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Energy and decarbonization assessment – Part 1: Process – Specification



Department for
Energy Security
& Net Zero

bsi

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Published by BSI Standards Limited 2025.

ISBN 978 0 539 23452 7

ICS 03.120.20, 13.020.40, 27.010, 27.015

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Publication history

First published February 2025

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Foreword

This PAS was sponsored by the Department for Energy Security and Net Zero. Its development was facilitated by BSI Standards Limited and it was published under licence from The British Standards Institution. It came into effect on 28 February 2025.

Acknowledgement is given to Kit Oung, as the technical author, and the following organizations that were involved in the development of this PAS as members of the Steering Group:

- Carbon Trust
- CIBSE Certification Ltd
- City Football Group
- Co-opted members (two members)
- Department for Energy Security and Net Zero
- Energy Managers Association (EMA)
- Energy Saving Trust
- Energy Services and Technology Association (ESTA)
- Environment Agency
- Institute of Environmental Management and Assessment (IEMA)
- Institution of Chemical Engineers (IChemE)
- Institution of Environmental Sciences (IES)
- Jacobs
- Property Energy Professionals Association (PEPA)
- Scottish Environment Protection Agency (SEPA)
- Skanska
- StarLiX
- Verco Advisory Services

Acknowledgement is also given to the members of a wider review panel who were consulted in the development of this PAS.

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This PAS, along with PAS 51215-2:2025, supersedes PAS 51215:2014, which is withdrawn.

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Relationship with other publications

This PAS specifies the process requirements for conducting an energy and decarbonization assessment, as well as the output of such an assessment. The process set out in the PAS includes the identification of opportunities for the organization being assessed to improve energy performance and reduce greenhouse gas (GHG) emissions, and the production of an implementation plan for achieving net zero within the boundary of the assessment.

PAS 51215-1 is related to PAS 51215-2 which specifies the competencies necessary for a person to be deemed capable of:

- a) planning an energy and decarbonization assessment;
- b) leading an assessment team; and
- c) reviewing and approving the output of an energy and decarbonization assessment.

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Presentational conventions

The provisions of this PAS are presented in roman (i.e. upright) type. Its requirements are expressed in sentences in which the principal auxiliary verb is “shall”.

Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.

Where words have alternative spellings, the preferred spelling of the *Shorter Oxford English Dictionary* is used (e.g. “organization” rather than “organisation”).

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In particular, attention is drawn to the following specific regulations:

- Companies Act 2006 (Strategic Report and Directors' Report) Regulations 2013 [1];
- Companies (Directors' Report) and Limited Liability Partnerships (Energy and Carbon Report) Regulations 2018 [2];
- The Companies (Strategic Report) (Climate-related Financial Disclosure) Regulations 2022 [3];
- The Environmental Permitting (England and Wales) Regulations 2016 [4];
- Environmental Better Regulation Act (Northern Ireland) 2016 [5];
- The Pollution Prevention and Control (Scotland) Regulations 2012 [6];
- The Building Regulations 2010 [7], as amended from time to time;
- The Energy Efficiency (Private Rented Property) (England and Wales) Regulations 2015 [8]; and
- The Energy Savings Opportunity Scheme Regulations 2014 [9], as amended from time to time.

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Statement by the Department for Energy Security and Net Zero

The Energy Savings Opportunity Scheme (ESOS) was introduced in 2014 to require large businesses and their corporate groups in the UK to carry out assessments of the energy used by their buildings, transport and industrial processes at least every four years. ESOS assessments provide participants with tailored information on cost-effective ways to reduce their energy consumption.

When ESOS was first introduced, the former Department of Energy and Climate Change (DECC) sponsored the development of BSI PAS 51215:2014 in order to establish competencies for lead assessors conducting an ESOS assessment.

Following the July 2022 response [10] to a consultation [11] on strengthening ESOS, which set out proposals to include net zero considerations in ESOS assessments, the Department for Energy Security and Net Zero has sponsored BSI's revision of the existing PAS 51215:2014 into two documents. These cover firstly, the process for conducting an energy and decarbonization assessment and secondly, the competencies required for an assessor and assessment team to conduct such an assessment.

The government aims for these PAS documents to set out the requirements which can be applied to ESOS-compliant energy and decarbonization assessments and the competencies needed to conduct such assessments. The boundary of the assessment covered by PAS 51215-1 and PAS 51215-2 has therefore been set at a minimum to cover the energy consumption and resultant GHG emissions which correspond to the scope of energy consumption to be covered by ESOS assessments under the proposals set out in the consultation response [10]. However, it is also intended that these PAS standards set out a framework for organizations which wish to go further and consider the full range of actions that need to be taken to achieve net zero across the organization's complete scope 1, 2 and 3 emissions by 2050 or before.

PAS 51215-1 sets out the requirements for conducting energy and decarbonization assessments. It has been designed to be applicable for iterative assessments, so that as part of the PAS process recommendations for future assessments are provided. For those organizations currently complying with ESOS using an accredited BS EN ISO 50001 energy management system or by using energy audits compliant with ISO 50002 or BS EN 16247, the PAS also sets out the additional activities to be taken in order to be compliant with proposed ESOS requirements.

NOTE Further details on the Energy Savings Opportunity Scheme (ESOS) are given at <https://www.gov.uk/guidance/energy-savings-opportunity-scheme-esos>.

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0 Introduction

0.1 Motivation for the creation of PAS 51215-1 and PAS 51215-2

In June 2019, the UK became the first major economy to introduce a legally binding target to bring all GHG emissions to net zero by 2050¹⁾. In order to meet this stretching target, all sectors of the economy will need to rapidly decarbonize to ensure that the UK as a whole is net zero by 2050.

Research carried out for the UK Government [12] identified that although the vast majority of organizations (98%) are aware of the UK's net zero target, a third do not understand what this means for their organization. While there are various existing standards for measuring and monitoring GHG emissions, and there are also existing standards for carrying out an energy audit to identify opportunities for saving energy, there is no standard for a combined assessment to identify and evaluate the costs and benefits of options for organizations to decarbonize to meet net zero. This PAS aims to set out a standard for energy and decarbonization assessments which can fill this gap.

In 2014, the UK Government introduced the Energy Savings Opportunity Scheme (ESOS), which requires large undertakings to carry out assessments of the energy consumed in their buildings, transport and industrial processes at least every four years, or to use an alternative compliance route such as BS EN ISO 50001 certification covering the same scope.

NOTE 1 For current information on ESOS, see <https://www.gov.uk/guidance/energy-savings-opportunity-scheme-esos>.

When ESOS was first developed, the former Department of Energy and Climate Change (DECC) sponsored the development of BSI PAS 51215:2014 in order to establish competencies for lead assessors conducting an ESOS assessment.

In July 2022, the government response [10] to a 2021 consultation on strengthening ESOS [11] set out proposals to include a net zero element within ESOS.

The Department for Energy Security and Net Zero has consequently sponsored BSI's revision of the existing PAS 51215:2014 into two documents:

- PAS 51215-1, *Energy and decarbonization assessment – Part 1: Process – Specification*. This PAS describes a harmonized process for conducting an energy and decarbonization assessment. Providing a harmonized approach to energy and decarbonization assessments can increase the visibility, transparency and comparability of the assessment and the identified improvement opportunities. This approach can reduce uncertainties in organizational expectations and create confidence that the improvement opportunities are relevant and appropriate to the organization.
- PAS 51215-2, *Energy and decarbonization assessment – Part 2: Competencies of lead assessors and assessment teams – Specification*. PAS 51215-2 updates PAS 51215:2014 by strengthening the existing energy competencies and incorporating competencies related to GHG emissions, decarbonization and net zero. This PAS describes the competencies required for a person to function as a lead assessor and a group of people to function as the assessment team. When an energy and decarbonization assessment is conducted by a suitably competent assessment team, led by a lead assessor, confidence in the output from an assessment increases, and the risk of investment by organizations decreases.

¹⁾ See <https://www.gov.uk/government/news/uk-becomes-first-major-economy-to-pass-net-zero-emissions-law>.