

Apprenticeships in

Construction

Pearson Level 2 End-point Assessment for

Dual Fuel Smart Meter Installer (Electricity and Gas)



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Issue 5

About Pearson

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This specification is Issue 5. Key changes are summarised on the next page. We will inform centres of any changes to this issue. The latest issue can be found on our website.

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Summary of changes to Pearson Apprenticeship End-point Assessment for Dual Fuel Smart Meter Installer (Electricity and Gas) specification from Issue 4 to Issue 5

Summary of changes made between Issue 4 and this issue	Page number
This EPA is now regulated by Ofqual (previously IfATE). As a result, an Ofqual Qualification Number and regulation start date have been added.	3

If you need further information on these changes or what they mean, please contact us via our website at: qualifications.pearson.com/en/support/contact-us.html.

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1 The Dual Fuel Smart Meter Installer (Electricity and Gas) Apprenticeship

What are Pearson End-point Assessments?

End-point assessment (EPA) takes place at the end of the apprenticeship programme when the apprentice has passed through gateway, and been signed off as ready for the assessment by their employer. It is a synoptic assessment of the knowledge, skills and behaviours outlined in the apprenticeship standard learnt throughout the apprenticeship programme.

The EPA in this specification relates to the Dual Fuel Smart Meter Installer (Electricity and Gas) apprenticeship.

Purpose

The purpose of the EPA is to confirm that the apprentice has met the required level of knowledge, skills and behavioural standards set by employers and that they are competent in their role as Dual Fuel (Electricity and Gas) Smart Meter Installer.

Dual fuel smart meter installation forms a key part of the government mandate to reduce carbon emissions and improve energy management. Dual Fuel Smart Meter Installers are responsible for the safe installation, exchange, commission, decommission and ongoing maintenance of smart metering systems and associated equipment and communication systems. This includes the explanation of how smart metering systems work, and giving up-to-date energy efficiency advice to the customer.

The role is physical in nature, and may involve lifting and moving equipment, working at heights and working in confined spaces. This occupation involves carrying out a high level of safety-critical activities while working in customer properties. Therefore, there is a rigorous requirement for a disciplined, responsible and professional approach to work that provides customer service excellence at all times.

In order to progress to the end-point assessment, the apprentice will need to be assessed against, and achieve registration on, the Gas Safe® Register and the Meter Operation Code of Practice Agreement (MOCOPA®). This is a legal requirement for the role and a required competency measure.

Completion of this apprenticeship will lead to eligibility to apply for membership of the Institution of Gas Engineers & Managers (IGEM) and the Institution of Engineering and Technology (IET).

Industry support and recognition

Pearson has worked in close collaboration with industry in developing the assessment tools for this end-point assessment.

During the development of this end-point assessment, Pearson worked in consultation with British Gas, as an employer and chair of the Apprenticeship Trailblazer group responsible for setting the new standards for the Dual Fuel Smart Meter Installer Apprenticeship.

We are grateful to all who have generously shared their time and expertise to help us in the development process.

This end-point assessment is designed to meet the requirements of the Dual Fuel Smart Meter Installer Apprenticeship Standard, as written by the employer group, and conforms to the published Assessment Plan, written by this group and approved by the Department for Education. Successful apprentices will be eligible to apply for membership of the Institution of Gas Engineers & Managers (IGEM) and the Institution of Engineering and Technology (IET).

2 Summary of End-point Assessment

EPA Title	Pearson Level 2 End-point Assessment for Dual Fuel Smart Meter Installer (Electricity and Gas)
Qualification Number (QN)	601/0328/1
Regulation start date	07/01/2022
First Pearson assessment	01/05/2017
Components	• Component 1: Portfolio (including practical observation) • Component 2: End-point interview <i>Refer to Section 5 for detailed information about each component.</i>
Grading	Pass/Distinction <i>Refer to Section 3 for detailed information.</i>
Duration of apprenticeship programme	The typical duration for this apprenticeship is 14 months but this will depend on the individual apprentice's previous experience and access to opportunities to gain the full range of competences.
Gateway requirements	• Employer confident that the apprentice is ready • Maths and English at Level 1 or above • industry registration on the Gas Safe® Register and the Meter Operation Code of Practice Agreement (MOCOPA®)
Time period for completion of EPA	The EPA is conducted over a three-month period. Component 1: Portfolio (including practical observation) needs to be completed and assessed before Component 2: End-point interview.
Apprenticeship certification	The certificate for the apprenticeship is awarded by the Institute for Apprenticeships and Technical Education (IfATE), through a process administered by the Education and Skills Funding Agency (ESFA). As the end-point assessment organisation (EPAO), Pearson will claim certificates on behalf of apprentices.

3 EPA structure

EPA for Dual Fuel Smart Meter Installer (Electricity and Gas) Level 2

The EPA for Dual Fuel Smart Meter Installer (Electricity and Gas) Level 2 apprenticeship consists of the following two assessment components:

- Component 1: Portfolio (including practical observation)
- Component 2: End-point interview.

The table below gives a summary of the structure of the end-point assessment.

End-point assessment components	Duration	Component grading	Weighting %	EPA points
Component 1: Portfolio (including practical observation)	3.5 hours	Pass/Distinction	80%	0–8
Component 2: End-point interview	Approximately 1 hour	Pass/Distinction	20%	0–2

All components of the end-point assessment for an apprentice must be taken in the final three-month period of the apprenticeship, and the components are expected to be completed in the order that they are shown.

EPA Grading

The grading for this EPA is Pass/Distinction.

The table below shows how the grade from each component is combined to determine the overall end-point assessment grade.

Overall end-point assessment grade	Grade requirements
Pass	The apprentice must achieve a minimum of 2 combined points overall. These points will come from: • a minimum of 1 point achieved from Component 1: Portfolio (including practical observation) • a minimum of 1 point achieved from Component 2: End-point interview.
Distinction	The apprentice must achieve a minimum of 8 combined points overall. These points will come from: • a minimum of 6 points achieved from Component 1: Portfolio (including practical observation) plus 2 points achieved from Component 2: End-point interview OR • 7 points achieved from Component 1: Portfolio (including practical observation) plus 1 point achieved from Component 2: End-point interview.

The table below shows the percentage score required from each component to achieve the points contributing to the overall end-point assessment grade.

EPA component scores	End-point assessment grade points
1 Portfolio (including Practical observation) To achieve a Pass grade apprentices must score between 65% and 84%. To achieve a Distinction grade apprentices must score a minimum of 85%.	Pass (65%) = 1 EPA point Pass (66-69%) = 2 EPA points Pass (70-74%) = 3 EPA points Pass (75-79%) = 4 EPA points Pass (80-84%) = 5 EPA points Distinction (85-89%) = 6 EPA points Distinction (90-94%) = 7 EPA points Distinction (95-100%) = 8 EPA points
2 End-point Interview To achieve a Pass grade apprentices must score 81-89%. To achieve a Distinction grade apprentices must score a minimum of 90%.	Pass = 1 EPA point Distinction = 2 EPA points

Detailed information on calculating the scores and grades for each component is available in each component section.

4 Assessment

Assessment plan

Pearson's approach to assessing this EPA is set by the assessment plan for the apprenticeship standard. This document is available in *Annexe B*.

Language of assessment

Apprentices must use English only during the assessment of this EPA.

An apprentice taking the EPA may be assessed in British Sign Language for the purpose of reasonable adjustment.

Further information on the use of language in assessment is available in our *Use of languages in qualifications policy*, available on our website.

Gateway

Before progressing to the EPA from on-programme, all apprentices must be signed off by their employer, through the 'gateway'. This gateway sign off confirms that apprentices have the level of occupational knowledge, skills and behaviours required to achieve the apprenticeship.

The EPA-specific requirements for gateway are stated in *Section 2: Summary of End-point Assessment* and the assessment plan in *Annexe B*.

Employers must complete a *Gateway Declaration Form* (see *Annexe A*) with the apprentice. The form and the associated gateway evidence to prove apprentices have met the requirements must be supplied to Pearson before the EPA can take place.

5 End-point Assessment Components

Component 1: Portfolio (including practical observation)

Structure

The portfolio will enable apprentices to demonstrate their compliance with industry certification and how they have applied the required knowledge, skills and behaviours to the required standards in their work practice. The portfolio consists of two parts.

- 1 Industry certification, including:
 - Gas Safe® Register certificate
 - Meter Operation Code of Practice Agreement (MOCOPA®) certificate.
- 2 Practical observation.

The industry certification aspect of the portfolio is a part of the gateway to end-point assessment, and therefore all apprentices must have achieved this before progressing to EPA.

The practical observation forms the graded part of the portfolio and will enable the apprentice to demonstrate practical application and use of the identified knowledge, skills and behaviours in a realistic working environment involving the 'live' supply of gas and electricity.

The practical observation will assess the apprentice's performance in four activities.

- 1 Decommission smart metering equipment – assessing the apprentice's skills in decommissioning smart metering equipment, including skills in identifying and dealing with hazards.
- 2 Install electric meter – assessing the apprentice's skills in installing an electric meter, including skills in cable cutting and cable dressing and the quality of installation such as neatness and cable layout.
- 3 Exchange gas meter – assessing the apprentice's skills in exchanging a gas meter, including skills in pipe cutting and preparation, safety of hot working, soldering and other pipe joining skills, and quality of installation such as neatness and workmanship.
- 4 Commission smart metering equipment – assessing the apprentice's skills in commissioning smart metering equipment, including timeliness and ability to communicate energy efficiency advice.

At the end of these four activities, there is a question-and-answer session to assess the apprentice's knowledge.

The rest of this section will focus on the requirements of the practical observation.

Practical observation	
Summary	The practical observation involves the independent end-point assessor (IEA) observing the apprentice carrying out the activities of installation, exchange, commissioning and decommissioning in a realistic working environment, with access to live gas and electricity supply that would typically be found on a customer's premises. A question-and-answer session between the apprentice and the IEA follows the observation of these activities. The IEA will use standardised recording documentation to record the apprentice's performance in both the observation and the question-and-answer session.
Duration	Approximately 3.5 hours.
Grading	Pass/Distinction To achieve a Pass grade, the apprentice must achieve a minimum score of 65% for Component 1. In the practical observation they will need to demonstrate that they have met all 45 mandatory (Pass) performance criteria in the practical observation, and have correctly answered questions related to the four identified knowledge standard outcomes. To achieve a Distinction grade, the apprentice must achieve a minimum score of 85% for Component 1. In the practical observation they will need to demonstrate that they have met all mandatory (Pass) criteria, correctly answered the questions and met a minimum of nine Distinction criteria. Further details on grading for this component can be found in the assessment plan in <i>Annexe B</i>.
Preparation	Apprentices must use the documents published in the <i>EPA Resource Pack</i> to support their preparation. The details of how the observation will be operated will be agreed at the EPA planning meeting.
Delivery, conduct and assessment	1 The assessment will take place in a realistic working environment, with access to industry standard smart metering equipment and live gas and electricity supply that would typically be found on a customer's premises. As a result, apprentices are expected to demonstrate the work-related behaviours, skills and knowledge that are required to operate safely and professionally in a real working environment.

Practical observation

- 2 The apprentice must work independently when preparing for, and taking part in the practical observation assessment. The apprentice must not share details of assessments, evidence or answers with others.
 - 3 The apprentice will be informed of the time and location of the assessment before it takes place.
 - 4 Within the assessment, the apprentice will complete four smart metering activities:
 - Activity 1: Decommission smart metering equipment
 - Activity 2: Install electric meter
 - Activity 3: Exchange gas meter
 - Activity 4: Commission smart metering equipment.
- Activities 1 to 3 may not always take place sequentially; however, Activity 4 will always take place after the other three activities.
- 5 The apprentice must prepare and provide their own tools and personal protective equipment (PPE) to carry out all four activities.
 - 6 As a part of completing each activity, the apprentice must complete the *Apprentice Job Sheet* to capture any risks identified, actions taken and other information relevant to each activity. A copy of the *Apprentice Job Sheet* is provided in *Annexe B* of the *EPA Resource Pack*.
 - 7 The apprentice will be directly observed by an IEA while they are carrying out the four activities. The IEA will also play the role of the customer where required.
 - 8 Before the apprentice begins each activity, the IEA will brief them on the context of each activity and the time allowed.
 - 9 The IEA will assess the apprentice's performance in the four activities against the Pass and Distinction performance criteria in the *EPA Resource Pack*, using evidence from the direct observation, the *Apprentice Job Sheet* and a final inspection of the completed work.

Practical observation	
	10 Once all four activities have been completed, there will be a brief question-and-answer session to assess the apprentice's knowledge related to the four relevant standard outcomes detailed on page 12. The IEA will ask the apprentice four questions (one question per standard outcome). The apprentice response to these questions will be recorded on the assessment documentation. 11 The IEA may make notes while conducting the observation, and the apprentice's performance may be video recorded to support assessment decisions and for verification purposes. 12 The assessment of all four activities and the question-and-answer session will last for approximately 3.5 hours. 13 Information on how the apprentice performance is graded is provided in the <i>EPA Resource Pack</i>.
Grading performance	The IEA will grade the apprentice's performance in the observation using the performance criteria in the <i>EPA Resource Pack</i>. No other sources of information will be used to make judgements about the quality and sufficiency of the apprentice's evidence. Grading decisions will be made after the assessment.

Standards Assessed

The observation assesses the following outcomes from the Apprenticeship Standard.

Apprenticeship Standard outcomes	
1	Carry out a thorough and rigorous risk assessment to ensure safety of customer, self and property on arrival, during install and upon exit (S)
2	Current health, safety and environmental legislation and regulations applicable to work in the gas and power industries (K)
3	Use tools, equipment and personal protective equipment in a safe and appropriate manner (S)
4	Identify where situations or conditions are to unsafe standards and take appropriate actions within your range of competency (S)
5	Prepare and sequence equipment and tasks in the order prescribed in relevant operational standards or according to a specific regulation or set of rules (S)
6	Gas and electrical testing and assessment procedures needed to establish the condition of the equipment and installation and the actions needed as a result (K)
7	Use a variety of appropriate communication methods to interact with customers and others to give/receive information accurately, and in a timely and positive manner in order to deliver the best possible experience to customers. This will include practical advice and the benefits of using the equipment (S)
8	Deliver a polite, courteous professional service to all customers and members of the public while safeguarding customer welfare and recognising vulnerability (S)
9	Up-to-date knowledge of energy efficiency principles to be able to provide advice and guidance to the customer (K)
10	Knowledge of smart metering systems to be able to discuss and advise the customer (K)
11	Install, exchange, commission, decommission and ongoing maintenance of smart metering systems, associated equipment and communication systems in accordance with industry standards (S)
12	Be energy aware and deliver appropriate advice to customers on energy efficiency (B)

Component 2: End-point interview

Structure

The end-point interview is a planned, structured competence-based discussion between the apprentice and the independent end-point assessor (IEA). The purpose is to assess the level of the apprentice's competencies linked to the relevant apprenticeship standard outcomes in relation to their job role. The end-point interview is the last assessment in the end-point assessment.

End-point interview	
Summary	The end-point interview will focus on five competencies identified on pages 16-17 that relate to the apprentice's job role and apprenticeship standard outcomes. The IEA will ask the apprentice a series of questions related to each competency.
Duration	Approximately 1 hour.
Grading	Pass/Distinction To achieve a Pass grade apprentices must score a minimum of 81%, including at least 10% from each competency area. To achieve a Distinction grade for the end-point interview, apprentices must score a minimum of 90%. The grading criteria for this component can be found in the assessment plan in <i>Annexe B</i>. The proficiency levels descriptors that the IEA will use to grade the apprentice's performance are in the <i>EPA Resource Pack</i>.
Preparation	Apprentices must use the documents published in the <i>EPA Resource Pack</i> to support their preparation.
Delivery, conduct and assessment	1 The apprentice must work independently when preparing for, and taking part in, the end-point interview. The apprentice must not share details of assessments, evidence or answers with others. 2 The interview will be facilitated by an IEA, who will use a series of questions to focus and guide the discussion with the apprentice. The questions are designed to draw out evidence against the five competencies and their associated standard outcomes detailed on pages 16-17. 3 The interview will take place in a quiet place away from the apprentice's everyday working environment. Apprentices will be informed of the location before the time of the assessment.

End-point interview

- 4 The apprentice will be asked to confirm their identity and the authenticity of their verbal evidence, at the start of the interview.
- 5 The apprentice will be asked a set of questions against each competency. Most of these questions will be 'behavioural' (i.e. asking what the apprentice has actually done), and so will require the apprentice to provide practical real-life examples of how they have applied the competencies in their everyday work. In providing these examples, apprentices need to be as specific and detailed as possible; they must provide sufficient detail of the context of the situation, i.e. what they were required to do, the actions they have taken and the results of these actions. A small number of questions will be 'situational' (i.e. asking how the apprentice would handle a particular situation); in these cases the apprentice just needs to outline the actions or steps they would take in the specific situation.
- 6 Apprentices are not required to provide tangible or documented evidence but should consider where this type of evidence would be more appropriate to provide sufficient and relevant evidence. For example, for the personal development and performance management competency it may be appropriate to bring a copy of their learning plan as supporting evidence. Apprentices need to be mindful of issues of confidentiality and data protection when providing real work examples.
- 7 Apprentices are advised to bring a pen and paper to the end-point interview so that they can make a note of the questions asked to help them with their responses.
- 8 The IEA will take notes of apprentices' responses during the interview, and the interview will be audio recorded to support assessment decisions and for verification purposes.
- 9 At the end of the interview with each apprentice, the IEA will review the notes made on the apprentice's responses against the proficiency levels descriptors (please see the *EPA Resource Pack*) and make a decision on whether the apprentice has demonstrated the competencies.

End-point interview	
Grading performance	The independent end-point assessor will use the competencies proficiency levels descriptors in the <i>EPA Resource Pack</i> to holistically judge the apprentice's level of performance in the end-point interview and assign a grade. The proficiency levels descriptors detail the standard of performance expected at three proficiency levels for each competency: • Band 1: describes an apprentice that is underperforming and has not met the standard expected • Band 2: describes an apprentice that performs mostly in line with job role competency expectations • Band 3: describes an apprentice that performs at or above the standard expected for the competency. No other sources of information will be used to make judgements about the quality and sufficiency of the apprentice's evidence. Grading decisions will be made after the assessment. Assigning a grade to the end-point interview After the interview, the end-point assessor will use the proficiency levels descriptors to assess the evidence provided by the apprentice for each competency and allocate a score (0, 1 or 2 for Band 1, Band 2 or Band 3 respectively) based on the highest band where the apprentice is judged to have met all the descriptors within the band. The scores for all five competencies will then be totalled to get an overall score for the interview up to a maximum of 10. To achieve a Pass grade, the apprentice must: • achieve a minimum total score of 8 (81%) • achieve at least a score of 1 (10%) from each competency area. To achieve a Distinction grade, the apprentice must: • achieve a minimum total score of 9 (90%).

Standards Assessed

The end-point interview assesses the following competencies and related outcomes from the Apprenticeship Standard.

Competencies	Related Apprenticeship Standard outcomes
Maintaining safety standards	1 Take personal responsibility for maintaining safety standards and achieving job objectives (S) 2 Current Health, Safety and Environment legislation and regulations applicable to work in the gas and power industries (K) 3 Have personal wellbeing and the safety of customers and others as a priority (B) 4 Current regulatory compliance, the recognition of different customer needs including vulnerability as defined by Office of Gas and Electricity Markets (OFGEM) and Smart Installation Codes of Practice (SMICoP) company rules, policies and procedures as defined by the employer (K)
Risk awareness and risk monitoring	1 Work with focus and clear purpose in all conditions and locations, covering business requirements and safely adapting work methods to reflect changes in the working environment. (S) 2 Be risk aware showing the desire to reduce risks through systematic monitoring and checking information and the strict compliance with appropriate rules & regulations (B) 3 Current Health, Safety and Environment legislation and regulations applicable to work in the gas and power industries (K)

Competencies	Related Apprenticeship Standard outcomes
Customer care and welfare	1 Work on customer premises/property showing appropriate care, respect whilst focusing on safety (S) 2 Current regulatory compliance, the recognition of different customer needs including vulnerability as defined by Office of Gas and Electricity Markets (OFGEM) and Smart Installation Codes of Practice (SMICoP) company rules, policies and procedures as defined by the employer (K) 3 Deliver a polite, courteous professional service to all customers and members of the public whilst safeguarding customer welfare and recognising vulnerability (B)
Communicating and working with others	1 Use a variety of appropriate communication methods to interact with customers and others to give/receive information accurately, in a timely and positive manner in order to deliver the best possible experience to customers. This will include practical advice and the benefits of using equipment (S) 2 Work effectively with people from different trades/disciplines, backgrounds and expertise to accomplish an activity safely, on time, providing confident challenge whilst meeting customer requirements (B)
Personal development and performance management	1 Take personal responsibility for maintaining safety standards and achieving job objectives (S) 2 To maintain and develop personal learning plans to continually develop knowledge & competence (B)

These are the Apprenticeship Standard outcomes that will be assessed in the end-point interview. Apprentices need to have a good understanding of the principles and practices underpinning these outcomes to be able to interpret the questions and respond appropriately during the end-point interview. Apprentices must be able to apply the outcomes in the context of their organisation and their own job role, and must be able to provide practical real-life examples to show how they have applied these in carrying out their job role.

6 Delivery of End-point Assessment

End-point assessment planning and scheduling

Employers and/or training providers must have an agreement in place to conduct EPAs with Pearson, and apprentices must be registered on the ACE360 system. Once the gateway evidence has been uploaded to ACE360, this will alert the IEA to review the evidence and start the planning and scheduling process.

The purpose of the EPA planning meeting is to share information with the IEA in order to support the assessment process and to agree a plan for the upcoming assessment activities for the apprentices. The IEA will agree a plan and schedule for each assessment activity. The end-point assessment planning meeting can be conducted remotely using appropriate technology.

All components of the end-point assessment must be completed within the time period specified in *Section 2: Summary of End-point Assessment*.

Reassessment

Reassessment, including both resit and retake, is permitted in agreement between Pearson and the employer. The timescale will be agreed on a case-by-case basis with Pearson. As part of that agreement, any reassessments must not provide an apprentice with an unfair advantage over others.

If an apprentice is not successful in achieving a Pass in one or more EPA components, the apprentice may request that the failed component(s) be resubmitted/retaken. The timescale for the retakes will be agreed on a case-by-case basis.

Apprentices can take up to three attempts to pass each component:

- For the observation, three attempts can be taken for each activity(ies)
- For the interview, three attempts can be taken for the whole activity.

For any retake, grades will be capped at a Pass, for the overall EPA.

Retakes must not be used to improve grades above a Pass. They must not provide an apprentice with an unfair advantage over others. Independent end-point assessors must not use formative comments in their feedback to apprentices, i.e. they should not detail how/where evidence will lead to performance criteria being met.

Apprentices should only be recommended for the EPA, by their employer, when the employer is confident that the apprentice is ready and can succeed in the EPA.

A remediation process should be in place to support any apprentice who does not meet the conditions of the EPA.

For additional EPA-specific requirements, refer to the assessment plan in *Annexe B*.

Booking reassessment

Reassessment is requested using the ACE360 system. Once the request is confirmed, the allocated IEA will liaise with the key contact to start the scheduling process.

Appeals

The *EPA enquiries and appeals process* is available on the Pearson website and ACE Knowledge base. This has full information about what will happen if an apprentice or centre wishes to query the result of an assessment.

7 Access to assessment

Access to assessment for apprentices with disabilities or specific needs

Equality and fairness are central to our work. Our *Equality, diversity and inclusion policy* requires all apprentices to have equal opportunity to access our assessments, and that our EPAs are awarded in a way that is fair to every apprentice.

We are committed to making sure that:

- apprentices with a protected characteristic (as defined by the Equality Act 2010) are not, when they are taking one of our assessments, disadvantaged in comparison to apprentices who do not share that characteristic
- all apprentices achieve the recognition they deserve from their EPA and that this achievement can be compared fairly to the achievement of their peers.

For apprentices with disabilities and specific needs, the assessment of their potential to achieve the EPA must identify, where appropriate, the support that will be made available to them during delivery and assessment.

Centres must deliver the EPA in accordance with current equality legislation. For full details of the Equality Act 2010, please [visit www.legislation.gov.uk](http://www.legislation.gov.uk)

Reasonable adjustments

A reasonable adjustment relates to an adjustment that helps to reduce the effect of a disability or a physical or mental health condition, which may place the apprentice at a disadvantage compared to others. If an apprentice requires any adjustment to their assessment then this must be recorded within the ACE360 system to support the discussion at the EPA planning meeting.

Pearson will apply the *Reasonable adjustment matrix* published by the Institute for Apprenticeships and Technical Education (IfATE).

8 Further information

We have a dedicated account support team, across the UK, to give you more personalised support and advice. To contact your account specialist:

Email: wblcustomerservices@pearson.com
or use the self-help portal to find help or ask a question
qualifications.pearson.com/en/contact-us/wbl.html

Telephone: 0844 576 0045

Visit our 'Contact us' pages for details of other contacts:

- Edexcel, BTEC and Pearson Work Based Learning contact details:
qualifications.pearson.com/en/support/contact-us.html
- books, software and online resources for UK schools and colleges:
www.pearsonschoolsandfecolleges.co.uk

Documents that further support the information in this specification:

- *EPA Service Guide* (Pearson, this is made available to approved centres).

9 Glossary

Apprenticeship Standard	A short document prepared by a Trailblazer group that sets out concisely the requirements to be competent in a job role. All apprenticeship standards are published on www.gov.uk .
Assessment Plan	This document is also prepared by a Trailblazer group and sets out the requirements that end-point assessment organisations must follow when assessing the EPA.
Competence	The minimum knowledge, skills and behaviours (KSBs) required to perform a job role effectively.
Components	The different assessments that form the overarching EPA. Most EPAs will typically have between two and four components that assess set parts of the overarching standard.
End-point Assessment	A synoptic assessment of the knowledge, skills and behaviours outlined in the apprenticeship standard that have been learned throughout the apprenticeship programme. The apprentice has to pass the EPA to be successful in their apprenticeship programme and demonstrate competence.
Gateway	The point at which the apprentice is identified as being competent by their employer and therefore ready to plan to take their end-point assessment. There are requirements for maths and English to enter gateway and there may be other requirements, such as mandatory qualifications, that vary depending on the apprenticeship standard.
Independent End-point Assessor	The assessor appointed by Pearson to work with the apprentice and employer to plan their EPA during gateway and then assess the apprentice in the final EPA.
On-programme	The first and main part of the apprenticeship when the apprentice is developing their KSBs towards competence. 20% of on-programme is required to be off-the-job training.
Retake	An apprentice requires further learning after failing a component before they can be re-entered for it.
Resit	An apprentice fails a component but is able to be re-entered immediately without any further learning.
Trailblazer group	A group of employers who have worked together to agree the apprenticeship standard and write the associated assessment plan.

Institute for
Apprenticeships and
Technical Education
(IfATE)

IfATE is a non-departmental public body that oversees the development, approval and publication of apprenticeship standards and assessment plans. In addition, the institute is responsible for technical education, including T Levels.

Annexe A: Gateway Declaration Form

Apprentice name:		
On-programme start date:		
Gateway date:		
Evidence	Y/N	Comments (if applicable)
English and maths certificates (L1 or above)		
industry registration on the Gas Safe® Register		
Industry registration on the Meter Operation Code of Practice Agreement (MOCOPA®)		

Employer declaration

I confirm that the apprentice has:

- achieved the occupational knowledge, skills and behaviours required to achieve the apprenticeship
- achieved the prerequisites listed above and is ready for their end-point assessment.

Name: _____ Date: _____

Signature: _____

Apprentice declaration

I confirm the gateway evidence is my own and I agree to be put forward for my EPA.

Signature: _____ Date: _____

Annexe B: Assessment Plan

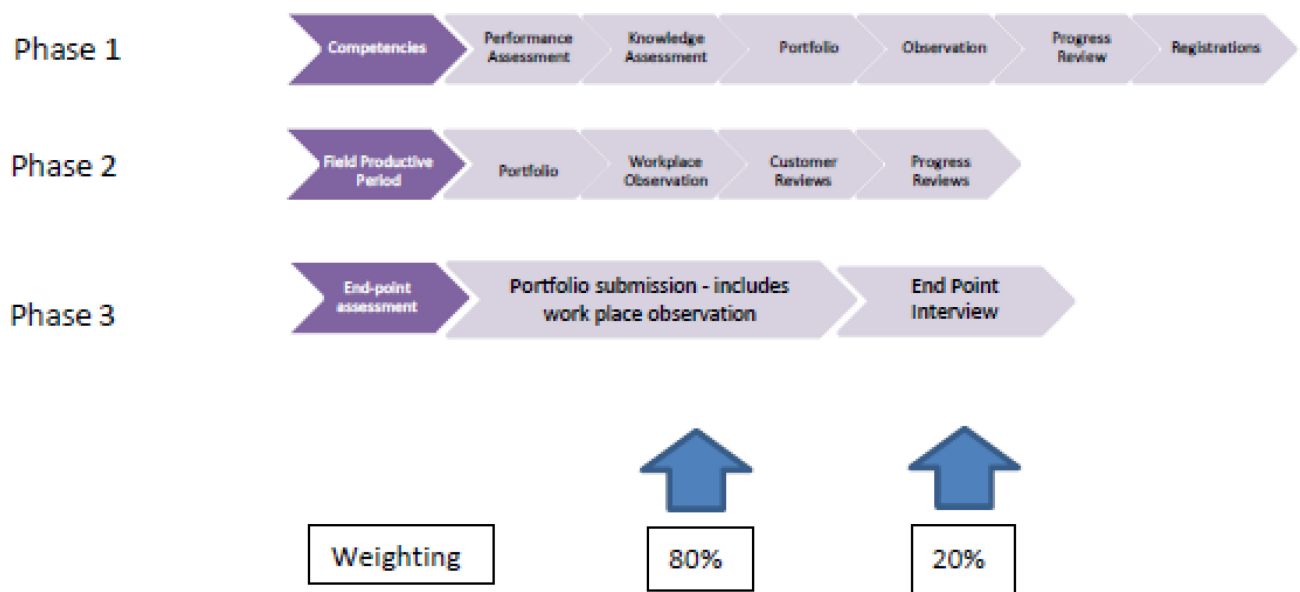
Overview

This assessment plan is to accompany the Dual Fuel Smart Meter Installer (Electricity and Gas) Level 2 standard.

Dual Fuel Smart Meter Installers provide vital skills for the metering industry and form a key part of the Smart Government mandate to reduce carbon emissions and improve energy management. This occupation has responsibility for the safe installation, exchange, and commissioning, decommissioning and ongoing maintenance of smart metering systems. This includes the explanation of how these work as well as giving up to date energy efficiency advice to the customer.

Apprentices must demonstrate all of the skills, knowledge and behaviours in the standard. This plan outlines the end point assessment that apprentices must successfully complete to achieve their apprenticeship. This apprenticeship will typically be 14 months, with the end point assessment being taken in the final 3 months. Apprentices will be awarded a 'fail', 'pass' or 'distinction' based on their performance in the end point assessment. The employer development group has also developed a suggested training and on programme assessment plan which employers and training providers can use to develop skills, knowledge and behaviours. This is summarised below.

Suggested training/on programme assessment timescales and methods prior to the End Point Assessment



Suggested training and On Programme Assessment Plan

The suggested training and assessment plan of the apprenticeship can be divided into two distinct phases:

1 Competencies (typically months 0-6)

The aim of this phase is to ensure apprentices are trained and assessed to gain the core competency measures to achieve Gas Safe registration, Meter Operators Code of Practice (MOCOPA) and meet with the Smart Metering Installation Codes of Practice (SMICoP), including customer service, energy efficiency and managing vulnerable customers. These competences are independently assessed and awarded and defined within the following three areas:

Electrical: Knowledge and Skills Assessment activities may consist of:
• Meter installation and matters of electrical safety. • Knowledge evidence generated with industry aligned questions. • On the job mentoring and experience, assessed evidence to inform the portfolio build. • Assessed evidence on practical and assessments activities from simulated and real world environment. • Assessment on meter installation and matters of electrical safety in accordance with MOCOPA. • Certification: Industry recognised registration and ability to progress to solo work in electrical installation elements.

Gas: Knowledge and Skills Assessment activities may consist of:
• Meter installation and Matters of Gas Safety (MoGS). • Knowledge evidence generated with industry aligned (fit for scope) questions. • On the job mentoring and experience, assessed evidence to inform the portfolio. • Assessed evidence on practical and assessment activities from simulation and real world environment. • Assessment on meter installation and matters of gas safety in accordance with current MoGS criteria. • Industry recognised Gas Safe registration and ability to progress to solo work in gas.

Smart Communications: Knowledge and Skills Assessment activities may consist of:

- | |
|---|
| <ul style="list-style-type: none">• Smart meter installation, matters of gas and electrical safety with legislative compliance.• Knowledge evidence generated with industry and legislation aligned questions.• On the job mentoring and experience assessed evidence to form portfolio build.• Evidence on practical and assessment activities from simulated and real world environment.• Assessment on full smart meter installation, communications systems, binding processes, displays and matters of customer education, interactions and best advice within legislative guidelines. |
|---|

Registration on MOCOPA and the Gas Safe Register should be required as a pre-requisite to advance to the next phase and must be achieved prior to entering the end point assessment stage.

2. Field productive period (typically 6-9 months)

The aim of this phase is to ensure apprentices enter a field productive period as a solo worker. It is suggested that this period is delivered in the following three areas:

Support and Monitoring

- | |
|--|
| <ul style="list-style-type: none">• Safety Assurance and compliance measures of business/industry requirements. Progression based on achieving set parameters before introduction of further targets.• Line Manager or Safety Assurance signs off for solo working. |
|--|

Solo Working

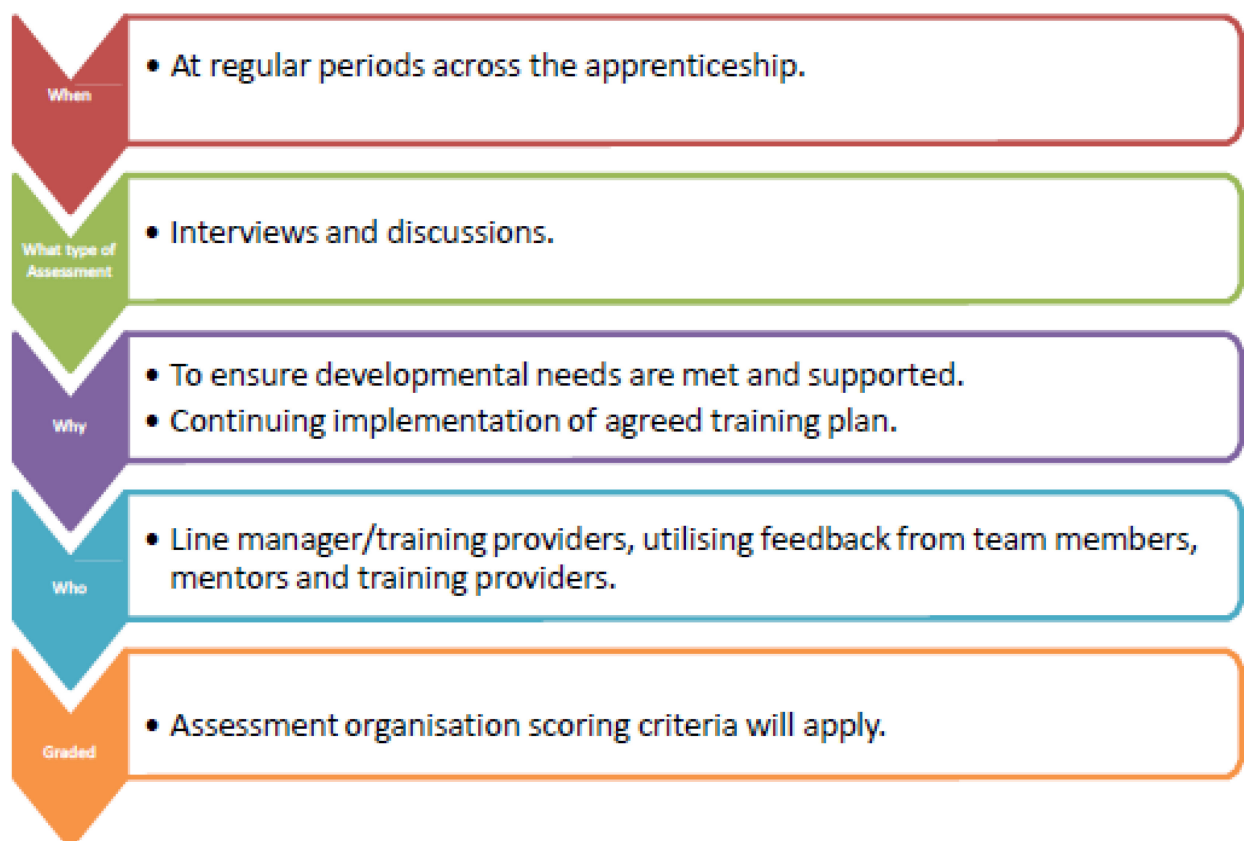
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| <ul style="list-style-type: none">• Agreed performance indicators and suitable milestones completion dates.• Post completion and work in progress assurance elements still considered but now on experiential learning progress. |
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Performance measurement evaluated for continual development in key areas:

- Compliance.
- Productivity.
- Completion against recall rate.
- Customer satisfaction indicators.
- Displayed behaviours.
- Progression to final stage.

Suggested training/development review meetings

It is suggested that training and assessment is agreed and documented in a personal training/development plan. Regular review meetings should be programmed to ensure training/development needs are met and supported. This could include additional training, or ways of accelerating learning, as required by the apprentice. This will typically be an interview with their line manager and training provider. Feedback from mentors and team members may be included to contribute towards individual personalised training/development plans. A final review by the apprentice's employer must be completed in the final three months and included in the apprentice's portfolio.



Suggested observation of Behaviours and Skills for Smart Meter Installers

Apprentices work in an environment where their safety, the safety of those around them and the equipment they work on are of paramount importance. Therefore, observation of behaviours and approach, including feedback from customers are an integral and developing part of the apprentice's progression throughout the apprenticeship and should be assessed using existing supervisory practice and as part of the on-programme assessment. A final observation will take place during the last three months of the apprenticeship which will form part of the end point assessment – see below.

End point assessment (last 3 months)

Successful achievement of the end point assessment will lead to final certification of the apprenticeship and demonstrate that the apprentice is a fully authorised competent worker who can work safely and confidently to install, maintain and/or repair a range of systems. It uses the following assessment tools:

- Portfolio, including a work observation record and final review
- End-point interview.

The apprentice's employer will identify when the apprentice is ready to undertake the end-point assessment and make the necessary arrangements with an assessment organisation for the approval of technical experts to undertake the assessments and schedule the final observation. The end point assessment may be completed over a three month period to accommodate work scheduling and cost effective planning of resources. An apprentice should not be recommended for end point assessment until they have had extensive experience of effectively and efficiently undertaking the range of tasks the assessments require. Although the apprentice should only be recommended for the end point assessment when they are ready; a remediation process should be in place to support any candidate who fails to meet the conditions of the end point assessment. Further details on each assessment tool are provided below.

Portfolio

The apprentice will compile a portfolio during their apprenticeship. It will include evidence of experience gained in the workplace and simulated environments, collectively demonstrating competence against all aspects of the apprenticeship standard – skills, knowledge and behaviours. It may for example include work products, witness statements and reflective journals, together with a final progress review and final observation. The portfolio will include a gas safe registration certificate and MOCOPA.

The portfolio will be marked by a technical expert, using standardised assessment criteria and documentation; recording coverage against the standard, highlighting any performance above or below and awarding a preliminary mark out of 100. Further information on the work place observation is provided below. The portfolio will be assessed before the end point interview.

Work Observation

An observation completed during the end-point assessment period will be included in the portfolio. Apprentices will be observed carrying out the following activities: 'installation,' 'exchange', 'commissioning' and 'decommission' of smart metering systems, associated equipment and communication systems in accordance with industry standards. The observation will be undertaken by the apprentice's line manager/trainer, safety or quality assurance engineer to confirm the apprentice's approach and behaviours while applying their skills and knowledge in a live working situation. During or after the observation the apprentice may be asked questions to demonstrate knowledge and understanding relating to the activity. Standardised recording documentation provided by the assessment organisation will be used to record the observation.

Smart Meter Installers will need to demonstrate that they can:

- carry out a thorough and rigorous risk assessment to ensure safety of customer, self and property on arrival, during install/exchange, commission/decommission and upon exit
- work safely and efficiently in line with current Health, Safety and Environmental legislation
- prepare and sequence equipment and tasks in the order prescribed in relevant operational standards or according to a specific regulation or set of rules
- demonstrate a knowledge of gas and electrical testing and assessment procedures needed to establish the condition of the equipment and installation and the actions needed as a result
- use a variety of appropriate communication methods to interact with customers and others to give/receive information accurately, in a timely and positive manner in order to deliver the best possible experience to customers. This will include practical advice and the benefits of using the equipment
- deliver polite, courteous professional service to all customers and members of the public whilst safeguarding customer welfare and recognising vulnerability.

End Point Interview

An interview will take place at the end of the apprenticeship. This interview will allow a technical expert to question the apprentice in relation to their skills, knowledge and behaviours, based on their portfolio evidence, including workplace observation. Questions will be standardised, so that essential knowledge such as current health and safety legislations and regulations can be demonstrated consistently by all apprentices. The interview will typically last one hour. The end point interview will be marked by a technical expert, using standardised assessment criteria and documentation; recording coverage against the standard, highlighting any performance above or below and awarding a preliminary mark out of 100.

Based on the portfolio and the end point interview scores, the technical expert will then award a preliminary fail, pass or distinction grade as per the grading matrix described below and provide a short written justification for the grading decision.

Technical experts will be nominated by the apprentice's employer; they may come from within their own organisation or brought in if required from other employers or an assessment organisation. They will not have directly worked with the apprentice or participated in their learning and training. Technical experts must be able to demonstrate an appropriate level of competence i.e. training and experience to undertake the role and/or hold or be working towards an assessor qualification. They must be 'approved' by the assessment organisation for the purposes of conducting the end-point assessment. This sector is sensitive from a safety and regulatory perspective. This means decisions on competence have implications not only for individual safety, but also reputation and litigation. As a result judgements of competence and moderation are required to be by necessity reliable, rigorous and robust.

Employer Quality Assurance

A further technical expert will be nominated by the apprentice's employer; they may come from within their own organisation or brought in if required; they must meet the same criteria as the first technical expert in terms of knowledge, experience, qualifications and independence. They will review the grading decisions awarded, examining evidence where required on a 'risk based' sampling basis. The risk and thus sampling will be dependent on the level of experience of the technical expert and results of previous employer quality assurance checks. Thus it can be expected that the decisions of 'new' technical experts will receive 100% checks, reducing to a minimum of 20% for experienced technical experts where there have been no disputed grading decisions. If there is a difference of opinion in the grading decisions, a discussion will be held during the employer's internal standardisation meeting and an agreement reached. A written justification for the grading will then be submitted for assessment organisation quality assurance.

Assessment Organisation Quality Assurance

An independent assessment organisation will moderate end-point assessments on a 'risk based' sampling basis. The final grade will not be confirmed until after moderation. There will be close scrutiny and audit to ensure the assessment organisation maintains confidence in the rigour and robustness of the employer's assessment decisions. Moderation will be based upon level of risk. Sampling will be dependent upon the level of experience of the employer's quality assurance technical expert together with the consistency of the results from previous moderation outcomes. Thus it can be expected that decisions by 'new' employer quality assurance technical experts will receive 100% checks, reducing to a minimum 20% for experienced employer quality assurance technical experts where there have been no disputed grading decisions.

Grading

Grading will be standardised to ensure consistency across the sector. The apprenticeship will be graded fail, pass and distinction. The final grade will be determined by collective performance in the end-point assessment's two assessment tools. The weighting of the apprenticeship grading is 80% on the portfolio and 20% to the final competency interview. A points system will determine if the apprentice has achieved a fail, pass or distinction and is described below:

Pass – Minimum 2 Points (1 Point Portfolio + 1 Point Competency Interview) and maximum 7 points

Distinction – Minimum 8 Points and maximum 10 Points

Distinction minimum combinations:

- Portfolio 6 Points + 2 Points End Point Interview = 8 Points
- Portfolio 7 points + 1 Points End Point Interview = 8 Points

Portfolio %	Points	Grade	End Point Interview %	Points	Grade
<64	0	Fail	<80	0	Fail
65	1	Pass	81-89	1	Pass
66-69	2	Pass	90-100	2	Distinction
70-74	3	Pass			
75-79	4	Pass			
80-84	5	Pass			
84-89	6	Distinction			
90-94	7	Distinction			
95-100	8	Distinction			

To achieve a 'pass' the apprentice will be demonstrating competence across the standard. To achieve 'distinction' the apprentice will be demonstrating performance over and above the standard. The following table outlines the scoring criteria that must be applied; detailed guidance will be developed by the assessment organisations.

End Point Element	Fail Criteria	Pass Criteria	Distinction Criteria
Portfolio	Fail <65% - Portfolio lacks sufficient evidence and structure to demonstrate knowledge, skills and behaviours through the work observation, progress reviews across the programme, compliance, productivity, completion against recall rate, customer satisfaction indicators - Portfolio records a fail in gas safe registration - Portfolio records a fail in MOCOPA - Poor application of knowledge in the work place - Poor critical reasoning skills displayed on practical tasks - Negative team working and interpersonal skills - Subject to a company disciplinary procedure	Pass (65-84) - Portfolio well-structured and contains sufficient and robust evidence to demonstrate knowledge, skills and behaviours across the standard through work observation, progress reviews across the programme, compliance, productivity, completion against recall rate, customer satisfaction indicators - Portfolio records a pass in gas safe registration - Portfolio records a pass in MOCOPA - Good application of knowledge in the work place - Good critical reasoning skills displayed on practical tasks - Good team working and interpersonal skills and ability to respect the opinion of others	Distinction (85-100) - The portfolio demonstrates evidence which is over and above the requirements of the standard through work observation, progress reviews across the programme, compliance, productivity, completion against recall rate, customer satisfaction indicators - Portfolio records a pass in gas safe registration - Portfolio records a pass in MOCOPA - Outstanding application of knowledge in the work place - High level of critical reasoning skills displayed on practical tasks - Outstanding team and interpersonal skills and the ability to respect the opinion of others

End point Interview	- Poor reasoning in dealing with exceptions to smart installation - Poor application of knowledge to different smart installation scenarios	- Good critical reasoning in dealing with exceptions to smart installation - Good application of knowledge to different smart installation scenarios	- High level of critical reasoning in dealing with exceptions to smart installation - Outstanding application of knowledge to different smart installation scenarios
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Assessment organisations

The model involves greater employer leadership in the apprenticeship development, implementation and operation, whilst maintaining a high level of scrutiny and assurance within a quality framework. An assessment organisation's primary role will be to ensure that all decisions are consistent, credible and undertaken with integrity, it will:

- provide documentation and guidance in relation to the requirements of the apprenticeship, portfolio, workplace observation, marking of the portfolio, internal and external quality assurance
- monitor technical experts and provide remedial support to ensure consistency and reliability of judgements on a risk based basis, for example, those newly qualified
- approve technical experts for the purposes of assessing the portfolio and the competency interview, employer and assessment organisation quality assurance based on checking knowledge, experience, assessment qualifications and independence
- provide training for technical experts in terms of the requirements of the apprenticeship and operation and marking of the assessment tools and grading
- hold regular standardisation events for technical experts and panel members to ensure consistent application of the guidance to ensure consistency of judgements across a wide geographic spread and different levels of experience
- ensure assessment organisation staff are trained in assessment and quality assurance processes and undertake regular continuing professional development
- develop and manage a complaints and appeals procedure.

All assessment organisations must be on the Skills Funding Agency's Register of Apprentice Assessment Organisations (RoAAO). Assessment organisations must work collaboratively to ensure standardisation in delivery of assessment services for the standard, for example by holding cross organisational standardisation events.

External Quality Assurance

External quality assurance for this apprenticeship standard will be managed by the Institute for Apprenticeships.

Implementation

Affordability

The initial, indicative end point assessment costs are expected to be in the region of £1870, approximately 11 percent of the total external apprenticeship costs. The development work required will allow the best market solutions to emerge which satisfy employer requirements within the developing co-investment apprenticeship model. The standardised approach will ensure affordability.

Manageability/ Feasibility

While we envisage a three year 'accreditation' cycle (extending to five if no change looks to be required), we also acknowledge that we need to be prepared to monitor and evaluate early adopters reactions and performance to ensure manageability/feasibility. It is expected that there would be in the region of 956 new starts initially, rising to approximately 1519 starts annually.

To help with manageability, and afforded by the existence of knowledge specifications, a number of existing qualifications and training programmes can be mapped to the Smart Installer requirements and approved as able to deliver the knowledge requirements for this Apprenticeship. This also allows knowledge to be delivered via knowledge 'solutions' (including training programmes) rather than just qualifications.

Employers have internal technical expert capability and links to external partners capable of delivering the required number of apprentices. Employers are expecting to increase the numbers of apprentices and are looking at ways to stagger intakes and make effective use of their internal resources. Employers are planning to build their internal capacity and capability for assessment. Employers across the sector work collaboratively to share best practice and training and assessment resources.

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