



## **Energy Savings Opportunity Scheme**

### **Consultation on proposals for implementation of Article 8 of the Energy Efficiency Directive**

#### **A paper from CIBSE**

#### **Introduction**

1.1 The Chartered Institution of Building Services Engineers is the professional body that exists to:

*'support the Science, Art and Practice of building services engineering, by providing our members and the public with first class information'*

1.2 CIBSE members are the engineers who design, install, operate, maintain and refurbish the energy using systems installed in buildings, and have the competence to undertake many of the assessments required by Article 8, and also for undertaking improvement works identified by the assessments.

1.3 As an Institution CIBSE publishes Guidance and Codes which provide best practice advice and are internationally recognised as authoritative. The CIBSE Knowledge Portal, which makes our Guidance available online to all CIBSE members, is the leading systematic engineering resource for the building services sector. Over the last eighteen months it has been accessed over 180,000 times, and is used regularly by our members to access the latest guidance material for the profession. Currently we have users in over 160 countries, demonstrating the world leading position of UK engineering expertise in this field.

1.4 CIBSE is pleased to respond to DECC's invitation to respond to the consultation on the Government's proposals for Energy Savings Opportunity Scheme. As a general observation we welcome the proposals to raise awareness of energy savings opportunities. However, we note that identifying opportunities will not save a single kilowatt hour of energy. We have had various schemes over the past forty years to raise awareness of the opportunities to save energy, with relatively little effect. There is nothing in the consultation document or the impact assessment that makes a compelling case that this scheme will change that.

1.5 CIBSE's full response to the questions posed by the Department is set out below, *with our answers in italics*. We were unable to use the template from the website as it proved impossible to make any entries in the version downloaded, even after several attempts. Where we have not provided a response to a question this is explicitly noted.

1.6 This response has been prepared under the direction of the Technology Committee of the Institution.

## **Chapter 1 – Introduction**

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)

*The European Copper Institute published an 88 page report in August 2013 titled ‘The scope for energy and CO2 savings in the EU through the use of building information technology’ It suggests that ‘Compared to a reference scenario which assumes a continuation of current trends in the adoption and installation of BAT [building automation technology] and BEMS/HEMS [building/home energy management systems], the optimal scenario estimates the savings to reach 22% of all building energy consumption by 2028 and maintain that level thereafter. In a more realistic scenario, this potential ramps up progressively over the scenario period to reach 13% of reference case energy consumption by 2035.’*

*The report contains a number of tables and graphs relating to the UK and the text identifies a wide range of opportunities for improvement. It can be accessed via the web at <http://www.leonardo-energy.org/white-paper/building-automation-scope-energy-and-co2-savings-eu>*

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. For the same reasons as DECC has already discounted using Trading Standards as the enforcement body for ESOS. Many of the scheme participants will have operations in all four parts of the United Kingdom and there should be a common regime across the four nations.*

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

Q3. No response offered.

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).

*The later the qualifying date, the less time those in scope will have to complete audits, and the more assessors will be required to carry out those audits, amplifying the potential “bow wave” effect of the proposed four yearly cycle.*

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 assessment undertaken within the last four years.

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

*The scope for manoeuvre here within the requirements of the Directive is limited. Audits are valid for four years, and there is an 18 month window between the publication of the UK implementing regulations by June 2014 and the deadline for all assessments to be complete at the end of 2015.*

*The more that can be done to spread the auditing workload the better, so annual qualification, with a requirement for new entrants to undertake their first audit within a year would make some contribution to that.*

#### **Chapter 4 – What is required?**

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?

*No. Annex VI clear requires profiles, as well as aggregate energy use. We therefore have reservations about whether the proposal, as drafted, meets the minimum requirements.*

*If ESOS is to enable energy saving, and not just be another bureaucratic exercise to impair the global competitiveness of large UK enterprises, then it needs to provide realistic actionable guidance on how to improve energy performance. Aggregate corporate energy intensity ratios alone do not do that. They might enable one organisation to compare its current performance against a previous assessment, or to compare with other organisations if there is a disclosure regime. But aggregate energy consumption does not help to identify the specific, life cycle costed improvements that the Directive requires.*

*Equally, half hourly profiles for every building may not be a great help alone. There is a need to identify the poorly performing buildings within the buildings portfolio, in order to prioritise measures in those buildings. This requires the ESOS assessment to include individual building data wherever it is available, and as most participants will be on half hourly metered tariffs, this should not be a problem, nor an additional cost, to provide.*

*Once the worst performing buildings are identified, it is reasonable to use the building profile data to identify where systems are running out of hours or at weekends when not required.*

*CIBSE supports the intention to keep the audit activity reasonable and proportionate, but it also needs to fully implement the Directive. There seems to be an undue concern about reducing costs to business, without considering the benefits and gains that are available from good energy management.*

*There have been very significant advances in access to detailed operation energy data in recent years, and many organisations are already putting significant effort into understanding their energy costs and opportunities to reduce those costs. These organisations, which are already collecting data and analysing it and acting on it are already doing more than an audit requires. The implementation of ESOS should recognise and reward this. The proposal to recognise ISO 50001 accreditation does that. But also, those organisations that have Display Energy Certificates, or can demonstrate that they routinely collect and analyse a minimum set of data should be able to use that activity to demonstrate compliance with the Art.8 requirement. In that case the auditor should be verifying that the qualifying activity has taken place, not duplicating or recreating it. This would reduce costs and minimise disruption to an organisation that already takes energy management seriously.*

*Equally, those organisations that are not taking energy management seriously need encouragement to do so through the audit activity and associated recommendations.*

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*

b. A draft template for ESOS reports? *Yes*

c. Best practice options? *Yes*

d. Anything else? (Comments) *There is a need for guidance aimed at scheme participants on what to look for in their assessors or auditors, to derive the best service from them.*

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?

*No (Please give reasoning) In financial auditing, the principle of materiality applies, and is defined in the relevant professional guidance. CIBSE proposes that assessors should have a duty to decide what is material, and there should be clear guidance on how to determine that at the outset of the audit, as is done in a financial audit.*

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:

a. Allowing use of existing data sets in order to simplify compliance? (ie. organisations can draw on data gathered over any period during the two years prior to the ESOS assessment being conducted)?

*Yes, with consistency wherever possible with other schemes, eg. CRC and GHG reporting.*

b. Setting a minimum six month time period which energy use data should cover to inform an ESOS assessment?

*This is inappropriate, there should be a twelve month minimum period for the dataset.*

c. Promoting use of 12 months data, with the onus on organisations to comply or explain deviations from this good practice approach?

*Twelve months should be mandatory, with no exceptions.*

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?

*Comments: Please see answer to Q6 above.*

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

*Comments: This appears to open a significant potential loophole for participants, since it would appear to mean that a tenant who does not have an energy contract, but pays for energy through the service charge, can avoid accounting for their energy use. Whilst this might appear reasonable, this could result in some franchise operations being able to disregard a considerable proportion of their energy consumption. We do not believe that is an appropriate outcome, nor the intention of the Directive.*

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, subject to clear a binding instructions to assessors on what is acceptable, and meaningful sanctions against assessors who cheat. In the early days of the EPB Regulations, which implement the EPBD, there was significant evasion of site visit requirements to cut costs. It also completely undermined the quality of the resulting certificates and brought the Regulations into disrepute.*

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?

*Comments. DEC's are obtained, rather than "installed". They provide building level energy use data for a full year, which is needed to build up the ESOS assessment, so where a building in the scheme has a DEC that should be permitted to be used as part of the ESOS data set. Likewise for a Green Deal Assessment. However, this is largely irrelevant since the commercial Green Deal does not have any finance mechanism available, and many of the scheme participants for ESOS may feel that the Green Deal is not an appropriate mechanism for them to support building improvements.*

*There have been very significant advances in access to detailed operational energy data in recent years, and many organisations have already put significant effort into understanding their energy costs and identifying opportunities to reduce those costs. These organisations, which are already collecting data and analysing it and acting on it are already doing more than an audit requires. The implementation of ESOS should recognise and reward this. Those organisations that have Display Energy Certificates should be able to use that activity to demonstrate compliance with the Art.8 requirement. In that case the auditor should be verifying that the qualifying activity has taken place, not duplicating or recreating it. This would reduce costs and minimise disruption to an organisation that already takes energy management seriously.*

*The most significant issue is to address the need to recommend costed improvement, and a DEC alone does not do that. The Advisory Report that is required to go with a DEC every 7 years should do that, but as currently designed it is widely considered to be of limited utility, a fact acknowledged by DECC in a reference in the consultation package.*

*The appropriate response to this should be to address the limitations and failings of DEC Advisory Reports – and there are recommendations on this from the UKGBC, CIBSE and others, some dating from the original adoption of the current, flawed, Advisory Report back in 2008, when many of these failings were foreseen by industry, and ignored by DCLG.*

*Ignoring the DEC Advisory Report, and then establishing a requirement for costed energy savings opportunities to meet the Article 8 requirement will not be well received – it leaves one flawed statutory report in place, and introduces another one. If the reports on costed savings prove to be unreliable, like Advisory Reports, there will be an industry backlash. It would be far preferable to address the failings in the DEC Advisory Report, and at the same time develop a template and guidance for the ESOS assessment that are consistent and sit alongside the DEC and Green Deal advisory materials, to ensure better advice and to build greater confidence in the regulatory tools.*

*Neither DEC's nor GDAs provide the energy profile required by the Directive.*

Q14 – Q18

No response offered.

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.

*Both ISO 50001 and 14001 should be acceptable where they include energy audits (plural, not singular as in the consultation question) for the relevant buildings and processes. This is not automatic in either case, as they are management standards, not audit standards.*

*There have been very significant advances in access to detailed operation energy data in recent years, and many organisations are already putting significant effort into understanding their energy costs and opportunities to reduce those costs. These organisations, which are already collecting data and analysing it and acting on it are already doing more than an audit requires. The implementation of ESOS should recognise and reward this. The proposal to recognise ISO 50001 accreditation does that.*

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?

*Yes, but it exceeds the minimum criteria.*

b. And are there any other UK initiatives that you think should be deemed to be compliant for audits conducted in December 2015?

*No*

## **Chapter 5 – Who can conduct an ESOS assessment?**

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. This has been CIBSE’s consistent position throughout the discussions with DECC that preceeded the consultation. CIBSE does not support the creation of a further category of energy assessors solely to implement Article 8, but favours the use of those energy assessment professionals already available.*

*There will be a need for some training of these professionals to the specific aspects of ESOS, but we envisage that this would be relatively straightforward to provide.*

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. There are existing requirements, which are public domain, in the National Occupational Specifications for Energy Assessors. These cover a number of relevant competence criteria, skills and knowledge required for ESOS assessors. The now defunct Carbon Trust assessor scheme is also in the public domain, and provides significant detail on the requirements for energy assessors. Additionally, CIBSE and others have criteria in UKAS accredited personnel certification schemes for energy assessors and Green Deal assessors, which are relevant.*

*The difficulty for any of these bodies contributing this material to a PAS is that this will require them to cede copyright of the material to BSI, and then to have to licence back their own original Intellectual Property from BSI to continue to use it. CIBSE is unwilling to do that, and we believe that others will also be unwilling. It is unlikely that BSI will be able to use the NOS, which is a part of the national skills framework, and therefore cannot be adopted by BSI.*

*CIBSE is very concerned that the proposal to engage BSI to prepare a PAS has been taken without any consultation with those parties who already have schemes, and whose intellectual property may be affected by the development of a PAS. In our view it would have been far more appropriate to engage with UKAS to develop the competence requirements alongside the arrangements for UKAS accreditation of the appropriate certification bodies.*

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?

*There are two distinct questions here, and only one answer offered. This may lead to some composite answers which may not be appropriate.*

*The concept of lead assessors is appropriate. However, this has been a matter of considerable difficulty in the area of energy assessments to support the EPB Regulations, and there is considerable guidance and there are clear conventions on the use of "data gatherers" to support lead assessors in this field. It is highly relevant and DECC should consult DCLG or one or more of the energy assessor schemes about this to avoid relearning some quite painful lessons, and to avoid permitting arrangements which bring the ESOS into disrepute.*

b. That minimum qualifications should apply to lead assessors only, rather than to all those participating in an assessment?

*No There MUST be different minimum qualifications for more technical members of an audit team. Lead Assessors need a full range of skills and experience of energy assessment. However, some will only need to deal with buildings, as transport will be immaterial in some cases, and there will be no industrial processes. So there may be a case for a range of requirements for lead assessors.*

*For other assessors, again, the DCLG arrangements for "data gatherers" should be adapted to the task.*

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?

*There seems to be quite unreasonable concern about in house assessors. The Directive is quite clear that they are permitted, and DECC should not entertain any arguments to the contrary. This has been addressed under the EPB Regulations, and that approach can be broadly adopted here.*

*Without recognising and allowing for, and even encouraging 'in-house' efforts, then ESOS is disincentivising the end users to understand their energy use and allowing them to simply pay for an audit every 4 years to comply with legislation. This benefits no-one except the Audit bodies. It could lead to another Inspection-type missed opportunity. If enterprises can comply simply by having an audit every 4-years then it will be no-one's responsibility to deliver any improvements, so the audit runs the risk of simply being a record of what hasn't been done over the last 4 years.*

*In house assessors are far more likely to be incentivised to get things done as a result of the audit. So can we encourage in house auditing, as it is more likely to be the springboard to save energy than a third party compliance action to tick a box, and stop treating in house assessors as slightly dodgy and something to ban?*

*Many potential energy saving opportunities arise from end users undertaking detailed continuous energy monitoring and acting on it. This is often done in house in large enterprises. One-off audits are likely only to serve to identify what has happened - not why. This is why it is important to allow an alternative route to compliance with audit requirements by the use of continuous monitoring and regular reporting which is deemed to reach the standards needed by the audit.*

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.

*CIBSE proposes that DECC follow the Memorandum of Understanding between HMG and UKAS under which accreditation services are provided by UKAS.*

*There are already UKAS accredited personnel certification schemes operating in the energy assessment arena, and these schemes already accredit a significant number of people. It is not a major task for existing UKAS accredited schemes to gain an extension of scope from UKAS for a scheme to support ESOS. Extensions of scope are much quicker than the establishment of new schemes. Since DECC already has UKAS accredited schemes for Green Deal, it is relatively straightforward to use UKAS for ESOS.*

*CIBSE therefore proposes a modification of Approach B, in which the scheme administrator accepts UKAS accredited certification schemes for ESOS assessors. It does not then matter whether the scheme is run by a professional body or another organisation, since UKAS accreditation provides a fair and impartial assessment of the suitability of the scheme operator. The use of professional bodies would exclude, for example, the BRE from operating an assessor scheme, which may be deemed a restraint of trade.*

*UKAS is the national body for accreditation, and using UKAS will save DECC work and provide a fair and transparent and consistent route to entry.*

*If DECC is concerned about the time needed for non-accredited schemes to gain UKAS accreditation, then it should discuss with UKAS the time required for any such schemes to gain accreditation. Under the Green Deal this was achieved quite quickly, and in this case there is an ISO standard for personnel certification already in place.*



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)

*This should be nearer to 2%, and subject to clear guidance. Again, QA should be subject to the UKAS arrangements.*

## **Chapter 6 – Compliance and reporting**

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

*Yes*

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?

*No. Each participant should be required to register with the administrator and supply the data need to meet reporting requirements.*

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. This will avoid the bizarre situation in which DECC or the enforcement body does not know how many schemes are participating.*

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 D for those that wish, with clear guidance on what is needed to benefit from the light touch, to ensure this does not become a loophole. Approach B for all, via a line in the Director's report.*

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. This is the only chance to register any energy saving action (e.g. lighting system upgraded) resulting from all this audit activity, and to differentiate those who take the opportunity of this scheme to save energy and those who treat it as a compliance task, to be undertaken as cheaply as possible, and not used to inform better energy management.*

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

*Yes*

If yes:

a. what information should be collected and how?

*This should be the subject of further discussion once the detail of what the scheme will actually require.*

b. Should the scheme administrator store information internally or publicly disclose some information (and if so, what)?

*Internally*

Q33. *No response offered*

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

*Yes*

## **Chapter 7 – Scheme Administration and Enforcement**

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.*

*CIBSE notes the reservations about Trading Standards in the consultation. They are the enforcement body for the EPB Regulations, and their enforcement activity has been so weak that it has led to a payment of £5.7m by the government to the operators of the national register for energy certificates, due to significant shortfalls in certificates. They are not an appropriate enforcement body for this.*

*Since the Environment Agency already covers CRC this may be the most appropriate body in this case, too.*

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).

*Again, the EPB Regulations provide cautionary tales. It is essential that there are clearly defined duties under ESOS and that there are clear penalties for those breaches. It is also essential that where the enforcement body wishes to investigate, their powers are not*

*constrained by the ESOS regulation, as has occurred with the EPB Regulations, which limit the powers of Trading Standards to properly investigate non compliance.*

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?

*It is essential that ESOS does not become yet another complex reporting process that achieves no tangible energy savings. There needs to be a significant focus on the provision of this information to inform and enable decisions about practical energy reduction outcomes.*