

ASTSOTV2

Evaluate the appropriate options for the introduction of energy efficiency measures to older and traditional buildings



Overview

This standard is about evaluating the appropriate options for the introduction of energy efficiency measures, with reference to the characteristics of the specific building, based on an accurate identification and evaluation of insulation, ventilation and building performance factors as well as establishing relevant investigative measures and an evaluation of available information on the building and its thermal performance.

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Performance criteria

Recognise the range of options, the likely effectiveness and value for money of measures to improve energy performance

You must be able to:

- P1 identify the range of energy efficiency measures relevant to older and traditional buildings
- P2 identify the range of materials and techniques appropriate to older and traditional buildings including vapour permeable and hygroscopic materials and air and vapour control layers
- P3 identify the effects of energy efficiency measures in combination with each other
- P4 explain the limitations of using default u-values in RdSAP (or approved software) for older and traditional buildings and their impact on the energy rating and recommended energy efficiency measures in the EPC
- P5 explain in what circumstances calculated U Values or in – situ measured U values should be used, the issues to be aware of and appropriate sources or processes to obtain these.
- P6 estimate the financial cost and payback in relation to specific building type
- P7 identify when the energy efficiency measures need to be adapted to older and traditional buildings due to existing building structure, detailing and services, the heritage values and significance of the building or technical risks or cases where energy efficiency measures cannot be recommended due to these factors
- P8 assess the implications of existing building defects and how the repairs needed affect the choice of energy efficiency measures
- P9 assess the implications of occupant behaviour on proposed energy efficiency measures
- P10 assess the implications of the relevant legal and regulatory requirements with particular reference to:
 - P10.1 planning permission
 - P10.2 listed building consent
 - P10.3 conservation area
 - P10.4 local listing
 - P10.5 scheduled ancient monument
 - P10.6 national building regulations including any exemptions and special considerations for older and traditional buildings
- P11 assess the technical risks associated with the energy efficiency measures in relation to:
 - P11.1 thermal bridges (cold bridges)
 - P11.2 ventilation
 - P11.3 thermal bypass
 - P11.4 condensation and interstitial condensation
 - P11.5 alterations in structure

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P11.6 moisture movement

- P12 assess the impact and consequences of using unsuitable interventions or inappropriate energy performance measures

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Knowledge and understanding

Recognise the range of options, the likely effectiveness and value for money of measures to improve energy performance

You need to know and understand:

- K1 the range of energy efficiency measures relevant to older and traditional buildings
- K2 the range of materials and techniques applicable to older and traditional buildings including vapour permeable and impermeable materials
- K3 the effects of energy efficiency measures in combination with each other
- K4 the limitations of using default u-values in RdSAP (or approved software) for older and traditional buildings and their impact on the energy rating and recommended energy efficiency measures in the EPC
- K5 the circumstances in which calculated U Values or in – situ measured U values should be used, the issues to be aware of and appropriate sources or processes to obtain these.
- K6 how to estimate the financial cost and payback in relation to specific building type
- K7 the additional physical adaptations required to existing building detailing and services
- K8 the adaptations required to energy efficiency measures to accommodate existing building detailing and services
- K9 the ways in which energy efficiency measures change the appearance and character of older and traditional buildings
- K10 the implications of existing building defects and the repairs needed and how they affect the choice of energy efficiency measures
- K11 ways of establishing and assessing the implications of occupant behaviour on proposed energy efficiency measures
- K12 the implications of the relevant legal and regulatory requirements with particular reference to:
 - K12.1 planning permission
 - K12.2 listed building consent
 - K12.3 conservation area
 - K12.4 local listing
 - K12.5 scheduled ancient monument
 - K12.6 national building regulations including any exemptions and special considerations for older and traditional buildings
- K13 the technical risks associated with the energy efficiency measures in relation to:
 - K13.1 thermal bridges (cold bridges)
 - K13.2 ventilation
 - K13.3 thermal bypass
 - K13.4 condensation and interstitial condensation

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- K13.5 alterations in structure
- K13.6 moisture movement
- K14 ways of evaluating the technical risks involved in relation to the introduction of the proposed energy efficiency measures and their delivery and how to mitigate the risks
- K15 ways of assessing the impact and consequences of using unsuitable interventions or inappropriate energy performance measures

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Suite Energy advice and reporting for traditional properties

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