MCS Company Scheme Criteria for:

Energy Efficiency Criteria

DRAFT Consultation Document

This document shows the Competence Criteria required to be met by a company undertaking the type of work detailed above.

These competencies have been identified from the current Qualifications Credit Units (QCF) devolved from the National Occupational Standards (NOS) to cover the range of work in the scope identified on the front page.

Anybody holding:

1. An approved Energy Efficiency certificate of competence

Is likely to have met with all of the criteria presented within this document.

An Experienced Workers Route (EWR) will cover all the competencies outlined if taken in support of a EWR covering the same detail as titled on this document.

A full list of Qualifications that have been deemed to have met this criteria can be found at http://www.microgenerationcertification.org/ along with access to EWR providers.

Please note anybody who has achieved the assessment without holding the correct mandatory Pre-requisites are likely to have to demonstrate further compliance against this company criteria.

Criteria Presentation

The criteria shown below in the following tables has been purposely presented in one of five categories:

1. Health and Safety – HS
2. Technical Skills – TS
3. Soft Skills – SS
4. Other – OT
5. Additional Information - AD

Where any box is blank these are intentionally blank.

By presenting the criteria within this format, it allows evidence to be collated for the Experienced Workers Route (EWR) options of evidencing compliance with the criteria.

Health and Safety Skills			
No.	**Objective**	**No.**	**Criteria**
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Technical Skills			
No.	**Objective**	**No.**	**Criteria**
1	Know the requirements relating to the commissioning of systems	1	Confirm the requirements of the commissioning process and commissioning checks in relation to:
		2	Compliance with manufacturers' instructions
		3	Compliance with current building regulations
		4	Provision of system controls
		5	System flushing, cleaning and protection
		6	Heat generating appliance checks
		7	Temperature checks – heating
		8	Temperature checks – domestic hot water
		9	Provision of condensate drainage
		10	Demonstration of the operation of the system/appliance/controls to the customer/user
		11	Provision of system/appliance/control literature to the customer/user
		12	Identify the options relating to the use of industry approved commissioning checklists:
		13	Renewable systems
		14	Confirm the requirements relating to space heating zone control for:
		15	New systems in dwellings with a total usable floor area up to 150m²
		16	Replacement systems (including boiler replacements to existing systems) in dwellings with a total usable floor area up to 150m²
		17	New systems in dwellings with a total usable floor area greater than 150m²
		18	Replacement systems (including boiler replacements to existing systems) in dwellings with a total usable floor area greater than 150m²
		19	Single-storey open-plan dwellings in which the living area is greater than 70% of the total floor area
		20	Confirm the requirements relating to hot water zone control for:
		21	Systems with stored domestic hot water

		22	Systems where domestic hot water is produced instantaneously
		23	Thermal storage systems fitted with a second circulating pump
		24	Confirm the requirements relating to time control for:
		25	New and replacement heating and hot water systems (including boiler replacements to existing systems) in dwellings with a total usable floor area up to 150m²
		26	New and replacement heating and hot water systems (including boiler replacements to existing systems) in dwellings with a total usable floor area greater than 150m²
		27	New and replacement heating and hot water systems (including boiler replacements to existing systems) where hot water is produced instantaneously
		28	Replacement systems where only the hot water cylinder is being replaced and a separate control for the hot water circuit is not present.
		29	Confirm the requirements relating to temperature control for:
		30	New and replacement space heating systems (including boiler replacements to existing systems) in dwellings with a total usable floor area up to 150m² and in dwellings with a total usable floor area greater than 150m²
		31	Confirm the requirements relating to temperature control for:
		32	New and replacement domestic hot water systems (including boiler replacements to existing systems) in dwellings with a total usable floor area up to 150m²
		33	New and replacement domestic hot water systems (including boiler replacements to existing systems) in dwellings with a total usable floor area greater than 150m²
		34	Identify the permitted use of non-electrical (thermo-mechanical) hot water controllers in:
		35	New systems
		36	Replacement systems
2	Know the requirements of the minimum standards for the control of insulation of pipework for gas-fired and oil-fired wet central heating and hot water storage systems	1	Specify the maximum permitted heat loss (w/m) for pipework insulation for the pipe sizes in the range of 8mm to 54mm
		2	Confirm the requirements for the insulation of:
		3	Primary circulation pipework for heating and domestic hot water circuits
		4	Pipework connected to hot water storage vessels
		5	Domestic hot water secondary circulation pipework
3	Know the requirements relating to stand-alone, glandless heating system circulators	1	Confirm the requirements for circulators fitted to new and replacements systems in relation to:
		2	Energy efficiency labelling
		3	Energy efficiency rating

4	Understand the main considerations when undertaking energy efficiency measures	1	Identify any regulatory requirements which might affect the viability of the energy efficiency measures
		2	Describe why it is important that the fabric of the building is in good condition before energy efficiency measures are addressed
		3	State examples of existing building features which can assist in reducing energy consumption
		4	Describe why it is important to work with the design and fabric of the building
		5	Describe the considerations that must be taken into account in relation to
		6	The avoidance of damage to the existing building, during construction and the longer term
		7	Moisture movement (moisture ingress and condensation)
		8	The design, age, type and use of the building
		9	The building location, size and orientation
		10	The soundness and viability of existing structure, the building fabric types and materials (including affected enclosed cavities and spaces)
		11	Heating and cooling
		12	Thermal insulation methods (cavity wall, loft, under-floor, internal/external solid wall)
		13	Air-tightness
		14	Ventilation - natural and artificial
		15	Light – natural and artificial
		16	Fire – protection and insulation
		17	Describe why it is important to maintain architectural, cultural and historically significant character and features of the building
5	Understand energy efficiency measures and priorities	1	Describe appropriate ways in which to reduce demand for energy by
		2	Efficient use of lighting and appliances
		3	Efficient use of heating controls
		4	Monitoring energy use and planning reduction
		5	Energy advice/assessment
		6	Describe appropriate ways to improve the efficiency of energy usage by
		7	Insulating lofts, pipes and floors
		8	Insulating cavity and solid walls
		9	Installing energy efficient measures for windows
		10	Installing draught-proofing
		11	Describe the use of low carbon environmental technologies including

		12	Solar hot water
		13	Solar photovoltaic electricity
		14	Heat pumps
		15	Biomass
		16	Micro-Combined Heat and Power (mCHP)
		17	Micro Wind
6	Understand the impact that energy efficiency measures could have on existing buildings	1	Describe the potential negative effects that energy efficiency measures could have on different buildings in relation to
		2	Trapping moisture and condensation
		3	Restricting air flow
		4	Accelerating decay
		5	Structural implications
		6	Visually
		7	Combustion appliances
7	Understand the recording and reporting procedures when carrying out energy efficiency measures on existing buildings	1	Describe the suitable methods for reporting and recording the energy efficiency work being carried out

Soft Skills			
No.	**Objective**	**No.**	**Criteria**
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Other			
No.	**Objective**	**No.**	**Criteria**
Intentionally Blank			

Additional Guidance
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