energy usage from international aviation and shipping

4.37. The Directive does not exclude energy usage from international aviation or shipping from the scope of energy audits. However, the Government is clear that we need to adopt a proportionate approach, in line with meeting our EU obligations. We will seek to work with the EU Commission to encourage a proportionate approach across EU member states, recognising the international nature of these sectors.

4.38. We would welcome views on the following three proposed approaches to accounting for energy usage arising from international aviation/shipping:

Approach A: The Government could require, as a minimum, that all fuels purchased within the UK be considered within scope of ESOS.

Approach B: The **Government** could require, as a minimum, that energy usage of all flights / shipping departing the UK be included within the scope of ESOS.

Approach C: the Government could require, as a minimum, that all fuels purchased anywhere in the world (in the UK, in the rest of the EU and outside the EU) by ESOS participants be included within the scope of ESOS assessments.

4.39. Approach A would align more closely with ESOS principle that assessments should be limited to energy which organisations directly pay for themselves. Approach B would align more closely with the approach taken for aviation under the EU Emissions Trading System, within the context of the UN Framework Convention on Climate Change (which has covered both arriving and departing flights, though is temporarily restricted to intra-EU flights). Approach C would be a more comprehensive model than Approach A, which would cover all energy spend by a company registered in the UK regardless of where this cost was incurred.

4.40. The Government is also open to adopting different proposals for aviation and shipping to meet the requirements of the Directive if respondents can identify viable alternatives.

Consultation Questions

Q14. With respect to transport, which one of the following approaches should be adopted in relation to international aviation and/or shipping:

- A. All fuels purchased within the UK should be considered within scope of ESOS**
- B. Energy usage of all flights/shipping departing the UK should be considered within scope of ESOS**
- C. All fuels purchased anywhere in the world should be considered within scope of ESOS**

Prefer A / Prefer B / Prefer C / prefer different approaches for aviation and shipping / prefer an alternative approach (Please give reasoning)

Green fleet reviews

4.41. The Department for Transport funds the Energy Savings Trust to provide free Green Fleet Consultancy advice to organisations with fleet under 3.5 tonnes and based in England.

4.42. We are aware that a number of companies will already have audited their energy usage in recent years through such reviews. We propose that any transport fleet that has been audited within four years of December 2015 could be exempted from the scope of the first ESOS assessment. Going forward, the organisation would need to ensure that their transport function continued to be audited at least once every four years, unless it fell below the scheme *de minimis*.

Consultation Questions

Q15. With respect to transport, should an organisation's vehicle fleet be deemed to have undertaken the equivalent of an ESOS assessment if it has been subject to a Green Fleet review conducted within four years prior to the energy audit deadline, and are there other reviews similar to Green Fleet reviews that should also be considered?
Yes / No / Comments (please give reasoning)

Employee travel on company business

4.43. A significant volume of an organisation's transport energy use can be incurred indirectly by an organisation. This could include:

- 'grey fleet' – i.e. employees who use their own cars or company cars for business journeys, and then claim for the costs on business expenses; or
- other forms of employee travel such as commercial flights or rail travel. In such instances, the organisation (or its employees) will almost always have a contractual relationship with the transport company (i.e. by purchasing a ticket). In such instances the organisation will not directly control the energy performance of the transport company (instead, it is likely that the transport company will itself be subject to ESOS assessments).

Box 9: Energy saving opportunities from management of grey-fleet

Transport for London and the Office for Low Emission Vehicles (OLEV) provided funding to the Energy Savings Trust (EST) to conduct the Plugged-in Fleets Initiative (PiFI) to consider and demonstrate where plug-in vehicles could work cost-effectively to fulfil business needs.

One of the private sector fleets analysed was that of Forrest (a construction company with a fleet of 205 vehicles). They used the PiFI to help inform their consideration of replacing grey fleet vehicles with electric vehicles (EV). Their grey fleet was accumulating an average of 60 plus miles per day. The analysis showed that Forrest would save almost 20 pence per mile if they replaced their grey fleet with a pure EV pool fleet

Source: Energy Savings Trust, *Plugged in Fleet Initiative: Charging Forwards*⁵¹

4.44. As the example in Box 9 illustrates, there is considerable potential for organisations to save money and energy use through ensuring that they have well designed and incentivised travel policies. We propose that vehicle use by employees on behalf of organisations, where this is billed for on business expenses, should be included within the scope of ESOS where this is assessed as a significant element of energy usage.

⁵¹ See Page 16 for full case-study. <http://www.energysavingtrust.org.uk/Publications2/Transport-fleets/Guides-and-information/Plugged-in-Fleets-Initiative-charging-forward> [accessed: 28 May 2013]

4.45. The Government does not propose including any flight, train, ship, bus tickets or taxi receipts billed by employees on business expenses. Including such business expenses could be administratively burdensome and provide little energy efficiency benefit. Large travel companies will be covered by ESOS in their own right and the aviation sector is already targeted by the EU Emissions Trading System. Furthermore, costs of energy usage are not paid for by the organisation directly but through a contractual arrangement with the travel provider.

4.46. With respect to commuting, we propose that employee commuting to and from work should be excluded from ESOS, as this cost falls to the employee rather than the organisation.

4.47. We recognise that there may be opportunities for encouraging organisations to save money and reduce energy usage through re-moding travel, e.g. replacing short flights with train travel or video-conferencing. We propose that the good practice guidance outlined above should suggest that organisations may wish to ask ESOS assessors to consider including such recommendations, where appropriate.

Consultation Questions

Q16. With respect to transport, do you agree with our proposed approach to employee travel on company business?

- a. That 'grey fleet' should be included within the scope of ESOS;
- b. That travel purchased via contractual arrangements (e.g. train tickets) should not be included as a minimum requirement for ESOS;
- c. That commuting should not be included within scope of ESOS; and,
- d. That good practice guidance should promote the advantages of going beyond the minimum requirements of ESOS

Yes / No / Comments (please give reasoning)

Industrial operations and other types of energy use

4.48. In order to draw a reliable picture of an organisation's overall energy performance, and as required by the Directive, ESOS will also cover industrial operations. Industry use conventional energy sources – such as electricity and gas from the grid – but they also use energy from other sources, such as burning process waste as fuel, and using waste heat to produce power. We propose that ESOS assessments should cover all industrial use of energy, including where it is directly produced by an organisation. This will ensure the assessments reflects any energy efficiency gains already made through such measures, and covers the full range of energy used in industrial processes.

Energy efficiency potential from industrial processes

4.49. In 2009, UK industry was responsible for 131.6 MtCO₂e of emissions; these accounted for 23% of the UK's total emissions. Over 80% of these emissions originate from generating the heat that is needed for industrial processes such as manufacturing steel and ceramics, and the remainder from chemical reactions involved in processes such as cement production.⁵²

4.50. There is a wide-range of potential energy efficiency measures for industrial processes that have short pay back periods. These range from good practices such as maintenance and

⁵² https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/47613/3702-the-carbon-plan-delivering-our-low-carbon-future.pdf [Accessed 12 June 2013]

adding lagging to pipes, to more advanced technologies around better monitoring and process control, which can help minimise unnecessary energy usage.

4.51. Upgrading pumps and motors, replacing steam boilers or updating onsite power plants can provide real energy efficiency benefits but require significant additional investment and may only be financially viable when existing equipment is at the end of its natural life. Under the enhanced capital allowances scheme, businesses can claim a 100% first-year capital allowance on qualifying plant and machinery, although we recognise that this qualification can be more difficult where equipment is specialised.

Synergies between ESOS and Climate Change Agreements

4.52. Climate Change Agreements (CCA) are a voluntary scheme, started in 2001, providing discounts on the Climate Change Levy (CCL), an energy tax levied on most business and public sector energy use. CCAs are available to eligible energy intensive businesses in return for meeting energy efficiency improvement or carbon reduction targets. Targets set under the 2013 agreements will deliver an overall 11.0% energy efficiency improvement across all industry sectors by 2020 against agreed baselines.⁵³

4.53. CCA participants are required to monitor their energy supplies and report their use of electricity, any direct fuels, and the production throughput every two years to the scheme administrator (the Environment Agency).⁵⁴ This enables the actual performance of the ‘target unit’ to be compared to the target set for that reporting period.

4.54. Individual companies participating in CCAs may wish to use CCA data to conduct an energy audit of the relevant industrial processes, helping to identify cost-effective energy efficiency recommendations as part of their compliance with ESOS. In some cases, companies may have already identified energy efficiency recommendations as part of their approach to CCAs.

Synergies between ESOS and the EU ETS

4.55. The EU ETS requires measurement and reporting of emissions for installations subject to the EU ETS. There is therefore scope for organisations subject to EU ETS to use data gathered under that scheme to support ESOS assessments.

Consultation Questions

Q17. With respect to industrial processes, should ESOS assessments cover all energy use, including waste heat recycling and use of process waste as fuel?

Yes / No (please give reasoning)

Q18. With respect to industrial processes, are there any specific issues that you wish to raise in relation to implementing the requirement to conduct ESOS assessments, including with regards to the overlap with existing schemes?

Yes (please give reasoning) / No

⁵³ <https://www.gov.uk/government/news/industry-agree-stretching-energy-efficiency-targets-with-government> [accessed 11 June 2013]

⁵⁴ <http://www.environment-agency.gov.uk/business/topics/pollution/136236.aspx> [accessed 11 June 2013]

Alternative routes to compliance

Compliance via energy or environmental management systems

4.56. Article 8(6) of the Directive provides an ‘exemption’ from the energy auditing requirement for ‘enterprises that are implementing an energy or environmental management system (EMS) certified by an independent body according to the relevant European or International Standards’. This only applies where Member States ‘ensure that the management system concerned includes an energy audit on the basis of the minimum criteria.’

4.57. The principle here is to avoid ‘double regulation’. The policy intent is that organisations should only have to carry out an energy audit once every 4 years, and that one option for compliance should be through an appropriate EMS.

4.58. The Directive (recital 24) indicates that the minimum criteria for energy audits ‘do not go beyond’ the requirements of EN ISO50001 (energy management systems) and the EN 16247 series (the energy audits standard for auditors, some elements of which are still under development). On this basis, the Government proposes that any organisation with a current EN ISO50001 certificate would be deemed in compliance with ESOS, and that any audit certified via a UKAS approved certification body as carried out to EN 16247 standards would be deemed ESOS compliant.

4.59. Similarly, the Government proposes that organisations with an ISO14001 certificate would also be deemed to be in compliance, providing the approach taken to ISO14001 has included an energy audit that meets the minimum standards of the Directive. We have initiated discussions with the UKAS⁵⁵ to explore whether it would be possible to issue an additional certificate alongside the regular ISO14001 certificate in instances where an energy audit has been conducted as part of ISO14001 implementation.

4.60. As with our proposals in relation to Green Deal assessments, DECAs, and Green Fleet reviews, if an organisation had only secured an appropriate EMS for part of its operations – for example, particular sites – then ESOS assessment would still be necessary to cover the remainder of the organisation. For the whole organisation to be exempt, the ESOS assessor would need to confirm that they considered the remainder of the organisation to be *de minimis* in energy terms.

4.61. The Government invites views on our proposed approach to existing European or international standards, including whether other EU or international standards should also be considered as possible exemptions.

Consultation Questions

Q19. In addition to ISO50001 and ISO140001 (where it includes an energy audit), are there any other EU / international management systems which you think should also provide an ‘exemption’ (i.e. an alternative compliance route)?

If answering this question with any proposed additional EMSs, please provide evidence of why you think they would meet the minimum audits standard set by the Directive

⁵⁵ The potential role of UKAS in relation to other aspects of ESOS is considered in chapter 5 of this consultation document.

4.62. The Government proposes to task the scheme administrator (see Chapter 7) with considering on an on-going basis whether other EU or international standards have evolved sufficiently that they could in future count as exemptions from ESOS.

Certification of domestic initiatives as compliant for the purposes of 2015 audits

4.63. The Government recognises that some UK initiatives already implemented may also meet the minimum audit standard set by the Directive and some organisations are already covered by these initiatives. Where this is currently the case, the Government considers that it may not be necessary to require such organisations to undertake an ESOS assessment ahead of December 2015.

4.64. Potentially, one such initiative is the UK Carbon Trust Standard (CTS), which is already voluntarily used by over 600 organisations to demonstrate leadership on energy efficiency and carbon management.⁵⁶

4.65. The CTS sets a quantitative carbon emissions improvement target, including from energy use, which can operate on either an absolute or relative basis. The CTS also requires qualitative improvements on carbon measurement and management, in which energy efficiency is central. The Government invites views on whether the CTS meets the minimum requirements of the Directive, by requiring a comprehensive assessment of the organisations energy performance (including buildings, transport and industrial processes) and by also identifying recommendations for energy efficiency improvement.

4.66. Subject to the views of consultees, the Government proposes that organisations that are currently compliant with the Carbon Trust Standard and continue to be so until December 2015 should be deemed to be compliant with ESOS for December 2015. Government proposes that the scheme administrator would be responsible for agreeing whether any existing UK initiatives comply with the minimum requirements of the Directive.

4.67. The Government proposes this approach as a transitional arrangement. After December 2015, it would be open to the Carbon Trust and other promoters of domestic initiatives to ensure that they met the level of competence required to conduct ESOS assessments, and were duly certified / approved (see Chapter 5 for details on proposals).

Consultation Questions

Q20. Do you agree with the proposed transitional arrangements to consider whether certain existing UK schemes can be deemed compliant with the Directive's requirements for audits conducted in 2015?

In particular,

- a. Do you think the Carbon Trust Standard meets the minimum audits criteria set in the Directive?**
- b. And are there any other UK initiatives that you think should be deemed to be compliant for audits conducted in December 2015?**

Yes / No / Comments (Please give reasoning)

⁵⁶ The energy audits Impact Assessment highlights that 660 companies have used the Carbon Trust Standard. <http://www.carbontruststandard.com/pages/The-Standard> [accessed 28 May 2013]

5. Who can conduct an ESOS assessment?

This chapter outlines the main options for the qualification and accreditation of individuals and/or organisations to conduct energy efficiency audits.

Minimum requirements

5.1. The Directive states that energy audits must be:

- carried out in an independent manner by qualified and/or accredited experts; or
- implemented and supervised by independent authorities under national legislation.

5.2. The Directive also states that energy audits may be carried out by in-house experts or external energy auditors and must be subject to a scheme to assure and check their quality.⁵⁷ The Government must also ensure that there are a sufficient number of qualified energy auditors available to meet the requirements of the Directive by, as necessary, encouraging training programmes for the qualification of energy auditors.⁵⁸

Market capacity

Box 10: Approximate numbers of energy auditors currently working throughout the UK

Industry stakeholders have indicated that there have been over 400 active advisors registered with the Carbon Trust, providing a range of audits, advice and loan assessments. At the time when free Carbon Trust audits ceased, there were 271 active consultants remaining.

The Energy Institute has over 200 members working in energy consultancy and over 90 have so far applied to join the EI/ESTA Register of Professional Energy Consultants.

There are around 600 CIBSE Low Carbon Consultants and around 1000 CIBSE Low Carbon Energy Assessors. These individuals all have expertise in buildings audits and some may also have expertise in other aspects of auditing, such as transport and/or industrial processes.

There is likely to be significant overlap between these figures.

5.3. All large enterprises will need to have conducted ESOS assessments by December 2015, unless they comply by one of the alternative mechanisms outlined in chapter 4. Our consultation stage Impact Assessment estimates that in the region of 200-500 auditors will be required to carry out ESOS assessments.

5.4. Our initial discussions with industry stakeholders have suggested that there are a large number of individuals who already have the expertise to conduct energy audits and for whom it should be relatively straightforward to be accredited to conduct ESOS assessments[see box 10].

⁵⁷ Energy Efficiency Directive Article 8(1)

⁵⁸ Energy Efficiency Directive Article 16

These discussions have suggested that there is currently sufficient capacity within the market to enable organisations to meet the target of conducting ESOS assessments by December 2015. We would welcome further views on this.

Consultation Questions

Q21. Is there sufficient capacity within the energy efficiency advice sector to meet the demand that will be generated by ESOS, and particularly to ensure all organisations are able to conduct assessments by December 2015?

Yes / No / Comments (Please give reasoning)

If no, what further steps need to be taken to generate that capacity:

- a. **By industry and professional bodies?**
- b. **By the Government?**

What level of competence is required to conduct an energy audit?

Setting the standard for ESOS assessors

5.5. While some large organisations may have relatively simple energy usage profiles, many will be complex, involve multiple sites and also include energy usage from industrial processes and transportation. To deliver useful ESOS assessments to organisations, ESOS assessors will need to be suitably qualified and will require a certain level of professional expertise. ESOS assessors will need to be able to take a strategic view of organisation's energy usage as a whole, including energy use from buildings, transport and industrial processes.

5.6. The Government intends to work with the British Standards Institute, the UK's national standards body, and industry to collaboratively develop a Publicly Available Specification (PAS) setting out the minimum competence required for assessors to conduct ESOS assessments. The draft PAS will be subject to a public consultation phase in due course; however, we would also welcome views at this stage too, including on whether there are any existing standards or specifications for energy auditors which we should take into account in developing the PAS. Our expectation is that the PAS should largely reflect and build on the current levels of competence that energy efficiency professionals already demonstrate through existing qualifications and schemes..

5.7. Our intention is that the PAS standard would only apply to ESOS assessments. It would not apply where organisations have chosen to comply via an alternative route, such as an ISO 50001 certificate covering the entire organisation. In cases where site based non-domestic Green Deal assessments, transport specific Green Fleet Reviews, or site based EMSs had been used, an ESOS assessor would only need to focus on the residual energy use or confirm that the residual energy use was *de minimis*.

Box 11: Current qualification routes for energy professionals

In recent years the private sector has developed a range of benchmarks setting standards for energy efficiency professionals⁵⁹. These include:

- Chartered Energy Manager status (a qualification which can be secured by in-house corporate energy managers);
- the Register of Professional Energy Consultants (featuring consultants able to advise on whole organisation energy management, and requiring chartered status or equivalent plus a peer review of client assessments and a telephone interview);
- CIBSE's registers of Low Carbon Consultants and Low Carbon Energy Assessors, along with other energy assessor schemes operated for energy audits of buildings;
- specific qualifications have also been developed for more technical accredited energy assessors to carry out Energy Performance Certificate (EPC) or Display Energy Certificate (DEC) assessments, such as the City & Guilds diplomas in Non-Domestic Energy Assessment. DEC, EPC, and Green Deal assessors are required to demonstrate competence under Accreditation of Prior and Experiential Learning (APEL).

Consultation Questions

Q22. Are there existing industry specific qualifications / standards which we should take account of in developing an ESOS assessors PAS specification?

Yes / No / Comment. If yes, what do you think should apply as the minimum?

ESOS assessment teams

5.8. Given the scale of the task and specialist knowledge that will be required, many ESOS assessments will be undertaken by a team of auditors. The Government proposes that all ESOS assessments should have a 'lead assessor', who is responsible for ensuring that assessments are carried out in line with required standards. The lead assessor would generally lead a team including relevant technical specialists as appropriate. However, the lead assessor would be expected to sign off on the final assessment, and would be accountable for its content. The lead assessor would need to meet minimum qualifying standards to conduct the ESOS assessment (as set out in the PAS, discussed above) and would be expected to play an active part in its conduct. This could include undertaking key site visits, though this task could potentially be delegated to more technical specialists, depending on the nature of the sites.

5.9. For more complex organisations it is especially likely that lead assessors responsible for advising on overall corporate energy management would, as appropriate, need to draw on technical specialists, in order to sign off on all elements of an ESOS assessment.

⁵⁹ The EU is developing the European Standard – EN 16247 – series, which sets a European standard for energy audits, including specific standards for audits of buildings, processes and transport. However, this standard applies to *audits* rather than to *auditors*;

Consultation Questions

Q23. Do you agree with the Government's proposals on lead ESOS assessors:

- a. That a 'lead assessor' should sign off each ESOS assessment, drawing on the input and assessments of more technical specialists as appropriate, as part of checking that all significant energy use across the organisation has been considered?
- b. That minimum qualifications should apply to lead assessors only, rather than to all those participating in an assessment?

Yes / No / Comment (Please give reasoning) If no, should there be different minimum qualifications for more technical members of an ESOS team and what should these be?

In-house experts

5.10. Some large organisations may prefer in-house energy managers to conduct ESOS assessments. This route has the potential to provide a cost-effective means for organisations to meet the requirements of ESOS, while also benefiting from assessments being undertaken by individuals with knowledge of the specific business.

5.11. The Directive indicates that in-house experts should not be directly engaged in the activity being audited.⁶⁰ For instance, if an energy manager was directly responsible for operating specific building energy management systems, it may be inappropriate for them to audit those buildings. But, provided that there is a division of responsibilities between overall energy managers and those responsible for on the ground implementation (for instance, buildings/facilities/ site managers), then we propose that they would be considered sufficiently independent. We would like to clarify this through good practice guidance, and would welcome illustrative examples to help us develop this guidance.

Consultation Questions

Q24. What particular steps will need to be taken by organisations to ensure that in-house experts had the 'necessary independence' to audit business activity?

Yes / No / Comments (Please give reasoning)

Who should ensure auditors meet the necessary standard?

5.12. The Government proposes that it is necessary to introduce some form of mechanism through which potential ESOS assessors could be authorised to carry out ESOS assessments. We have identified two main routes through which this could take place:

Approach A: Authorising ESOS assessors (individuals and organisations) to carry out ESOS assessments through a UKAS approved certification body.

Approach B: Requiring that ESOS assessors belong to a register, approved by the scheme administrator and managed by a professional body. The scheme administrator would approve registers which included assessors who met the level of competence defined via the PAS process (see above).

⁶⁰ Energy Efficiency Directive, Recital 25

5.13. These routes, and the potential advantages and disadvantages of each, are explored in more detail below.

'Approach A' – Accreditation of individuals/organisations through UKAS



Figure 1: 'Approach A' model for accrediting organisations to carry out energy efficiency audits

5.14. Under Approach A, certifying bodies, overseen by UKAS, would approve individuals (and organisations) as competent to carry out ESOS assessments. Certifying bodies would quality assure a percentage of assessments (see below for details on quality assurance).

5.15. A potential advantage of this model is that UKAS is already recognised for its certification and accreditation of other assessment bodies. This route would provide a robust and independent mechanism for ensuring that assessors were suitably skilled to conduct effective ESOS assessments.

5.16. A potential disadvantage of this model is that it would take time to establish this arrangement. Depending on the time taken to certify existing energy auditors as ESOS assessors, this could potentially reduce the window of time that organisations would have to carry out audits ahead of the December 2015 deadline set by the Energy Efficiency Directive.

'Approach B' – Scheme administrator focussed model



Figure 2: Outline model for accrediting individuals to carry out energy efficiency audits

5.17. Under 'Approach B', the scheme administrator would approve particular registers, maintained by appropriate and relevant bodies representing those working in the energy efficiency sector. Individual energy auditors and energy management professionals would then apply to join these registers. The scheme administrator would be responsible for checking that registers only included ESOS assessors who met the agreed standards, and that a suitable vetting process was in place prior to individuals being granted membership of a register. Individuals who were members of an approved register would be allowed to carry out ESOS assessments [see box 12]. Collectively, registers would need to include both consultants and in-house experts. The scheme administrator would establish arrangements to quality assure a certain percentage of ESOS assessments against the required standards.

Box 12: Examples of existing registers of energy professionals**The Register of Professional Energy Consultants (RPEC) and Chartered Energy Manager**

RPEC is jointly run by the Energy Institute and the Energy Services Technology Association (ESTA). RPEC members are qualified to chartered engineer status or equivalent and undergo a peer-reviewed assessment process prior to joining the register, to ensure that they have appropriate levels of training and practical experience. Once on the register, members are required to maintain continuous professional development (CPD) in order to retain their membership.

RPEC features consultants capable of leading whole organisation energy audits, with expertise in building, industry and transport energy efficiency.

RPEC is intended specifically for independent energy consultants, and does not include company in-house experts (such as corporate energy managers).

The Energy Institute also maintains a separate register of those qualified as “Chartered Energy Manager”. These are typically company in-house experts such as corporate energy managers.

The IEMA Environmental Auditor Register

IEMA’s Environmental Auditor Register features consultants and in-house individuals with knowledge and experience of both environmental issues including energy and energy efficiency and audit experience and expertise. IEMA’s Principal Environmental Auditors provide a written application and undertake a peer assessment to achieve registration.

CIBSE Low Carbon Consultants

CIBSE maintains the low carbon consultants register of approved energy assessors for Energy Performance Certificates and Display Energy Certificates

5.18. The advantage of this approach is that there are established professional bodies that already operate registers of energy auditors. Many members of these bodies would likely be able to carry out ESOS assessments with little or no additional training. For instance, both RPEC members and Carbon Trust Standard assessors already have expertise across buildings, industry and transportation.

5.19. However, there are also disadvantages. This model would rely on establishing a new arrangement in terms of the scheme administrator having to approve registers, making use of a PAS specification to do so. Having multiple registers in place, rather than certification via UKAS, could be more complicated for businesses seeking to identify whether an ESOS assessor belongs to a valid register. This route would also potentially not provide the same level of assurance to businesses as to the competence of ESOS assessors as having a scheme overseen by UKAS.

5.20. Under this model, the scheme administrator would be responsible for deciding who was, in the first instance, able to licence ESOS assessors. Were this model to be pursued, registers, such as those of the RPEC, IEMA and the Chartered Energy Manager, could potentially provide a starting point in terms of those qualified to undertake ESOS assessments, though they would still need to apply to the scheme administrator to secure approval. It would, of course, be open to all professional bodies to apply to the scheme administrator to have their registers authorised for the purposes of delivering ESOS assessments.

Which accreditation route? ‘Approach A’ (UKAS approved Certification Bodies) or ‘Approach B’ (Scheme Administrator approved Professional Registers)?

5.21. Both of the proposed accreditation routes outlined above have advantages and disadvantages. The UKAS route may provide greater quality assurance for businesses, and has the advantage of using the UK’s established national accreditation body, rather than setting up a

new approvals regime. However, competence assessment of ESOS assessors through professional bodies would tap in to pre-existing energy auditor / manager registers, which could speed up authorisation.

5.22. Our initial view is that we would not legislate for both of these routes because this would create unnecessary complexity, and an additional regulatory burden. It could also distort markets by encouraging uptake of whichever route was perceived to be less onerous.

Consultation Questions

Q25. Which approach to accreditation would you prefer to be put in place and why?

- a. UKAS accredit certifying bodies to certify ESOS assessors**
- b. The scheme administrator approves lists of ESOS assessors which are managed by professional bodies**

Approach A / Approach B / Comments (Please give reasoning)

If you prefer Approach B please set out details of any registers already in existence which could be easily modified to meet the needs of the ESOS scheme.

Quality assurance

5.23. Under either model outlined above, it will be important to put in place effective quality assurance arrangements. We propose that a certain percentage of all ESOS assessments carried out should be subject to external quality assurance checks.

5.24. Quality assurance checks would be carried out by the certifying body (under 'Approach A') or alternatively the scheme administrator (under 'Approach B'). The purpose of the quality assurance would be to ensure that assessments met the minimum requirements specified in the scheme and that ESOS assessors continued to demonstrate the level of competence required for their role.

5.25. In order to quality assure a certain percentage of ESOS assessments, we believe that it would be necessary for the organisation (or assessor) undertaking the assessment to notify the scheme administrator each time they conducted an ESOS assessment. The issue of notification and reporting on audits is considered in more detail in Chapter 6.

5.26. Under the CRC, 10% of submissions are subject to quality assurance checks. Our Impact Assessment bases its costs analysis on this model. However, there are alternative schemes which involve a lower level of quality assurance checks – such as that for EPCs and DEC's.

Box 13: Quality assurance arrangements for Energy Performance Certificates (EPCs) and Display Energy Certificates (DECs) in England and Wales

The Department for Communities and Local Government issues Scheme Operating Requirements (SORs) for producers of EPCs and DECs in England and Wales. These include minimum requirements for auditing of certificates:

- A random minimum sample of 2% of all EPCs and DECs are audited for a given year.
- All EPC and DEC assessors are subject to at least one audit every six months (unless no certificates have been issued within a six month period) In Scotland this is extended to 1 in 12 months if fewer than 5 lodged in six months.
- Any audit failures i.e. not within the 5% or 10% error boundaries automatically trigger a requirement for the assessor to withdraw the faulty certificate from the register and to re-lodge a corrected version. It also triggers a request for a further two certificates to be submitted for audit.
- If either of the additional certificates fails its QA checks the energy assessor is asked to provide further evidence or to submit corrected EPCs or DECs. The assessor can be suspended if they do not understand the basic requirements and will be asked to complete further training.

Consultation Question

Q26. Do you have any views on the proposed quality assurance arrangements for ESOS assessments; in particular, what percentage of audits should be subject to quality assurance (e.g. 10% as is the case with the CRC or 2% as is the case with EPCs and DECs)?

Yes / No / 10% / 2% / Other (Please give reasoning)

6. Compliance and reporting

This chapter sets out options for establishing compliance mechanisms for the Energy Savings Opportunity Scheme

Responsibilities of large enterprises following the completion of an ESOS assessment

6.1. The energy audits requirement in the Directive is designed to incentivise large enterprises to implement energy saving measures by providing trusted high-quality information about potential savings. However, there is no *requirement* for organisations to implement energy saving measures identified.

6.2. Nevertheless, the Directive does state that data used in energy audits must be storable for historic analysis (Annex VI, Energy Efficiency Directive).

6.3. The timetable for storage of CRC records has been amended under the recent scheme simplification to 6 years, in order to reduce the burden associated with record retention. Under the EU Emissions Trading Scheme, records have to be kept for 10 years.

6.4. We propose that a record of each ESOS assessment should be kept for 6 years. This will help ensure that records can inform subsequent assessments, and meet the requirement to store data used for historical analysis. This will also be important to allow organisations to demonstrate compliance, should they be asked to by the scheme administrator.

Consultation Questions

Q27. Should ESOS assessment records should be stored for 6 years, as with the CRC?

Yes / No / Comment – If no, please suggest an alternative length of time, with reasoning.

The Government's responsibilities to report on ESOS uptake

6.5. The UK Government is under a legal obligation to provide certain information to the EU Commission about the uptake of energy audits in the UK, including: the total number of energy audits carried out (by SMEs voluntarily and by non-SMEs on a mandatory basis); the number of large enterprises which have undertaken an energy audit; and the number of large enterprises in the UK, with an indication of the number of those which choose to comply through adopting an energy management system or environmental management system.

6.6. The first time the Government will be required to report this information (under Article 24) will be 30 April 2017. We want to fulfil this obligation in the least burdensome way for participating organisations, whilst importantly also recognising that some options could have significant wider benefits in terms of ensuring the effectiveness of the policy.

6.7. The following policy options set out how these reporting obligations might be met.⁶¹ These are not mutually exclusive and, potentially, different options may complement each other.

⁶¹ The potential impact of these options on business is considered in further detail in the impact assessment.

As the Impact Assessment identifies, the present value of the difference in cost between options 1-5 is estimated to be £40m (for the period 2015-2030). This is small in comparison to the total costs and benefits (principally the cost and return on investing in energy efficiency measures), which give rise to the overall positive Net Present Value of between £0.8bn and £3bn, with a central estimate of £1.9bn over the same period.⁶²

6.8. The impact of the following options is considered in more detail in the Impact Assessment, published alongside this consultation document.

Option 1 – Survey-based assessment of take-up

6.9. One approach to fulfilling the UK Government's reporting obligations would be to rely on a periodic survey (random checking) by the scheme administrator to assess the uptake of ESOS assessments.

6.10. Under this option, the scheme administrator would randomly check a sample of large enterprises to ensure they have carried out an ESOS assessment or have complied by another means (e.g. through implementing an approved EMS). This information would be used to generate an estimate of the percentage compliance rate, and the number of large enterprises undertaking ESOS assessments. A survey of organisations could also be used to estimate the number of energy audits being taken up by SMEs on a voluntary basis.

6.11. There are limitations to this approach. In addition to only providing estimates of the number of organisations undertaking energy audits, this approach has a significant wider disadvantage in terms of the Government's desire to facilitate a cost-effective and well-targeted approach to enforcement. Notably, the scheme administrator would have no way of knowing who was at risk of non-compliance and, therefore, would need to approach companies at random rather than taking a risk-based approach to targeting participating organisations. This could lead to organisations that seek to comply through a 'best-practice' approach being targeted for follow up and/or inspection rather than those at a higher risk of non-compliance. If relied on in isolation, a survey based approach would only provide limited data to support any future evaluation of the effectiveness of the policy.

6.12. There are strategic benefits to having some form of notification to the scheme administrator, in order to facilitate targeting of enforcement activity. In light of this, and recognising its own data collection obligations, the Government is not currently inclined towards a survey based approach to gather data on the number of large enterprises undertaking energy audits.

6.13. In the case of SMEs, where energy audits are voluntary, the Government considers that there could be a case for a survey.

Consultation Questions

Q28. Would a survey based approach to collecting data on the number of large enterprises participating in ESOS / complying by means of EMS (option 1) be adequate, given the UK's obligation to report to the European Commission on uptake of energy audits, and the aim to develop a targeted enforcement regime?
Yes / No / Comments (Please give reasoning)

⁶² DECC Impact Assessment for energy audits.

Option 2 – Basic notification to scheme administrator

6.14. Another option would be for the Government to require organisations to provide some form of notification to the scheme administrator. Basic notification to the scheme administrator would simply involve flagging that an organisation is within scope and that it has conducted an ESOS assessment (or complied by an alternative means), or will do so by a certain date.

6.15. Requiring notification to the scheme administrator would enable a smarter, more cost-effective approach to enforcement, allowing the scheme administrator to target enforcement activity – e.g. on those organisations that fail to notify, or who need more guidance and support to understand their obligations. It would also enable the scheme administrator to identify when an organisation's ESOS assessment is due, avoiding it having to contact organisations at random and thereby poorly targeting resource. As part of the notification requirement, large enterprises could be required to register with the scheme administrator when they first became large enough to enter the scheme, in line with the energy audit cycle established by the Directive.

6.16. The Government sees some form of notification as valuable, both in terms of driving energy efficiency and ensuring a risk based approach to enforcement, driving a high level of compliance, and thereby fostering an effective 'level playing field' (in which all large enterprises do in practice undertake ESOS assessments). Notification would also enable the Government to report reasonably accurate data, rather than only estimates, to the European Commission on the total number of energy audits completed, as required.

6.17. Though not requiring any form of notification would on average be slightly cheaper for businesses, such an approach would likely result in those large enterprises that have good energy management still finding themselves targeted at random by the scheme administrator, diverting follow up effort and enforcement action from those enterprises which do require additional support and guidance.

6.18. The Government is, therefore, currently inclined towards requiring some level of basic disclosure by large enterprises. The Government considers that this would be proportionate, allowing for a more meaningful and targeted enforcement regime, and ensure the Government could meet the Directive's reporting requirements to the European Commission. Options 4 and 5 set out further permutations of this notification requirement option.

Consultation Questions

Q29. To support an effective enforcement regime, should large enterprises be required to notify the scheme administrator that they are in scope and have conducted an ESOS assessment (or complied by another means)? (option 2 in the Impact Assessment)?

Yes / No / Comments (Please give reasoning)

Option 3 – Public disclosure

6.19. Another policy choice centres on whether the Government should, instead of reporting to the scheme administrator, require some form of public disclosure from large enterprises that are required to undertake an ESOS assessment.

6.20. There are a number of potential benefits to requiring public disclosure by obligated organisations, including the possibility that it would enhance uptake of energy efficiency

measures and, thereby, increase the net benefit to UK businesses. However, these benefits need to be weighed against the additional administrative burden that mandating disclosure would require (which we estimate to average around £1,800 per enterprise for each assessment).

6.21. There are a number of ways that a public disclosure approach might be implemented. The Government invites views on 4 approaches:

1. Do nothing.
2. Mandating public disclosure, through a large enterprise's annual Directors' report, that an ESOS assessment has been conducted.
3. Mandating public disclosure of a narrative summary of key action taken as a result of the ESOS assessment within the annual report, with a reference made within the annual Directors' report.
4. Voluntary public disclosure in the annual report, with a 'lighter touch' approach to enforcement (i.e. a lower probability of being inspected) for those organisations notifying the scheme administrator of such disclosure. The substance of the disclosure could follow either of the above two approaches (i.e. be confined to voluntarily disclosing that an ESOS assessment has been conducted, or alternatively voluntarily disclosing a narrative summary of key action taken as a result of the assessment).

Organisations which do not publish annual reports would be required / asked to publicly disclose via another suitable mechanism (e.g. via a website).

6.22. The Government considers that there are several potential benefits from encouraging or mandating public disclosure. These include:

- supporting the most sustainable companies in demonstrating how well they are performing, while also motivating companies with room to improve energy efficiency practices to do so;
- helping to promote awareness of the findings of ESOS assessments amongst senior managers, directors and, where appropriate, shareholders or trustees of large enterprises, thereby improving awareness of the value of investing in energy efficiency;
- potentially stimulating growth of the energy efficiency products and services market through providing potential participants in the market with information on energy efficiency opportunities; and
- facilitating a lighter touch enforcement regime by allowing the scheme administrator to target enforcement activity at large enterprises that have not demonstrated that they'd undertaken an ESOS assessment.

6.23. The Government notes that were public disclosure to be adopted without any requirement to notify the scheme administrator, it would be more challenging for the scheme administrator to assess whether organisations were complying with the scheme. This would be likely to place a greater burden on participating organisations, as the scheme administrator may need to contact them were it unable to locate the public disclosure record and would be less able to target

enforcement activity effectively. In addition, in the absence of any notification to the scheme administrator, checking that organisations were complying through surveying their annual reports would be a very resource intensive way to estimate the number of organisations undertaking ESOS assessments (or complying by means of EMSs).

Consultation Questions

Q30. What is your preferred approach to disclosure of an ESOS assessment (option 3 in the Impact Assessment)?

- a. Do nothing
- b. Mandatory disclosure that an ESOS assessment has been conducted
- c. Mandatory disclosure of an organisation's overall response to an ESOS assessment
- d. Voluntary disclosure of an organisation's overall response to an ESOS assessment with a light-touch enforcement regime for those organisations which do so

Approach A, B, C or D? Please state your reasoning

Q31. If you are in favour of public disclosure, what sort of information would you like to see disclosed? For example:

- cost savings available from audit recommendations
- action taken in light of an ESOS assessment
- the organisation's energy intensity ratio

Should a Director of a large enterprise be required to sign off on the corporate energy audits disclosure?

Yes / No / Comment. Why?

Option 4 – Notification with cost recovery

6.24. This is the same as option 2 (notification to scheme administrator), but with the administrative costs being recovered from participating organisations. In line with HM Treasury principles (as set out in *Managing Public Money*)⁶³ certain costs, such as the costs of enforcement action, cannot be recovered from businesses. In any case these would be funded by the Government.

6.25. The Government notes that this cost recovery approach in respect of administrative costs is used and considered proportionate in comparable schemes (e.g. the CRC Energy Efficiency Scheme and the EU Emissions Trading System).

Option 5 – Central reporting of comprehensive energy audit results to the scheme administrator

6.26. This is the same as option 2, except that it also includes a requirement to report to the scheme administrator the key results of the ESOS assessment (i.e. the quantity of energy savings identified and the recommendations made) to the scheme administrator. As such, it

⁶³ http://webarchive.nationalarchives.gov.uk/20130129110402/http://www.hm-treasury.gov.uk/d/mpm_ch6.pdf
[accessed 11 June 2013]

goes beyond option 2, which only requires a basic level of disclosure (i.e. that an assessment has been carried out).

6.27. As with option 2, the task of reporting information to the scheme administrator could potentially be undertaken by either the organisation or its ESOS assessor. This information could be collected using a standardised template (using an on-line system), or by submitting the ESOS assessments. The focus would be limited to information that was readily available in ESOS assessments, and could potentially include:

- the total savings that could be delivered by ESOS assessments' recommendations;
- the total cost of implementing the recommendations;
- the organisation's energy intensity ratio; and/or
- a breakdown of the recommendations made and the energy saving and cost of each.

6.28. This option would potentially yield much useful information. It could significantly improve the evaluation of ESOS, and provide evidence to inform subsequent policy development. Robust information on the potential for energy efficiency could also provide a strong signal to the energy efficiency market of the business opportunities available. The data – suitably anonymised – could also be made available to the academic community and used for wider research into business energy efficiency and published in aggregate. Publication of this information, summarised to take account of commercial sensitivities, could also help organisations assess their energy performance in the context of the wider market.

6.29. Moreover, this option has the advantage of enabling the scheme administrator to target its follow up and enforcement action cost-effectively, focusing on those not supplying the correct key information, rather than following up with organisations at random, many of whom may be fully in compliance. The option could enable better targeting than option 2, which only requires basic notification of when an audit has been conducted as it would allow organisations to more fully demonstrate that they had complied, and it would standardise communication with the scheme administrator on the key audit findings (and thereby provide more clarity to participating organisations). This option would also allow the UK to provide accurate data to the European Commission on the numbers of large enterprises undertaking audits.

6.30. This option is slightly more costly on average to participating organisations (by around £900 per audit), and depending on the level of detail of the information collected, would require a system to be in place to protect commercially confidential data.

Consultation Questions

Q32. Should large organisations be required to report on key ESOS assessment findings to the scheme administrator (option 5 in the Impact Assessment)?

Yes / No / Comments Please state your reasoning

If yes:

- a. **what information should be collected and how?**
- b. **should the scheme administrator store information internally or publicly disclose some information (and if so, what)?**

Option 6 – Mandatory site audits with DEC's for buildings and notification to enforcement body

6.31. The Impact Assessment also sets out an option – option 6 – that would require a mandatory audit of all a large enterprise's sites and the production of a Display Energy Certificate (or DEC) for all its buildings over 250m².

6.32. The Government considers that this approach would represent significant 'gold plating', going well beyond the requirements of the EU Directive, and that it is incompatible with our guiding principles (i.e. minimal administrative burden for UK business, to achieve increased energy efficiency in the most cost-effective way). This approach would impose considerably higher administrative costs to businesses. It is unclear how much additional energy efficiency benefit (i.e. above and beyond that associated with options 1-5) would result from this approach. Furthermore, the approach to DEC's differs across the UK. Given this context, the Government is strongly inclined not to take forward this option.

A combination of options

6.33. There may be a case for combining options to ensure that the scheme is well targeted and cost-effective. For instance, notification by large organisations could be accompanied by a survey of SMEs to understand total level of SME uptake. Some form of public disclosure could also be combined with some requirement to notify the scheme administrator. For example, a requirement (or voluntary encouragement) on public disclosure could be usefully combined with mandatory notification of basic information to the scheme administrator, in order to enable a well-targeted risk based approach to enforcement. Alternatively, if summary information (taking account of commercial sensitivities) on key ESOS assessment results and action taken was shared with the scheme administrator, the administrator could then publish the material provided, instead of mandating such public disclosure in annual reports. The Government's motivation here is to understand stakeholder views on what approaches would best incentivise the take-up of cost-efficient energy efficiency options, best support energy efficiency service providers, and also fully meeting the Government's obligation to implement EU legislation.

Consultation Questions

Q33. What is your preferred option or combination of options for meeting the UK's reporting obligations to the European Commission and ensuring a cost-effective scheme, and are there any options that you think the Government should definitely not pursue?

Please give reasoning.

Energy/environmental management systems compliance route

6.34. As discussed in Chapters 3 and 4, Article 8(6) of the Directive allows large enterprises to implement certain environmental or energy management system (EMSs) as a means of achieving compliance. For organisations which pursue this route, the scheme administrator will also need to have the ability to take steps to ensure that those organisations are fully compliant.

6.35. As Chapter 4 sets out, and as the Directive makes clear, an organisation holding an ISO 14001 certificate has not necessarily met the minimum requirements of the Directive. Rather, to satisfy the Directive, large enterprises would need to implement ISO 14001 in a way that includes an energy audit which meets the minimum standards set by the Directive, and the approach would need to apply to the entire organisation (as opposed to only selected sites). A

way forward here might be for UK certifiers of ISO 14001 to develop additional documentation (e.g. an additional certificate) in which to record when organisations have conducted a Directive compliant energy audit as part of their ISO 14001 process.

6.36. The Government's preliminary view is that the ISO 50001 Energy Management System or an audit compliant with the European Standard EN 16247, where these apply to the whole organisation, would satisfy the energy audit requirements of the Directive.

6.37. To facilitate a targeted enforcement regime and establish compliance via the EMS route, organisations wishing to demonstrate EMS based compliance would need to be able to show their certificate to the scheme administrator. If the certificate did not clearly state that it applies to the organisation as a whole, an ESOS assessment would need to apply to the remaining organisation (or an ESOS assessor would need to confirm that the remaining energy use was *de minimis*).

Consultation Questions

Q34. Should the same compliance route should be adopted for organisations complying via an approved EMS as for those undertaking ESOS assessments?

Yes / No / Comment

7. Scheme Administration and Enforcement

This chapter sets out potential scheme administration bodies, and options for enforcement action in cases of non-compliance.

The scheme administrator

7.1. To minimise the administrative burden on participant organisations, the Government aims to develop an effective and well-targeted regulatory approach that will promote fairness and transparency, and raise awareness of the benefits of energy efficiency. Central to achieving this will be selecting an effective regulator to oversee ESOS's operation. Throughout this consultation document, that regulator has been referred to as the 'scheme administrator'.

7.2. The scheme administrator will have several key regulatory responsibilities in administering ESOS. The Government envisages that these will include:

- maintaining good-practice guidance on compliance with the scheme's legal requirements and on areas where organisations may wish to consider going beyond the legal minimum;
- overseeing compliance checks and, depending on the accreditation model adopted, quality assurance of ESOS assessments;
- approving 'alternative' routes to compliance – i.e. of any other EU / International or international EMS that are deemed equivalent to ISO 50001;
- overseeing transitional arrangements to the scheme by approving any UK-specific initiatives – such as the Carbon Trust Standard – for the purposes of energy efficiency audits conducted in December 2015; and,
- depending on the accreditation route adopted (see Chapter 5), the scheme administrator may be responsible for deciding who is qualified to carry out ESOS assessments by virtue of approving professional bodies' registers of assessors.

7.3. The Government considers that a UK wide scheme administrator, working closely with relevant devolved agencies, will reduce administrative complexity for participants and ensure a 'level playing field'. This would be in line with the approach adopted via the CRC Energy Efficiency Scheme.

7.4. On the basis of our initial engagement with stakeholders, we identified three possible bodies capable of taking on the role of the UK wide scheme administrator:

- The Environment Agency; or
- The National Measurement Office; or
- Trading Standards

7.5. We consider that a public regulator is best placed to act as scheme administrator and oversee the enforcement regime on behalf of the Government, given that they will be tasked with regulating key elements of the scheme's delivery, including having to impose sanctions on large enterprises which fail to comply. However, this approach need not prevent the scheme administrator from potentially sub-contracting out key elements of its work. For example, under the model where the scheme administrator is responsible for checking the quality of ESOS assessments this activity could potentially be competitively outsourced.

7.6. In selecting a scheme administrator, it is important to deliver both a high standard of customer-service to organisations which are within scope of ESOS and value for taxpayers' money on programme costs. We will look at benchmarking start-up and on-going costs of scheme administration with equivalent policies, and will challenge whether there is an efficiency saving from the scheme administrator competitively outsourcing aspects of the work, or from identifying synergies with existing work. We also intend to conduct an initial review of the operation of ESOS in 2016, following completion of the first round of audits by December 2015.

Box 14: 'Gas Safe' model of regulation

The Health and Safety Executive – an agency sponsored by the Department of Work and Pensions – has joint enforcement responsibilities (with local authorities) under the Gas Safety (Installation and Use) Regulations 1998 to aim to prevent injury to consumers and the public from either carbon monoxide (CO) poisoning or fire and explosion.

The Gas Safe Register, operating under an agreement with HSE, was launched on 1 April 2009. A private company maintains the register of engineers who are assessed as competent to undertake work in respect of both piped natural gas and liquefied petroleum gas (LPG) in Great Britain, Northern Ireland, the Isle of Man and Guernsey. The current 10 year contract was awarded to Capita.

The performance of the Gas Safe Register is measured against a series of Key Performance Indicators (KPI's) that monitor the key aspects of delivery of the scheme, such as consumer awareness of gas safety risks, consumer and engineer satisfaction with the service provided by the register and the targeting of the scheme's efforts in the areas where it will have greatest effect. The KPI's are monitored on an on-going basis, with annual targets, and there are financial and contractual implications if the Gas Safe Register fails to meet the targets set.

HSE are responsible for taking forward prosecutions of illegal gas fitters. HSE inspectors investigate and gather evidence for potential prosecutions. Gas Safe Register investigates incidences and reports unsafe and/or illegal gas work and supplies to prosecuting bodies.

Environment Agency

7.7. The Environment Agency has a central role in delivering and enforcing a number of environmental priorities for central government, including managing UK-wide IT systems to support compliance. This includes the following energy and climate schemes:

- the CRC Energy Efficiency Scheme (CRC);
- the EU Emissions Trading System (EU ETS); and
- Climate Change Agreements (CCAs).

7.8. As set out in chapter 2, the policy with the greatest synergy with energy audits is the CRC Energy Efficiency Scheme, as it is likely that the majority of organisations targeted by ESOS will already be measuring their energy use under the CRC. Some organisations covered by energy audits will also be targeted by CCAs and/or will be operators under the EU Emissions Trading System.

7.9. With this in mind, the Government considers the Environment Agency and the other environmental regulators in the devolved administrations (SEPA, the NIEA and NRW) to be well placed to minimise the burdens on participating organisations, avoiding unnecessary duplication (i.e. organisations having to submit the same or similar information to multiple enforcement bodies), and take a cost-effective risk based approach to enforcement of ESOS, drawing on information from the CRC and other schemes, as appropriate.

7.10. The Environment Agency is currently responsible for administering certain aspects of the CRC on behalf of the regulators in the Devolved Administrations, e.g. the CRC Registry, and is responsible for administering and enforcing CCAs on a UK wide basis.

National Measurement Office

7.11. The National Measurement Office (NMO) is an agency of the Department of Business and Skills (BIS) and is responsible for ensuring fair and accurate measurements are available and used for transactions regulated by law, enforcement of a range of technical and environmental regulations and maintaining the science base for measurement in the UK.

7.12. In terms of energy and the environment, the NMO is responsible for enforcing the requirements on manufacturers that arise from several European directives, including:

- the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Directive (2011/65/EU);
- the Ecodesign of Energy Related Products Directive 2009/125/EC; and
- the Energy Labelling Directive 2010/30/EU

7.13. The NMO is also responsible for approving gas and electricity meters used for the purposes of billing and some market surveillance responsibilities for the accuracy of meters in the field. Though it has no enforcement responsibility for schemes that require organisation energy measurement, the NMO, through its enforcement responsibilities under the Energy Related Products Directive, has experience of appliance energy-in-use measurement and, working with UKAS, maintaining and approving Notified Bodies and auditing systems for regulatory requirements under the Weights and Measures Act. The NMO operates as a UK-wide administrator and enforcement body.

Trading Standards

7.14. Trading Standards enforce a broad range of legislation, from consumer to environmental. In terms of environmental legislation, Trading Standards is responsible for the enforcement of Display Energy Certificates (DECs) and Energy Performance Certificates (EPCs).⁶⁴

⁶⁴ In Northern Ireland, the Department for Finance and Personnel oversees implementation of DECs, and enforcement activity is undertaken at district council level.

7.15. Individual Trading Standards Services operate within local authority boundaries. Many large firms will have multiple premises in many local authority areas and it may be administratively more straightforward for them to report to a single body than to a number of organisations across multiple local authorities.

Scheme administration in the Devolved Administrations

7.16. Given that most organisations targeted by ESOS will already be covered by the CRC Energy Efficiency Scheme, Government sees advantages and efficiencies in mirroring the CRC's arrangements, whereby the Environment Agency administers key aspects of the scheme on a UK wide basis and acts as the regulator for England. Under this model, the Environment Agency would work closely with the relevant devolved agencies, the Scottish Environment Protection Agency (SEPA), Northern Ireland Environment Agency (NIEA), and Natural Resources Wales (NRW), which would lead on scheme administration within their respective jurisdictions.

7.17. At the same time, we are open to alternative suggestions in terms of scheme administrators, including but not limited to the NMO. In any case, we consider that there may be considerable scope for the scheme administrator to outsource some of its work to the private sector through competitive tendering. We would welcome views on options for implementing the scheme, so we can ensure a high level of customer service and value for money.

Consultation Questions

Q35. Who do you think should be appointed as the scheme administrator?

- a. **The Environment Agency working alongside devolved agencies**
- b. **The National Measurement Office**
- c. **Trading Standards**
- d. **Other (and if so, who)?**

A / B / C / D (if 'D' then please suggest an alternative approach). Please give reasoning.

A Better Regulation approach to sanctions

7.18. The Directive (Article 13) requires the Government to establish a sanctions regime for non-compliance which is 'effective, proportionate and dissuasive.'

7.19. The development of a sanctions framework does not prevent more informal methods of enforcement, such as advice or warning letters. The Government considers that sanctions should only be used as a last resort.

7.20. We are committed to developing a policy and regulatory framework for ESOS that aligns the use of sanctions with better regulation principles. To this end, we would envisage the use of penalties where they:

- eliminate any unfair advantage from non-compliance;
- are proportionate to the nature of the offence and the harm caused;
- deter future non-compliance; and
- are based on transparent enforcement guidelines.

7.21. In developing our proposals, the Government has given consideration to the Macrory review of regulatory sanctions which informed the Regulatory Enforcement and Sanctions Act 2008 (RES Act), and the associated guidance to the Act.

Proposed sanctions framework

7.22. The Government proposes that the scheme administrator have recourse to the following key civil sanctions:

- **Fixed monetary penalty (FMP)** notices, under which the enforcement body will be able to impose a monetary penalty of a fixed amount.
- **Discretionary requirements**, which will enable the enforcement body to impose, by notice, one or more of the following:
 - a variable monetary penalty (VMP).
 - a requirement to take specified steps within a set period of time to ensure non-compliance does not continue or happen again; and/or
 - a requirement to take specified steps within a set period of time to secure that the offending organisations position is restored to what it would have been had no offence occurred.

7.23. The Government considers these powers appropriate, proportionate and a necessary backstop to a 'light touch' compliance mechanism, in order to dissuade those organisations that fall within the scope of ESOS from non-compliance. That said, the Government does propose that sufficient flexibility be built into the enforcement regime to allow the regulator to moderate sanctions appropriately, for example, in cases where non-compliance is resolved quickly.

Circumstances in which a sanction would be imposed

7.24. Ultimately, it will be a decision for the scheme administrator to determine the appropriate response to a particular instance of regulatory non-compliance. The Government envisages the following non-compliance situations (A-E) as those most likely to give rise to some form of sanction:

- A. Failure to notify the scheme administrator.
- B. Failure to carry out an audit to the required standard.
- C. Failure to provide information when requested by the scheme administrator.
- D. Deliberately misleading the scheme administrator in response to a formal information request.
- E. Refusing to allow the enforcement body access to premises, where access is reasonable (e.g. in order to ensure accuracy of audit findings).

7.25. The Government does not propose to use criminal penalties for non-compliance with the ESOS. We consider that the civil sanctions identified above to be sufficient to incentivise compliance and act as the backstop for dealing with breaches of the regulatory requirements. We would welcome stakeholders' views on this approach, and whether there are certain offences where they consider particularly high civil penalties should apply.

Appeals

7.26. At this stage, the Government is considering the whether appeals by large enterprises, in respect of sanctions imposed under ESOS, should be submitted to the First-tier Tribunal. At the same time, we are open to alternative options, and would welcome views.

7.27. Circumstances where a large enterprise captured by the ESOS would have grounds for appeal would include those where a sanctioning decision:

- was based on an error of fact;
- was wrong in law; and/or
- was unreasonable.

Consultation Questions

Q36. Do you agree there should be some form of penalty applicable in the following instances, and are civil sanctions sufficient to address these misdemeanours?

- a. Failure to notify the scheme administrator.
- b. Failure to carry out an audit to the required standard.
- c. Failure to provide information when requested by the scheme administrator.
- d. Deliberately misleading the scheme administrator in response to a formal information request.
- e. Refusing to allow the enforcement body access to premises, where access is reasonable (e.g. in order to ensure accuracy of audit findings).

Yes / No / Any other comments on our proposed approach to enforcement

Other issues you may wish to raise

Consultation Questions

Q37. Are there any other issues you wish to raise in relation to the Energy Savings Opportunity Scheme that have not been covered in other consultation questions?

Annex A: Relevant extracts from Energy Efficiency Directive

Recitals

(24) To tap the energy savings potential in certain market segments where energy audits are generally not offered commercially (such as small and medium-sized enterprises (SMEs)), Member States should develop programmes to encourage SMEs to undergo energy audits. Energy audits should be mandatory and regular for large enterprises, as energy savings can be significant. Energy audits should take into account relevant European or International Standards, such as EN ISO 50001 (Energy Management Systems), or EN 16247-1 (Energy Audits), or, if including an energy audit, EN ISO 14000 (Environmental Management Systems) and thus be also in line with the provisions of Annex VI to this Directive as such provisions do not go beyond the requirements of these relevant standards. A specific European standard on energy audits is currently under development.

(25) Where energy audits are carried out by in-house experts, the necessary independence would require these experts not to be directly engaged in the activity audited.

(46) A sufficient number of reliable professionals competent in the field of energy efficiency should be available to ensure the effective and timely implementation of this Directive, for instance as regards compliance with the requirements on energy audits and implementation of energy efficiency obligation schemes. Member States should therefore put in place certification schemes for the providers of energy services, energy audits and other energy efficiency improvement measures.

Article 1 – Subject Matter and Scope

(25) ‘energy audit’ means a systematic procedure with the purpose of obtaining adequate knowledge of the existing energy consumption profile of a building or group of buildings, an industrial or commercial operation or installation or a private or public service, identifying and quantifying cost-effective energy savings opportunities, and reporting the findings;

Article 8 – Energy audits and energy management systems

1. Member States shall promote the availability to all final customers of high quality energy audits which are cost-effective and:

(a) carried out in an independent manner by qualified and/or accredited experts according to qualification criteria; or

(b) implemented and supervised by independent authorities under national legislation.

The energy audits referred to in the first subparagraph may be carried out by in-house experts or energy auditors provided that the Member State concerned has put in place a scheme to assure and check their quality, including, if appropriate, an annual random selection of at least a statistically significant percentage of all the energy audits they carry out.

For the purpose of guaranteeing the high quality of the energy audits and energy management systems, Member States shall establish transparent and non-discriminatory minimum criteria for energy audits based on Annex VI.

Energy audits shall not include clauses preventing the findings of the audit from being transferred to any qualified/accredited energy service provider, on condition that the customer does not object.

2. Member States shall develop programmes to encourage SMEs to undergo energy audits and the subsequent implementation of the recommendations from these audits.

On the basis of transparent and non-discriminatory criteria and without prejudice to Union State aid law, Member States may set up support schemes for SMEs, including if they have concluded voluntary agreements, to cover costs of an energy audit and of the implementation of highly cost-effective recommendations from the energy audits, if the proposed measures are implemented.

Member States shall bring to the attention of SMEs, including through their respective representative intermediary organisations, concrete examples of how energy management systems could help their businesses. The Commission shall assist Member States by supporting the exchange of best practices in this domain.

3. Member States shall also develop programmes to raise awareness among households about the benefits of such audits through appropriate advice services.

Member States shall encourage training programmes for the qualification of energy auditors in order to facilitate sufficient availability of experts.

4. Member States shall ensure that enterprises that are not SMEs are subject to an energy audit carried out in an independent and cost-effective manner by qualified and/or accredited experts or implemented and supervised by independent authorities under national legislation by 5 December 2015 and at least every four years from the date of the previous energy audit.

requirements of paragraph 4 when they are carried out in an independent manner, on the basis of minimum criteria based on Annex VI, and implemented under voluntary agreements concluded between organisations of stakeholders and an appointed body and supervised by the Member State concerned, or other bodies to which the competent authorities have delegated the responsibility concerned, or by the Commission.

Access of market participants offering energy services shall be based on transparent and non-discriminatory criteria.

6. Enterprises that are not SMEs and that are implementing an energy or environmental management system - certified by an independent body according to the relevant European or International Standards - shall be exempted from the requirements of paragraph 4, provided that Member States ensure that the management system concerned includes an energy audit on the basis of the minimum criteria based on Annex VI.

7. Energy audits may stand alone or be part of a broader environmental audit. Member States may require that an assessment of the technical and economic feasibility of connection to an existing or planned district heating or cooling network shall be part of the energy audit.

Without prejudice to Union State aid law, Member States may implement incentive and support schemes for the implementation of recommendations from energy audits and similar measures.

Article 16: Availability of qualification, accreditation and certification schemes

1. Where a Member State considers that the national level of technical competence, objectivity and reliability is insufficient, it shall ensure that, by 31 December 2014, certification and/or accreditation schemes and/or equivalent qualification schemes, including, where necessary, suitable training programmes, become or are available for providers of energy services, energy audits, energy managers and installers of energy-related building elements as defined in Article 2(9) of Directive 2010/31/EU.

2. Member States shall ensure that the schemes referred to in paragraph 1 provide transparency to consumers, are reliable and contribute to national energy efficiency objectives.

3. Member States shall make publicly available the certification and/or accreditation schemes or equivalent qualification schemes referred to in paragraph 1 and shall cooperate among themselves and with the Commission on comparisons between, and recognition of, the schemes.

Member States shall take appropriate measures to make consumers aware of the availability of qualification and/or certification schemes in accordance with Article 18(1).

Annex VI: Minimum criteria for energy audits including those carried out as part of energy management systems

The energy audits referred to in Article 8 shall be based on the following guidelines:

(a) be based on up-to-date, measured, traceable operational data on energy consumption and (for electricity) load profiles;

(b) comprise a detailed review of the energy consumption profile of buildings or groups of buildings, industrial operations or installations, including transportation;

(c) build, whenever possible, on life-cycle cost analysis (LCCA) instead of Simple Payback Periods (SPP) in order to take account of long-term savings, residual values of long-term investments and discount rates;

(d) be proportionate, and sufficiently representative to permit the drawing of a reliable picture of overall energy performance and the reliable identification of the most significant opportunities for improvement.

Energy audits shall allow detailed and validated calculations for the proposed measures so as to provide clear information on potential savings.

The data used in energy audits shall be storable for historical analysis and tracking performance.

Annex XIV: General Framework for Reporting (Part 2)

National Energy Efficiency Action Plans referred to in Article 24(2) shall provide a framework for the development of national energy efficiency strategies.

The National Energy Efficiency Action Plans shall cover significant energy efficiency improvement measures and expected/ achieved energy savings, including those in the supply, transmission and distribution of energy as well as energy end-use. Member States shall ensure that the National Energy Efficiency Action Plans include the following minimum information:

[...]

3.3. Energy audits and management systems (Article 8)

National Energy Efficiency Action Plans shall include:

- (a) the number of energy audits carried out in the previous period;
- (b) the number of energy audits carried out in large enterprises in the previous period;
- (c) the number of large companies in their territory, with an indication of the number of those to which Article 8(5) is applicable.

[...]

3.7. Availability of qualification, accreditation and certification schemes (Article 16)

National Energy Efficiency Action Plans shall include information on the available qualification, accreditation and certification schemes or equivalent qualification schemes for the providers of energy services, energy audits and energy efficiency improvement measures.

EU Commission Interpretative note on Article 8 of the Directive

The EU is currently drafting an interpretative note on Article 8 of the Directive. A copy of the latest draft can be found here: <https://www.gov.uk/government/consultations/energy-savings-opportunity-scheme>.

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