



Ministry of Housing,  
Communities &  
Local Government

# Calculating the energy performance of buildings

Notice of approval of the methodology for expressing the energy performance of buildings in England and Wales



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# Introduction

This notice of approval sets out the national calculation methodology for expressing the energy performance of buildings, as approved in accordance with Regulation 24 of the Building Regulations 2010 (SI 2010/2214), for the purposes of the Energy Performance of Buildings (England and Wales) Regulations 2012 (SI 2012/3118).

The notice of approval which sets out the approved national calculation methodologies for calculating the energy performance of buildings in England and for certain buildings in Wales, for the purposes of regulation 25 of the Buildings Regulations 2010 is issued as a separate document.

This document does not apply to national calculation methodologies for expressing the energy performance of buildings in Northern Ireland and Scotland. Buildings in Northern Ireland and Scotland are subject to separate regulatory requirements and are not covered or referred to in this document.

# Notice of Approval

TAKE NOTICE that the Secretary of State, under regulation 24 of the Building Regulations 2010, hereby approves the methodologies for calculating and the means of expressing the asset ratings required by 9(1)(a) and the operational ratings required by Regulation 15(1)(a) of the Energy Performance of Buildings (England and Wales) Regulations 2012. In regulation 24 of the Building Regulations 2010:

- a. 'asset rating' means an energy performance indicator determined from the amount of energy estimated to meet the different needs associated with a standardised use of the building, and
- b. 'operational rating' means an energy performance indicator determined from the amount of energy consumed during the occupation of a building over a period of time and the energy demand associated with a typical use of the building over that period.

This notice of approval is valid until withdrawn by the Secretary of State or superseded.

The approved methodologies for expressing the energy performance of buildings are:

- a. the Standard Assessment Procedure for the Energy Rating of Dwellings, 2012 edition
- b. the Government's Simplified Building Energy Model version 5.4
- c. approved Dynamic Simulation Models
  - Environmental Design Solution Limited TAS version 9.4
  - Integrated Environmental Solutions Limited Virtual Environment version 7.0
  - Bentley Systems (UK) Ltd Design Simulator version 26.06
- d. the Government's method for calculating the Operational Rating for buildings



Chandru Dissanayeke

Signed by authority of the Secretary of State

and Assistant Secretary in the Ministry of Housing, Communities and Local Government

19 October 2018

# Notes on the approved methodologies

This notice should be read in conjunction with the approved software packages and interfaces for calculating the asset and operational ratings of buildings. The current approved software packages and interfaces are available on the Ministry of Housing, Communities and Local Government website. The approved software packages and interfaces are revised from time to time to include new versions, or new versions of existing ones, as they are approved by the Secretary of State.

## Expressing the energy performance of dwellings

### **For dwellings on sale or rent**

Where an energy certificate is required on sale or rent under Regulation 6 of the Energy Performance of Buildings (England and Wales) Regulations 2012 (“the 2012 Regulations”), for the purposes of Regulation 9 of the 2012 Regulations the energy performance of a dwelling shall be expressed using the Standard Assessment Procedure or the Reduced Standard Assessment Procedure<sup>1</sup>.

### **For dwellings at construction completion**

Where an energy certificate is required on construction under Regulation 7A of the 2012 Regulations, for the purposes of Regulation 9 of the 2012 Regulations the energy performance of a dwelling shall be expressed using the Standard Assessment Procedure.

## Expressing the energy performance of buildings which are not dwellings

For the purposes of Regulations 6 (energy performance certificates on sale and rent), 7A (energy performance certificates on construction) and 9 (energy performance certificates) of the Energy Performance of Buildings (England and Wales) Regulations 2012 the energy performance of a building which is not a dwelling shall be expressed using the Simplified Building Energy Model version 5.4 or approved software interfaces of the Simplified Building Energy Model or an approved Dynamic Simulation Model.

For the purposes of Regulation 15 (display energy certificates) of the Energy Performance of Buildings (England and Wales) Regulations 2012 the operational rating of a building shall be expressed using the method for calculating the operational rating or an approved software application of the method for calculating the operational rating.

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<sup>1</sup> Reduced Standard Assessment Procedure is an adaptation of the Standard Assessment Procedure 2012 for use in the energy assessment of existing dwellings where, during a site survey of the building, the complete data set required by SAP is not easily accessible

# Approval of commercial software calculation tools

Applications may be made to the Secretary of State for approval of software packages to form part of the methodology for the calculation of the energy performance of buildings, such as:

- a. software applications of Standard Assessment Procedure and Reduced Standard Assessment Procedure
- b. software interfaces with the Simplified Building Energy Model
- c. Dynamic Simulation Models
- d. software applications of the method for calculating the Operational Rating for buildings.

To be approved the software tool must be validated against a set of published criteria to ensure it operates in a manner and to a standard consistent with the national calculation methodology before it can be approved by the Secretary of State. The criteria for approval and the procedures for applying for approval may be obtained from:

Operational Delivery Team  
Ministry of Housing, Communities and Local Government  
Energy Performance, Building Safety Programme  
Fry Building  
2 Marsham Street  
London SW1P 4DF

Email enquiries: [EPBsoftware@communities.gov.uk](mailto:EPBsoftware@communities.gov.uk)