
Overview

This Unit covers the competences required to evaluate drawings and specifications in order to determine the energy performance of new dwellings. The aim of the assessment is to gather data and information, in accordance with the SAP, to enable the generation of design assessments, Building Regulations comparisons of Dwelling Emission Rates [DER] and Target Emission Rates [TER], and Energy Performance Certificates.

You must understand the different stages involved in SAP energy assessment i.e. the design assessment and the 'as built' assessment (leading to the production of an Energy Performance Certificate and DER/TER comparison). You must also appreciate the stages at which advice should be provided to the client in order to facilitate compliance with those aspects of Building Regulations relevant to the energy performance of new dwellings, and which will result in an energy rating reflecting required Building Regulations and client drivers.

Element 3.1 requires that you conduct SAP energy assessments at appropriate stages in the production of new dwellings i.e. design and 'as built'. You must have a detailed knowledge of the SAP and the definitions and conventions used therein, and the Building Regulations relevant to the energy performance of new dwellings. You must also provide appropriate advice to clients on ways of improving the energy performance of buildings.

Element 3.2 requires that you maintain complete and accurate records relating to your energy assessments. You must record information in a logical manner, using appropriate methods, and ensure that records are legible and complete. It is important that you maintain an audit trail that connects all stages of the SAP energy assessment process, and record the flow of information between yourself, your client and your Accreditation Body throughout.

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Performance criteria

Conduct SAP energy assessments

- You must be able to:*
- P1 conduct SAP energy assessments at appropriate **stages** in the production of new dwellings
 - P2 apply SAP conventions in order to **assess** the energy performance of new dwellings
 - P3 provide appropriate advice to clients regarding the energy performance of new dwellings

Maintain records relating to SAP energy assessments

- You must be able to:*
- P4 maintain complete, accurate and legible records of SAP energy assessments
 - P5 record your findings in a logical manner that facilitates entry of data into prescribed software
 - P6 maintain an audit trail that connects all stages of the SAP energy assessment process
 - P7 keep accurate records of the information flow between you and the client throughout the assessment process
 - P8 store your records securely
 - P9 catalogue your records methodically
 - P10 ensure that records can be accessed readily for future use when called upon

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Knowledge and understanding

You need to know and understand:

Conduct SAP energy assessments

- K1 the different stages involved in assessing the energy performance of new dwellings i.e. the design assessment and the 'as built' assessment (leading to the production of a DER/TER comparison and an Energy Performance Certificate)
- K2 relevant aspects of the legislation and regulations relating to Home Information Packs, and the point at which an Energy Performance Certificate is required for new dwellings
- K3 the detailed assessment requirements that apply to the dwelling as defined by the current SAP
- K4 the definitions and conventions embodied within the current SAP
- K5 the principles of building structure, elements and materials
- K6 how to recognise the various types of building construction, elements and materials from drawings, specifications and any on-site test results
- K7 the Building Regulations that are relevant to the energy performance of new dwellings
- K8 the requirements and application of other technical standards relevant to the energy performance of new dwellings
- K9 the importance of keeping your records legible, complete and accurate
- K10 how to calculate heat losses in accordance with guidance contained within the SAP

Maintain records relating to SAP energy assessments

You need to know and understand:

- K11 the range of methods, formats and conventions for recording information and evidence on the new dwelling and its energy performance
- K12 the required range of information and evidence relating to the new dwelling and its energy performance as defined by the SAP
- K13 the level of detail within your records required to produce a complete and comprehensive submission for compliance with those aspects of Building Regulations energy performance requirements that are relevant to new dwellings
- K14 the level of detail within your records required to produce compliant Energy Performance Certificates
- K15 the importance of making and maintaining records that are complete, accurate and legible
- K16 how to record your findings in a logical manner that facilitate entry of data into prescribed software
- K17 the importance of maintaining an audit trail that connects all stages of the SAP energy assessment process
- K18 the importance of keeping accurate records of the information flow between you and the client throughout the assessment process

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- K19 the importance for storing records securely allowing for future access
- K20 the purposes for which your records may be used

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Additional Information

Scope/range

Conduct SAP energy assessments

- 1 **stages:**
 - 1.1 design
 - 1.2 on construction

- 2 **assess:**
 - 2.1 site factors, in so far as they are made known in the plans and specifications
 - 2.2 construction specifications
 - 2.3 heat losses
 - 2.4 hot water systems
 - 2.5 internal gains
 - 2.6 solar gains and utilisation factor
 - 2.7 mean internal temperature
 - 2.8 space heating requirements
 - 2.9 CO2 emissions and primary energy
 - 2.10 any other requirements as defined in the SAP

- 3 **advice at design stage:**
 - 3.1 regarding compliance with those aspects of Building Regulations energy performance requirements, Energy Performance of Buildings Regulations (EPBD), and HIP Regulations that are relevant to of new dwellings
 - 3.2 regarding achieving the best possible energy rating in the most cost-effective manner

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Suite On Construction Domestic Energy Assessors

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