

ASTNDEAs5

Undertake energy inspections of existing non-dwellings with frequently occurring characteristics using the Simplified Building Energy Model (SBEM)



Overview

This Unit covers the competences required to inspect existing non-dwellings with frequently occurring characteristics in order to determine energy performance. Such buildings will contain, for example, simple heating systems, simple natural ventilation, small comfort cooling systems and typical fabric as defined in the approved tools.

This Unit relates to existing non-dwellings with frequently occurring characteristics that can be assessed using SBEM.

Element 5.1 covers inspecting existing non-dwellings with frequently occurring characteristics to determine energy performance.

Element 5.2 covers producing Energy Performance Certificates and recommendations for cost-effective improvement for non-dwellings with frequently occurring characteristics.

Element 5.1 Inspect existing non-dwellings with frequently occurring characteristics

Element 5.2 Produce Energy Performance Certificates

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Performance criteria

Inspect existing non-dwellings with frequently occurring characteristics

You must be able to:

- P1 ensure that you have the equipment and resources needed for the inspection of non-dwellings with **frequently occurring characteristics**
- P2 identify yourself to those present at the property before commencing the inspection
- P3 use surveying equipment correctly and interpret data generated by it accurately
- P4 identify and record the method of construction of the property and the main materials used
- P5 identify **circumstances** when at the property that prevent you continuing with the inspection and explain the reasons to the client(s)
- P6 undertake a methodical visual inspection of all relevant aspects of the property in accordance with the requirements of approved tools
- P7 make accurate observations and take measurements which are necessary to provide data for the calculation of an energy performance rating and production of recommendations for cost-effective improvement
- P8 obtain all additional information that is needed about the property
- P9 make further investigations where observations are inconsistent with existing evidence and expected findings
- P10 follow the correct procedures for collecting information to enable the energy efficiency of the property to be determined

Produce Energy Performance Certificates

You must be able to:

- P11 assemble and collate information from your on-site inspection and from other relevant and reliable sources
- P12 use approved tools correctly to determine energy performance ratings
- P13 use approved tools to generate recommendations for appropriate measures to improve the energy performance of the property
- P14 check the recommendations generated and make any necessary amendments
- P15 delete recommendations that are inappropriate providing your reasons
- P16 prepare and issue an Energy Performance Certificate that meets relevant codes of practice and standards, and produce recommendations for cost-effective improvement
- P17 explain the Energy Performance Certificate and recommendations for cost-effective improvement clearly to the client
- P18 maintain internal records which are clear, complete and conform to accepted professional and statutory requirements

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Knowledge and understanding

You need to know and understand:

Inspect existing non-dwellings with frequently occurring characteristics

- K1 the principles of building structure elements, fabric, services and overall design philosophy
- K2 what equipment and resources are needed to undertake the inspection
- K3 the detailed inspection requirements that apply to the property as described in the relevant guidance documents
- K4 the definitions and conventions embodied within approved tools
- K5 how to recognise different types of building construction, materials and services from drawings as well as buildings
- K6 how to identify and classify variations in building use
- K7 how to conduct the inspection in a thorough, methodical and consistent manner
- K8 the problems that can affect the energy performance of the building fabric
- K9 the implications of hazardous building fabric for the energy assessment and reporting
- K10 how to make accurate observations and take accurate measurements
- K11 how to make further investigations where observations are inconsistent with existing evidence and expected findings, and how to identify the causes of these inconsistencies
- K12 factors which are relevant to determining the energy performance of a property
- K13 the assumptions that are made in determining energy performance
- K14 the factors that are deemed not to affect the energy performance of the property
- K15 the relative sensitivity of the different factors that affect the energy performance of the property
- K16 how to collate information required to assess the energy performance of property

Produce Energy Performance Certificates

You need to know and understand:

- K17 the prescribed format and content of an Energy Performance Certificate
- K18 the range of measures to improve the energy performance of property that may be included within an Energy Performance Certificate
- K19 the technology used to produce Energy Performance Certificates and how to use it correctly
- K20 the principles underpinning the approved tools used to calculate energy ratings
- K21 how to input data using the approved tools in order to determine energy performance ratings
- K22 how to use approved tools to generate recommendations for measures to improve the energy performance of property

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- K23 the importance of checking that data has been inputted correctly and how to review data if the calculation will not process
- K24 the importance of checking the recommendations generated, deleting any that are inappropriate, and providing your reasons
- K25 the way in which recommendations are generated and circumstances when it is appropriate to delete them
- K26 the ways in which costs and benefits can be included in recommendations within the scope of your responsibility and competence
- K27 the importance of checking the Energy Performance Certificate and recommendations for cost-effective improvement to ensure they comply with relevant requirements

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Additional Information

Scope/range

Inspect existing non-dwellings with frequently occurring characteristics

1. **Frequently occurring characteristics**
 - 1.1. simple heating systems (Boiler Systems <100kw)
 - 1.2. simple natural ventilation
 - 1.3. small comfort cooling systems (up to 12kw)
 - 1.4. typical fabric as defined in the approved methodology
 - 1.5. typical lighting systems as defined in the approved methodology

2. **Circumstances**
 - 2.1. the discovery of unexpected or hazardous conditions or materials
 - 2.2. other potential threats to health and safety

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Suite Non Domestic Energy Assessors

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