

ASTGDA5

Carry out Non-domestic inspections to determine Operational Profile and give advice



Overview

This standard covers the competences required to determine Non-domestic Building Operational Profiles, to identify ways in which their energy efficiency can be improved by more effective energy management. It covers the assessment of current energy efficiency and the review of alternative ways of optimising energy efficiency and achieving carbon reduction. This assessment includes the review of buildings, activities, systems and people in order to recommend actions to improve energy efficiency and reduce carbon emissions. This standard covers both single buildings and a site where there are several buildings that interact with each other in terms of energy efficiency.

The Non-domestic operational profile requires relevant data, over and above that collected in a property inspection – that is, information about the building occupier, their circumstances and how the building is operated. The purpose of the operational profile is to provide bespoke advice to the client appropriate to their use of the building, and to provide them with an accurate indication of the likely suitability of the Green Deal (or equivalent programme). The advice it supports will include energy efficiency measures to install in the building (which are the subject of ASTGDA7), and how to operate the building and its systems in a more energy efficient manner.

It is intended to complement ASTNDEA5, 6 & 7, which cover inspecting non-domestic properties (at the three conventionally defined Building Levels, 3, 4 & 5) in order to determine their energy performance and make recommendations for improvement. It therefore focuses on the additional activities that must be carried out when determining the Operational Profile. This activity should include the sourcing and application of any suitable specialist opinion that the assessor considers necessary.

ASTGDA5

Carry out Non-domestic inspections to determine Operational Profile and give advice

Performance criteria

Gather information relating to energy consumption in Non-domestic buildings from occupiers and other sources to determine an Operational Profile

You must be able to:

- P1 prior to your visit explain to clients the information that they will need to provide, in accordance with the prescribed methodology for the Operational Profile and agree with them how it will be obtained using appropriate **methods**
- P2 confirm that your client is the person responsible for the property's fuel bills and has the authority to take action under the Green Deal (or equivalent programme) based on the advice given, after receiving any necessary consents from the property owner
- P3 describe the range of data and information that is required from clients to enable a thorough analysis of Non-domestic energy consumption for the purposes of Green Deal (or equivalent programme)
- P4 establish the appropriateness of the use of the Simplified Building Energy Model (SBEM) methodology and software for the type of building and whether the Dynamic Simulation Model (DSM) methodology should be used instead
- P5 gather necessary data and information from other potential sources, such as energy monitoring equipment, utility bills etc. including Operational Rating Data if available
- P6 gather any further data that is needed to complete any gaps or address any inconsistencies in the information provided, including requesting advice from a specialist where appropriate
- P7 undertake a methodical, visual inspection of any relevant aspects of the property, over and above that which is required to produce an Energy Performance Certificate, in accordance with the requirements of the prescribed methodology for the Operational Profile
- P8 draw on all relevant data and your expertise to make judgements about how the current condition of the property may affect its energy performance
- P9 follow conventions to determine a Management Score reflecting the quality of the building's management

Identify actions that could help reduce energy consumption in Non-domestic buildings

You must be able to:

- P10 establish and clarify the needs, tenure, access to capital and motivations of the client regarding energy consumption and carbon reduction
- P11 identify areas of significant energy consumption and any trends in energy consumption or changes in the pattern of energy consumption over time, specifically relating to the building and its use but excluding process energy

ASTGDA5

Carry out Non-domestic inspections to determine Operational Profile and give advice

- P12 compare data with operational performance and establish differences, identifying and exploring possible reasons for any differences
- P13 establish any anticipated future changes to energy consumption, and their implications, based on meter readings, hours run, name plate data, compiled utility bills and planned operational changes
- P14 review current activities, systems, processes and behaviours that effect energy efficiency and carbon emissions, giving the client a clear explanation of how these affect energy consumption and fuel bills
- P15 review alternative activities, systems, processes and behaviours that would enhance energy performance
- P16 identify changes that could be made to existing procedures and behaviours that would improve the energy performance of the building and meet legal, safety and operational requirements, to the extent that such changes are within the scope of Green Deal (or equivalent programme) advice provision
- P17 establish ways of improving the monitoring and measurement of operational energy usage including metering and sub-metering
- P18 identify financial incentives and schemes to support energy efficiency and carbon reduction relevant to actions being considered
- P19 identify the legal requirements which impact on energy use and carbon emissions and their impact on actions being considered
- P20 maintain impartiality when identifying effective actions to reduce operational energy consumption and achieve carbon reduction
- P21 identify where specialist assessment(s) of particular building fabric or building services are necessary to establish appropriate actions or energy efficiency measures to consider and refer the client to appropriate specialists(s) in such cases
- P22 record the choice of specialist and the basis for this choice, retaining evidence of their suitability to undertake the specialist assessment in the property in question
- P23 provide information on the methods and products for achieving the efficient management of water usage and minimisation of waste
- P24 provide information on the methods and products for achieving the reduction, re-use and re-cycling of waste
- P25 advise the client of the limitations on the advice given within a Green Deal (or equivalent programme) Advice Report
- P26 invite and respond to client questions, issues and concerns about the assessment and the operational advice given
- P27 provide additional explanation and information as required

ASTGDA5

Carry out Non-domestic inspections to determine Operational Profile and give advice

You must be able to:

Maintain records of inspection findings

- P28 produce and maintain complete, accurate and legible records of your findings, including investigations carried out, values recorded and options considered, to the level of detail required to:
 - 28.1. produce a complete and comprehensive Non-domestic Green Deal (or equivalent programme) Advice Report
 - 28.2. justify your decisions on values recorded and advice given
- P29 collate all **relevant information** to support the specific decisions made and advice given
- P30 in situations where accurate information cannot be obtained and/or where data is recorded as 'unknown', record clearly where this applies and why this action was unavoidable
- P31 catalogue your records methodically and store them securely, ensuring that they are kept for the prescribed periods of time and can be accessed readily for future use when called upon

ASTGDA5

Carry out Non-domestic inspections to determine Operational Profile and give advice

Knowledge and understanding

You need to know and understand:

Gather information relating to energy consumption in Non-domestic buildings from occupiers and other sources to determine an Operational Profile

- K1 the data and information that is required from the client to enable a full analysis of non-domestic energy consumption for the purposes of Green Deal (or equivalent programme)
- K2 how to explain the information that is required to clients and agree with them how it will be obtained
- K3 methods that may be used to obtain data and information, such as questioning, telephone interview, client completion questionnaires etc.
- K4 other potential sources of data and information that may inform the operational profile, such as energy monitoring equipment, utility bills, etc.
- K5 how to carry out a methodical, visual inspection of any relevant aspects of the property needed for an Operational Profile
- K6 the requirements of the prescribed methodology for the Operational Profile
- K7 the appropriateness of the use of the SBEM methodology and software for the type of building and whether the DSM methodology should be used instead
- K8 the definitions and conventions that apply to the prescribed methodology for the Operational Profile
- K9 how to identify and record gaps in information and gather any additional data to fill them, including identifying where it would be appropriate to request advice from a specialist
- K10 how to assess the likely current energy performance of any property elements that may affect the energy performance of property, compared to its performance as originally built
- K11 the performance and durability of materials and systems over time
- K12 the functioning of building services (electricity, gas, heating) where this relates to energy performance
- K13 how to confirm if any ad-hoc health and safety issues apply on the day of your inspection
- K14 the requirements of Codes of Practice or other guidance applying to the operational profile visit
- K15 how to apply conventions to determine a Management Score reflecting the quality of the building's management

ASTGDA5

Carry out Non-domestic inspections to determine Operational Profile and give advice

Identify factors and measures that could help reduce energy consumption in Non-domestic buildings

You need to know and understand:

- K16 the importance of establishing and clarifying the needs, circumstances and motivations of the client regarding reducing energy consumption and likely barriers to action for the client
- K17 How to establish and clarify the needs, circumstances and motivations of clients regarding energy consumption and carbon reduction and likely barriers to action for the client
- K18 how to sensitively explore financial, managerial, legal and other constraints that might affect the client's ability to act
- K19 the key metrics by which energy consumption is measured and recorded
- K20 how to track energy consumption over time and how to identify significant trends in usage
- K21 the types of appropriate further investigations where data inconsistencies are discovered
- K22 the alternative methods for optimising the use of existing plant, equipment and consumables and how to explain and record them
- K23 how the occupier's current activities, systems and processes affect their energy consumption and fuel bills
- K24 the alternative activities, systems and processes that would enhance energy efficiency and achieve carbon reduction, where they are within the scope of Green Deal (or equivalent programme) advice provision, in relation to energy purchase and supply, heating, lighting, air conditioning, small power, refrigeration, building fabric, passive strategies, processes and ventilation
- K25 the main methods and products used for controlling and managing the use of water and ways of minimising water usage and how customers can access further information on them and their suppliers
- K26 The main methods and products used for controlling and managing waste including reduction, re-use and re-cycling methods and how customers can access further information on them
- K27 how to evaluate alternatives against the constraints of the building and finances available
- K28 sources of financial support for energy and carbon reduction
- K29 sources of information and agencies providing advice and support to organisations for energy and carbon reduction
- K30 the legal and regulatory framework relating to energy efficiency and carbon reduction including national and international requirements
- K31 the limitations on the advice provided in the Green Deal (or equivalent programme) Advice Report
- K32 the circumstances where it is necessary to refer the client to appropriate specialists(s) for specialist assessment(s) of particular building fabric or building services

ASTGDA5

Carry out Non-domestic inspections to determine Operational Profile and give advice

- K33 how to choose a suitable specialist assessor appropriate to assess the particular property
- K34 the type of questions, issues and concerns that clients might have about the assessment and the operational advice given; how to respond to those concerns
- K35 how to provide additional explanation and information as required, referring the client to other sources as appropriate

You need to know and understand:

Maintain records of inspection findings

- K36 the range of methods, formats and conventions for recording information and evidence on the Operational Profile
- K37 the required range of information and evidence relating to the assessment, as defined by the current Operational Profile methodology and any associated guidance and conventions
- K38 the level of detail within your records required to produce a complete and comprehensive Non-domestic Green Deal (or equivalent programme) Advice Report and justify your decisions on the values recorded and advice given
- K39 the importance of making and maintaining records that are complete, accurate and legible
- K40 the reasons why it is necessary and important to record where and why accurate information could not be obtained
- K41 the circumstances in which records can include the fact that information is 'unknown' and the evidence required to support this choice
- K42 the importance for storing records securely allowing for future access
- K43 the purposes for which your records may be used

ASTGDA5

Carry out Non-domestic inspections to determine Operational Profile and give advice

Additional Information

Scope/range

1. **methods**
 - 1.1. face to face questioning
 - 1.2. telephone interview
 - 1.3. customer completion questionnaires

2. **relevant information**
 - 2.1. legible visit notes relating to the operational profile
 - 2.2. clear site sketches (plan, elevation) to give an adequate record of the operational profile for audit purposes
 - 2.3. clear photographs containing mandated data (e.g. time and date) appropriately staged and annotated where necessary
 - 2.4. legibly completed questionnaires or records of conversations
 - 2.5. records of web searches or other research
 - 2.6. records of fuel bills seen and meter readings taken
 - 2.7. any other information you consider necessary to support your decisions
 - 2.8. any other information required by Scheme Operating Requirements

ASTGDA5

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Developed by Asset Skills

Version number 1

Date approved February 2012

Indicative review date February 2017

Validity Current

Status Original

Originating organisation Asset Skills

Original URN ASTGDA5

Relevant occupations Professional Occupations; Construction, Planning and the Built Environment; Building and Construction; Architects, Town Planners and Surveyors

Suite Green Deal Advisers

Key words occupational profile; simplified building energy model; SBEM; dynamic simulation model; DSM; operational rating; energy performance certificate; EPC; green deal (or equivalent programme) advice report;