

ASTNDEAs7

Undertake energy inspections of existing non-dwellings requiring the use of Dynamic Simulation Models (DSMs)



Overview

This Unit covers the competences required to inspect existing non-dwellings in order to determine the energy performance of the property.

This Unit relates to existing non-dwellings that require the use of a Dynamic Simulation Model in order to produce Energy Performance Certificates and recommendations for cost-effective improvement for existing non-dwellings.

Element 7.1 covers inspecting non-dwellings to determine energy performance.

Element 7.2 covers producing Energy Performance Certificates for non-dwellings.

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Performance criteria

Inspect existing non-dwellings to determine energy performance

You must be able to:

- P1 ensure that you have the equipment and resources needed for the inspection
- 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 the approved tool
- P7 make accurate observations and 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 regulations 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 to determine energy performance

- 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 the approved tools
- K5 how to recognise different types of building construction, materials and services from drawings as well as building structures
- K6 the problems that can affect the energy performance of the building fabric and services
- K7 the implications of hazardous building fabric for the energy assessment and reporting
- K8 how to identify and classify variations in building use
- K9 how to conduct the inspection in a thorough, methodical and consistent manner
- 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

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- performance ratings
- K22 how to use approved tools to generate recommendations for measures to improve the energy performance of property
- 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 to determine energy performance

1 circumstances:

- 1.1 the discovery of unexpected or hazardous conditions or materials
- 1.2 other potential threats to health and safety

Note: This Unit relates to existing non-dwellings that require the use of a Dynamic Simulation Model (DSM) in order to assess energy performance.

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