

# **Improving the Energy Efficiency of Scotland's Non-domestic Buildings**

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# Policy Background

- ... back in 2008.
- Previous action on improvement within building regulations
- Section 63 of The Climate Change (Scotland) Act 2009
- Other similar policy work and Scotland's Energy Efficiency Programme

## **63. Non-domestic buildings: assessment of energy performance and emissions**

- (1) The Scottish Ministers must, by regulations—
  - (a) provide for the assessment of—
    - (i) the energy performance of non-domestic buildings;
    - (ii) the emission of greenhouse gases produced by or otherwise associated with such buildings or with activities carried out in such buildings;
  - (b) require owners of such buildings to take steps, identified by such assessments, to—
    - (i) improve the energy performance of such buildings;
    - (ii) reduce such emissions.

# New Regulations

- ‘The Assessment of Energy Performance of Non-domestic Buildings (Scotland) Regulations 2016’ – the first step
- Follows the same initial approach as Energy Performance Certificates (EPCs)
- Dual duty on owner to provide information (trigger of sale or rental to new tenant) then to ‘improve’ or ‘report’

# What happens?

- >1,000 m<sup>2</sup> floor area + other exemptions, builds on EPC assessment (uses EPC data)
- Assessment - Software applies prescribed improvement measures to create modest energy and emissions targets.
- Advice – new Section 63 Advisor role to discuss and agree improvement measures
- Separate Display Energy Certificate Assessor role

# Action Plan

- Records improvement targets and the measures proposed to meet them
- Sets timescale for completion of work
- Notes if owner will improve or defer work by reporting operational ratings
- If improving – 3.5 years allowed
- Option to defer/report must start in year 1

# Section 63 Action Plan

Scotland

Date of sale/lease	19 Apr 2016	UPRN	1234567890
Date of assessment	16 Feb 2016	Date of plan	14 Apr 2016
Action Plan RRN	0610-9696-8439-2792-5002	EPC RRN	0000-0000-0000-0000-0000
Address	Acorn Place, Oak Business Park, Treesville, EH54 6GA		

## Parties Involved in Production of Action Plan

Owner	Y	Tenant/Delegated person	N		
Assessor ID	EES/100000	Delegated protocol set up	-	Date	-

## Improvement Type

Building improvements	Y	Operational rating	N
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## Prescriptive Improvement Measures

Description	Valid
Central time heating control	N
Lighting controls	Y
Draught-stripping windows and doors	Y
Hot water storage insulation	N
Lamp replacement	N
Boiler replacement	N
Roof insulation	N
Target emission savings [kgCO2/m2.year]	19.69
Target energy savings [kWh/m2.year]	32.99
Accept prescriptive improvements	N
If No, go to alternative improvements	

## Alternative Improvement Measures

Description	
Prescribed: Lighting controls	
Replace gas boiler with Sedbuk 89%	
Total emission savings [kgCO2/m2.year]	19.56
Total energy savings [kWh/m2.year]	32.37

## Operational Rating System

Display Energy Certificate and Advisory Report lodged in register and displayed in building	-
Refer to Display Energy Certificate to view operational rating and CO2 emissions over previous 3 years.	

## Completion Of Improvements (Prescriptive or Alternative)

Planned completion date	10 Oct 2019	Actual completion date	Not provided by user
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This page is the Action Plan which must be lodged in the national electronic register and must be updated when the improvements have been completed.



# Action Plan



# The Scottish Government

# Display Energy Certificate

- Defer improvement by annual reporting
- Standard UK Display Energy Certificate (DEC) and existing DEC assessor role
- Option for asset-only DEC in year 1; advisory Report not mandatory for s.63
- Wider use of DEC + AR – e.g. ESOS
- All data lodged to register and accessible

# Roles and Responsibilities

As with all new things, the need for all parties involved to understand and carry out their part of that process.

- Initial and ongoing duty of the owner
- Function of the Approved Organisation
- Responsibility of the advisor/assessor in preparing an Action Plan or DEC

# Tools, Skills & Information

- iSBEM Action Plan tool implemented Nov 2015, but no FI-SBEM/DSM tools yet
- Register systems live August 2016
- New advisor role suited to existing construction professionals
- Develop existing resources to assist in assessment and advice

# Current Activity

- Continue to publish policy guidance and supporting documents
- Work with Approved Organisations to implement & further develop the new Assessor and Advisor roles
- Develop sectorial advice, with industry
- Clarify likely next steps for regulations

The seven measures which are applied to set the improvement target are:

**1. Draught-stripping windows and doors**

If air infiltration rate is higher than  $14 \text{ m}^3/\text{h}/\text{m}^2$ , apply draught-stripping to windows and doors measure applied. Improvement target will be based upon a infiltration rate reduced by 10%.

**2. Upgrading lighting controls to manual and photoelectric switching**

If there are no lighting controls in the actual building, lighting controls measure are applied. Improvement target will be based upon presence of occupancy sensors and photoelectric switching.

**3. Adding central time heating controls to the Heating, Ventilation and Air Conditioning (HVAC) system**

If there is an incomplete set of heating controls present in the building, central time heating controls are applied. Improvement target will be based upon presence of missing measure(s), to improve heating efficiency by 1%.

**4. Adding insulation to the hot-water storage cylinder**

If a hot water tank is present and no insulation jacket specified, an insulation jacket round hot water tank will be applied. Improvement target will be based upon 80 mm jacket to hot water storage cylinder.

**5. Replacing incandescent lamps with compact fluorescent lamps**

If incandescent lamps are recorded in the lighting specification in any zone, a lamp replacement measure is applied. Improvement target will be based upon presence of Compact Fluorescent Lighting (CFLs) in all relevant zones.

**6. Insulating accessible roof space**

If any roof is poorly insulated (a U-value poorer than  $1.0 \text{ W}/\text{m}^2\text{K}$ ) and the roof space is accessible, apply a roof insulation measure to each such zone. Improvement target will be based upon an improved U-value to  $0.15 \text{ W}/\text{m}^2\text{K}$ .

**7. Replacing the boiler if it is older than 15 years**

If any boiler present is more than 15 years old, apply a boiler replacement measure. Improvement target will be based upon new boiler of same fuel with efficiency equivalent to the minimum value set out in the building regulations.

# Questions?

For further information, see:  
[www.gov.scot/section63](http://www.gov.scot/section63)