

Skills for a greener world

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

# **Supporting Documents**

QAN 610/6019/7 ST0158 V1.2



# Supporting Documents for

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

#### QAN 610/6019/7

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### Updates to the supporting documents

Since the first publication of Energy & Environment Awards Dual Fuel Smart Meter Installer (DFSMI) Supporting Documents, 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



#### Appendix A: Glossary

**Amplification** – provides more detail on how individual knowledge, skills or behaviours statements should be interpreted. Where the KSB statements, themselves are deemed self-explanatory, no amplification is provided. Assessment may include questions on anything identified in the amplification

**Behaviours (as part of KSBs)** – specific mindsets, attitudes or approaches identified as part of the apprenticeship standard that must be evidenced during endpoint assessment

**Elements** – are the knowledge, skills and behaviours and what is needed to competently undertake the duties required for an occupational standard

**Gateway** - the stage of the apprenticeship where the apprentice, employer and training provider determine whether the apprentice is ready to undertake end-point assessment

**Guidance** – is only provided where it is required to support interpretation of the KSB statements

**Knowledge (as part of KSBs)** – specific information, technical detail, and 'knowhow' identified as part of the apprenticeship standard that must be evidenced during end-point assessment

**Pathways** – a specialist route within an apprenticeship standard that builds on the occupational competence for a new entrant to the occupation

**Skills (as part of KSBs)** – the practical application of knowledge identified as part of the apprenticeship standard that must be evidenced during end-point assessment

**Standard** – An occupational standard is a description of an occupation. It contains occupational profile, and describes KSBs needed for someone to be competent in the occupation's duties. Occupational standards are developed by employers for occupations that meet the Institute for Apprenticeships and Technical Education current occupation criteria

**Topic** - is a collection of elements grouped into a theme e.g. Health and Safety



# Appendix B: Gateway Eligibility Form

(Standard Version: ST0158 version 1.1)

Apprentice's name:	Apprentice's job title:
Name of Employer:	Name of Training provider:
Hame of Employer.	Training provider.
Employer representatives present:	Training provider representatives present:
Apprenticeship start date:	Apprenticeship on-programme end date:
Gateway meeting date:	
Has the apprentice taken any part of the end-point assessment for this apprenticeship standard with any other End Point Assessment Organisation?	Y/N
If "Yes" please give details:	



#### Apprentice's details

Eligibility requirements:

The apprentice must confirm their achievement of the following:

Note: For apprentices aged 19+, if maths and/or English have been attempted but not achieved evidence of the attempt should be submitted.

Eligibility requirement	Achieved by the apprentice? Y/N	Evidence (Scans of certificates MUST be included)
Achieved English qualifications in line with the apprenticeship		
Achieved Maths qualifications in line with the apprenticeship funding rules		
Achieved IGEM IG/1 Supplement 3 Certification		
Achieved Consolidated Metering Code of Practice (CoMCoP)		
Achieved Matters of Gas Safety Competency Accreditation		
Compiled and submitted a competent portfolio of evidence that meets the specification requirements, on which the interview will be based		



#### Gateway Eligibility Declaration

- 1. The apprentice, the employer and the training provider must sign this form to confirm that they understand and agree to the following:
- 2. The apprentice has completed the required on-programme elements of the apprenticeship and is ready for end-point assessment with Energy & Environment Awards.
- 3. Energy & Environment Awards has been informed about any reasonable adjustment and/or special considerations requests.
- 4. The apprentice will only submit their own work as part of end-point assessment.
- 5. All parties agree that end-point assessment evidence may be recorded and stored by Energy & Environment Awards for quality assurance purposes.
- 6. The apprentice has been on-programme for a minimum duration of 365 days.
- 7. The apprentice has achieved English and mathematics qualifications in line with the apprenticeship funding rules.
- 8. The apprentice has achieved IGEM IG/1 Supplement 3 Certification
- 9. The apprentice has achieved Consolidated Metering Code of Practice (CoMCoP)
- 10. The apprentice has achieved Matters of Gas Safety Competency Accreditation
- 11. The apprentice has compiled and submitted a competent portfolio of evidence, on which the interview will be based.
- 12. The apprentice, if successful, gives permission for Energy & Environment Awards to request the apprenticeship. certificate from the ESFA who issue the certificate on behalf of the Secretary of State.
- 13. The apprentice has been directed to Energy & Environment Awards Appeals Policy and Complaints Policy.
- 14. The employer/training provider has given Energy & Environment Awards at least three months' notice of requesting this EPA for this apprentice.
- 15. If the Gateway Eligibility Report is not completed in full, meeting all requirements, and submitted to Energy & Environment Awards, the end-point assessment cannot take place.



Signed on behalf of the employer (print name):	Signature:	Date:	
Signed on behalf of the training provider (print name):	Signature:	Date:	
Apprentice's name (print):	Signature:	Date:	
Energy & Environment Awar	Energy & Environment Awards use only:		
Energy & Environment Awards Sign off:			
Comments/actions:			



# Appendix C: Practice Multiple-choice Test



#### Level: 2

#### **Dual Fuel Smart Meter Installer**

#### Supporting Document: Practice Paper

This practice paper reflects the type of questions in the live multiple-choice test, which can be taken as an online test or paper-based test.

This examination consists of 40 multiple-choice questions.

The Pass mark is 28 correct answers.

A mark of 34 or more is a Distinction.

The duration of this examination is 60 minutes.

You must use a **pencil** to complete the answer sheet - pens must NOT be used.

When completed, please leave the examination answer sheet and question paper on the desk.

#### For this paper:

- the use of a scientific calculator (non-programmable) is permitted
- access to the internet or intranet is NOT allowed

For each question, fill in ONE answer ONLY.

If you make a mistake, ensure you erase it thoroughly.

You must mark your choice of answer by shading in ONE answer circle only. Please mark each choice like this:

MARKING INSTRUCTIONS	
Examples of how NOT to mark your examination sheet.  These will not be recorded	
⑤ ⑤ O NOT partially shade the answer circle.	
⊕	
(A) (B) (C) (D) DO NOT use circles.	



You may use this page for rough work. This page must not be removed.



Λ.	uestion	4
w	lestion	1

According to the Health and Safety at Work Act 1974, who is responsible for ensuring that work equipment is maintained and safe to use?

Possibl	Possible answers	
a)	The employer	
b)	The line manager	
c)	The facilities manager	
d)	The procurement officer	

#### Question 2

According to the Health and Safety Executive (HSE), which type of fire extinguisher is suitable for extinguishing electrical fires?

#### Possible answers

Carbon Dioxide

a)	Foam
b)	Water-based
c)	Dry Chemical

#### **Question 3**

d)

The Gas Safety (Installation & Use) Regulations 1998 (As Amended) state that 'no person shall carry out any work in relation to a gas fitting or gas storage vessel unless':

Possible answers	
a)	they are competent to do so
b)	they are aged 18 years or older
c)	they are supervised by a qualified person
d)	they are employed by a registered business



Questio	Question 4		
The safe use of electricity on site is covered by:			
Possibl	Possible answers		
a)	Fuel and Electricity (Control) Act 1983		
b)	The Electricity at Work Regulations 1989		
c)	The Electricity Capacity (No 1) Regulations 2019		
d)	The Electricity and Gas (Energy Company Obligation) Order 2023		

# Question 5 One purpose of the Consolidated Metering Code of Practice (CoMCoP) April 2023 is to ensure that:

Possib	Possible answers		
a)	consumers are aware of how smart meters operate internally and externally		
b)	the consumer experience of the smart meter installation process is positive		
c)	consumers are able to switch suppliers to ensure they can obtain smart meters		
d)	the consumer charter is adhered to by those conducting smart meter installations		

# Question 6

In accordance with OFGEM's vulnerability strategy, which ONE of the following would be considered as a vulnerable consumer?

Possibl	Possible answers				
a)	Someone who has more than five children in the household				
b)	Someone whose main source of heating is over 10 years old				
c)	Someone whose first language is not English and who cannot read English				
d)	Someone who has not installed energy-efficiency measures in their home				



Questio	Question 7				
A Smart Meter Installer identifies that a consumer is vulnerable. They should:					
Possible answers					
a)	ensure the vulnerable consumer is comfortable				
b)	offer to provide any relevant assistance for the vulnerable consumer				
c)	abort the meter installation				
d)	take the consumer's vulnerability into account on all interactions and record details for future visits				

Question 8			
What is	the key difference for consumers between 'SMETS 1' smart meters and		
'SMETS	2' smart meters?		
Possible answers			
a)	Consumers with SMETS 1 smart meters are not permitted to change		
a)	supplier		
b)	Consumers with SMETS 2 smart meters are not permitted to change		
0)	supplier		
c)	Consumers with SMETS 1 smart meters will be required to provide		
c)	manual meter readings if they change supplier		
d)	Consumers with SMETS 2 smart meters will be required to provide		
	manual meter readings if they change supplier		

Question 9			
Which ONE of the following is <b>NOT</b> an electrical metering supply system?			
Possible answers			
a)	Single-phase		
b)	Dual-phase		
c)	Multi-phase		
d)	Single-phase off multi-phase		



Questio	Question 10				
One way to determine if the consumer has a multi-rate meter is if:					
Possible answers					
a)	the meters are dark green in colour				
b)	the digital display on the meter will alternate between readings				
c)	the wires connected to the meter housing were all of the same colour				
d)	copies of their electricity bill were requested in order to determine the				
	type of meter				

A gas supply would be considered as **medium pressure** if it operates within which ONE of the following pressure parameters?

ONE of the following pressure parameters:				
Possible answers				
a)	50 mbar to 1 bar			
b)	75 mbar to 2 bar			
c)	100 mbar to 3 bar			
d)	125 mbar to 4 bar			

#### **Question 12**

During a visit to maintain gas meter equipment, the pressure range for 'temperature stabilisation' during a gas Tightness Test (as per IGEM/UP/1B: Edition 3+A 2012) is:

Possible answers				
a)	19 to 21 mbar			
b)	19 to 23 mbar			
c)	20 to 21 mbar			
d)	20 to 23 mbar			



Before decommissioning an electric meter, a single pole voltage tester (also referred to as a 'VT7',) is utilised to conduct tests for:

Possible answers		
a)	current flow	
b)	fuse integrity	
c)	earth reliability	
d)	extraneous voltage	

#### **Question 14**

During an electric meter installation, a socket tester detects reverse polarity at a socket in the kitchen of a domestic property. What is the next step the smart meter installer should take?

Possible answers				
a)	Test a nearby socket to confirm the extent of the problem			
b)	Advise the consumer to contact a qualified electrician to examine the socket			
c)	Contact the Distribution Network Operator (DNO) and report the faulty socket			
d)	Shut off the electric supply at the consumer unit and cover socket with 'Do Not Use' tape			



A Smart Meter Installer is mid-way through a gas meter exchange and has reached a point where the old meter has been disconnected and removed. The Smart Meter Installer now has to leave the work area to get equipment from the van.

In order to leave the work area safe, the Smart Meter Installer will be required to:

Possible answers				
a)	cap-off the emergency control valve and seal the existing meter outlet			
b)	re-install the original meter and carry out a Tightness Test then leave the site			
c)	advise the consumer that they are leaving the meter site and ask them to guard the area			
d)	erect barriers around the site of the meter to prevent access from the consumer, children or pets			

ď	Question 16						
į						_	

The communication protocol used for a Smart Meter Home Area Network is:

Possibl	Possible answers				
a)	Xender				
b)	Zigbee				
c)	Bluetooth				
d)	Wi-fi Direct				



When exchanging an electric meter, the process of 'proving dead' starts with the single-pole tester (VT7) which is used to confirm:

Possible answers	
a)	voltage at the inlet of the cut-out and no voltage at the outlet of the cut-
	out
b)	voltage at the inlet side of the existing electric meter and no voltage at
	the outlet side
c)	no voltage at the inlet side of the cut-out and no voltage at the outlet of
	the cut-out
d)	no voltage at the inlet side of the existing electric meter and no voltage at
	the outlet side

#### **Question 18**

To ensure proper installation of temporary continuity bonds during the process of exchanging a gas meter, it is essential to attach the bonds to the:

Possible answers	
a)	service pipe then to the meter downstream (outlet) side
b)	meter downstream (outlet) side then to the service pipe
c)	meter downstream (outlet) side first then to the upstream (inlet) side
d)	meter upstream (inlet) side first then to the downstream (outlet) side

#### **Question 19**

The electrical supply is turned on at the start of an electric meter exchange. The correct voltage readings at meter terminals 1 and 2 is:

Possibl	Possible answers	
a)	0 v	
b)	15 v	
c)	230 v	
d)	460 v	



Question 20	
After a gas meter exchange, the purge operation is carried out:	
Possible answers	
a)	at the appliance nearest to the meter installation
b)	at the appliance furthest from the meter installation
c)	on the lowest rated appliance served by the meter installation
d)	on the highest rated appliance served by the meter installation

Question 21	
After using a set of voltage test-lamps (such as Drummonds) the Installer must:	
Possible answers	
a)	ensure the test-lamps are clean and free from any residual debris
b)	test and confirm the operation of the test-lamps against a known electricity source
c)	immediately return the test lamps to the protective carry case to avoid damage
d)	use a single pole voltage indicator to confirm the results from the test-

Refer to the table below.

lamps

Which set of reading parameters from the table below are correct when conducting standing and working pressure tests on a gas installation:

#### Possible answers

	А	В	С	D
Standing Pressure	19 – 23 mbar	20 – 21 mbar	20 – 21 mbar	23 - 30 mbar
Working Pressure	20 – 21 mbar	23 – 30 mbar	19 – 23 mbar	19 - 23 mbar



Question 23		
National Energy Action define fuel poverty as 'A household that has to use:		
Possible answers		
a)	10% or more of their income on keeping their home warm'	
b)	20% or more of their income on keeping their home warm'	
c)	30% or more of their income on keeping their home warm'	

d)

Smart Meter Installers must be aware of the signs and symptoms that may indicate fuel poverty within a household.

40% or more of their income on keeping their home warm'

Which ONE of the following is **NOT** a sign of potential fuel poverty?

Possible answers	
a)	Staying in bed to keep warm
b)	Wearing lots of clothes indoors
c)	Using portable heaters to heat the premises
d)	Complaints that the home feels cold and damp



Where a Smart Meter Installer encounters fuel poverty, then the Installer should note the circumstances as found and advise the householder to:

Possible answers	
a)	consider the installation of new, more efficient appliances
b)	discuss alternative ways to pay fuel bills with the energy supplier
c)	cease use of the highest rated appliances that are costing the most to operate
d)	contact their local MP to complain about the high level of energy costs

#### **Question 26**

A low-cost measure to reduce energy consumption in the home is to:

Possible answers	
a)	stop draughts in your home
b)	install double glazing
c)	insulate the loft space
d)	fit an air-source heat pump

#### **Question 27**

If the Smart Meter Installer comes across a gas meter installation without a pressure regulator, they are required to deem the situation as:

pressure regulator, they are required to deem the situation as:	
Possible answers	
a)	At Risk
b)	Not to Current Standards
c)	'Potentially Dangerous
d)	Immediately Dangerous



If the Smart Meter Installer comes across an electric meter installation that has an exposed live conductor at the cut out, then the most appropriate course of action for the Smart Meter Installer is to:

Possible answers		
a)	complete the meter exchange and then report the situation to the	
	Consumer and the Distribution Network Operator (DNO) before leaving	
	record details of the situation in the Hand-Held Terminal (HHT) and	
b)	inform the consumer that they need to contact the Distribution Network	
	Operator (DNO)	
	inform the Distribution Network Operator (DNO) and the consumer of the	
c)	asset condition and continue with the work as scheduled then leave the	
	site	
d)	stop the work, make the site safe, report immediately to the Distribution	
	Network Operator (DNO) and remain onsite until the DNO representative	
	arrives	

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The standard which outlines the actions to be taken for unsafe GAS metering equipment is:

equipment is:		
Possible answers		
a)	IGEM/UP/1B Edition 3	
b)	IGEM/G/11 Edition 3	
c)	IGEM/G/13	
d)	IGEM/TD/12 Edition 3	



If the Smart Meter Installer comes across a gas meter installation with a damaged meter box, they must deem the installation as:

Possible answers		
2)	'At Risk,' then turn the gas off at the ECV, and inform the responsible	
a)	person that the meter box must be repaired or replaced	
b)	'Potentially Dangerous' and inform the responsible person and the gas	
	supplier of the situation, noting all details in the Hand-Held Terminal	
	(HHT)	
c)	'Immediately Dangerous,' then cap the gas supply at the ECV and inform	
	the Gas Supplier and the responsible person of the situation	
d)	'Not to Current Standards' and advise the responsible person to contact	
	a Gas-Safe Registered Engineer to repair the meter box	

#### **Question 31**

A situation where the condition of the Distribution Business (DB) equipment at an electric meter prevents the metering work from being carried out, yet it is not classified as an emergency is known as:

Possibl	Possible answers	
a)	A – Code	
b)	B – Code	
c)	C – Code	
d)	D – Code	

#### **Question 32**

Which ONE of the following situations might indicate unauthorised fuel extraction at a gas meter installation due to interference from a third party?

Possibl	Possible answers	
a)	The meter outlet union is worn and un-tarnished	
b)	The meter dials are not moving when gas is being used	
c)	The anti-shear bolts from the meter bracket are missing	
d)	The internal mechanism of the meter can be heard when gas is flowing	



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Which ONE of the following situations might indicate unauthorised energy extraction at an electric meter installation due to a third party interference?

extraction at an electric meter installation due to a trill party interierence?	
Possible answers	
a)	Bitumen leaking from the cut-out
b)	Worn screws at the meter terminals
c)	Marks on the cables exiting the meter
d)	Scorch or burn marks on the meter casing

#### **Question 34**

What safety hazard is present when unauthorised energy extraction occurs at an electric meter installation?

Cidettie meter installation:		
Possible answers		
a)	Appliances may shut down if the current flowing through the system is incorrect	
b)	The plastic casing of the electric meter may be prone to melting	
c)	The three-amp fuse at a plug may blow when electricity is in use	
d)	Overheating and electrical fires may occur	

#### **Question 35**

In order to provide warmth within a domestic dwelling, an Air Source Heat Pump (ASHP) primarily makes use of:

(ASTIF) primarily makes use or.	
Possible answers	
a)	indoor air
b)	pumped air
c)	outdoor air
d)	diluted air



Questio	Question 36		
Which ONE of the following is a benefit of an <b>electric</b> underfloor heating system?			
Possible answers			
a)	Lower running costs than water-based systems		
b)	Quicker to warm up than water systems		
c)	More suitable for larger heating spaces		
d)	Holds its heat for longer after turn-off		

Question 37		
An advantage of a Ground Source Heat Pump is:		
Possible answers		
a)	these systems cannot be affected by air locks or sludge	
b)	less radiators are required than a conventional heating system	
c)	there are no combustion processes nor combustion emissions to	
	consider	
d)	it runs on a low volume of either natural gas or liquefied petroleum gas	
u)	(LPG)	

Question 38		
	The energy source commonly used to power Micro-Combined Heat and Power	
systems is:  Possible answers		
1 033101		
a)	Biofuel	
b)	Mains gas	
c)	Solar panels	
d)	Wind turbines	



In terms of energy supply, the role of the Distribution Network Operator (DNO) is to ensure:

Possible answers			
a)	electricity meters installed by Smart Meter Installers operate correctly		
b)	newly installed or exchanged meters are inspected for polarity		
c)	properties are safely linked to the electricity grid		
d)	only registered installers work on electric meters		

#### **Question 40**

Whilst an Installer is exchanging a gas meter, the customer reports that they suspect their gas heating system is not operating correctly. The correct course of action is to advise the customer:

Possible answers				
	a)	that they should have the boiler serviced		
	b)	to contact the gas emergency service on freephone		
	c)	to contact a gas-safe registered installer or business		
	d)	that the installer will investigate the matter and report back		

End of Questions.



# **DFSMI Practice Multiple-choice Test**

#### Answer scheme

Question	Answer	Question	Answer
1	Α	21	В
2	D	22	D
3	A	23	Α
4	В	24	С
5	В	25	В
6	С	26	Α
7	D	27	D
8	С	28	D
9	В	29	В
10	В	30	А
11	В	31	В
12	С	32	В
13	D	33	D
14	A	34	D
15	A	35	С
16	В	36	В
17	A	37	С
18	D	38	В
19	С	39	С
20	В	40	С



# Appendix D - Level 2 DFSMI Practical Assessment with questions Planning Form

#### Instructions

This form has two purposes:

- 1. To help you plan a practice practical assessment with questions for your apprentices
- 2. To inform Energy & Environment Awards of the proposed task(s) for the live assessment

#### Practical Assessment with questions

Up to 4 apprentices may be assessed at one time depending on number of EPA bays at the independent assessment centre. Bays will need to be independent, and the apprentice must not have had any exposure to the bay whilst on-programme.

The apprentice is assessed:

- in a simulated environment approved by Energy & Environment Awards for example, employer or training providers premises. The simulated environment must relate to the apprentice's natural work environment
- A total of 12 hours is permitted for the practical assessment with questioning
- Equipment and resources needed for the assessment must be provided by the employer or training provider which must be in good and safe working condition

The activities should be designed to assess a broad range of the skills, knowledge and behaviours developed over the period of the apprenticeship. However, as a minimum the practical assessment with questioning must cover the activities and KSBs listed in the Planning Form below.

Energy & Environment Awards must review the employer/training provider's Practical assessment with questions task brief.

Task variations: If you have more than one apprentice being assessed, use the "Practical Task Variations" section of the form to indicate what the task variations that will be put in place so that apprentices are not asked to complete identical tasks.

Complete the 'Practical Assessment with Questions Planning Form' and submit it to the Service Delivery team via <a href="mailto:enquiries@energyenvironmentawards.co.uk">enquiries@energyenvironmentawards.co.uk</a>, for review at least 1 month before the start of the end-point assessment.



# Practical Assessment with Questions Planning Form

Employer name and site address				
Training provider				
(if applicable)				
Standard	Dual Fuel Smart Meter Installer			
Level	2			
Location of practical assessment with questions				
Contact Details:				
Employer/training provider				
representative, email address and				
contact number overseeing the setup of the practical (documents				
and site).				
,				
commission, maintain and deco	The tasks must be set up to allow the apprentice(s) to install, exchange, commission, maintain and decommission the following smart meters and carry out work on smart meters and associated equipment, please check the boxes below to confirm:			
Single phase				
Multi-rate				
Single phase off multi-phase				
Low-pressure (gas)				
Confirm tasks for the above ha	ve been submitted			
[ <b>_</b>				
The tasks must be set up to allow the apprentice(s) to conduct servicing and fault- finding procedures on one asset, including the rectification of a pre-loaded fault, please check the boxes below to confirm:				
Compliance with health and sat	fety legislation and regulators			
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 met	ers			
Confirm tasks for the above has	ve been submitted			



Please confirm the activities listed above provide the apprentice with the	1
opportunity to demonstrate the KSBs listed below which must be mapped	
to this assessment method.	

Use the boxes below to confirm the individual KSBs are covered in the above tasks for details see reference table on pages: 30 - 31.

Practical Assessment with Questions	
Theme: Health and Safety	Check box to confirm application to task
K3: Gas Industry Unsafe Situations Procedure (IGEM G11)	
<b>K4:</b> Dynamic risk assessments, associated procedures and documentation.	
S6: Carry out dynamic risk assessment.	
S8: Apply health and safety practices.	
Identify and report non-compliant conditions or situations.	
B1: Prioritise health and safety.	
Theme: Documentation	Check box to confirm application to task
K19: General Data Protection Regulations (GDPR).	
<b>K21:</b> Principles of completing work records, maintaining asset details and customer data in accordance with General Data Protection Regulations (GDPR).	
<b>S9:</b> Use digital technology to access job, appliance and customer information.	
<b>\$10:</b> Complete work records, maintain asset details and customer data in accordance with General Data Protection Regulations (GDPR).	
Theme: Install, Exchange and Commission	
<b>K6:</b> Installation and commissioning practices and techniques applicable to smart meters, associated equipment and communication systems.	
<b>K9:</b> Tools, test equipment, ladder and access systems, and personal protective equipment.	
<b>K10:</b> Gas and electrical testing and assessment procedures needed to establish the condition of the equipment and installation, and the actions needed as a result.	
<b>S1:</b> Install and exchange smart meters, associated equipment and communication systems.	
<b>S2:</b> Commission smart meters, associated equipment and communication systems.	
<b>S7:</b> Select, use and maintain tools, test equipment, ladder and access systems, and personal protective equipment (PPE).	
B2: Take responsibility for work.	



Theme: Maintenance and fault-finding	Check box to confirm application to task	
<b>K7:</b> Fault-finding, diagnosis and rectification practices and techniques applicable to smart meters, associated equipment and communication systems.		
<b>K25:</b> Techniques and procedures for carrying out on-going maintenance of smart meters, associated equipment and communication systems.		
<b>S3:</b> Carry out ongoing maintenance of smart meters, associated equipment and communication systems.		
<b>S4:</b> Identify, diagnose and rectify faults in smart meters, associated equipment and communication systems.		
Theme: Decommission	Check box to confirm application to task	
<b>K8:</b> Decommissioning practices and techniques applicable to smart meters.		
<b>S5:</b> Decommission smart meters, associated equipment and communication systems		
<b>\$14:</b> Dispose of defective smart meters or assets, and all waste.		
Practical Task Variations - Describe how you can vary the task(	s) to ensure that	
the task does not become predictable.		
Variation 1:		
Variation 2:		
Variation 3:		
Special requirements (for example: access arrangements/PPE):		
Resources (for example: equipment/tools required):		

**Note:** Provision of all equipment and resources are the responsibility of the employer/training provider and must be suitable for the task, in good safe working condition and certification where applicable.



The practical assessment with questioning task(s) must take 12 hours and be completed over 2 consecutive days (a working day is typically considered to be 7.5 hours long).			
Please state time for th	ne practical tas	sk(s):	
Please state number o	f days for the p	oractical task(s):	
Remember:			
<ul> <li>The specific detail confidential from</li> </ul>	( )	b be undertaken should be <b>kept</b> es	
Practical Assessment with Questioning Task(s): Include relevant photographs to illustrate task(s)			
Energy & Environment A	wards Office us	e only	
Date received			
Date signed off			



# Appendix E: Practice Practical Assessment with questions Template

Employers/training providers are recommended to arrange for apprentices to carry out a practice Practical Assessment with Questions prior to end-point assessment. The form below is for use by the person playing the part of the independent assessor.

#### Instructions

This should be read in conjunction with the DFSMI Specification.

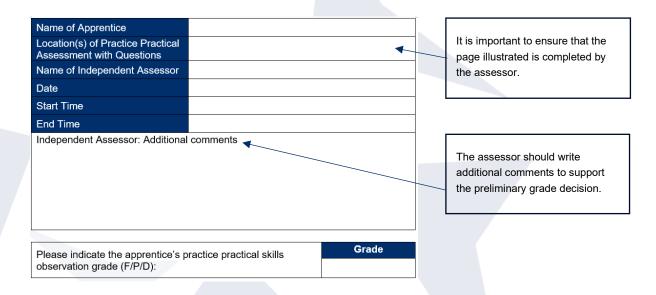
This template has been designed to help the suitable person playing part of the independent assessor and has three purposes:

- 1. To prepare for a practice assessment with questions
- 2. Designed to holistically assess a broad range of the skills, knowledge and behaviours developed over the period of the apprenticeship by the apprentice
- 3. To provide feedback to the apprentice in preparation for the live assessment

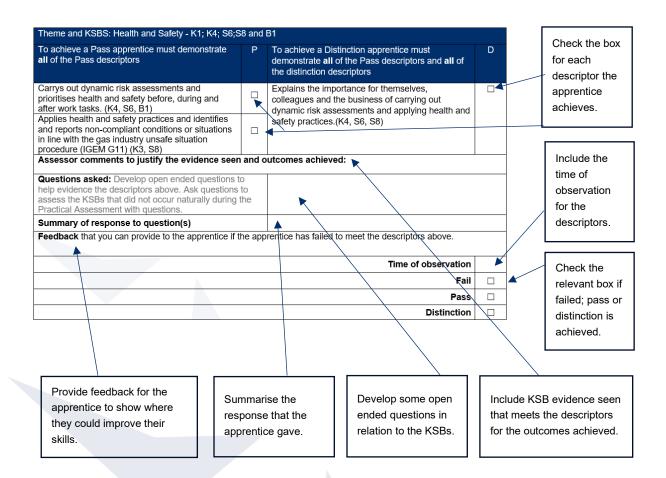
#### The assessor should:

 complete the form below which has two parts to assess the apprentice's Practical Assessment with questions.

#### **Quick Tip** – How to complete the form below:









Name of Apprentice				
Location(s) of Practice Practical Assessment with Questions				
Name of Independent Assessor				
Date				
Start Time				
End Time				
Independent Assessor: Additional comments				

Please indicate the apprentice's practice practical skills	Grade
observation grade (F/P/D):	

#### **Please Note:**

Fail: the apprentice does not demonstrate the pass descriptors.

To achieve a Pass, the Apprentice must achieve all the Pass descriptors.

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

Assessor questions: during the live assessment, the assessor must ask at least 3 open questions.



Theme and KSBS: Health and Safety - K1; K4; S6;S8 ar	nd B1		
To achieve a Pass apprentice must demonstrate <b>all</b> of the Pass descriptors	Р	To achieve a Distinction apprentice must demonstrate <b>all</b> of the Pass descriptors and <b>all</b> of the distinction descriptors	D
Carrys out dynamic risk assessments and prioritises health and safety before, during and after work tasks. (K4, S6, B1)		Explains the importance for themselves, colleagues and the business of carrying out dynamic risk assessments and applying health and safety	
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)		practices.(K4, S6, S8)	
Assessor comments to justify the evidence seen and	doutco	omes achieved:	
Questions asked: Develop open ended questions to he evidence the descriptors above. Ask questions to assess KSBs that did not occur naturally during the Practical Assessment with questions.			
Summary of response to question(s)			
Feedback that you can provide to the apprentice if the a	pprenti	ce has failed to meet the descriptors above.	
		Time of observation	
		Fail	
		Pass	
		Distinction	

al Assessment



Theme and KSBS: Documentation – K19; K21; S9 and S10						
To achieve a Pass apprentice must demonstrate <b>all</b> of the Pass descriptors	Р	To achieve a Distinction apprentice must demonstrate <b>all</b> of the Pass descriptors and <b>all</b> of the distinction descriptors	D			
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)		NA	NA			
Assessor comments to justify the evidence seen and	doutco	omes achieved:				
Questions asked: Develop open ended questions to hele evidence the descriptors above. Ask questions to assess KSBs that did not occur naturally during the Practical Assessment with questions.						
Summary of response to question(s)						
Feedback that you can provide to the apprentice if the a	Feedback that you can provide to the apprentice if the apprentice has failed to meet the descriptors above.					
		Time of observation				
		Fail				
		Pass				



Theme and KSBS: Install, exchange and commission – K6; K9; K10; S1; S2; S7 and B2					
To achieve a Pass apprentice must demonstrate <b>all</b> of the Pass descriptors	Р	To achieve a Distinction apprentice must demonstrate <b>all</b> of the Pass descriptors and <b>all</b> of the distinction descriptors	D		
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, B2)		Installs and commissions smart meters, associated equipment and communication systems in line with gas and electrical engineering procedures achieving the			
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, S7)		outcome right-first-time to meet the needs of the task. (K6, K10, S1, S2)			
Assessor comments to justify the evidence seen and outcomes achieved:					
Questions asked: Develop open ended questions to help evidence the descriptors above. Ask questions to assess the KSBs that did not occur naturally during the Practical Assessment with questions.					
Summary of response to question(s)					
Feedback that you can provide to the apprentice if the apprentice has	failed	to meet the descriptors above.			
		Time of observation			
		Fail			
		Pass			
		Distinction			



Theme and KSBS: Maintenance and fault-finding- K7; K25; S3 and	S4		
To achieve a Pass apprentice must demonstrate <b>all</b> of the Pass descriptors	Р	To achieve a Distinction apprentice must demonstrate <b>all</b> of the Pass descriptors and <b>all</b> of the distinction descriptors	D
Carries out on-going maintenance of smart meters, associated equipment and communication systems in line with manufacturer's guidelines and task requirements. (K25, S3)		Rectifies faults in smart meters, associated equipment and communication systems in line with manufacturer's guidelines,	
dentifies, diagnoses and rectifies faults in smart meters, associated quipment and communication systems in line with manufacturer's uidelines and task requirements. (K7, S4)		achieving the outcome right-first-time to meet the needs of the task. (K7, S4)	
Assessor comments to justify the evidence seen and outcome	s achiev	ed:	
Questions asked: Develop open ended questions to help evidence the descriptors above. Ask questions to assess the KSBs that did not occur naturally during the Practical Assessment with questions.			
Summary of response to question(s)			
Feedback that you can provide to the apprentice if the apprentice h	as failed	to meet the descriptors above.	
		Time of observation	
		Fail	
		Pass	
		Distinction	



Theme and KSBS: Decommission – K8; S5 and S14					
To achieve a Pass apprentice must demonstrate <b>all</b> of the Pass descriptors		To achieve a Distinction apprentice must demonstrate <b>all</b> of the Pass descriptors and <b>all</b> of the distinction descriptors	D		
Carries out on-going maintenance of smart meters, associated equipment and communication systems in line with manufacturer's guidelines and task requirements. (K25, S3)		Rectifies faults in smart meters, associated equipment and communication systems in line with manufacturer's guidelines,			
Identifies, diagnoses and rectifies faults in smart meters, associated equipment and communication systems in line with manufacturer's guidelines and task requirements. (K7, S4)		achieving the outcome right-first-time to meet the needs of the task. (K7, S4)			
Assessor comments to justify the evidence seen and outcomes achieved:					
Questions asked: Develop open ended questions to help evidence the descriptors above. Ask questions to assess the KSBs that did not occur naturally during the Practical Assessment with questions.					
Summary of response to question(s)					
Feedback that you can provide to the apprentice if the apprentice has	failed	to meet the descriptors above.			
		Time of observation			
		Fail			
		Pass			
		Distinction			



# Appendix F: Practice Interview based on a portfolio of evidence Template

Employers/training providers are recommended to arrange for apprentices to carry out a practice Interview based on a portfolio of evidence prior to end-point assessment.

### Instructions

This should be read in conjunction with the DFSMI Specification.

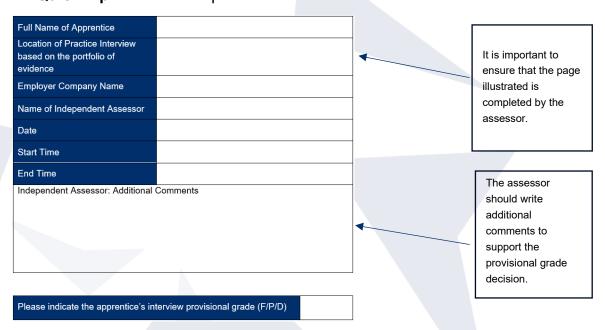
This template has been designed to help the suitable person playing part of the independent assessor and has three purposes:

- 1. To prepare for a practice assessment
- 2. Designed to holistically assess a broad range of the skills, knowledge and behaviours developed over the period of the apprenticeship by the apprentice
- 3. To provide feedback to the apprentice in preparation for the live assessment

#### The assessor should:

- complete the form below which has two parts to assess the apprentice's Interview.
- review the apprentice's portfolio of evidence before the practice assessment

### **Quick Tip** – How to complete the form below:





Theme and KSBS: Sustainability – K18							Check the		
To achieve a Pass apprentice descriptors	e must demonstrate <b>all</b> of the	Pass	den	onstrate a	Distinction appren all of the Pass des nction descriptors	criptors and	D		pass box if the apprentice
Explains the following sustair outlines how they impact thei fuels, energy consumption, e calculated. (K18)  Assessor comments to just	r role: green technologies, alt nergy ratings and how they a	ternative re	NA □		·		NA		achieved the descriptors.
Questions asked: Develop of evidence the descriptors about Write down the follow up questions.	ve.	<b>1</b>							
	Summary of response to question(s)  Feedback that you can provide to the apprentice if the apprentice has failed to meet the descriptors above.							Check the fail or pass box to	
Portfolio reference					Time of	question(s) Fail Pass			confirm the grade for this group.
Include the page number(s) of where in the portfolio of evidence has been seen that meets the descriptor above.	Develop some open ended questions in relation to the KSBs.		ons are include		Record the time the question is asked.				



Full Name of Apprentice	
Location of Practice Interview based on the portfolio of	
evidence	
Employer Company Name	
Name of Independent Assessor	
Date	
Start Time	
End Time	
Independent Assessor: Additional (	Comments

Please indicate the apprentice's interview provisional grade (F/P/D)

#### **Please Note:**

To achieve a Pass, the Apprentice must achieve all of the pass descriptors.

To achieve a Distinction the Apprentice must achieve all of the pass and distinction descriptors.

Fail: The apprentice does not demonstrate the pass descriptors.



## Component 3 – Interview based on the portfolio of evidence

Theme and KSBS: Sustaina	bility – K18				
To achieve a Pass apprentic descriptors	e must demonstrate <b>all</b> of the Pass	Р		tion apprentice must ne Pass descriptors and descriptors	D
outlines how they impact the	nability and energy efficiency topics and ir role: green technologies, alternative energy ratings and how they are		NA		NA
Assessor comments to jus	tify the evidence seen and outcomes	achiev	ed:		
Questions asked: Develop evidence the descriptors abo	open ended questions to help ove.				
Write down the follow up of	uestions asked				
Summary of response to q	uestion(s)				
Feedback that you can prov	ide to the apprentice if the apprentice ha	s failed	to meet the descripto	s above.	
Portfolio reference				Time of question(s)	
				Fail	
				Pass	



Theme and KSBS: Communication – K22 S11 S12					
To achieve a Pass apprentice descriptors	must demonstrate <b>all</b> of the Pass	Р		nction apprentice must the Pass descriptors and n descriptors	D
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.(K22, S11, S12)  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, S12)			the business of me	tance for customers and eeting the needs of the mmunicating verbally to (K22, S11, S12)	
	ify the evidence seen and outcomes	achieve	ed:		
Questions asked: Develop o evidence the descriptors above	re.				
Write down the follow up qu	lestions asked				
Summary of response to qu	· ·				
Feedback that you can provide	le to the apprentice if the apprentice ha	s failed	to meet the descript	ors above.	
Portfolio reference				Time of question(s)	
				Fail	
				Pass	
				Distinction	



Theme and KSBS: – Customer Support K24 and S13			
To achieve a Pass apprentice must demonstrate <b>all</b> of the Pass descriptors	Р	To achieve a Distinction apprentice must demonstrate <b>all</b> of the Pass descriptors and <b>all</b> of the distinction descriptors	D
Describes how they identify customers who are experiencing issue around fuel poverty. Explains how they provide support and assistance through the energy provider or support services to mee the needs of the customer in line with the energy provider policies (K24, S13)	et 🗆	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, S13)	
Assessor comments to justify the evidence seen and outcome	es achieve	ed:	
Questions asked: Develop open ended questions to help evidence the descriptors above.			
Write down the follow up questions asked			
Summary of response to question(s)			
Feedback that you can provide to the apprentice if the apprentice	has failed	to meet the descriptors above.	
Portfolio reference		Time of question(s)	
		Fail	
		Pass	
		Distinction	



Theme and KSBS: – EDI K20 and B4			
To achieve a Pass apprentice must demonstrate <b>all</b> of the Pass descriptors		To achieve a Distinction apprentice must demonstrate <b>all</b> of the Pass descriptors and <b>all</b> of the distinction descriptors	D
Describes how they support an equitable, diverse and inclusive culture and explains why this is important in their work. (K20, B4	.)	Explains the importance for the business of supporting a diverse and inclusive workplace culture. (K20)	
Assessor comments to justify the evidence seen and outcome	mes achiev	red:	
<b>Questions asked:</b> Develop open ended questions to help evidence the descriptors above.			
Write down the follow up questions asked			
Summary of response to question(s)			
Feedback that you can provide to the apprentice if the apprentic	e has failed	to meet the descriptors above.	
Portfolio reference		Time of question(s)	
		Fail	
		Pass	
		Distinction	



Theme and KSBS: Mental He	alth - K23				
To achieve a Pass apprentice descriptors	must demonstrate <b>all</b> of the Pass	Р		nction apprentice must the Pass descriptors and n descriptors	D
	mptoms and warning signs of stress, xplains where to go for help and the orkplace. (K23)		NA		NA
Assessor comments to just	ify the evidence seen and outcomes	achiev	ed:		
Questions asked: Develop o evidence the descriptors above	·				
Write down the follow up qu	lestions asked				
Summary of response to qu	estion(s)				
Feedback that you can provide	le to the apprentice if the apprentice ha	s failed	to meet the descript	ors above.	
Portfolio reference				Time of question(s)	
				Fail	
				Pass	



Theme and KSBS: CPD- B3					
To achieve a Pass apprentice descriptors	must demonstrate <b>all</b> of the Pass	Р		nction apprentice must the Pass descriptors and n descriptors	D
Describes how they maintain a own area of practice through the professional development (CF)			NA		NA
Assessor comments to justify the evidence seen and outcomes achieved:					
Questions asked: Develop o evidence the descriptors above	·				
Write down the follow up qu	lestions asked				
Summary of response to qu	estion(s)				
Feedback that you can provide	le to the apprentice if the apprentice has	s failed	to meet the descript	ors above.	
Portfolio reference				Time of question(s)	
				Fail	
				Pass	



## Appendix G: Portfolio Mapping Document

### Portfolio Mapping Document

This document must be placed at the front of the Portfolio and submitted to Energy & Environment Awards with the portfolio of evidence.

### Introduction

Use this document to map the portfolio of evidence to the KSBs assessed during the interview.

### Apprentice's next steps

- 1. Complete all the details on the first page and include employer details of where relevant competencies from their experience at work was gained.
- 2. The apprentice can use a number of different types of evidence to demonstrate their competence as described in Section 5 of the Specification 'What to include in the portfolio?'. For further guidance, the apprentice must seek advice from their tutor/supervisor/mentor and training provider.
- 3. Map evidence to the criteria in the following pages using a referencing system indicating where the evidence for the criteria is located in the portfolio e.g., work based evidence Job 1 (J1) page 5 paragraph 2. This will allow the independent assessor to locate the section or specific piece of evidence being discussed and referred to during the interview
- 4. Place the portfolio mapping document at the front of the portfolio of evidence.

The apprentice's training provider must make arrangements for Energy & Environment Awards to have access to the apprentice's portfolio including the portfolio mapping document at least 2 weeks before the interview. For apprentices using e-portfolios such as ONEFILE, SMARTASSESSOR, the reference used must simply be the file or folder name you used when uploading the evidence to such systems.



## Portfolio Mapping Document

## 1.1 Mapping Sign off on Portfolio Completion:

Apprentice Name (Print)	Apprentice Signature	Training Provider (Company)	Training Provider Signatory	Date of Sign Off

### Sustainability Core Knowledge:

			Portfolio		
Ref.	Apprenticeship Standard Criteria	EVIDENCE			
		REFERENCE			
(KSB)		(Apprentice Input)			
		1	2	3	
K18	Sustainability and energy efficiency: green technologies, alternative fuels, energy consumption, energy ratings and how they are calculated.				

## Communication Core Knowledge and Skills:

Ref. (KSB)	Apprenticeship Standard Criteria	Portfolio EVIDENCE REFERENCE (Apprentice Input)		CE
K22	Verbal communication techniques. Giving and receiving information. Matching style to audience. Barriers in communication and how to overcome them. Sector specific terminology.			
S11	Advise customers on energy efficiency and how to operate smart meters.			
S12	Communicate verbally with utility companies and other trades in order to complete tasks.			



## Customer Support Core Knowledge and Skills:

Ref. (KSB)	Apprenticeship Standard Criteria	Portfolio EVIDENCE REFERENCE (Apprentice Input)		
K24	Principles and policies for identifying and responding to customers with fuel poverty issues.			
S13	Identify where customers are experiencing issues around fuel poverty, and provide support and assistance through the energy provider or support services.			

## EDI (Equity, Diversity and Inclusion) Core Knowledge and Behaviours:

Ref. (KSB)	Apprenticeship Standard Criteria	Portfolio EVIDENCE REFERENCE		
		(Аррі	rentice I	nput)
K20	Principles of equity, diversity and inclusion in the workplace and the impact on their work.			
B4	Support an equitable, diverse and inclusive culture.			

### Mental Health Core Knowledge:

Ref. (KSB)	Apprenticeship Standard Criteria	Portfolio EVIDENCE REFERENCE		
		(Apprentice Input)		nput)
K23	Common issues, symptoms and warning signs of stress, anxiety and depression, including where to go for help and the resources available.			



## CPD (Continuous Professional Development) Core Behaviour:

Ref. (KSB)	Apprenticeship Standard Criteria	Portfolio		
		EVIDENCE		
		REFERENCE		
		(Apprentice Input)		
В3	Committed to continued professional development (CPD) to maintain and enhance competence in own area of practice.			



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