Building Safety Regulator

Mandatory Competence Framework Document - Requirements for Work Undertaken Through Competent Person Schemes Approved Under Schedule 3 of the Building Regulations (England and Wales)

Building Safety Regulator

Table of contents

Definitions

Assessor = Individuals, on behalf of a competent persons scheme operator, carrying out an assessment of a person's professional competence as defined by National Occupational Standards, or a recognised Standard Setting Body that has been adopted within a sector-specific MTC document; or assessing a business as set out in the relevant criteria in the BSR's and WG's Conditions of Authorisation.

Business = an enterprise (sole trader, partnership, Limited Company) which has been assessed in accordance with the requirements of this document as competent, and which possesses a current Assessment Certificate. or which is an applicant for assessment and certification.

Building Regulations = In England and Wales, Building Regulations made under the Building Act 1984 (as amended) and all subsequent Building Regulations (Amendment) Regulations.

Building Safety Act 2022 = refers to the Act introduced in April 2022.

Building Safety Regulator = The Building Safety Regulator (BSR) will oversee the safety and performance of all buildings in England.

Building control body = a local authority building control body or a registered building control approver

The Construction (Design and Management) Regulations 2015 (CDM) = regulations made under the Health and Safety at Work Act 1974 for managing the health, safety and welfare of construction projects

Client = the person ordering the work who may or may not be the user of the premises.

Commissioning = The testing and adjustment as necessary of energy efficient fixed building services with effective controls to ensure that they use no more fuel and power than is reasonable in the circumstances. It is recognised that compliance with good installation practice may also require competence to conduct a commissioning activity for aspects of the installation that are an addition to energy efficiency.

Competent = in possession of the necessary technical knowledge, skill and experience for the nature of the installation work and the ability to prevent danger and/or where appropriate injury.
Competent Person Scheme Operator = a body offering a self-certification scheme meeting the requirements of this document and listed by Government in schedule 3 of the Building Regulations 2010, as amended.

Competent body = a UKAS approved body performing conformity assessments and issuing certificates confirming that specified requirements relating to products, processes, systems or persons have been fulfilled (as pert ISO 17065).

Competent Individual = a person who possesses the necessary skills, knowledge, experience and ability to conduct the relevant work.

Competent Person = a business or individual acting as a business who possess ability to conduct relevant work compliantly and safely.

Design = contributing to the design of installation work

Dutyholders = The key roles (whether fulfilled by individuals or organisations) that are assigned specific responsibilities at particular phases of the building life cycle.

Golden thread = the golden thread is both the information that allows someone to understand a building and the steps needed to keep both the building and people safe, now and in the future

Installation work = the survey, design, installation, commissioning and testing of a building fabric or building services engineering system and/or associated controls.

On site = a location (relevant building) of relevant installation work-based activity.
Personnel Certification = A valid and current certificate issued to an individual by a UKAS accredited ISO17024 certification body.

Principal Contractor = Under the Construction (Design and Management) Regulations 2015 a Principal Contractor is a contractor appointed by the client to be in control of the construction phase of the project when there is more than one contractor working on the project. The Principal Contractor can be an organisation or an individual. The competence requirements and dutyholder responsibilities are set out in Part 3 and Part 4 of the Building Regulations 2010.

Principal Designer = Under the Construction (Design and Management) Regulations 2015, a Principal Designer is a designer appointed by the client to be in control of the pre-construction phase of the project, when there is more than one contractor working on the project. The Principal Designer can be an organisation or an individual. The competence requirements and dutyholder responsibilities are set out in Part 3 and Part 4 of the Building Regulations 2010.

Regulated Qualification = a qualification approved by both a UK Regulator and recognised Awarding Organisation.

Self-certification = the ability afforded to a member (business) of a Competent Person scheme to report their work as satisfying the requirements of the Building Regulations without involving the building control body approval process. Businesses that are members of Competent Person Scheme must legally self-certify all work for which they are registered for through the scheme(s) for which they are registered.

Sufficient Involvement = conducting installation work, including as relevant the design, installation, commissioning and testing of that work in accordance with the requirements of the relevant Regulations and industry standards.

Introduction

2.1 The purpose of Competent Person Schemes is to allow certified and registered businesses to self-certify the compliance of controlled work in buildings that is subject to the Building Regulations. This process removes the need to seek approval from the building control service before work starts. The Building Safety Act 2022 and associated secondary legislation introduces general duties in relation to planning and managing building work that is subject to the requirements in the Building Regulations.

2.2 A certified business, and the people working within it, certified as a registrant of a Government approved Competent Person Scheme has a duty to comply with all aspects of the Building Regulations not just the core aspects of the work being undertaken. Building work must meet the relevant technical requirements in the Building Regulations. If a controlled fitting, such as a window or door is replaced, and not just repaired, the replacement should comply with all relevant aspects of the current Building Regulations. For example, for an external door, relevant aspects of the Building Regulations include Part K (Protection from falling, collision and impact) and Part L (Conservation of fuel and power) and Regulation 7.

2.3 The main body of this Framework Document sets out the assessment requirements that the Competent Person Scheme Operator will use to assess a business and the individual(s) working within a business certified by the Scheme Operator.

2.4 The Mandatory Technical Competence (MTC) Framework Document is designed to provide confidence to all stakeholders in the installation process that work is conducted safely and to required industry standards within the regulatory framework.

2.5 The MTC criteria sets out the mandatory skills, knowledge, experience, behaviours and Continuing Professional Development (CPD) requirements that will ensure that an individual working within the business has the appropriate skills, knowledge, experience and behaviours to undertake work in a Competent Person Scheme designated in Schedule 3 of the Building Regulations and is designed to be in-line with the relevant Regulated Qualification Framework (RQF) level or personal certification as specified in each sector specific annex. The requirements include working in a safe manner, customer care and technical aspects of the work when working in a client's premises and on construction sites.

2.6 If an applicant enterprise satisfies one of the appropriate routes to registration by providing evidence of formal qualification, the Competent Person Scheme Operators shall conduct an on-site sample audit of the competence requirements as appropriate to their scope of registration and taking into consideration the competence criteria detailed in the relevant appendices. Where the enterprise cannot provide evidence of formal qualification the Competent Person Scheme Operator may conduct a full audit in accordance with the full list of competencies identified in the appropriate appendices.

2.7 Competence involves the skills, knowledge, experience and behaviours necessary in a broad range of varied work activities performed in a wide variety of contexts, most of which are complex and non-routine. Considerable responsibility and autonomy and control or guidance of others is often required.

2.8 These requirements will be taken into account when scheme applicant businesses apply for certification with a Competent Person Scheme Operator as they help to define areas of expertise and common competences and ensure a consistent approach to certification.

Development of the competence criteria within the sector specific annexes

3.1 The mandatory skills, knowledge and behaviours described within the sector specific annexes of this Framework Document to evidence competence of individuals has been developed by the BSR authorised Competent Person Scheme Operators for England and WG for Wales, assessed by UKAS, in consultation with stakeholders (for example, certified businesses). Where appropriate, the recognised UK Awarding Organisations may also have been consulted.

3.2. The MTC criteria are designed to ensure that an individual within a business is able to and works safely to agreed industry standards in compliance with the Building Regulations.

4.1 The MTCs referred to in this Framework Document and define the requirements for individuals conducting installation work for which self-certification is required under the Building Regulations. A business must nominate the competent individuals for each sector in which they operate and be able to demonstrate that they are competent to conduct the work.

Note: Where the MTCs refer to an older version of a standard that the issuing standards body has now revised or updated, the new version may be used as a source of guidance, provided it continues to address the relevant requirements of the Building Regulations.

4.2 Where specified in the sector specific annex, all individuals, or as designated the competent individual ratio, conducting installation work must be assessed against the MTC requirements which must be revalidated every 5 years. (Note: this does not apply to labourers, apprentices or other unskilled persons).

4.3 The business shall ensure that there is a record of each competent individual capable of completing self-certification and the limits of their competence including their skills, knowledge qualification, experience, training and professional development records.

4.4 The business shall have systems in place to ensure that each registered installation has sufficient competent individuals to ensure the compliance of the work undertaken. That work is undertaken only by competent individuals who have demonstrated the required competence and have had sufficient involvement to do so.

4.5 Where a business sub-contracts part of the works to a third party, this shall be managed through a formal subcontract agreement between the two parties. Under these circumstances the business undertaking a contract with the customer retains full responsibility for the installation and is responsible for ensuring the individuals on site are competent, records are kept up to date and the work is notified to the Competent Person Scheme operator. The business undertaking

a contract with the customer retains full responsibility for the installation and is responsible for ensuring the individuals on site are competent, records are kept up to date and the work is notified to an accredited CPS certification body.

4.6 Where a business sub-contracts all or any part of its work to a third party the Competent Person Scheme Operator shall ensure that the business has adequate measures in place to ensure the compliance of the installation that reflects the scope of the certified business' competence.

4.7 It is recognised that competent individuals may be supported by other individuals who do not meet the criteria (such as labourers, fitter's mates, apprentices or other unskilled persons). In which case the competent individuals shall be assessed to ensure they recognise that they have the responsibility for the safety and compliance of the work undertaken by supporting other individuals with the Building Regulations and shall have sufficient involvement in the work that they are able to ensure this.

4.8 It is recognised that a Competent Individual may move from business to business which may be certified with an alternate Competent Person Scheme Operator. In these cases, a Competent Individual assessed by another Competent Scheme Operator does not need to be re-assessed on a cyclical basis as set out in the sector-specific MTCs. The business shall demonstrate that an individual is competent to undertake work by making available suitable records for audit by the Certification Body.

Other general requirements of the business

5.1 The insurance cover shall be appropriate to the risk, nature and scale of the work undertaken. The business shall hold a minimum of £2 million of public liability insurance covering all the work that it conducts within the scope of their Competent Person Scheme certification.

Note: Where installation design is undertaken, it is recommended that the business holds a minimum of £250,000 of Professional Indemnity insurance or as appropriate to their scope of work.

5.2 The business shall maintain a record of all complaints received over at least the previous six years, concerning the compliance with Building Regulations and relevant legislative requirements of the work it has conducted, together with the details of the action taken to resolve these complaints.

5.4 The business shall comply with the requirements of the Health and Safety at Work etc Act 1974 and the Construction (Design and Management) Regulations 2015. The business shall have a written health and safety policy statement where required by law and shall conduct risk assessments where necessary.

5.5 Individuals undertaking work shall have the appropriate level of health and safety competence as detailed in the relevant appendix for the scope of works being conducted.

5.6 The business shall hold appropriate records and documents including but not limited to:

i. a list of all self-certified work conducted.
ii. certificates, subcontract specifications, design data, specifications, drawings, commissioning records, survey documentation, heat loss calculations, reports, logbooks, end user operating instructions and compliance certificates relating to installation work, conducted and in progress, as appropriate.
iii. Qualification, experience, where relevant records of supervision/observations and CPD records of competent individuals
iv. The business shall hold or have access to current editions, including all amendments, of the documents (or recognised equivalent documents) as listed within each annex.

Annex A provides examples of record keeping for design, installation and commissioning

5.7 The business shall issue the following as appropriate:

i. certificates, subcontract specifications, handover/commissioning record to the client
ii. detailing the results of the performance tests conducted as required by the relevant
iii. standards and regulations.
iv. Building Regulations compliance notification in accordance with the relevant standards and regulations for all of the work that it conducts. This shall be conducted by the Competent Person Scheme Operator on behalf of the business.
v. logbook/checklist or update any existing compliant logbook/checklist to include the work it has conducted.
vi. Building Regulations compliant guidance to the client on the maintenance and operation of the installed system(s).

Competent Person Scheme operator requirements and assessment of business competence

6.1 Competent Person Scheme Operators shall be responsible for assessing the competence of businesses applying to join a Competent Person Scheme as well as existing certified businesses.

6.2 Competent Person Scheme Operators shall comply with the current version of the Building Safety Regulator's for England and Welsh Government's for Wales Conditions of Authorisation.

6.3 The Competent Person Scheme Operator shall ensure that there is a record of each competent individual listed against each certified business capable of completing self-certification and the limits of their competence.

6.4 The Competent Person Scheme Operator shall have systems in place to ensure that each certified business, has sufficient competent individuals to ensure the compliance of the work undertaken by each certified business, that work is undertaken only by competent individuals who have had sufficient involvement to do so. The work of each Competent Individual shall be periodically randomly monitored by the scheme operator as part of the surveillance programme for

the certified business, in order to check on its compliance as set out in relevant criteria in the BSR and WG Conditions of Authorisation.

6.5 Where regulated qualifications or UKAS accredited personnel certification are used as evidence of competence, the Competent Person Scheme Operator must ensure that the qualification is mapped to the sector specific MTC document. Any competence gaps between the regulated qualification or accredited personnel certification (including the MTC) must be assessed against the individual by the Competent Person Scheme Operator. A copy of the attained regulated qualification or UKAS accredited personnel certification to MTC mapping must be retained for review by UKAS.

6.6 Each person employed by the business as a competent individual as described in the sector specific annex must be assessed by the Competent Person Scheme operator including an on-site assessment, as set out in relevant criteria in the BSR and WG Conditions of Authorisation.

6.7 The Competent Person Scheme Operator shall have systems in place to ensure the certified business has a record of the competent individuals against each installation notified to the Competent Person Scheme operator.

6.8 Competent Person Scheme assessors shall meet the following requirements:

i. Assessing individuals for a formal qualification (a Level 3 award in "Assessing Candidates Using a Range of Methods")
ii. Assessing individuals for a certificate of personal competence (to meet the competence requirements of ISO 17024 clause 6.2 "personnel involved in the certification activities")
iii. Assessing enterprises (to meet the competence requirement of ISO 17065 clauses 6.1.2 "Management of competence for personnel involved in the certification process and 6.2 "resources for evaluation", and BS EN ISO 19011:2018 Clause 7)

The competence of assessors shall be updated on a regular basis and be periodically reconfirmed by the Competent Person Scheme Operator.

6.9 The Competent Person Scheme Operator shall maintain a public facing register of all certified businesses. Scheme applicants cannot be certificated until they have been assessed against the technical competence requirements of the scheme including the MTCs.

6.10 The Competent Person Scheme Operator shall issue a photo ID card for each Competent Individual linked to an on-line database listing assessed competence which is available for consumers to view. The Competent Person Scheme Operator may manage this themselves or sub-contract this to a third party.

Consumer Protection

7.1 Where applicable the Competent Person Scheme Operator should ensure that installers meet clear standards for fair and transparent dealings with consumers, including providing accurate information, clear pricing, and appropriate advice before work is agreed. They should also require effective processes for handling complaints, redress, and remediation where work falls short, in line with the CMA's expectations for direct consumer protection. These measures should place consumer outcomes at the centre, ensuring confidence, accountability, and consistent protection across the sector.

Annex A – Examples of additional requirements for enterprises (where applicable)

Example 1: For the installation of a Solar Thermal Hot Water System, the Enterprise will keep updated documentation to record for the following information.

Main Point	Sub-point
Pre-contract information and Survey	Pre-contract information and survey must be established and include the following: Survey Form which must include: • Customer/client details. • Customer/client contact information • Funding requirements (National or local scheme information)
	Survey of property, which must include: • Roof area size and commentary to suitability • Roof elevation and commentary to suitability • Roof orientation and commentary to suitability • Roof construction description and commentary to suitability • Structural information to determine load calculations. • Existing system to be connected into and commentary to suitability or alterations required. • Design criteria, including, hot water requirements, temperatures, time periods
	Visual Inspection, which must include: • Suitability of access and commentary to suitability • Provision for safe storage of materials and commentary to suitability • Existing property condition including areas of damage

Quotation and Contract	The quotation and contract must be provided to the client or customer and include: Technology Key Facts Guide, must be provided to the client or customer and include information on: • What is solar hot water? • How do solar hot water heating systems work? • Benefits of solar water heating • Is solar water heating right for your home? • Costs and savings • Maintenance
	Quotation, must be provided to the client or customer, prior to work taking place and include: • Customer legal details • Enterprise legal information • Date of quotation • Validity duration of quotation • Description of equipment supplied (manufacturer and model number) • Description of works • Unit price and total cost (including VAT) • Business terms and conditions of sale
	Contract including exclusions and variations, alongside the quotation will be provided prior to work commencing including: • Date of contract • Customer legal details • Enterprise legal information • Date of contract • Installation timescales and installation plan • Responsibility for approvals (e.g. planning) • Cancellation rights

	• Effects of cancellation • Works conducted prior to cancellation • Installation standards • Waste removal from site. • Exclusions • Deposits, advance payments, and payments • Ownership of goods • Changes and variations • Late payment • Alternative Dispute Resolution (ADR) • Privacy • Signatures of customer and enterprise
	Energy Performance Estimates for the system proposed, will be provided to the customer or client
Quotation acceptance, planning and installation	The Quotation acceptance, planning and installation information must be provided to the client or customer and include: Contract confirmation and quotation acceptance must be obtained prior to work taking place and record: • Customer acceptance form • Confirmation of calculation and component selection
	Contract plan • Installer details • Planned start. • Planned completion
	Planning and pre-installation notifications completed (if required)
Commissioning, handover, registration, and notification	Commissioning, Handover, Registration, and Notification pack must be produced and provided to the customer or client and contain information of the following:

	Commissioning certificate must record the following commissioning details: • Site address • Commissioning engineer name • Collector details ○ Collector manufacturer ○ Collector serial number(s) ○ Glazing format of collector ○ Absorber type ○ Collector stagnation temperature ○ Net collector aperture area ○ Collector maximum design pressure ○ Heat transfer fluid details. ○ Heat Transfer Fluid Details ○ Type of transfer fluid ○ Additive used ○ Fluid mix (water) % ○ Fluid mix (glycol / additive) % ○ System transfer fluid volume ○ Lowest temperature before freeze damage to components • System Details ○ System operating pressure (cold) ○ Maximum design pressure of the system ○ Expansion vessel pre-charge level ○ Expansion/drain back vessel capacity. ○ Type of system pressure control device ○ Location of system pressure control device ○ Correct heat rated insulation fitted to primary circuit. ○ Installation in a hard water area ○ Thermostat(s) for back up heat source correctly positioned.

	○ Scale reducer fitted ○ Unvented cylinders only – overheat circulation cut out installed. ○ Device used for preventing the overheating of solar heated water. ○ Location of the device for preventing the overheating of solar heated water ○ DTC manufacturer ○ DTC pump control settings ○ Circulation rate of collector circuit pump ○ Electrical controls and temperature sensors operating correctly. ○ Location of electrical isolating switch to pump/control unit
	Manufacturer's warranty registration must be proved to the customer or client
	Building Regulation Notification Certificate must be provided to the customer or client
	Handover pack and system instruction: • Documentation Left with Customer and Demonstrations Given and Understood by Customer ○ User instructions ○ Explanation of system use ○ Installation instructions ○ Explanation of system maintenance ○ Maintenance instructions
Standards and Codes of Practice	All survey, sizing and selection, pre-installation, installation, testing and commissioning should be conducted in accordance with: • Manufacturer instructions

	• Guidance and specification provided by, but not limited to - ○ HSE including HSG274 pt 2 and 3. ○ CIBSE ○ CIPHE ○ HHIC ○ HWA

Example 2: For the installation of a hydronic heat pump system, the Enterprise will keep updated documentation to record for the following information.

Main Point	Sub-point
Pre-contract information and Survey	**Pre-contract information and Survey, must be established and include:** Survey Form which must include: • Customer/client details • Customer/client contact information • Funding requirements (National or local scheme information)
	Survey of property which must include: • Planning ○ Is the property Listed or in a Conservation Area? ○ Will the installation come under "Permitted Development"? ○ Has a noise assessment been conducted in line with under "Permitted Development" Rights? ○ Are there any other planning issues to be considered? • System Design ○ Proposed Heat Pump type

	○ Will the system be designed for continuous or intermittent heat? ○ Proposed emitter types ○ Will the system provide space Heating and Hot Water? ○ Will an auxiliary heat source be used? • Building Details ○ Is the property “New Build” or “Retrofit”? ○ If “New Build,” would it be considered “Self-Build”? ○ Is the property in an exposed location? ○ When was the property built? ○ Is a valid EPC available? ○ Building construction ○ Building dimensions • Insulation ○ Does the EPC confirm that Loft insulation has been installed to a sufficient depth? ○ Does the EPC confirm that Cavity Wall insulation has been installed? ○ If NO to either of the above, will the property be exempt? • Metering ○ Is the property occupied for more than 50% of the year? ○ Will metering be required due to auxiliary heating? • Existing Heating and Fuel ○ Existing heating fuel type ○ Pence/kWh for existing fuel ○ Make and model of existing heat source. ○ Pence per kWh for electricity • Occupancy Information

	○ Number of occupants ○ Number of bedrooms • Equipment Location ○ Proposed location of Heat Pump ○ Provision for condensate ○ If required - proposed location of HW Cylinder ○ If required - proposed location of Buffer Tank • Ground Source Information ○ Proposed ground collector type ○ Area of ground available ○ Type of ground ○ Proposed distance between ground source unit and manifold • General ○ Will the installation work result in non-compliance with the Building Regulations? ○ Will any form of protected species be disturbed during the installation process? • Design criteria, including, hot water requirements, temperatures, time periods
	Visual Inspection, which must include: • Suitability of access and commentary to suitability • Provision for safe storage of materials and commentary to suitability • Existing property condition including areas of damage
Quotation and Contract	The Quotation and Contract must be provided to the client or customer and include: Technology Key Facts Guide, must be provided to the customer or client and include information on: • What is a heat pump?

	• What types of heat pump are available? • How do different heat pump systems work? • Benefits of heat pumps • Is a heat pump right for your home? • Costs and savings • Maintenance
	Quotation, must be provided to the client or customer, prior to the work taking place and include: • Customer legal details • Enterprise legal information • Date of quotation • Validity duration of quotation • Description of equipment supplied (manufacturer and model number) • Description of works • Unit price and total cost (including VAT) • Business terms and conditions of sale • Exclusions and variations
	Contract, alongside the quotation will be provided prior to work commencing including: • Date of contract • Customer legal details • Enterprise legal information • Date of contract • Installation timescales and installation plan • Responsibility for approvals (e.g. planning) • Cancellation rights • Effects of cancellation • Works conducted prior to cancellation. • Installation standards

	• Waste removal from site. • Exclusions • Deposits, advance payments, and payments • Ownership of goods • Changes and variations • Late payment • Alternative dispute resolution (ADR) • Privacy • Signatures of customer and enterprise
	• Energy Performance Estimates for the system proposed, will be provided to the customer or client.
Quotation acceptance, planning and installation	The Quotation acceptance, planning and installation information must be provided to the client or customer and include: • Contract confirmation and quotation acceptance must be obtained prior to work taking place and record: • Customer acceptance form • Confirmation of calculation and component selection
	Contract plan • Installer details • Planned start. • Planned completion
	Planning and pre-installation notifications completed (if required)
Commissioning, handover, registration, and notification	Commissioning certificate must record the following commissioning details: • Site address • Commissioning engineer name • Heat Pump Details: ○ Heat pump manufacturer. ○ Heat pump(s) model/serial number.

	• External Air Fan Coil Unit ○ Internal/External/Through the wall unit/Remote fan system ○ Fan coil positioned in line with manufacturer's instructions. ○ Minimum distances for the unit have been observed. • System Details ○ System operating pressure (cold) ○ All external pipework insulated and/or buried to the correct depths. ○ Expansion vessel set to manufacturer's requirements ○ Pre-charge level ○ Expansion vessel capacity ○ Circulation rate of heat pump circuit pump ○ Maximum design pressure of the system ○ Underfloor heating only ○ Underfloor heating and hot water ○ Panel radiators and hot water ○ Warm air system ○ Type of back up heat source fitted. ○ Room thermostat and separate timer fitted. ○ Programmable room thermostat fitted. ○ Weather compensation control fitted. ○ Optimum start control fitted. ○ Heat pump safety interlock Built in ○ Outdoor sensor fitted to manufacturer's instructions ○ Heating zone valves fitted. ○ Hot water zone valves fitted. ○ Automatic bypass system fitted. ○ Buffer Vessel fitted ○ Electrical controls and temperature sensors operating correctly.

	○ Size of buffer vessel ○ Location of electrical isolating switch to pump unit ○ Central heating flow temperature ○ Central heating return temperature ○ Hot water flow temperature ○ Hot water return temperature
	Manufacturer's warranty registration must be provided to the customer or client.
	Building Regulation Notification must be provided to the customer or client.
	Handover pack and system instruction: • Documentation Left with Customer and Demonstrations Given and Understood by Customer ○ User instructions ○ Explanation of system use ○ Installation instructions ○ Explanation of system maintenance ○ Maintenance instructions ○ Noise assessment documents – showing compliance with "Permitted Development" Rights
Standards and Codes of Practice	All survey, sizing and selection, pre-installation, installation, testing and commissioning should be conducted in accordance with • Manufacturer instructions • Guidance and specification provided by, but not limited to - ○ HSE including HSG274 pt 2 and 3. ○ CIBSE ○ CIPHE ○ HHIC ○ HPA

	○ GSHPA

Example 3: For the installation of a Thermal Energy Storage System (TESS) for a Central Heating System, the Enterprise will keep updated documentation to record for the following information.

Main Point	Sub-point

Pre-contract information and Survey	Pre-contract information and Survey must be established and include the following: Survey Form, which must include: • Customer/client details • Customer/client contact information • Funding requirements (National or local scheme information)
	Survey of property, which must include: • Planning ○ Is the property Listed or in a Conservation Area? ○ Will the installation come under “Permitted Development”? ○ Are there any other planning issues to be considered? • System Design ○ Proposed Thermal Energy Storage System (TESS) for a Central Heating System type: ○ Proposed emitter types (e.g. radiators) ○ Will the system provide space Heating and Hot Water? ○ Will an auxiliary heat source be used? • Building Details ○ Is the property “New Build” or “Retrofit”? ○ If “New Build,” would it be considered “Self-Build”? ○ Is the property in an exposed location? ○ When was the property built? ○ Is a valid EPC available? ○ Building construction ○ Building dimensions • Metering ○ Is the property occupied for more than 50% of the year? ○ Will metering be required due to auxiliary heating?

	○ Is an electricity smart meter installed? • Existing Heating and Fuel ○ Existing heating fuel type ○ Pence/kWh for existing fuel ○ Make and model of existing heat source. ○ Pence per kWh for electricity • Occupancy Information ○ Number of occupants ○ Number of bedrooms • Equipment Location ○ Proposed location of Thermal Energy Storage System (TESS) for a central heating system ○ If required - proposed location of thermal store for hot water ○ If required - proposed location of Buffer Tank • General ○ Will the installation work result in non-compliance with the Building Regulations? ○ Will any form of protected species be disturbed during the installation process? • Design criteria, including, hot water requirements, temperatures, time periods
	Visual Inspection, which must include: • Suitability of access and commentary to suitability • Provision for safe storage of materials and commentary to suitability • Existing property condition including areas of damage.
Quotation and Contract	The Quotation and Contract must be provided to the client or customer and include: Technology Key Facts Guide, must be provided to the customer or client and include information on:

	• What is a Thermal Energy Storage System (TESS) for a central heating system? • Benefits of Thermal Energy Storage Systems (TESS) • Is a Thermal Energy Storage System (TESS) right for your home? • Costs and savings • Maintenance
	Quotation must be provided to the client or customer, prior to the work taking place and include: • Customer legal details • Enterprise legal information • Date of quotation • Validity duration of quotation • Description of equipment supplied (manufacturer and model number) • Description of works • Unit price and total cost (including VAT) • Business terms and conditions of sale
	Contract, alongside the quotation will be provided prior to work commencing including: • Date of contract • Customer legal details • Enterprise legal information • Date of contract • Installation timescales • Responsibility for approvals (e.g. planning) • Cancellation rights • Effects of cancellation • Works conducted prior to cancellation • Installation standards

	• Waste removal from site. • Exclusions • Deposits, advance payments, and payments • Ownership of goods • Changes and variations • Late payment • Alternative dispute resolution (ADR) • Privacy • Signatures of customer and enterprise
	Energy Performance Estimates for the system proposed, will be provided to the customer or client.
Quotation acceptance, planning and installation	Contract confirmation and quotation acceptance must be provided to the client or customer and include: • Contract confirmation and quotation acceptance must be obtained prior to work taking place and record: ○ Customer acceptance form ○ Confirmation of calculation and component selection
	Contract plan • Installer details • Planned start. • Planned completion
	Planning and pre-installation notifications completed (if required)
Commissioning, handover, registration, and notification	Commissioning, Handover, Registration, and Notification pack must be produced and provided to the customer or client and contain information of the following: Commissioning certificate must record the following commissioning details: • Site address • Commissioning engineer name

	• Thermal Energy Storage System (TESS) for a Central Heating Systems Details ○ Thermal Energy Storage System (TESS) manufacturer ○ Thermal Energy Storage System (TESS) model/serial number • System Details ○ System operating pressure (cold) ○ Expansion vessel set to manufacturer's requirements ○ Pre-charge level ○ Expansion vessel capacity ○ Maximum design pressure of the system ○ Underfloor heating only ○ Underfloor heating and hot water ○ Panel radiators and hot water ○ Warm air system ○ Type of back up heat source fitted. ○ Room thermostat and separate timer fitted. ○ Programmable room thermostat fitted. ○ Weather compensation control fitted. ○ Optimum start control fitted. ○ Thermal Energy Storage System (TESS) safety interlock Built in ○ Outdoor sensor fitted to manufacturer's instructions ○ Heating zone valves fitted. ○ Hot water zone valves fitted. ○ Automatic bypass system fitted. ○ Buffer Vessel fitted ○ Electrical controls and temperature sensors operating correctly. ○ Size of buffer vessel ○ Location of electrical isolating switch to pump unit

	○ Central heating flow temperature ○ Central heating return temperature ○ Hot water flow temperature ○ Hot water return temperature
	Manufacturer's warranty registration must be provided to the customer or client
	Building Regulation Notification must be provided to the customer or client
	Handover pack and system instruction • Documentation Left with Customer and Demonstrations Given and Understood by Customer: ○ User instructions ○ Explanation of system use ○ Installation instructions ○ Explanation of system maintenance ○ Maintenance instructions ○ Wired or wireless internet connection? ○ Have the charging controls been demonstrated and explained to the customer? ○ Have offline controls been demonstrated and explained to the customer? ○ Charging profile set up (e.g. smart, scheduled/timer)
Standards and Codes of Practice	All survey, sizing and selection, pre-installation, installation, testing and commissioning should be conducted in accordance with: • Manufacturer instructions • Guidance and specification provided by, but not limited to - ○ HSE including HSG274 pt 2 and 3. ○ CIBSE

	○ CIPHE ○ HHIC