



## **Department for Business, Energy and Industrial Strategy consultation**

### **Strengthening the Energy Savings Opportunity Scheme (ESOS)**

## **Submission from CIBSE**

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## **The Chartered Institution of Building Services Engineers (CIBSE)**

- CIBSE is the primary professional body and learned society for those who design, install, operate and maintain the energy using systems, both mechanical and electrical, which are used in buildings. Our members therefore have a pervasive involvement in the use of energy in buildings in the UK with a key contribution to sustainable development. Our focus is on adopting a co-ordinated approach at all stages of the life cycle of buildings, including conception, briefing, design, procurement, construction, operation, maintenance and ultimate disposal.
- CIBSE is one of the leading global professional organisations for building performance related knowledge. The Institution and its members are the primary source of professional guidance for the building services sector on the design, installation and maintenance of energy efficient building services systems to deliver healthy, comfortable and effective building performance.
- This response incorporates comments from CIBSE Certification Limited, which is a wholly owned subsidiary of CIBSE and was formed to provide an independent certification body for the approval of personnel, specifically Low Carbon Consultants (LCCs) and Low Carbon Energy Assessors (LCEAs). LCEAs are knowledgeable practitioners who can provide Energy Performance Certificates, Display Energy Certificates and Air Conditioning Inspections. CIBSE Certification is UKAS (United Kingdom Accreditation Service) accredited to provide ISO Management Systems certification to ISO 50001 and is audited regularly for this activity.

# **CONSULTATION RESPONSE**

## **EXECUTIVE SUMMARY**

*(Note: this is for publication on the CIBSE website but could not be submitted online due to the limitations of the online survey)*

We welcome the proposals, including:

- Building the proposals on evaluation of what has been achieved with previous ESOS phases
- Extension of the scheme to medium enterprises
- Improving the quality of audits and reports

- The intent to better encourage action that leads to measurable emissions reductions
- The statement that ESOS proposals will be developed in coherence with operational ratings and other relevant policies.
- New proposals for ESOS to drive decarbonisation, as well as energy efficiency.

We think that more proposals are required to drive action, including through support for competition and market-driven action (e.g. a league table) but also, ultimately, regulations. This may not be regulation to implement ESOS recommendations, but (our preference) to achieve certain levels of energy and carbon performance.

Whilst we recognise that regulation should not be adopted where a voluntary scheme could offer similar benefits, experience over the past four decades has shown that where there is a clear need for action then a voluntary scheme acts as a tax or burden on the law abiding and is evaded by the least compliant. The only way to avoid this is to regulate and then to enforce.

## Introduction

### ***1. What is a fair and proportionate way of dealing with the small number of ESOS site audits which may have already been carried out under the existing audit requirements if we make subsequent changes to the Phase 3 compliance requirements?***

We agree that organisations that are well organised and have already undertaken compliance work should not be penalised, so it would be unreasonable to ask them to repeat work that they have already completed with the best of intentions. This would give out inappropriate messages and be counter to the objective of seeking to encourage improvements on a voluntary basis.

### ***2. Do you agree with the general principle of making ESOS reporting more standardised, as set out above? Are there any aspects of this proposal you have concerns with?***

Yes. We agree with the principle of making the report more standardised and have no concerns about the proposals for minimum items to include in the reports.

Within the reporting on recommendations, we recommend including greenhouse gas emissions, not just energy use and energy cost savings, so as to use the scheme to drive emissions savings, not just energy savings. There may be a case for renaming ESOS as the Energy and Emissions Savings Opportunity Scheme.

### ***3. Do you agree with a change to the de minimis exemption to up to 5% of total energy?***

We agree with this reduction, as long as the individual energy uses excluded are below the threshold proposed in Q4 (e.g. if, collectively, they represent less than 5% of an organisation's total energy consumption AND, individually, are below the local threshold of 40MWh).

**4. Do you agree an energy consumption threshold should be added for individual group, sites, process or fuel types? Is 40MWh appropriate or is there a more appropriate threshold?**

Yes, we agree a threshold is useful for excluding the things that qualify as very small supplies where the administrative burden of auditing and reporting would be higher than the potential energy savings to be found. The difficulty is finding the balance point between burden and benefit.

**5. Do you agree with the site sampling methodology proposed above?**

We agree with the principle of a better defined sampling methodology, but think that it would be worthwhile to consider modelling the methodology described in the IAF Publication IAF MD1 2018 - IAF Mandatory Document for the Audit and Certification of a Management System Operated by a Multi-Site Organisation. This is used for sampling for ISO 50001:2018 audits so would seem an appropriate reference point for ESOS.

**6. Do you agree that ESOS reports should include an analysis of half hourly data where this data is readily available? What steps could Government take to support this?**

Yes. As stated in the consultation paper, analysis of half-hourly energy consumption data is a powerful tool to identify energy waste, to confirm that energy consumption meets site usage patterns and that the baseload energy consumption when a site is not operating is within expected bounds. We agree that half hourly data should be used where available. Use of half hourly data should be encouraged. Where not available then the report should identify existing policy initiatives relevant to the organisation that encourage the take-up of smart meters.

**7. Do you agree with the proposal to require that ESOS reports use an existing auditing standard such as ISO 50002 or EN 16247?**

Yes. We think that it is a good idea to use an auditing standard. In the first instance, we would *recommend* the use of such standards, rather than *requiring* them; at the same time, it should be a requirement in reporting to state whether such standards have been used, and if not why not. This would drive awareness and interest among clients. BEIS should then, when evaluating the next ESOS phase, check take-up of these standards and consider introducing requirements if use of the standards (and general quality of the audits) have not improved.

**8. Do you agree with the proposals set out here to improve the information provided to participants on ESOS recommendations and how they are performing against an energy intensity metric?**

Yes. CIBSE agree with the proposal as anything that moves the organisation towards complying with the requirements of ISO 50001:2018, which this does, is a good thing.

We agree it is useful to retain operational performance ratings as a route to compliance, for several reasons:

- Provided the rating scale is right, ratings give an indication of a building's performance compared to peers, and of its potential for improvement; this could help drive uptake of the recommendations, and even encourage some organisations to go further than the recommendations provided in the ESOS report
- If ratings are lodged in a public register, they provide the start of a "league table" and open organisations to competition between themselves and scrutiny from stakeholders and others – see also our response to question 20
- Linking ESOS to operational ratings would support effectiveness, compatibility and consistency between different policies and reduce the administrative burden if organisations can show compliance with several policies through a single means.

This could also include the proposed new performance ratings where available (e.g. for offices, in the first instance), especially where ESOS applies to occupiers who are only tenants and therefore may have limited options for improvements; where the new operational ratings are not yet available, DEC's could remain as compliance route – we have detailed our recommendations on operational performance ratings, including the choice of metrics, in our response to the Operational Performance Framework consultation, June 2021.

**9. Do you agree there should be an explicit focus on rating and improving energy management processes within ESOS?**

We agree that energy management must be promoted and agree with the proposal as again it is pushing the organisation towards compliance with ISO 50001:2018; we note however that, to really put buildings on track towards Net Zero, further measures will be required to maximise energy savings, so other measures should still be promoted, alongside energy management. In addition, it is important that ESOS begins to encourage demand management and not just energy measurement and management.

**10. Do you agree with the proposal to remove Display Energy Certificates and Green Deal Assessments as compliance routes for ESOS?**

No. We agree with the proposal to remove Green Deal Assessments. These only relate to buildings, and we do not think that these have been used to any significant extent to date.

However, we do not agree with the proposal to remove DECAs as compliance routes. The primary concern in the consultation seems to be that DECAs are not robust enough and need updating – we agree; ESOS should be further reason to update them, as we have recommended in other consultations. We would strongly support BEIS and the Department for Levelling Up, Housing and Communities in working to update the DEC regime, which is now 15 years old in principle. Please also refer to our response to question 8

***11. Do you agree with the proposal to improve the processes to ensure ESOS assessors are appropriately trained and monitored and are there other issues that we should address in improving the ESOS process that relate to assessors?***

We agree with the proposal to improve the processes to maintain proper training as long as it is recognised that some ESOS Lead Assessors have undergone 4 - 7 years of relevant training, as opposed to days, and have many years of experience of doing this sort of work for organisations that were taking advice on energy management voluntarily before it was mandated by the ESOS Regulations. Government should not mandate training that is not required. The focus needs to be on the competence of assessors, not the amount of training. The proposal to look at requiring the whole team to be registered is interesting and may help address this issue, CIBSE would be willing to work with BEIS to develop a proposal.

***12. Do you agree with the proposals set out here to encourage organisations to engage an ESOS assessor with appropriate skills and experience?***

Yes. The CIBSE Certification register lists up to three areas of specialism for each assessor, which is sense checked on application. We strongly agree with this proposal and see no good reason why anyone would not agree with it.

***13. Do you think that we should make changes to the scheme to change the Qualification date or stagger phases for different sectors, or will the softer measures set out be sufficient to encourage more participants to comply earlier than the final compliance year?***

Feedback from the CIBSE Certification register suggests that organisations are “learning” to spread the work over a longer period. We think that softer measures set out will be sufficient to further encourage this. We suggest that change should be focussed where there is a clear need and that this is not a high priority change to the overall arrangements.

***14. Do you agree with the proposals to provide an ESOS recommendations template to improve the presentation of ESOS recommendations and the information provided on next steps?***

Yes. As noted elsewhere in our response and considered in Chapter 3 of this consultation, we recommend that reporting of the recommendations should include impact on carbon dioxide equivalent emissions (including those from refrigerants); this is particularly important given the

current ratios of gas to electricity prices, which mean that measures may be recommended which offer a cost payback but continue reliance on gas and other fossil fuels.

***15. Do you agree with the suggestions to provide better guidance on next steps in order to encourage uptake of recommendations and the requirement to share the ESOS report with subsidiaries?***

We agree with this proposals, but would recognise the limitations of some of the proposals on providing information. Making changes to commercial buildings or industrial processes is more complex than picking the most energy efficient version of equipment. There is a decision to be made on the best technique, before that technique can then be optimised. More information on some topics such as the ETL and possible sources of financing may be useful, but over-standardising is risky and could just increase auditing costs, without adding more value. It may also encourage a “checklist mentality” rather than serious management engagement in the process. Ultimately, in many cases organisations wanting to act on the recommendations will need to investigate them in more detail, which will often involve commissioning additional work. This should be encouraged.

***16. Do you agree that ESOS should include an assessment of actions needed to meet future net zero commitments, as set out here? If a net zero element is included as set out above how might this impact the cost of an ESOS audit?***

We agree with the need to encourage decarbonisation, and that ESOS is well-placed to drive this. Introducing a net zero element to ESOS could help address some of the inherent limitations of audits and ratings which focus on one metric alone, be it energy use, primary energy use, or energy cost savings. Additional skills may however be required for some assessors. As a very minimum, a way to mitigate impacts on the costs of audits and reports, while providing useful information, could be that the report should highlight the following as required steps to Net Zero, without necessarily providing detailed information:

- Net Zero compliant “end point” in energy demand reduction and energy efficiency (possibly beyond cost-effective measures); this could be done using operational ratings, whether DECes or the upcoming operational performance ratings, provided the scale is right. With this in mind, we welcome the statement that related policies will be developed alongside ESOS with the aim to provide a coherent and effective policy framework.
- Whether fossil fuels are used on site or for the organisation’s activities (e.g. for heat, transport or industrial processes) and if so, what may be the options to decarbonise these ends uses. We expect that in many cases, this may require more detailed appraisal e.g. some industrial sites may be able to make use of waste heat etc, which would be quite site-specific and complex to appraise.

It will be important that government set guidelines on the carbon emissions factors to use in estimates of future emissions e.g. which grid decarbonisation scenario to use, what to assume with regards to the future gas grid, how to calculate carbon emissions from district heating networks. Wherever possible this should align with guidelines for other policies and incentives, to help consistency and limit confusion.

In addition, the existing part of the ESOS report should include considerations of carbon emissions alongside energy use and cost impacts, and it should mark with a “red flag” for measures that are not consistent with the net zero direction e.g. replacement of gas boilers, albeit for more efficient ones. Government should also provide a timeframe under which such measures will no longer be accepted ESOS recommendations, and ultimately be legally phased out.

***17. Do you agree that this should include impacts on the electricity system as well as direct carbon/greenhouse gas emissions?***

Yes, a comparison with a “Net Zero compliant” energy use end goal would be useful, as noted in our response to Question 16, but this should cover all energy uses, not just electricity; an indication of other impacts on the system, including peak demand and demand management options, would also be beneficial.

***18. Do you think that the net zero element to ESOS should be included within the existing report structure or added as a separate reporting element?***

This could be a new part in the report, since some measures towards net zero would not be appraised as the other recommendations from the report (e.g. they may not deliver cost savings but would deliver carbon savings).

***19. Do you agree that government should set out a methodology for companies to include other net zero and climate aspects including adaptation in their audit if they wish to?***

Yes, guidelines on considering other aspects related to climate adaptation could be useful, but we think that they should not be extensive, and instead just act as prompt or “reminder” for trained professionals to consider whole building performance (e.g. overheating risk, ventilation and air quality, etc). It otherwise seems impossible to cater for all possible situations, and would therefore create risks. The focus here should be on training and assessing the competence of the professionals who will carry the audits, and indicate next steps where needed.

***20. Do you agree with the proposal to require participants to set a target or action plan and report on progress annually?***

Yes. We agree with this proposal, it promotes taking action and not just reporting and it pushes organisations in the direction of using ISO 50001:2018 which we think is a good thing. The action plan and reporting on progress should clearly relate to the opportunities identified in the ESOS report, and to the new “net zero” part of the report.

However, as noted by the consultation itself based on the evaluation report, this could be viewed as “tick box” exercise, and more significant measures such as a league table are much more likely to drive action. We recommend this is implemented. A starting point for emissions from buildings is the use of operational ratings, from which it would be straightforward to compile a league table. Further measures may be identified through the next evaluation.

**21. Do you agree that additional ESOS data should be collected for the purpose of compliance monitoring and enforcement?**

We agree with this proposal.

**22. Do you agree with the proposal to require public disclosure of ESOS data as outlined above?**

Yes. For the avoidance of doubt, we think the publicly disclosed data should include estimated potential for energy and carbon savings, and outline actions required to reach Net Zero. See also our response in Question 20 on the importance of a league table: for buildings at least, we do not agree there is no available metric to create a league table from. Linking operational performance rating with ESOS league tables could improve effectiveness of both these policies.

**23. Do you agree that the qualification criteria for ESOS and SECR should be aligned as set out above?**

Yes, we agree with this proposal.

**24. Do you agree in principle that ESOS should be extended to smaller enterprises (either to all Medium-Sized Enterprises, or to a subset of Medium-Sized Enterprises)? Are there any concerns or risks with this approach?**

Yes, we agree in principle. The concern being introducing the requirement for small energy users where there may not be a benefit. However this risk already exists. There may be for example a pension fund operator employing very few people in a very small building, but handling large funds and triggering the financial thresholds. So maybe this should not be seen as a significant issue. It is still corporately a good thing to do.

**25. Is a lack of information on opportunities for energy efficiency a significant barrier to action for Medium-Sized Enterprises?**

We do not have evidence that this is any more or less of an issue than it is for larger enterprises. Ultimately, medium-sized enterprises will need to contribute to the country's energy efficiency and carbon reduction goals, and extending ESOS to these enterprises is a good opportunity to start this. However, it is essential that any extension of the scheme is undertaken with awareness of the sectors involved. Recent experience in the pandemic with

promoting ventilation improvement to SMEs suggests that there may be a need to consider their circumstances more fully. This should be explored through stakeholder groups in advance of implementing the proposals, to create information and support where and if needed.

***26. To what extent do Medium-Sized Enterprises already have a system or approach in place to monitor and improve their energy efficiency? (This could include energy managers or consultants, smart meters, audits, sector benchmarking, or energy management systems like ISO50001)***

The systems identified are not exclusive to larger organisations. For example, CIBSE are aware of one ISO 50001 customer that occupies three floors of a City Centre office. However, the more expensive systems or approaches such as ISO 50001 and in-house energy managers rather than consultants will be less common in MEs.

***27. How could ESOS audits add value in improving energy efficiency in these organisations (Medium-Sized Enterprises or a subset of Medium-Sized Enterprises) – beyond what is already being done? How might the effectiveness of these audits differ between buildings and industrial processes? How will the value added by ESOS proposals differ for different sub-sectors of business (e.g. services, and energy-intensive vs non energy-intensive industry)?***

We recognise the main benefit of the ESOS reporting to be the provision of information, and with this an encouragement to action. This benefit is received equally across all sectors but will have the potential to deliver savings in proportion to the energy intensity of the enterprise. Again, engagement with the sector is needed better to understand this.

***28. If including a consumption threshold for including Medium-Sized Enterprises in ESOS, how might it best be set?***

Of the suggestions made, the use of an average of the typical figures being used in other industrialised nations seems most useful and straightforward to implement, subject to further validation of the approach by engaging with the sector.

***29. Of the three approaches to extending ESOS set out in this consultation (extending to all Medium-Sized Enterprises, extending to high-consuming Medium-Sized Enterprises using a consumption threshold and extending to industrial Medium-Sized Enterprises only), which do you think would be the most appropriate?***

Whilst it may seem simpler to extend across the board, is this proportionate? This should focus on the areas of greatest potential savings and should focus on energy AND other greenhouse gas emissions. It may be sensible to target the highest energy use and/or emissions in the first phase of the roll out.

**30. What alternatives might there be for improving energy efficiency specifically in industrial Medium-Sized Enterprises, other than extending ESOS?**

Based on some four decades of experience in energy management and efficiency campaigns and more recently on the experience of targetting guidance at specific audiences during the pandemic, it is clear that a targetted campaign aimed at specific sectors is most likely to be effective. Messaging needs to be simple and relevant and needs to identify what is being advocated as well as the benefits to the ME of taking the action. Ideally that campaign messaging should be co-created with the sector in question in order to improve the direct relevance and also to instil a sense of sectoral ownership. This will be more intensive than a blanket approach, but much more effective.

We also suggest that engaging MEs will be much more effective alongside the use of operational ratings, and changes to DECs as noted in our response to previous consultations.

Minimum regulatory requirements must also be considered alongside – see response to Questions 31 onwards.

**31. Do you think that we should pursue the option of mandating ESOS participants to take action? Are there pros, cons and/or risks not identified here?**

Mandating action under ESOS is one option, but has the drawbacks mentioned in the consultation; the quality of ESOS audits and reports is a really important consideration, and mandating action until this quality improves presents a number of risks. Please see also our answer to Q30 which offers an alternative to mandating action based on working with target sectors to develop guidance specific to the sector, at least in the first stage.

However, ultimately, it is likely that regulation will be required for all organisations to contribute to net zero, and to do that as soon as possible. Other options include the following, none of them exclusive nor exhaustive:

- minimum performance requirements for vehicles, for buildings etc, which participants and beyond would need to reach, whether or not this is through the ESOS recommendations or other means.
- phasing-out some products e.g. cars, gas boilers etc
- upgraded standards in building regulations, when applicable works are carried out to buildings.

**32. Which approach would be most appropriate of those set out here (requiring uptake of all recommendations that meet a payback period criteria, a requirement for ongoing reductions in energy use and/or a requirement to take action on energy management practices)?**

We think the best way would be to provide sector-specific guidance (see Question 30) and require overall improvements in performance in energy use and decarbonisation (see Question 31), rather than mandate the specific measures recommended in the ESOS report.

Another potential approach would be to show ongoing improvement plans and actions through compliance with ISO 50005:2021. This latest edition of the Standard was published on 20<sup>th</sup> September and we would support its use as one tool in the encouragement of the take up of improvement measures.

**33. Do you think we should pursue alternatives to regulation to increase take up of ESOS recommendations and are there further options not discussed here?**

See our responses to questions 30 and 31.

**34. Do you agree with the suggestions to encourage the uptake of ISO 50001 as a compliance route? Are there further ways in which we might encourage uptake?**

We agree with all of the suggestions made, but think this should include financial incentives. This may include tax allowances where there is a good case to be made, for example reducing VAT rates for energy efficiency or emissions reduction measures taken as a result of an ESOS audit and carried out within a reasonable time limit. It is also important that barriers are removed, for example ensuring that uptake of energy efficiency measures does not lead to increases in business rates.

ISO have published Certificate date in September 2021 showing that the number of sites with ISO 50001:2018 certificates issued in Germany is now up to 15580. By comparison, as highlighted in the tables below, during the ESOS era, the UK has increased the number of sites covered from 1931 to 3181 and it has slipped from third to fifth place in the table, and significantly much further behind Germany where numbers have increased steadily, now leaving the other countries way behind. The UK should look closely at what is driving this level of uptake in Germany and consider whether any of those factors might reasonably and effectively be transferred to the UK to drive improvements in energy efficiency in UK industry.

2020

	Sites
Germany	15580
France	6146
China	3775
Italy	3204
UK	3181

2016

	Sites
Germany	6874
France	6271
UK	1931
Italy	1748
China	1201

**END**

Please do not hesitate to contact us for more information on this response.