ENERGY & ENVIRONMENT AWARDS

Skills for a greener world

EEA Level 2 End-point Assessment for Dual Fuel Smart Meter Installer

Specification

QAN 610/6019/7
ST0158 V1.2

Specification for

EEA Level 2 End-point Assessment for Dual Fuel Smart Meter Installer

QAN 610/6019/7

Updates to this specification

Since the first publication of Energy & Environment Awards Dual Fuel Smart Meter Installer Specification (DFSMI), the following updates have been made.

Version	Date first published	Section updated	Page(s)
v2.0	August 2025	Rebranded	All
v1.0	August 2024	First published	All

Section 1: At a Glance EPA Summary

Qualification name	EEA Level 2 End-point Assessment for Dual Fuel Smart Meter Installer
Ofqual qualification number	610/6019/7
Standard reference	ST0158
Assessment plan	V1.2
Standard title	Dual Fuel Smart Meter Installer
Level	2
Gateway pre-requisites submitted to Energy & Environment Awards	Apprentice has: • achieved English and mathematics qualifications in line with the apprenticeship funding rules • IGEM IG/1 Supplement 3 Certificate • Consolidated Metering Code of Practice (CoMCoP) • Matters of Gas Safety Competency Accreditations • compiled and submitted a portfolio of evidence, which the interview will be based
On-programme duration	Typically 14 months
Gateway readiness	Apprentice has met all Gateway pre-requisites. Employer completes, signs and submits Gateway Eligibility Form (GER) form to Energy & Environment Awards. See Appendix B, Dual Fuel Smart Meter Installer Supporting Documents 'Gateway Eligibility Form.'
End-point assessment duration	Typically 3 months after the Gateway

End-point assessment methods and their order	The assessment components can be delivered in any order: • Multiple-choice Test • Practical Assessment with questions • Interview (based on a portfolio of evidence)
End-point assessment methods and component grading	Multiple-choice test: Fail; Pass; or Distinction Practical assessment with questions: Fail; Pass; or Distinction Interview based on a portfolio of evidence: Fail; Pass; or Distinction
Overall Grading	Fail; Pass; Merit or Distinction
Certification	Energy & Environment Awards request Apprenticeship completion certificates from the ESFA
Glossary of Terms	Appendix A, Dual Fuel Smart Meter Installer Supporting Documents

Objective

The purpose of the Dual Fuel Smart Meter Installer (DFSMI) end-point assessment (EPA) is to confirm that an apprentice is fully capable of doing their job before they receive their apprenticeship certificate. It also helps to demonstrate that what an apprentice has learned can be applied in the real world.

Once the apprentice has completed the DFSMI end-point assessment requirements successfully and has been certified they could take on the following job role:

- Dual Fuel Smart Meter Installer

Professional recognition

The apprenticeship standard meets the professional standards of the Institution of Gas Engineers and Managers (IGEM) for Engineering Technician (EngTech)

Gateway Readiness

Gateway takes place before the EPA can start. The employer and training provider will review their apprentice's knowledge, skills and behaviours to see if they have met the minimum requirements of the apprenticeship set out in the apprenticeship standard and are ready to take the assessment. Only apprentices who complete gateway successfully can start the EPA. Gateway pre-requisites are listed in the summary table above. The Gateway Eligibility Form must be completed see DFSMI Supporting Documents Appendix B.

Recognition of prior learning (RPL)

Energy & Environment Awards does not recognise any apprentice prior learning (RPL) or prior achievement (RPA) for the purpose of amending the assessment requirements of any end-point assessments.

Please refer to Energy & Environment Awards RPL and RPA policy at https://energyenvironmentawards.co.uk/policies-and-fees/

In order for Energy & Environment Awards to award an end-point assessment qualification, the apprentice must successfully complete all required assessment components with Energy & Environment Awards. This means that:

- each of the EPA components must be completed in full with Energy & Environment Awards
- where an apprentice transfers to Energy & Environment Awards from another EPAO they have to undertake the entire EPA with Energy & Environment Awards
- components of the EPA cannot be certificated in isolation
- evidence produced for the portfolio must be related to the time the apprentice is on their apprenticeship programme to demonstrate current practice
- examples used by the apprentice, during the interview, must relate to the time they were on their apprenticeship programme

This does not affect the Gateway requirements which must be met in order for an apprentice to be eligible for end-point assessment.

This does not affect any reasonable adjustments that may be granted.

Section 2: End-point Assessment Components

Component 1: Multiple-choice Test

Overview

The multiple-choice test is a computer-based test which consists of 40 multiple-choice questions. Paper-based tests are available on request.

Apprentices have 60 minutes to complete the test. It consists of 40 multiple-choice questions.

The multiple-choice questions will have four possible answers of which one will be correct.

The Pass mark is 28 correct answers.
The Distinction mark is 34 correct answers.

For this paper:

- a (scientific) calculator is allowed
- access to the internet or intranet is NOT allowed
- apprentices cannot refer to any reference books or materials

Apprentices must take the test in a quiet space, free from distractions and influence, in the presence of an invigilator.

Multiple-choice Test Coverage

The knowledge assessment consists of 40 core knowledge questions.
The table below lists each of the knowledge elements, assessed in the knowledge assessment. Amplification and Guidance can be found in the table above.

Number of Questions	Knowledge	Amplification and Guidance
4 - 6	**K1:** Health, safety and environmental legislation and regulations applicable to work in the gas and power industries including fire safety and Safety at Work Act.	1.1 Awareness of the key responsibilities derived from the Health and Safety at Work Act 1974 1.2 General Fire Safety practices and awareness (as per hse.gov.uk) 1.3 Knowledge of the Gas Safety (Installation & Use) Regulations 1998 (as amended) 1.4 Knowledge of the Electricity at Work Regulations 1998
2 - 4	**K2:** Regulatory compliance and the recognition of different customer needs including vulnerability as defined by Office of Gas and Electricity Markets (OFGEM) and Retail Energy Code Schedule 16.	2.1 Awareness of the main Smart Meter Installer regulatory Schedule – Retail Energy Code Schedule 16 2.2 Knows the OFGEM definition of vulnerability (as per OFGEM Vulnerability Strategy) 2.3 Knows the correct course of action to take when a vulnerable customer is encountered
3 - 5	**K5:** Characteristics of different smart meter categories, associated equipment and	5.1 Can recognise the differences between SMETS1 and SMETS 2 Smart Meter types

Number of Questions	Knowledge	Amplification and Guidance
	communication systems including single phase, multi-rate, single phase off multi-phase and multi-phase (electricity); and low pressure and medium pressure (gas).	5.2 Awareness of the differences between single and multi-phase supplies, and single-phase off multiphase 5.3 Knows how to recognise a multi-rate meter 5.4 Knows the pressure parameters for both low and medium pressure gas supplies
4 - 7	**K11:** Gas and electrical engineering theories and procedures involved in the practical application of installation, exchange, commission, decommission and maintenance of smart meter and associated equipment and communication systems.	11.1 Knows the process for gas Tightness Testing (IGEM/UP/1B: Edition 3+A 2012) 11.2 Knows the process for electrical testing as per company operating procedures 11.3 Knows the process for checking polarity on an electrical installation and the correct actions to take where polarity is incorrect 11.4 Knows the procedure for leaving the site safe where the work area has to be left unattended 11.5 Awareness of the types of communication systems deployed on Smart Meter Installations

Number of Questions	Knowledge	Amplification and Guidance
6 - 7	**K12:** Electrical and mechanical principles and how they are applied in work processes and procedures to ensure safety of self and others.	12.1 Knows the procedures for 'proving dead' on an electric meter installation 12.2 Aware of the correct use of temporary continuity bonds / why temporary continuity bonds are required 12.3 Knows the required voltage readings that must be achieved across the terminals of the electric meter 12.4 Knows the procedure for purging a gas installation after a gas meter exchange 12.5 Awareness of the requirement to 'Prove-Use-Prove' electrical test equipment 12.6 Knows the process for testing standing and working pressure on a gas meter installation

Number of Questions	Knowledge	Amplification and Guidance
4 - 6	**K13:** Fuel poverty, signs and available support. Energy efficiency measures.	13.1 Awareness of the definition of 'fuel poverty' (as defined by National Energy Action and UK government.) 13.2 Can recognise the signs that may indicate fuel poverty 13.3 Awareness of the support available where fuel poverty has been determined 13.4 Awareness of energy efficiency measures that can be applied to alleviate energy consumption and therefore reduce usage. (as per energysavingtrust.org.uk)
3 - 5	**K14:** Unsafe metering equipment, supplies and installations in accordance with both MOCoP and IGEM/G/11 procedures.	14.1 Knows the indicators of unsafe gas metering equipment 14.2 Knows the indicators of unsafe electrical metering equipment 14.3 Can identify the standards which outline unsafe metering equipment, supplies and installations

Number of Questions	Knowledge	Amplification and Guidance
2 - 4	**K15:** Signs of tamper, 3rd party interference, illegal extraction and energy theft across all aspects of meters and associated equipment.	15.1 Awareness of the signs of tampering / interference and illegal energy extraction on gas meter installations 15.2 Awareness of the signs of tampering / interference and illegal energy extraction on electric meter installations 15.3 Awareness of the safety risks associated with the illegal extraction of energy
4 - 7	**K16:** Low carbon technologies used within domestic dwellings used to provide energy, heating and hot water.	16.1 Awareness of the operation of low carbon technologies used within domestic dwellings
2 - 4	**K17:** The roles of other trades, disciplines and utility service providers associated with metering installation.	17.1 Awareness of the role of the Distribution Network Operator (DNO) in connection with electrical metering installations 17.2 Awareness of the role of the Gas Transporter (GT) in connection with gas metering installations

Multiple-choice Test Roles and Responsibilities

Role	Responsibility
Invigilator	Is typically provided by the employer or training provider. Attend induction training as directed by Energy & Environment Awards. Not invigilate an assessment, solely, if they have delivered the assessed content to the apprentice. Invigilate and supervise the apprentice during tests and in breaks during assessment methods to prevent malpractice in line with Energy & Environment Awards invigilation procedures.
Employer/Training Provider	Ensure that the multiple-choice test is scheduled with Energy & Environment Awards for a date and time which allow the apprentice to be well prepared.
Energy & Environment Awards	Arrange for the multiple-choice test to take place, in consultation with the employer/training provider. Mark multiple-choice test answers accurately according to the mark scheme and procedures.

Component 2: Practical Assessment with questions

Overview

In the practical assessment with questions, an independent assessor, appointed by Energy & Environment Awards, will observe the apprentice completing a set task or a series of set tasks in an environment agreed with Energy & Environment Awards. The environment must closely relate to their natural working environment. The apprentice will have the opportunity to demonstrate the application of the relevant knowledge, skills and behaviours (KSBs) mapped to the practical assessment with questions.

The independent assessor will ask questions before or during the practical assessment. To remain as unobtrusive as possible, the independent assessor will ask questions during natural breaks between tasks and after completion of work rather than disrupting the apprentice's flow.

The following table below provides the procedure for conducting a practical assessment with questions:

Assessors	1 Independent assessor, appointed by Energy & Environment Awards.
Practical structure	The practical assessment with questions must take 12 hours and be completed over 2 consecutive days. A working day is typically considered to be 7.5 hours long. The independent assessor can increase the duration of the practical assessment with questions by up to 10% to allow the apprentice to complete a task or respond to a question if necessary. The independent assessor must ask a minimum of 3 questions during or after the practical assessment. The assessor must ask questions from Energy & Environment Awards question bank or create their own in line with training from Energy & Environment Awards. The time for questioning is included in the overall assessment time. The independent assessor can ask follow-up questions to clarify answers given by the apprentice. These questions are in addition to the above set number of questions for the practical assessment.

	The practical assessment with questions cannot be split, other than for breaks. There may be breaks during the practical assessment with questions to allow the apprentice to move from one location to another and for meal/comfort breaks. During these breaks, the clock will be stopped and then restarted to ensure that the assessment duration is not reduced. The independent assessor may observe a maximum of 4 apprentices at the same time.
Where will the assessment take place?	The practical assessment, including questions, must be conducted in an environment approved by Energy & Environment Awards that closely reflects the apprentice's natural working environment.

What are the tasks that will be covered?	The apprentice will:
	
	• Install, exchange, commission, maintain and decommission the following smart meters and associated equipment:
	  ○ single phase
	  ○ multi-rate
	  ○ single phase off multi-phase
	  ○ low-pressure (gas)
	
	• Conduct servicing and fault-finding procedures on one asset, including the rectification of a pre-loaded fault.
	
	The independent assessor should observe the following during the assessment:
	• compliance with health and safety legislation and regulations
	• dynamic risk assessments
	• completing documentation
	• use of PPE, safe use of tools and digital equipment
	• installation, exchange and commissioning of smart meters
	• maintenance, fault-finding procedures and rectification of a fault
	• decommissioning of smart meters

	For further details refer to 'Knowledge, Skills and Behaviours (KSBs) Coverage' below.
Who sets the task(s)?	Energy & Environment Awards will work with the employer and/or training provider to review the practical task briefs/job task sheets which are based on the activities described above. The employer or training provider must provide the apprentice with information on the tasks they are to complete, including timescales, before the start of the practical assessment with questions. The independent assessor must explain to the apprentice the format and timescales of the practical assessment with questions before it starts. This does not count towards the assessment time.
What resources can the apprentice use?	Apprentices must have access to work instructions/manuals relating to the equipment/service for reference purposes. These can be electronic and/or hard copy. Where practical assessments take place on the employer's site, it is anticipated that the employer will make the necessary equipment and tools available.
How many questions will the apprentice be asked?	The independent assessor: • will ask a minimum of 3 questions • may ask follow-up questions in order to seek clarification
What will the questions focus on?	The purpose of the questioning is to assess the apprentice's level of competence against the grading descriptors.
Grading	Fail, Pass, or Distinction.

Practical Assessment with questions Knowledge, Skills and Behaviours (KSBs) coverage

The practical assessment with questions covers:

Practical Assessment with questions Theme: Health and Safety	Amplification and Guidance (where required)
K3: Gas Industry Unsafe Situations Procedure (IGEM G11).	• Demonstrates the knowledge required to recognise unsafe situations and knows how to correctly categorise these situations • Implements the correct actions appropriate to the specific situation that meet the requirements of The Gas Industry Unsafe Situations Procedure (IGEM/G/11 Edition 2) when unsafe situations are met
K4: Dynamic risk assessments, associated procedures and documentation.	• Demonstrates awareness of risks and hazards through consistent dynamic risk assessment and by applying the required risk mitigation throughout the job • Correctly completes the required employer documentation procedure to record notable hazards for future company visitors
S6: Carry out dynamic risk assessment.	• The apprentice carrying out metering work shall demonstrate a level of safety knowledge and experience necessary to identify and mitigate risk in a safe and efficient manner that takes place continuously throughout the job • Pre-arrival protocol/checks and relevant vehicle checks are carried out e.g., ○ vehicle checks (tyres/fuel/wipers/oil/screen wash); vehicle stock

Practical Assessment with questions Theme: Health and Safety	Amplification and Guidance (where required)
	○ job notes on Hand Held Terminal for vulnerabilities; pre-call checks (estimated time of arrival, medical or sensitive equipment, safe to park, park safely, risk access route to door (trip hazards, or evidence of young children or pets), risk assessment of flues, terminals, presence of solar panels • Company doorstep protocol is applied e.g., Stage 1 PPE worn, appropriate company introduction is provided • Risk assessment of customer circumstances / situation particularly where vulnerability is present, is found, or is suspected • Risk assessment of all tools, equipment, and Personal Protective Equipment prior to use • Risk assessment of the work area/location and removal of any materials or items causing impediment or danger • Risk assessment of completed job so as to ensure no hazardous circumstances are left present • Communication of risk assessment information is provided to the customer/responsible person at appropriate points throughout the job • The apprentice can verify the appropriate agency to be contacted when risk mitigation requires external intervention i.e., the Emergency Service Provider (ESP) for gas, or the Distribution Network Operator (DNO) for electric

Practical Assessment with questions Theme: Health and Safety	Amplification and Guidance (where required)

S8: Apply health and safety practices. Identify and report non-compliant conditions or situations.	• Can recognise unsafe situations, and knows the actions to take that meet the requirements of:
	  ○ Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013 (RIDDOR)
	  ○ Asset Condition Codes (A, B and C Codes: MOCoPA Guidance for Service Termination Issue Reporting)
	  ○ IGEM/G/11 (Edition 2)
	• Can recognise and apply the correct actions to situations that are deemed 'At Risk' (AR)
	• Can recognise and apply the correct actions to situations that are deemed 'Immediately Dangerous' (ID)

B1: Prioritise health and safety.	• Always demonstrates a focus on the safety and wellbeing of self and all other persons • Takes appropriate action to ensure the safety and wellbeing of people who may inadvertently enter the work site at any stage in the operation • Effectively communicates risk control measures to the consumer

Practical Assessment with questions Theme: Documentation	Amplification and Guidance (where required)
K19: General Data Protection Regulations (GDPR).	• Awareness of the requirement under the General Data Protection Regulations (GDPR,) to handle customer data securely and in compliance with employer or company GDPR policies
K21: Principles of completing work records, maintaining asset details and customer data in accordance with General Data Protection Regulations (GDPR).	• Awareness of the requirement to gain consumer consent in instances where new consumer data is to be processed, i.e. completing work records and recording consumer details in job notes, or processing metering account details
S9: Use digital technology to access job, appliance and customer information.	• Correctly use company device / hand-held-terminal (HHT) to access job, appliance and customer information
S10: Complete work records, maintain asset details and customer data in accordance with General Data Protection Regulations (GDPR).	• Complete and record job, asset and customer data / information in accordance with General Data Protection Regulations (GDPR) and company data policy

Practical Assessment with questions Theme: Install, Exchange and Commission	Amplification and Guidance (where required)
K6: Installation and commissioning practices and techniques applicable to smart meters, associated equipment and communication systems.	• Visual meter installation checks • Voltage and polarity testing • Correct usage of test equipment • Relationship between current, fuse rating and cable sizing • Safe isolation / prove dead • Cabling techniques • Properties of gas and combustion / flame picture • Flueing / chimneys / ventilation for all appliance types and situations • Appliance checks: Voltage checks, stability, appliance and component placement, safety shut-off valves • Signs of spillage and actions to take when spillage is found • Sources of microgeneration and the effect on meter installations • Installation and commissioning procedures for both gas and electric meters and the associated Smart Communications system • Tampering and its effects • Pressure and gas flow • Prove-Use-Prove (P-U-P) process for test equipment on each usage • Interpretation of test results / readings • Recognition of incorrect test results / readings • Condition of fuse; cable checks correctly sized; fuse rating

Practical Assessment with questions Theme: Install, Exchange and Commission	Amplification and Guidance (where required)
	• Ignition and flame picture checked including hotplate, grill and oven burners • Terminal guard requirements • Inset live flue effect fire: Spillage (no signs on and around fire); flue checked throughout its length; termination confirmed; ventilation requirements • Cooker Stability chain present • Inset Live Fuel Effect (ILFE) fire - Coal placement checks
K9: Tools, test equipment, ladder and access systems, and personal protective equipment.	• Tools and safety equipment used are tested before and throughout all activities, re-proving all electrical testing devices before and after each usage • Access equipment such as step-ladders are checked for inspection date being current, checked for damage and checked for correct operation before and after usage • Personal Protective Equipment (PPE) is checked and tested before each usage
K10: Gas and electrical testing and assessment procedures needed to establish the condition of the equipment and installation, and the actions needed as a result.	The apprentice can state the correct test-procedures and the course of action needed, for fail conditions of the tests and assessments listed here: • Extraneous metal checks • Polarity and socket tests • Voltage confirmation tests at meter

Practical Assessment with questions Theme: Install, Exchange and Commission	Amplification and Guidance (where required)
	• Safe isolation and proving dead • Re-proving polarity after re-instatement of fuse • Gas Tightness testing • Purge procedure • Standing Pressure • Working Pressure
S1: Install and exchange smart meters, associated equipment and communication systems.	The application of the appropriate skills to perform meter installation and exchange tasks in an orderly, neat and tidy approach, including: • conducting the tasks involved in metering operations in the correct sequence • correct application of all checks, tests and procedures, and correct interpretation of results during meter exchange and installation • application of the correct cabling and pipework jointing skills • replacement of Regulator, washers and shear bolts on gas meter installation • meter communications systems are installed • checks on Consumer Unit and Residual Current Device positions (RCD's) • Visual checks on Emergency Control Valve for settings, i.e. correct handle position and on-off indicator

Practical Assessment with questions Theme: Install, Exchange and Commission	Amplification and Guidance (where required)
	• Checks presence of earth-bonding is in correct position at gas meter installation and knows the action to take if no bonding is present • Checks the installation and operation of all gas appliances prior to meter exchange • Knows the categories of unsafe situation as per IGEM/G/11 (Edition 2) and the appropriate actions to take if unsafe situations are found or arise • Operates within the parameters of the Consolidated Metering Code of Practice (CoMCoP) V2 2023 • Activities during installation must be carried in accordance with industry and company standards ad must include: o Visual checks of meter installations and associated components o Preparing the new metering equipment (Meter, regulator, comms unit,) for works o Exchanges old and new meters in correct sequence running appropriate tests at correct points in the exchange. Tests must include: <u>Electric Meter:</u> - Extraneous metal test - Polarity tests and proof of polarity - Safe isolation

Practical Assessment with questions Theme: Install, Exchange and Commission	Amplification and Guidance (where required)
	- 'Proving dead' at cut-out and existing meter - Prove-use-prove of test equipment before and after every use - Re-instatement of supply - Polarity tests after re-instatement - Polarity checks at new meter <u>Gas Meter</u> - Voltage indicator check - Checks to manometer - Tightness Test - Purge - Working (or operating) pressure tests - Standing pressure tests - Leak Detection checks on meter installation - Relighting of appliances to confirm correct operation • Installation of ancillary equipment (Meter, regulator, isolator blocks) as required) • Installation of communication hub
S2: Commission smart meters, associated equipment and communication systems.	• Meter and communications hub pairing actions are effective for electric and gas meters • Old / New meter details are recorded on appropriate device / document

Practical Assessment with questions Theme: Install, Exchange and Commission	Amplification and Guidance (where required)

	• Operates within the parameters of the Consolidated Metering Code of Practice (CoMCoP) V2 2023
	• Activities during commission must be carried in accordance with industry and company standards:
	  ○ Correct application of all commissioning checks and tests, i.e. meter and communications hub pairing
	  ○ Verification of correct installation of all associated equipment (meter, regulator and comms unit)

S7: Select, use and maintain tools, test equipment, ladder and access systems, and personal protective equipment (PPE).	• The apprentice selects the appropriate tools and equipment relative to the task • All electrical and gas tools, PPE and ancillary and equipment is / are inspected for damage before and after use • Tools and equipment are maintained to the required standard, and tools requiring re-calibration or portable appliance test date stamps are checked to be always in-date. • Apprentice understands the specifications for tools and equipment, including their limitations • Electrical testing is carried out using appropriate devices, proving the correct operation of any such devices before and after use • Test equipment is utilised following a prove-use-prove strategy: ○ Single-Pole voltage Tester (VT7)

Practical Assessment with questions Theme: Install, Exchange and Commission	Amplification and Guidance (where required)
	○ Non-contact voltage indicator pen (VT4) ○ Voltage Test Lamps (Drummonds) ○ Socket Tester (Martindale) ○ Manometer and tubes • Personal Protective Equipment (gloves or gauntlets, and face visor,) is inspected for damage and appropriately tested (leakage test on gloves) before and after use
B2: Take responsibility for work.	• Ensures that the job is either completed, or that the appropriate advice is provided to allow the job to proceed • Ensures the consumer has full understanding of what is happening or what is required at all times throughout and after the job

Practical Assessment with questions Theme: Maintenance and fault-finding	Amplification and Guidance (where required)
K7: Fault-finding, diagnosis and rectification practices and techniques applicable to smart meters, associated equipment and communication systems.	• Identifies faulty or unsafe situations and takes appropriate actions to make safe, then rectify and repair the issue. • Diagnoses faults in a methodical and safe manner • Actions to conduct repairs are within scope of role and follow company procedures

Practical Assessment with questions Theme: Maintenance and fault-finding	Amplification and Guidance (where required)
K25: Techniques and procedures for carrying out on-going maintenance of smart meters, associated equipment and communication systems.	• Tools and safety equipment used throughout all maintenance activities are appropriately checked and tested • Voltage and polarity tests are carried out during maintenance as required • Relationship between current, fuse rating and cable sizing can be stated • Safe isolation / prove dead • Properties of gas and combustion / flame picture can be determined as suitable • Flueing / chimneys / ventilation can be visually checked for safety • Signs of spillage and actions to take when spillage is found • Microgeneration and the effect on meter installations • Signs of tampering and its effect on meter installations • Pressure and gas flow • Prove-Use-Prove (P-U-P) process for test equipment on each usage • Test results / readings • Condition of fuse; cable checks correctly sized; fuse rating • Ignition and flame picture checked including hotplate, grill and oven burners • Terminal guard requirements

Practical Assessment with questions Theme: Maintenance and fault-finding	Amplification and Guidance (where required)
	• Inset live flue effect fire: Spillage (no signs on and around fire); flue checked throughout its length; termination confirmed. • Actions to take when a damper is present in the chimney / flue • Ventilation requirements for all appliance types is / are checked • Stability chain present • Coal placement checks
S3: Carry out ongoing maintenance of smart meters, associated equipment and communication systems.	The application of the appropriate skills to perform meter maintenance tasks in an orderly, neat and tidy approach, including: • conducting the tasks involved in metering maintenance in the correct sequence • correct application of all checks, tests and procedures, and correct interpretation of results during maintenance activities • application of the correct cabling and pipework jointing skills (if required) • knows the actions to take if unsafe situations are found or arise • ongoing maintenance of existing equipment as required i.e., Isolators / Fuse Carriers / Connector Blocks / Emergency Control Valve (ECV) / Regulator / shear-bolts and bracket • awareness of the limitations of scope for the DFSMI role

Practical Assessment with questions Theme: Maintenance and fault-finding	Amplification and Guidance (where required)
S4: Identify, diagnose and rectify faults in smart meters, associated equipment and communication systems.	• Identification and diagnosis of faults will be made using the results of tests and by the application of methodical fault analysis techniques, including knowledge of how the components of a metering system operate under normal operating conditions • Examples of faults to be identified, diagnosed and rectified include: ○ Emergency Control Valve that has 'let-by' ○ Damaged isolator resulting in 'A-Code' ○ Faulty regulator at gas meter ○ Reverse polarity on one socket ○ Copper showing on meter tails • Rectification actions will be taken only if they are within the scope of competence for a Smart Meter Installer

Practical Assessment with questions Theme: Decommission	Amplification and Guidance (where required)
K8: Decommissioning practices and techniques applicable to smart meters.	• Correctly removes existing gas and electrical metering equipment from services as per company procedures • Applies the appropriate actions on meter removal to maintain safety: e.g. caps-off inlet and outlet of gas meter • Correctly processes redundant meters and metering equipment in line with company process and procedure

Practical Assessment with questions Theme: Decommission	Amplification and Guidance (where required)
	• Makes equipment safe that remains in situ after redundant equipment is removed (i.e. Emergency Control Valve, Fuse cut-out) • Records correct details of redundant equipment on company device

S5: Decommission smart meters, associated equipment and communication systems.	• Operates within the parameters of the Consolidated Metering Code of Practice (CoMCoP) V2 2023
	• Activities during decommission must be carried in accordance with industry standards:
	  ○ preparing the metering equipment (Meter, regulator, comms unit,) for removal
	  ○ correct application of all checks and tests
	• Removal and safe disposal of redundant equipment (Meter, regulator and comms unit) is in line with company operating procedures

S14: Dispose of defective smart meters or assets, and all waste.	• Removes all waste materials and redundant equipment on job completion in accordance with company operating procedures • Hazardous waste is correctly evaluated and disposed of in accordance with the required company operating procedures

Practical Assessment with questions Roles and Responsibilities

Role	Responsibility
Independent Assessor	Provide written and verbal instructions for the practical assessment with questions. Invigilate and supervise the apprentice during the practical assessment with questions, including moving between tasks and breaks, to prevent malpractice in line with Energy & Environment Awards invigilation procedures. Record and report assessment outcome decisions for each apprentice, following instructions and using assessment recording documentation provided by Energy & Environment Awards.
Employer/Training Provider	The training provider must liaise effectively with the employer to ensure the apprentice is prepared for the practical assessment with questions. Provide the venue for the practical assessment with questions which must be suitably equipped to allow the apprentice to attempt all aspects of the practical assessment with questions. Provide all necessary tools and equipment for the apprentice. Ensure the apprentice has access to the resources used on a daily basis. Use Energy & Environment Awards Practical Assessment with questions review service to review fitness for purpose of the assessment task
Energy & Environment Awards	Arrange for the practical assessment with questions to take place, in consultation with the employer/training provider and independent assessor.

Component 3: Interview (based on a portfolio of evidence)

Overview

The interview is based on the apprentice's portfolio of evidence and focuses on the KSBs. The interview allows for testing of responses where there are a range of potential answers.

The portfolio, compiled throughout the apprenticeship and completed by Gateway must be submitted to Energy & Environment Awards.

The following table outlines the procedure for conducting an interview based on a portfolio of evidence:

Assessors	1 independent assessor approved by Energy & Environment Awards will conduct the interview.
Interview (based on the portfolio) structure	**Types of questions:** • The assessor must ask at least 6 questions to explore the apprentice's level of knowledge, skills and behaviours. • Standardised open questions will be asked based on the contents of the evidence in the portfolio • Additional follow up questions are allowed, to seek clarification. **Locations:** Employer's premises or a suitable venue for example a training provider's premises. **Time:** The interview must last 45 minutes. The independent assessor can increase the time of the interview by up to 10% to allow the apprentice to respond to a question if necessary. **The Interview will be:** • conducted by 1 independent assessor • face to face or remote, as agreed • recorded in writing using the interview record template provided by Energy & Environment Awards • video recorded using relevant technology such as Microsoft Teams or an audio recording device • conducted under examination conditions The apprentice must have access to their portfolio of evidence throughout the interview.

	Portfolio of evidence:
	• The apprentice's Manager/Mentor will typically support the development of the evidence portfolio in accordance with company policy and procedures
	• See 'Portfolio of Evidence Requirements' guidance below on the content of evidence
	• The Portfolio must contain sufficient quality evidence relating to each element of the standard covered by the interview. Typically, this will be 5 discrete pieces of evidence. These may include but are not limited to:
	  ○ workplace documentation and records
	  ○ workplace policies and procedures
	  ○ witness statements
	  ○ annotated photographs
	  ○ video clips with a maximum total duration 10 minutes; the apprentice must be in view and identifiable
	• Although questioning will cover ALL the elements of the standard (listed below in this section of the Specification), they will prioritise areas according to what they see in the portfolio

What topics will be covered?	**For further details refer to 'Knowledge, Skills and Behaviours (KSBs) Coverage below.**
When will the portfolio of evidence be referred to?	The portfolio of evidence: • will be reviewed by the independent assessor before the interview • can be referred to by the apprentice to illustrate their answers **Note**: the portfolio of evidence is not directly assessed.
Grading	Fail, Pass, or Distinction

Portfolio of Evidence Requirements

The requirements are as follows:

Portfolio Mapping Document The apprentice must map their portfolio of evidence to the KSBs as this evidence will be used by the independent assessor to assess the apprentice during the interview. The portfolio mapping document must be clearly referenced and included at the front of the portfolio. For further guidance on mapping refer to: • Section 5 Practice Guidance on portfolio of evidence and apprentice mapping • Appendix G, DFSMI Supporting Documents 'Portfolio Mapping Document.'
How will the training provider submit the apprentice's portfolio to Energy & Environment Awards? As part of the pre-requisite gateway requirements the apprentice must have compiled and submitted a portfolio of evidence that includes a portfolio mapping document (placed at the front of the portfolio), which the interview will be based on.

Interview Knowledge, Skills and Behaviours (KSBs) coverage

The Interview based on a portfolio of evidence covers:

Interview Theme: Sustainability	Amplification and guidance (where required)

K18: Sustainability and energy efficiency: green technologies, alternative fuels, energy consumption, energy ratings and how they are calculated.	• Awareness of how 'sustainable energy' is defined within the UK: (i.e. as defined by sciencedirect.com: "power which is able to be replenished within a human lifetime and so cause no long-term damage to the environment")
	• Awareness of how 'Alternative Fuels' are defined within the UK: (i.e. as defined by sciencedirect.com: "fuels or power sources that serve as a substitute for fossil fuels")
	• Examples of 'Alternative Fuels: renewable energy, nuclear power, hydrogen, biomass and geothermal energy.
	• Awareness of the operating methodology of green technologies:
	  ○ air source heat pumps
	  ○ ground source heat pumps
	  ○ biomass boilers
	  ○ micro CHP systems
	  ○ underfloor heating
	  ○ solar water heating

Interview Theme: Sustainability	Amplification and guidance (where required)
	• The factors which are taken into account when calculating energy performance certificate (EPC) ratings, including energy consumption, energy efficiency measures in the home, and appliance types

Interview Theme: Communication	Amplification and guidance (where required)
K22: Verbal communication techniques. Giving and receiving information. Matching style to audience. Barriers in communication and how to overcome them. Sector specific terminology.	• Awareness of verbal communication skills, and techniques to enhance verbal communication through active listening, concise language, body language and tone when giving and receiving information • Tailoring the message and presentation style when connecting with diverse audiences • Knows ways to communicate in circumstances where English is not the first language • Can use sector-specific terminology, but also knows when to curtail this, i.e. when talking to a customer
S11: Advise customers on energy efficiency and how to operate smart meters.	Can advise customers on energy efficiency measures they can apply: • reduce home heat loss through cavity or solid wall insulation • turning down thermostat by one degree • take shorter showers

Interview Theme: Communication	Amplification and guidance (where required)
	• avoid using tumble drier • turning appliances off rather than leaving on stand by mode • set radiator thermostats lower in unoccupied rooms Can describe how to operate the smart meter system: • how to read the information displayed on the in-home display • how to read the smart meter • how to track energy usage • how to use 'time-of-use' tariffs
S12: Communicate verbally with utility companies and other trades in order to complete tasks.	• Can determine when it is required to contact the Distribution Network Operator (DNO,) the Emergency Service Provider (ESP,) or the Gas Transporter (GT) where unsafe situations require external intervention • Conducts clear and concise handover with representatives from the DNO, ESP and GT, where unsafe situations out-with the competency scope of the Smart Meter Installer role are found • Recognises the responsibility of other trades present and communicates effectively with these trades to maintain a safe working environment

Interview Theme: Customer support	Amplification and guidance (where required)

K24: Principles and policies for identifying and responding to customers with fuel poverty issues.	• Awareness of the government definition of fuel poverty: a household is fuel-poor if they have fuel costs that are above average and, if they were to spend that amount, they would be left with an income below the official poverty line
	• Knows the signs that a customer or household may have fuel poverty issues:
	  ○ wearing lots of clothes indoors
	  ○ staying in bed to keep warm
	  ○ complaining that home feels cold, damp or draughty
	  ○ respiratory problems such as asthma or a persistent cough
	  ○ complaining that energy bills are too high or owing money
	• Knowledge of Energy Provider Policies regarding fuel poverty
	• Awareness of what to advise customer in instances where fuel poverty may be an issue, i.e to contact their energy supplier

S13: Identify where customers are experiencing issues around fuel poverty, and provide support and assistance through the energy provider or support services.	Can recognise signs that a customer or household may have fuel poverty issues: ○ wearing lots of clothes indoors ○ staying in bed to keep warm

Interview Theme: Customer support	Amplification and guidance (where required)
	○ complaining that home feels cold, damp or draughty ○ respiratory problems such as asthma or a persistent cough ○ complaining that energy bills are too high or owing money • Provides contact details tactfully and empathetically to the customer for the energy supplier in circumstances where fuel poverty may be an issue • Knowledge of Energy Provider Policies regarding fuel poverty

Interview Theme: EDI (Equity, Diversity and Inclusion)	Amplification and guidance (where required)
K20: Principles of equity, diversity and inclusion in the workplace and the impact on their work.	• Understanding of the meaning of equity, diversity and inclusion in the working environment • Knows the principles of equity and diversity are about respecting people for their: ○ age ○ race ○ gender ○ cultural background

Interview Theme: EDI (Equity, Diversity and Inclusion)	Amplification and guidance (where required)
	○ beliefs ○ sexual orientation • awareness that inclusion means that the company ensures all employees feel safe and accepted to be themselves at work
B4: Support an equitable, diverse and inclusive culture.	• Has knowledge of how to support a culture of equity, diversity and inclusion (EDI.) • Awareness of company EDI policy

Interview Theme: Mental Health	Amplification and guidance (where required)
K23: Common issues, symptoms and warning signs of stress, anxiety and depression, including where to go for help and the resources available.	• Recognises signs of stress including being irritable, angry or tearful, feeling worried, anxious, hopeless or scared, struggling to make decisions, feeling overwhelmed • Recognises signs of anxiety including feeling nervous, restless or tense, having a sense of impending danger, panic or doom. Having an increased heart rate and sweating

Interview Theme: Mental Health	Amplification and guidance (where required)
	• Recognises signs of depression including a person feeling down, upset or tearful, restless, agitated or irritable, guilty, worthless, empty and numb • Awareness of agencies and outlets where people can seek help for stress, anxiety or depression • Awareness of how to escalate serious concerns for a person's wellbeing within the company

Interview Theme: CPD (Continuous Professional Development)	Amplification and guidance (where required)
B3: Committed to continued professional development (CPD) to maintain and enhance competence in own area of practice.	• Awareness of sources of continued professional development (CPD,) both internally *from* the employer and externally *to* the employer and can evidence the undertaking of CPD • Awareness of the required competency regime around the Smart Meter Installer role, i.e. five yearly undertaking of Accredited Certification Scheme (ACS,) and ongoing CPD • Has knowledge of the available career progression routes

Interview Roles and Responsibilities

Role	Responsibility
Independent Assessor	Record and report assessment outcome decisions for each apprentice, following instructions and using assessment recording documentation provided by Energy & Environment Awards.
Employer/Training Provider	The interview must be scheduled with Energy & Environment Awards for a date and time which allow the apprentice to be well prepared. Ensure the apprentice has access to their portfolio before and on the day of the interview.
Energy & Environment Awards	Arrange for the interview to take place, in consultation with the employer/training provider and independent assessor. Develop and produce an assessment specification, question bank and assessment materials in line with the EPA plan.

Section 3: Grading and Grading Descriptors

Component 1: Multiple-choice Test

The following grade boundaries apply to the knowledge assessment:

Grade	Minimum mark	Maximum mark
Fail	0	27
Pass	28	33
Distinction	34	40

Component 2: Practical Assessment with questions

The apprentice must demonstrate core KSBs in an integrated way.

A Fail will be awarded if an apprentice has not achieved **all** the Pass descriptors..

To gain a Pass, an apprentice must successfully achieve **all** the descriptors for each KSB, as shown below.

To achieve a Distinction an apprentice must successfully achieve **all** the Pass descriptors and **all** of the descriptors from each of the distinction boxes.

Indicative 'pass' descriptors for the practical assessment with questions

Practical Assessment with questions - Themed KSBs	To achieve a Pass the apprentice must achieve **ALL** of the following:
Health and safety **K3 K4 S6 S8 B1**	Carrys out dynamic risk assessments and prioritises health and safety before, during and after work tasks. (K4, S6, B1) Applies health and safety practices and identifies and reports non-compliant conditions or situations in line with the gas industry unsafe situation procedure (IGEM G11) (K3, S8)
Documentation **K19 K21 S9 S10**	Completes work records using digital technology and maintains asset details and customer, job and appliance data in line with GDPR and task requirements. (K19, K21, S9, S10)

Practical Assessment with questions - Themed KSBs	To achieve a Pass the apprentice must achieve **ALL** of the following:
Install, exchange and commission **K6 K9 K10 S1 S2 S7 B2**	Installs, exchanges and commissions smart meters, associated equipment and communication systems taking responsibility for their own work in line with gas and electrical engineering procedures and task requirements. (K6; K10; S1; S2 and B2) Selects, uses and maintains tools, test equipment, ladder and access systems, and PPE in line with gas and electrical testing, assessment procedures and manufacturer's guidelines and task requirements. (K9 and S7)
Maintenance and fault-finding **K7 K25 S3 S4**	Carries out on-going maintenance of smart meters, associated equipment and communication systems in line with manufacturer's guidelines and task requirements. (K25 and S3) Identifies, diagnoses and rectifies faults in smart meters, associated equipment and communication systems in line with manufacturer's guidelines and task requirements. (K7 and S4)
Decommission **K8 S5 S14**	Decommissions and disposes of defective smart meters, associated equipment and communication systems in line with manufacturer's guidelines. (K8; S5 and S14)

Indicative ‘distinction’ descriptors for the practical observation

Practical Assessment with questions - Themed KSBs	To achieve a Distinction the apprentice must achieve **ALL** of the Pass descriptors and **ALL** of the following Distinction descriptors:
Health and safety **K3 K4 S6 S8 B1**	Explains the importance for themselves, colleagues and the business of carrying out dynamic risk assessments and applying health and safety practices. (K4; S6 and S8)
Documentation **K19 K21 S9 S10**	N/A
Install, exchange and commission **K6 K9 K10 S1 S2 S7 B2**	Installs and commissions smart meters, associated equipment and communication systems in line with gas and electrical engineering procedures achieving the outcome right-first-time to meet the needs of the task. (K6; K10; S1 and S2)
Maintenance and fault-finding **K7 K25 S3 S4**	Rectifies faults in smart meters, associated equipment and communication systems in line with manufacturer’s guidelines, achieving the outcome right-first-time to meet the needs of the task. (K7 and S4)
Decommission **K8 S5 S14**	Decommissions defective smart meters, associated equipment and communications systems in line with manufacturer’s guidelines, achieving the result right-first- time. (K8 and S5)

Component 3: Interview based on the portfolio of evidence

The apprentice must demonstrate core KSBs in an integrated way for their pathway.

To gain a Pass, an apprentice must successfully achieve **all** the assessment descriptors for each KSB, as shown below.

To achieve a Distinction, an apprentice must successfully achieve **all** the Pass assessment descriptors and **all** descriptors from each of the distinction boxes.

Interview based on a portfolio of evidence - Themed KSBs	To achieve a Pass the apprentice must achieve **ALL** of the following:
Sustainability **K18**	Explains the following sustainability and energy efficiency topics and outlines how they impact their role: green technologies, alternative fuels, energy consumption, energy ratings and how they are calculated. (K18)
Communication **K22 S11 S12**	Describes how they advise customers on energy efficiency and how to operate smart meters in line with the manufacturer's guidance and organisation procedures and matches communication style and language to meet the needs of the audience. Describes how they communicate verbally with utility companies and other trades to complete tasks, matching style to audience and using sector specific terminology to overcome barriers to meet the needs of the audience. (K22; S11 and S12)

Interview based on a portfolio of evidence - Themed KSBs	To achieve a Pass the apprentice must achieve **ALL** of the following:
Customer support **K24 S13**	Describes how they identify customers who are experiencing issues around fuel poverty. Explains how they provide support and assistance through the energy provider or support services to meet the needs of the customer in line with the energy provider policies. (K24 and S13)
EDI **K20 B4**	Describes how they support an equitable, diverse and inclusive culture and explains why this is important in their work. (K20 and B4)
Mental health **K23**	Describes common issues, symptoms and warning signs of stress, anxiety and depression and explains where to go for help and the resources available in their workplace. (K23)
CPD **B3**	Describes how they maintain and enhance their competence in their own area of practice through their commitment to continued professional development (CPD). (B3)

Indicative ‘distinction’ descriptors for the interview

Interview based on a portfolio of evidence - Themed KSBs	To achieve a Distinction the apprentice must achieve **ALL** of the Pass descriptors and **ALL** of the following Distinction descriptors:
Sustainability **K18**	N/A
Communication **K22 S11 S12**	Explains the importance for customers and the business of meeting the needs of the audience when communicating verbally to advise customers. (K22; S11 and S12)
Customer support **K24 S13**	Explains the importance for customers and the business, of identifying customers facing fuel poverty issues and providing support and assistance in line with the energy provider policies. (K24 and S13)
EDI **K20 B4**	Explains the importance for the business of supporting a diverse and inclusive workplace culture. (K20)
Mental health **K23**	N/A
CPD **B3**	N/A

Overall grading

The apprenticeship will be graded fail, pass, merit or distinction. The final grade will be determined by collective performance in the three assessment components.

In order to gain a pass, an apprentice must achieve at minimum of a pass in each EPA component. A pass represents full competence against the standard. To achieve a merit grade, an apprentice must achieve a distinction in two of the EPA components and a pass in the third. To achieve a distinction grade, an apprentice must achieve a distinction in each EPA component.

The multiple-choice test, practical assessment with questions and interview based on a portfolio of evidence are all marked separately and awarded a fail, pass, or distinction.

The multiple-choice test is based on the percentage score achieved. The grade and mark for the practical assessment with questions and interview is based on the number and level of descriptors achieved.

The overall grade for the DFSMI Standard is based on the grades in individual components as follows:

Multiple-choice test	Practical Assessment with questions	Interview based on a portfolio of evidence	Overall grading
Fail	Any grade	Any grade	Fail
Any grade	Fail	Any grade	Fail
Any grade	Any grade	Fail	Fail
Pass	Pass	Pass	Pass
Distinction	Pass	Pass	Pass
Pass	Distinction	Pass	Pass
Pass	Pass	Distinction	Pass
Pass	Distinction	Distinction	Merit
Distinction	Distinction	Pass	Merit
Distinction	Pass	Distinction	Merit
Distinction	Distinction	Distinction	Distinction

The grading descriptors that will be applied for each assessment component along with additional details can be found in Section 3 of this Specification.

The overall grading for the DFSMI standard is based on the grades in the individual components as follows:

- Distinction – If a Distinction is awarded in all 3 components
- Merit – If a Pass is awarded in 1 of the components and Distinction is awarded across 2 components
- Pass – If a Pass is awarded across the 3 components
- Fail – if a Fail is awarded for at least 1 of the components

Section 4: Resits and retakes

Apprentices who fail one or more EPA components can re-sit or re-take the failed component at the employer's discretion. The apprentice's employer needs to agree that a re-sit or re-take is appropriate. A re-sit does not need further learning, but a re-take does. Apprentices should have a supportive action plan to prepare for a re-sit or a re-take.

The employer and Energy & Environment Awards should agree the timescale for a re-sit or re-take. A re-sit is typically taken within 2 months of the EPA outcome notification. The timescale for a re-take is dependent on how much re-training is required and is typically taken within 4 months of the EPA outcome notification.

Failed assessment methods must be re-sat or re-taken within a 6-month period from the EPA outcome notification, otherwise the entire EPA will need to be re-sat or re-taken in full.

Re-sits and re-takes are not offered to apprentices wishing to move from pass to a higher grade.

The apprentice will get a maximum EPA grade of a pass if they need to re-sit or re-take one or more assessment methods, unless Energy & Environment Awards determines there are exceptional circumstances.

Energy & Environment Awards resit and re-take policy can be found at: https://energyenvironmentawards.co.uk/policies-and-fees/

Section 5: Practical Guidance

L2 DFSMI Practical Assessment Planning Form

Purpose

Energy & Environment Awards provide a mandatory Practical task(s) review service to assist with planning for all employers/training providers with apprentices registered on this standard. To access the service, see Appendix D, DFSMI Supporting Documents 'Level 2 DFSMI Practical Assessment with questions Planning Form.'

The purpose of the review service is to provide support in ensuring that the practical task(s), test facilities, necessary equipment, tools and examination conditions are in place to allow the practical task(s) to take place. The review helps ensure the proposed practical task(s) are sufficiently complex to allow the apprentice to demonstrate the required knowledge, skills and behaviours against the relevant elements of DFSMI specification. Details of the relevant elements are included in Section 2 of the Specification.

Tasks should be designed to allow variation to be introduced, reducing predictability. Practical assessment with questions must be conducted in a simulated environment. The employer/training provider must ensure:

- the practical assessment enables the assessment of core knowledge, skills and behaviours in a simulated environment
- it makes use of existing test facilities, which will be familiar to the apprentice and therefore allow them to perform at their best
- the equipment and tools are available

The employer/training provider must ensure that the practical task(s) is developed to allow the independent assessor to observe the apprentice synoptically demonstrate core and specific KSBs.

Submitting the form to Energy & Environment Awards

The employer/training provider should complete and submit the 'Level 2 DFSMI Practical Assessment with questions Planning Form' to Energy & Environment Awards Service Delivery Team for approval 1 month before the Practical Assessment with questions. The form should be accompanied by photographs

and/or video(s) of the plant, machinery, equipment areas, including practical tasks/briefs which the apprentice will be working on.

Energy & Environment Awards Review Process

Once the approval form has been received the review process will be conducted by Energy & Environment Awards. The outcomes will be shared with the employer/training provider no later than 5 working days following the review.

Please be aware:

- Practical task/briefs review does not guarantee that the apprentice will pass the practical task
- No health and safety risk assessment has been carried out by Energy & Environment Awards
- Energy & Environment Awards review does not remove any of the training provider obligations to ensure full coverage of the standard, and full compliance with relevant legislation
- Energy & Environment Awards review is based only on information supplied and is not a guarantee that the practical tasks/briefs, selected plant/machinery/equipment on the day of the practical will be sufficient for an EPA practical task
- The information provided in this Level 2 DFSMI Practical Assessment with questions Planning Form must not be shared with the apprentice

Preparing for the Practical Assessment with questions

Where possible, the employer/training provider should provide the apprentice with the opportunity to carry out a practice practical assessment with questions as close to the real assessment described in Section 2 of the specification (Component 2).

The employer/training provider should prepare a practical task similar to (but not identical to) the tasks being used for the live assessment. A suitable person should be chosen to play the part of the assessor.

A template is provided to help ensure that the activities assessed during the practical assessment with questions will give complete coverage of the standard. See Appendix E, DFSMI Supporting Documents ‘Practice Practical Assessment with questions Template.’

Preparing for the Interview based on a portfolio of evidence

A practice interview should take place between the apprentice and the person acting the role of an assessor. The apprentice should draw on evidence from their portfolio during the discussion.

Guidance on Portfolio of Evidence

The apprentice must compile a portfolio of evidence during the on-programme period of the apprenticeship. The portfolio is not assessed. It serves the following purpose:

- Provides the opportunity to demonstrate the core and specific KSBs required across the standard
- The assessor reviews the portfolio before the interview to help focus and contextualise their questions

- A carefully prepared mapped portfolio supports the apprentice during the interview

Quality vs Quantity

The apprentice should be supported in selecting and mapping evidence for their portfolio in the mapping document. It should only contain evidence related to the KSBs that will be assessed by the interview.

The portfolio must be sufficient to evidence the apprentice can apply the KSBs required in a variety of tasks.

The portfolio will typically contain **5 discrete pieces of evidence**. Evidence must be mapped against the KSBs. Evidence may be used to demonstrate more than one KSB; a qualitative as opposed to quantitative approach is suggested.

In theory one comprehensive job-write up could cover all the required KSBs. In practice, this is more likely to be in several job write-ups plus a few smaller pieces of evidence targeting specific elements of the standard.

Choose the best pieces of evidence that have been mapped for each KSB covered by the interview based on the portfolio. An independent assessor will look for one suitable piece of evidence for each KSB. To be confident of meeting the standard, apprentices should aim to have a minimum of two pieces of evidence, and no more than three, mapped to each KSB. This should ensure that the apprentice has quality evidence to draw on in the interview. Progress review documents should also be included.

What to include in the Portfolio?

The portfolio evidence:

- must contain a mapping document where evidence is mapped against the KSBs. A template has been produced to help the apprentices with collecting and mapping their evidence. A copy of the template is included. See Appendix G, DFSMI Supporting Documents 'Portfolio Mapping Document.'
- must contain **at least one piece of quality evidence relating to each KSB**. This piece of quality evidence must demonstrate the KSBs as outlined in Section 2 of this Specification which will be assessed by the interview based on the portfolio
- must include evidence that **covers all KSBs** required
- **written accounts of activities** that have been completed and referenced against the KSBs supported by appropriate photographic evidence and work products, for example work instructions, safety documentation, company policies and procedures as appropriate to the activities
- will contain quality pieces of evidence
- must be available, during the interview, allowing the apprentice to refer to it
- must contain demonstrations of work carried out over a period of time and must include evidence of work carried out within the last three months of the on programme period
- must contain a minimum of 2 and no more than 3 activities carried out by the apprentice that demonstrates the higher order knowledge, skills and behaviours
- where practicable this should include:
    - workplace documentation and records
    - workplace policies and procedures
    - witness statements
    - annotated photographs
    - video clips with a maximum total duration 10 minutes; the apprentice must be in view and identifiable
    - situations that have been difficult and challenging, and how these have been overcome e.g. equipment breakdown which has results in a change in working practice while still adhering to company procedures
    - any employer contributions must focus on direct observation of evidence (e.g. review/witness statements) of competence rather than opinions

The above is not a definitive list. The apprentice can include other relevant evidence sources. The portfolio must not contain reflective accounts or any methods of self-assessment.

Evidence must be:

- produced by the apprentice (authentic)
- relevant to the standard (K, S or B) that it is mapped to
- produced during the time the apprentice is carrying out their on-programme training

What can the apprentice do?

The apprentice should:

- be familiar with the structure of their portfolio
- know the KSBs covered by the interview
- know the grading descriptors
- ensure there is evidence to cover every KSB in the interview
- practise mapping evidence and completing the evidence mapping grid

The role of the employer/training provider

Employer/training providers are expected to support the apprentice in preparing their portfolio by:

- clarifying responsibility for supporting the apprentice to select and map evidence for the portfolio, including employer coaches/mentors where applicable
- advising on which pieces of evidence to select to ensure that when looked at as a whole, they provide coverage of all the required elements of the standard assessed in the interview
- supporting the mapping of evidence and production of a mapping document
- authenticating evidence as valid
- signing off the portfolio
- submitting the portfolio to Energy & Environment Awards as part of Gateway

What to expect in the practice interview?

The practice interview will be based on the portfolio which will provide the apprentice with the opportunity to practice discussing their KSBs gained throughout their on-programme and by referring to the evidence from their portfolio using the portfolio mapping document. A suitable person should be chosen to play the part of the assessor.

A practice interview based on a portfolio of evidence template is provided for use to prepare the appropriate questions to ask and to record the apprentices' performance. See Appendix F, DFSMI Supporting Documents 'Practice Interview Template.'
As part of the practice exercise, apprentices should have access to their portfolio to support their responses.

Preparing for the Multiple-choice Test

While on-programme, the employer and/or training provider should brief the apprentice on the areas to be assessed by the multiple-choice test, as detailed in Section 2 in this specification. It is good practice to identify the areas within the learning programme where the relevant knowledge is delivered, ensuring that apprentices are aware that elements of these might come up in the test.

The multiple-choice test is aligned to the standard rather than a specific job role that the apprentice may be doing. The questions have been written to reflect the DFSMI role as a whole and not focussed on specific plant, machinery, or employer-specific processes.

In readiness for end-point assessment, the apprentice should complete a practice multiple-choice test. This should be undertaken in advance of the live multiple-choice test, with enough time to mark the test, and provide feedback to the apprentices. See Appendix C, DFSMI Supporting Documents 'Practice Multiple-choice Test.'

For maximum effect, ensure the test is taken in exam conditions similar to those that will be experienced in a live test.

Section 6: Authenticity and security of apprentice work

The apprentices must be advised by their training provider and employer that copying of any work (whether it is from another apprentice or from internal, external documents or source) and presenting it as their own will be deemed as malpractice and will lead to their work being disqualified. Apprentices must not share their work or allow any person to copy their work as this is not allowed and would also be deemed as malpractice.

In signing off the portfolio, training providers and employers must be satisfied that the evidence in the portfolio is:

- **adequate**: evidence must cover all relevant KSBs within the assessment plan. Adequate does not mean a large quantity of evidence. The evidence should focus on quality rather than quantity
- **authentic**: apprentices must be able to confirm and talk about the evidence that they submit with the independent assessor, appointed by Energy & Environment Awards. It is vitally important apprentices only submit evidence relating to them
- **appropriate**: all evidence must be relevant to the KSBs assessed during the interview
- **recent and up to date**: all evidence linked to KSBs must be recent and current which demonstrate the apprentice's competence. The independent assessors, appointed by Energy & Environment Awards will assess current competencies, and the apprentice must map the evidence to demonstrate the relevant work to the KSB. Apprentices must gather the evidence during their on-programme training