



ENERGY &  
UTILITY SKILLS

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

## Specification

QAN: 610/0235/5

# Specification for

## EUIAS Level 2 End-point Assessment for Dual Fuel Smart Meter Installer (Electricity and Gas)

**QAN: 610/0235/5**

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## Updates to this specification

Since the first publication of the EUIAS SMART Specification, the following updates have been made.

Version	Date first published	Section updated	Page(s)
V2.0	September 2023	New template	All
V1.0	2022	First published	All

## Section 1 – At a Glance EPA Summary

Qualification name	EUIAS Level 2 End-point Assessment for Dual Fuel Smart Meter Installer
Ofqual qualification number	610/0235/5
Standard reference	ST0158
Assessment plan	AP02
Standard title	Dual Fuel Smart Meter Installer
Level	2
Gateway pre-requisites submitted to EUIAS	<p>Apprentice has:</p> <ul style="list-style-type: none"> <li>• registration on Meters Operators Code of Practice Agreement (MOCOPA) and the Gas Safe® Register</li> <li>• compiled a portfolio to submit to EUIAS, which must include: <ul style="list-style-type: none"> <li>○ portfolio mapping document</li> <li>○ work observation record</li> <li>○ final review (typically carried out in the last month of the on-programme)</li> </ul> </li> <li>• achieved English and maths qualifications at Level 1 in line with the apprenticeship funding rules</li> </ul>
On-programme duration	Typically 14 months
Gateway readiness	Apprentice has met all Gateway pre-requisites. Employer completes, signs and submits Gateway Eligibility Form (GER) form to EUIAS. See Appendix B, Dual Fuel Smart Meter Installer Supporting Documents 'Gateway Eligibility Form.'

End-point assessment duration	Typically 3 months after the Gateway
End-point assessment methods and their order	<ul style="list-style-type: none"> <li>• Portfolio, including a workplace observation, additional portfolio evidence and final review</li> <li>• End-point Interview [based on the review of the apprentice's portfolio]</li> </ul> <p>The assessments are to be taken in the following order:</p> <ol style="list-style-type: none"> <li>1. Portfolio</li> <li>2. End-point interview</li> </ol>
End-point assessment methods and component grading	<ul style="list-style-type: none"> <li>• Portfolio (Fail, Pass or Distinction)</li> <li>• End-point Interview (Fail, Pass or Distinction)</li> </ul>
Overall Grading	Fail; Pass or Distinction
Certification	EUIAS request Apprenticeship completion certificates from the ESFA
Glossary of Terms	Appendix A, Dual Fuel Smart Meter Installer Supporting Documents

## Objective

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

Once the apprentice has completed the SMART end-point assessment requirements successfully and has been certified they could take on the following job role: Dual Fuel Smart Meter Installer (Electricity and Gas).

## Professional recognition

In achieving a pass in this apprenticeship, the successful apprentice will be eligible to apply for membership with the Institution of Gas Engineers and Managers (IGEM) and the Institution of Engineering and Technology (IET).

## Gateway readiness

The employer must be satisfied that the apprentice is consistently working at, or above, the level of the occupational standard. Gateway pre-requisites are listed in the summary table above.

## Recognition of prior learning (RPL)

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

Please refer to the EUIAS RPL and RPA policy at [www.euias.co.uk/end-point-assessment/policies-and-fees](http://www.euias.co.uk/end-point-assessment/policies-and-fees)

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

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

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

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

## Section 2: End-point Assessment Components

### Component 1: Portfolio

#### Overview

The portfolio comprises:

- Workplace observation record (accounts for 20% of portfolio score)
- Additional portfolio evidence (accounts for 80% of portfolio score).

The portfolio elements can be undertaken in any order.

#### Portfolio: Workplace observation

The workplace observation takes place on a live job within a customer's premises. It is the apprentice's line manager/trainer, safety or quality assurance engineer who must be registered and approved by EUIAS. During or after the observation the apprentice may be asked questions to demonstrate knowledge and understanding relating to the activity.

Apprentice's undertaking the workplace observation must complete a range of works on a dual fuel meter exchange. The scope of the exchange must include:

- decommission and removal of retiring meter systems
- installation and commission of new Smart Meter System including gas and electric meters
- maintenance of existing metering equipment – isolator blocks, cables, fuse and fuse carrier, meter regulator, meter bracket

#### Portfolio: Additional portfolio evidence

The additional portfolio evidence must include the following evidence sources:

- Final progress review, typically carried out in the last month of the program
- Gas Safe® registration certificate
- Meter Operators Code of Practice Agreement (MOCOPA) registration certificate

These pieces of evidence are not graded but are requirements of the assessment plan.

The portfolio must also contain evidence that has been clearly mapped by the apprentice to six groups of criteria:

1. Maintaining Safety Standards
2. Risk Awareness and Risk Monitoring
3. Customer Care and Welfare
4. Communicating and Working with Others
5. Effective Completion of Works
6. Personal and Team Development

This evidence will be used by the employer technical expert to assess the apprentice during the interview. Examples of suitable evidence include:

- Work products
- Witness statements
- Reflective journals
- Workplace documentation/records, for example job task sheets/job cards/time sheets
- Maintenance/service records
- Annotated photographs

This is not a definitive list; other evidence sources are allowed and must be mapped to the relevant KSBs. Witness statements should focus on direct observation of evidence rather than opinions.

A statement from the employer must confirm that the portfolio of evidence submitted to EUIAS at the gateway point is valid and attributable to the apprentice. The portfolio must be submitted to the EUIAS at the gateway point.

The apprentice must use the document in Appendix F, Dual Fuel Smart Meter Installer Supporting Documents 'Portfolio Mapping Document'.



## Step-by-Step Guide

The table below provides a step-by-step guide on the portfolio and its assessment:

<p><b>Assessors</b></p>	<p>The work observation will be undertaken by the apprentice's line manager/trainer, safety or quality assurance engineer.</p> <p>The Portfolio will be marked by a technical expert, appointed by EUIAS. The technical expert may come from the employer or from EUIAS. They will be standardised by EUIAS.</p>
<p><b>Practical structure: Workplace observation</b></p>	<p>The time allowed will be 3 hours. This is based on the comparable time that an industry competent worker would take to achieve successful task(s) completion.</p> <p>See pages 11-25 for the full list of KSBs to be covered in the workplace observation.</p> <p>Apprentices are assessed to confirm that they can apply their knowledge, skills, behaviours and role specific skills in an integrated way with minimum supervision.</p> <ul style="list-style-type: none"> <li>• 1 apprentice may be assessed at one time</li> </ul> <p>The observation will be:</p> <ul style="list-style-type: none"> <li>• managed and written up by the apprentice's line manager/trainer, safety or quality assurance engineer</li> <li>• given a provisional mark out of 100</li> <li>• the provisional mark cannot be shared until it has been quality assured by EUIAS</li> </ul> <p>The manager/trainer will ask standardised open questions, with follow up questions as appropriate, to confirm their understanding of the rationale for actions taken and the choices made to complete the tasks.</p>
<p><b>Where will the assessment take place?</b></p>	<p>Workplace Observation takes place:</p> <ul style="list-style-type: none"> <li>• on a live job</li> <li>• within a customer's premises</li> </ul>

<p>What are the tasks that will be covered?</p>	<p>The assessment task must allow the apprentice to undertake the activities. For further details refer to ‘Knowledge, Skills and Behaviours (KSBs) Coverage’ below pages 11-25.</p>
<p>Who sets the task(s)?</p>	<p>Employer or training provider set the task based on the guidance provided in this Specification. Centres unfamiliar with the SMART standard should use the EUIAS Practical Observation Review Service to review proposed practical tasks before end-point assessment takes place. The task must provide apprentices with the opportunity to achieve all the KSBs assessed in the practical observation.</p> <p>EUIAS will work with the employer and/or training provider to review the practical task briefs/job task sheets which are based on the activities described above.</p> <p>The apprentice must be provided with both written and verbal instructions by the technical expert on the tasks.</p>
<p>What resources can the apprentice use?</p>	<p>Equipment and resources needed for the observation must be:</p> <ul style="list-style-type: none"> <li>• provided by the employer or training provider</li> <li>• a suitable premises</li> <li>• the plant, machinery, equipment and PPE required for the job</li> <li>• in good and safe working condition</li> </ul> <p>Relevant work instructions/manuals must be available in hard copy or electronically.</p>
<p>How many questions will the apprentice be asked?</p>	<p>The manager/trainer:</p> <ul style="list-style-type: none"> <li>• will ask standardised open questions to assess the related underpinning knowledge. There are no stipulated number of questions that will be asked</li> <li>• may ask follow-up questions in order to seek clarification</li> </ul>
<p>What will the questions focus on?</p>	<p>Underpinning knowledge and/or skills and behaviours where an opportunity to observe them has not occurred.</p>
<p>Grading</p>	<p>Fail, Pass or Distinction.</p>

### Portfolio Knowledge, Skills and Behaviours (KSBs) coverage

All aspects of the Standard are assessed within the portfolio which includes the work observation and additional portfolio evidence.

The portfolio covers:

Core Knowledge	Amplification and Guidance (where required)
<p><b>K1</b> Current Health, Safety and Environmental legislation and regulations applicable to work in the gas and power industries</p>	<ul style="list-style-type: none"> <li>• Health and Safety at Work Act 1974</li> <li>• MOCOPA (DCP 044)</li> <li>• SMICop v7.2</li> <li>• Gas Safety (Installation and Use) Regulations 1998</li> <li>• Electricity at Work Regulations 1989</li> <li>• Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013 (RIDDOR)</li> <li>• Company / Employer Operating Procedures</li> <li>• Control of Substances Hazardous to Health Regulations 2002 (COSHH)</li> <li>• The Management of Health and Safety at Work Regulations 1999</li> <li>• Provision and Use of Work Equipment Regulations (PUWER)</li> <li>• IG/UP/1B</li> <li>• The Environment Act</li> <li>• Work at Height Regulations 2005</li> </ul>

Core Knowledge	Amplification and Guidance (where required)
<p><b>K2</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</p>	<p>Description of tests and assessments, how to perform these tests / assessments, and the tools and equipment used for gas and electric meter installations / exchanges, i.e.:</p> <ul style="list-style-type: none"> <li>• Visual checks of meter installation</li> <li>• Extraneous metal / polarity / voltage tests</li> <li>• Safe isolation / prove dead</li> <li>• Safety Shut Off Valve (SSOV) check on lid; safety checks – open ports are sealed / bunged</li> <li>• Purging procedure</li> <li>• Appliance and meter installation - visual and operational checks</li> <li>• Tightness test, working / standing pressure testing</li> <li>• 2<sup>nd</sup> Prove-Use-Prove on electrical test equipment</li> <li>• 3<sup>rd</sup> Prove- Use-Prove on voltage tester and test lamps</li> <li>• Test lamps – confirm live supply to inlet / dead at outlet of cut-out, and dead across meter terminals 1 - 4</li> <li>• Extraneous metal checks - using a voltage tester</li> <li>• Voltage detection checks – top and bottom of fuse carrier; voltage tester – check each side of cut-out; voltage readings across meter terminals; volt stick checks</li> </ul>

Core Knowledge	Amplification and Guidance (where required)
	<ul style="list-style-type: none"> <li>• Recognition of faults and other situations where gas and electric meters cannot be installed or exchanged, and the actions to be taken where these circumstances arise</li> <li>• Awareness of failure conditions of tests and assessments and knowledge of the actions to take as next steps where these circumstances arise</li> <li>• Microgeneration and back feed</li> <li>• Types of earthing systems</li> <li>• Ventilation and adventitious ventilation</li> <li>• Ignition and flame picture checks</li> </ul>
<p><b>K3</b> Gas and electrical theories and procedures involved in the practical application of installation, exchange, commission, decommission and maintenance of Smart metering systems and associated equipment and communication systems</p>	<ul style="list-style-type: none"> <li>• Tools and safety equipment used throughout all activities</li> <li>• Voltage and polarity</li> <li>• Relationship between current, fuse rating and cable sizing</li> <li>• Safe isolation / prove dead</li> <li>• Properties of gas and combustion / flame picture</li> <li>• Flueing / chimneys / ventilation</li> <li>• Signs of spillage and actions to take when spillage is found</li> <li>• Microgeneration and the effect on meter installations</li> </ul>

Core Knowledge	Amplification and Guidance (where required)
	<ul style="list-style-type: none"> <li>• Installation and commissioning procedures for both gas and electric meters and the associated Smart Communications system</li> <li>• Tampering and its effects</li> <li>• Pressure and gas flow</li> <li>• Prove-Use-Prove (P-U-P) process for test equipment on each usage</li> <li>• Test results / readings</li> <li>• Condition of fuse; cable checks correctly sized; fuse rating</li> <li>• Ignition and flame picture checked including hotplate, grill and oven burners</li> <li>• Terminal guard requirements</li> <li>• Inset live flue effect fire: Spillage (no signs on and around fire); flue checked throughout its length; termination confirmed; ventilation requirements</li> <li>• Stability chain present</li> <li>• Coal replacement checks</li> </ul>
<p><b>K4</b> Relevant electrical/mechanical principles and how they are applied in work processes and procedures</p>	<ul style="list-style-type: none"> <li>• Selection, use and correct application of tools and equipment</li> <li>• Correct Personal Protective Equipment (PPE)</li> <li>• Cable jointing and securing methods</li> </ul>

Core Knowledge	Amplification and Guidance (where required)
	<ul style="list-style-type: none"> <li>• Fuse rating and selection; fuse pull – supporting fuse carrier and shroud inserted; conditions of fuse and check cables are correctly sized, relative to fuse rating</li> <li>• Pipework – screwed and soldered joints</li> <li>• Checking safe operation of controls and valves, i.e., Safety Shut-Off Valve</li> <li>• Understand the operating parameters of any connected equipment and an explanation of how such equipment works</li> <li>• Condition of existing meter installation</li> <li>• Installation of meter trails</li> <li>• Earthing systems</li> <li>• Correctly size cables</li> <li>• Polarity – socket tester used, actions to take if socket test result if faulty</li> </ul>
<p><b>K5</b> Up to date knowledge of energy efficiency principles to be able to provide advice and guidance to the customer</p>	<ul style="list-style-type: none"> <li>• Energy efficiency messaging tailored to individual customer needs and non-generic; energy efficiency savings must never be overstated; energy efficiency messaging should be clear, simple and specific</li> <li>• Means of access (hard-copy or online service,) to current energy efficiency advice must always be provided</li> </ul>

Core Knowledge	Amplification and Guidance (where required)
<p><b>K6</b> Knowledge of Smart metering systems to be able to discuss and advise the customer</p>	<ul style="list-style-type: none"> <li>• The Smart meter system is explained to the customer in a clear and accurate manner</li> <li>• The explanation will include what information is available from the Smart meter system, how this information can be accessed, and how to use the In-Home-Display (IHD)</li> <li>• The Smart meter system demonstration will take account of any customer vulnerability, disability, or impairment and communication of information is at an appropriate level so that the consumer fully understands the principles involved</li> </ul>
<p><b>K7</b> 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</p>	<p>Has a good understanding of the strategy for safeguarding vulnerable persons and can define what constitutes ‘vulnerability’. All actions / interactions and outcomes related to vulnerability must be in accordance with the provisions of:</p> <ul style="list-style-type: none"> <li>• SMICoP</li> <li>• MOCOPA</li> <li>• The OFGEM consumer vulnerability strategy</li> <li>• Company / employer operating procedures and processes</li> <li>• Physical disability; hearing impaired; sight Issues; other health issues; English not first language; financial or debt issues; mental health problems; elderly; customer banking methods; no basic digital skills / no</li> </ul>



Core Knowledge	Amplification and Guidance (where required)
	<p>Internet access; living with dementia; unable to safeguard personal welfare</p> <ul style="list-style-type: none"> <li>In addition, the apprentice will demonstrate knowledge of recognising the needs of vulnerable customers and will also demonstrate knowledge of how to report situations where vulnerability is encountered.</li> </ul>

Core Skills	Amplification and Guidance (where required)
<p><b>S1</b> Carry out a thorough and rigorous risk assessment to ensure safety of customer, self and property on arrival, during install and upon exit</p>	<ul style="list-style-type: none"> <li>The apprentice carrying out metering work shall demonstrate a level of safety knowledge and experience necessary to identify and mitigate risk in a safe and efficient manner</li> <li>Pre-arrival protocol / checks and relevant vehicle checks are carried out e.g., vehicle checks (tyres / fuel / wipers / oil / screen wash); vehicle stock; job notes on HHT for vulnerabilities; pre-call checks (estimated time of arrival, medical or sensitive equipment, safe to park, park safely, risk access route to door (trip hazards, or evidence of young children or pets), risk assess flues, terminals, solar panels present</li> </ul>

Core Skills	Amplification and Guidance (where required)
	<ul style="list-style-type: none"> <li>• Company doorstep protocol is applied e.g., PPE worn, company introduction</li> <li>• Dynamic risk-assessment of customer and personal safety, as well as safety of the work area is applied throughout the entire job</li> </ul>
<p><b>S2</b> Take personal responsibility for maintaining safety standards and achieving job objectives</p>	<p>Safety Standards are maintained by the Apprentice at all times:</p> <ul style="list-style-type: none"> <li>• During preparations to begin working day</li> <li>• Before setting off / whilst driving</li> <li>• On-foot approach to the property</li> <li>• Throughout the entire job</li> <li>• On and after job completion</li> </ul>
<p><b>S3</b> Use tools, equipment and personal protective equipment in a safe and appropriate manner</p>	<ul style="list-style-type: none"> <li>• All electrical and gas tools, PPE and ancillary and equipment is / are inspected for damage before and after use</li> <li>• Tools and equipment are maintained to the required standard and stored in a neat and organised manner</li> <li>• Apprentice understands the specifications for tools and equipment, including their limitations</li> <li>• Electrical testing is carried out using appropriate devices, proving the correct operation of any such devices <b>before and after use</b></li> </ul>

Core Skills	Amplification and Guidance (where required)
<p><b>S4</b> Install, exchange, commission, decommission and ongoing maintenance of Smart metering systems, associated equipment and communication systems in accordance with industry standards</p>	<p>The application of the appropriate skills to perform meter installation and exchange tasks in an orderly, neat and tidy approach, including:</p> <ul style="list-style-type: none"> <li>• conducting the tasks involved in metering operations in the correct sequence</li> <li>• correct application of all checks, tests and procedures, and correct interpretation of results</li> <li>• application of the correct cabling and pipework jointing skills</li> <li>• meter communications systems and pairing actions are effective; meter details recorded on appropriate device / document</li> <li>• knows the actions to take if unsafe situations are found or arise</li> </ul>
<p><b>S5</b> Work with focus and clear purpose in all conditions and locations, covering business requirements, usually working alone and safely adapt working methods to reflect changes in working environment</p>	<ul style="list-style-type: none"> <li>• Timescales taken to complete the job are appropriate to the circumstances / environment</li> <li>• Appropriate actions are taken where weather or other factors affect ability to complete the job safely</li> <li>• All work is carried out in accordance with company processes and procedures</li> <li>• Ability to adjust or adapt actions and safety mitigations in circumstances where conditions or situations change</li> </ul>

Core Skills	Amplification and Guidance (where required)
	<ul style="list-style-type: none"> <li>• Articulate information on any changes in circumstances or environment to maintain safely</li> </ul>
<p><b>S6</b> Work on customer premises/property showing appropriate care, respect whilst focusing on safety</p>	<ul style="list-style-type: none"> <li>• The work environment is set up and methods of working respect the customers premises, property, and personal effects</li> <li>• Tools and equipment are situated where they will cause no obstruction or trip hazard</li> <li>• Hazards associated with young children and / or pets are addressed</li> <li>• All persons affected are made aware of the safety requirements / implications during the work activity</li> </ul>
<p><b>S7</b> 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</p>	<ul style="list-style-type: none"> <li>• The Apprentice always conducts themselves in a professional and courteous manner</li> <li>• Customers receive a pre-call from the operative stating the reason for the visit, the estimated arrival time, and an estimate of time the job will take; customer provides parking advice on call; customer greetings are carried out professionally and a full explanation of the job provided</li> <li>• Where power is to be switched off, enquiries are made as to the effect on any sensitive devices or medical equipment that would be affected by the power-down period and alternative arrangements are made where such circumstances are found</li> </ul>

Core Skills	Amplification and Guidance (where required)
	<ul style="list-style-type: none"> <li>• Energy efficiency advice and handover of the Smart meter system is carried out in accordance with the requirements of the Smart Meter Installer Code of Practice (SMICoP)</li> <li>• Communication methods are adjusted / adapted in circumstances where a vulnerable customer is present, in situations where the customer has a form of impairment, or in situations where English is not the first language</li> </ul>
<p><b>S8</b> Identify where situations or conditions are to unsafe standards and take appropriate actions within your range of competency</p>	<p>The Apprentice demonstrates the knowledge to recognise unsafe situations, and knows the actions to take that meet the requirements of:</p> <ul style="list-style-type: none"> <li>• Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013 (RIDDOR)</li> <li>• The Gas Industry Unsafe Situations Procedure (IGEM/G/11)</li> <li>• Asset Condition Codes (A, B and C Codes: MOCOPA Guidance for Service Termination Issue Reporting)</li> <li>• At risk</li> <li>• Immediately dangerous</li> </ul>
<p><b>S9</b> Achieve individual and team tasks which align to overall work objectives, be self-</p>	<ul style="list-style-type: none"> <li>• Acts in accordance with company processes and procedures, and provide updates / reports to the appropriate business colleagues/team members</li> </ul>

Core Skills	Amplification and Guidance (where required)
<p>motivated and disciplined in the approach to work tasks</p>	<ul style="list-style-type: none"> <li>• Acts professionally in circumstances where other trades are present on the work site, in particular, where reporting or handing over any issue or situation to representatives of the Gas Emergency Service Provider (ESP,) and / or the Distribution Network Operator (DNO)</li> <li>• Maintains a focus on successful completion of the job that meet or exceed customer expectations</li> <li>• Demonstrates excellent levels of self-motivation and discipline in the approach to work tasks</li> </ul>
<p><b>S10</b> Prepare and sequence equipment and tasks in the order prescribed in relevant operational standards or according to a specific regulation or set of rules</p>	<ul style="list-style-type: none"> <li>• Selection, inspection, testing and use of correct tools / equipment and PPE is carried out at appropriate stages of the job</li> <li>• Work is carried out in accordance with company rules, processes and procedures</li> <li>• All meter work is consistently neat and tidy, and is carried out using a methodical and orderly approach</li> </ul>

Core Behaviours	Amplification and Guidance (where required)
<p><b>B1</b> Have personal wellbeing and the safety of customers and others as a priority</p>	<ul style="list-style-type: none"> <li>• Demonstrates a focus on safety and wellbeing of all persons at the work site</li> <li>• Takes appropriate action to ensure the safety and wellbeing of people who may enter the work site</li> <li>• Effectively communicates control measures implemented and details of information relayed to the customer</li> </ul>
<p><b>B2</b> Be risk aware showing the desire to reduce risks through systematic monitoring and checking information and the strict compliance with appropriate rules and regulations</p>	<ul style="list-style-type: none"> <li>• Demonstrates awareness of risks and hazards through consistent dynamic risk assessment and by applying the required risk mitigation strategies. Can differentiate between a risk and a hazard</li> <li>• Can provide examples of the types of risks and hazards likely to arise and knows the hierarchy of risk control</li> <li>• Operates in a self-regulated culture in accordance with company / employer operating and safety procedures</li> <li>• Adapts and alters risk mitigations in the event of any changing circumstances</li> <li>• All actions carried out comply with the relevant safety regulations, standards, and codes of practice</li> </ul>

Core Behaviours	Amplification and Guidance (where required)
<p><b>B3</b> Be energy aware and deliver appropriate advice to customers on energy efficiency</p>	<ul style="list-style-type: none"> <li>• Energy efficiency advice is provided within the requirements set out in SMICoP:</li> <li>• Clear, simple, and specific advice, tailored to each individual customer's situation</li> <li>• Linked to the information displayed on the Smart communication hub (IHD)</li> <li>• Never overstated, but is expanded as appropriate to assist in the customer's clarity / understanding</li> <li>• Accompanied by written or online material that meets SMICoP requirements</li> </ul>
<p><b>B4</b> 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</p>	<ul style="list-style-type: none"> <li>• Establishes effective working relationships with people on site from different trades, disciplines, or backgrounds</li> <li>• Operates safely and professionally in situations where the Emergency Service Provider for Gas or the Electricity Distribution Network Operator are on site</li> <li>• Intervenes and challenges any unsafe or discriminatory acts appropriately and professionally with other individuals or groups on site</li> </ul>



Core Behaviours	Amplification and Guidance (where required)
<p><b>B5</b> Deliver a polite, courteous professional service to all customers and members of the public whilst safeguarding customer welfare and recognising vulnerability</p>	<ul style="list-style-type: none"> <li>• Provision of consistently polite, courteous, and professional customer service across all interactions</li> <li>• Recognises vulnerability and adapts actions accordingly</li> <li>• Records instances of vulnerability where appropriate in line with company / employer processes and procedures</li> <li>• Reports any issues through the appropriate channel where concerns for welfare arise</li> </ul>
<p><b>B6</b> To maintain and develop personal learning plans to continually develop knowledge and competence</p>	<ul style="list-style-type: none"> <li>• Personal learning plan examples</li> <li>• Awareness of career development pathways (i.e., electric vehicle charging etc)</li> </ul>

## Portfolio Requirements

The requirements are as follows:

### **Portfolio Mapping Document**

The apprentice must map their portfolio of evidence to the KSBs as this evidence will be used by the employer technical expert to assess the apprentice during the end-point interview. The portfolio mapping document must be clearly referenced and included at the front of the portfolio.

For further guidance on mapping refer to:

- Section 5 Practice Guidance on portfolio of evidence and apprentice mapping
- Appendix F, Dual Fuel Smart Meter Installer Supporting Documents 'Portfolio Mapping Document.'

### **How will the employer/training provider submit the apprentice's Portfolio to EUIAS?**

As part of the pre-requisite gateway requirements the apprentice must have compiled and submitted a portfolio of evidence that includes

- a portfolio mapping document (placed at the front of the portfolio),
- a workplace observation record
- additional portfolio evidence
- a final review typically carried out in the last month of the program
- Gas Safe® registration certificate
- Meter Operators Code of Practice Agreement (MOCO PA).

The interview will be based on the portfolio of evidence. The portfolio of evidence is assessed, and it informs the questioning for the interview.

## Portfolio Roles and Responsibilities

Role	Responsibility
Employer Technical Expert	<p>Review and mark the apprentice's portfolio.</p> <p>Record and report portfolio assessment outcome decisions for each apprentice, following instructions and using assessment recording documentation provided by EUIAS.</p>
Employer/Training Provider	<p>The training provider must liaise effectively with the employer to ensure the apprentice is prepared for the workplace observation.</p> <p>Ensure the apprentice has access to the resources used on a daily basis.</p>
Employer	<p>Use the EUIAS workplace observation review service to review fitness for purpose of the assessment task.</p> <p>Provide written and verbal instructions for the workplace observation.</p> <p>Provide all necessary tools and equipment for the apprentice.</p> <p>Observe the apprentice during the workplace observation.</p>
EUIAS	<p>Arrange for the workplace observation to take place, in consultation with the employer.</p> <p>Agree the date for receipt of the apprentice's line manager/trainer, safety or quality assurance engineer and TE records (outcomes) for the work observation and portfolio.</p>

## Component 2: End-point interview

### Overview

The end-point interview is the final stage of the end-point assessment. The interview allows for testing of responses where there are a range of potential answers.

The end-point interview is based on a review of the apprentice's portfolio.

### Step-by-Step Guide

The table below provides a step-by-step guide on how the end-point interview will be carried out:

Assessors	<p>1 technical expert approved by EUIAS will conduct the end-point interview.</p> <p>The technical expert:</p> <ul style="list-style-type: none"> <li>• <b>must not</b> amplify or clarify points made by the apprentice</li> <li>• must assess the evidence holistically</li> <li>• will document the interview</li> <li>• will assign a preliminary mark</li> </ul> <p>Representatives from the apprentice's employer or training provider are not allowed to be present in the room whilst the interview is being conducted.</p>
End-point interview (based on the portfolio) structure	<p>Types of questions:</p> <ul style="list-style-type: none"> <li>• The assessor will ask a set of questions to explore the apprentice's level of knowledge, skills and behaviours</li> <li>• Standardised open questions will be asked based on the contents of the evidence in the portfolio</li> <li>• Additional follow up questions are allowed, to seek clarification</li> </ul> <p><b>Locations:</b> Employer's premises or a suitable venue for example a training provider's premises.</p> <p><b>Time:</b> The end-point interview will typically last 1 hour.</p> <p>The End-point interview will be:</p>

	<ul style="list-style-type: none"> <li>• conducted by 1 technical expert</li> <li>• face to face or remote, as agreed</li> <li>• recorded in writing using the end-point interview record template provided by EUIAS</li> <li>• video recorded using relevant technology such as Microsoft Teams or an audio recording device</li> <li>• conducted under examination conditions</li> </ul> <p>The apprentice will have access to their portfolio throughout the end-point interview.</p> <p><b>Marks allocated:</b> The end-point interview will be marked out of 100.</p>
What topics will be covered?	For further details refer to ‘Knowledge, Skills and Behaviours (KSBs) Coverage above pages 72 - 96.
When will the portfolio of evidence be referred to?	<p>The portfolio:</p> <ul style="list-style-type: none"> <li>• will be reviewed by the assessor before the end-point interview</li> <li>• can be referred to by the apprentice to illustrate their answers</li> </ul> <p><b>Note:</b> the portfolio evidence is not directly assessed as part of the interview.</p>
Grading	Fail, Pass or Distinction

## End-point interview Roles and Responsibilities

Role	Responsibility
Technical expert	Record and report assessment outcome decisions for each apprentice, following instructions and using assessment recording documentation provided by EUIAS.
Employer/Training Provider	<p>The end-point interview must be scheduled with EUIAS for a date and time which allow the apprentice to be well prepared.</p> <p>Ensure the apprentice has access to their portfolio before and on the day of the end-point interview.</p>
EUIAS	Arrange for the end-point interview to take place, in consultation with the employer/training provider and technical expert.

## Section 3: Grading and Grading Criteria

### Component 1: Portfolio: Additional Portfolio Evidence

The Additional Portfolio Evidence grading guidance on the following pages covers the entire Standard. The evidence matrix contains six groups of criteria:

1. Maintaining Safety Standards
2. Risk Awareness and Risk Monitoring
3. Customer Care and Welfare
4. Communicating and Working with Others
5. Effective Completion of Works
6. Personal and Team Development

#### Group 1: Maintaining Safety Standards

KSB Ref.	Criteria	To achieve a PASS, the Apprentice Portfolio must contain evidence of the following:	To achieve a DISTINCTION grade, additional marks can be gained from the following criteria in addition to ALL of the pass criteria:
<b>K1</b>	Current Health, Safety and Environmental legislation and regulations	The apprentice portfolio demonstrates compliance and / or reference to the following: <ul style="list-style-type: none"> <li>• Health and Safety at Work Act 1974</li> <li>• MOCOPA (DCP 044)</li> <li>• SMICop v7.2</li> </ul>	The apprentice portfolio specifically highlights compliance and / or reference to a MINIMUM OF 3 from the following list:

KSB Ref.	Criteria	To achieve a PASS, the Apprentice Portfolio must contain evidence of the following:	To achieve a DISTINCTION grade, additional marks can be gained from the following criteria in addition to ALL of the pass criteria:
	applicable to work in the gas and power industries	<ul style="list-style-type: none"> <li>• Gas Safety (Installation and Use) Regulations 1998</li> <li>• Electricity at Work Regulations 1989</li> <li>• Company Operating Processes and Procedures</li> <li>• IG/UP/1B</li> </ul>	<ul style="list-style-type: none"> <li>• Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013 (RIDDOR)</li> <li>• Control of Substances Hazardous to Health Regulations 2002 (COSHH)</li> <li>• The Management of Health and Safety at Work Regulations 1999</li> <li>• Provision and Use of Work Equipment Regulations (PUWER)</li> <li>• The Environment Act</li> <li>• Work at Height Regulations 2005</li> </ul>
<b>K7</b>	Current regulatory compliance, the recognition of different customer needs including vulnerability as defined by Office of	<p>The apprentice portfolio demonstrates the recognition of instances of vulnerability on <b>AT LEAST 4</b> occasions:</p> <ul style="list-style-type: none"> <li>• Physical disability</li> <li>• Hearing impaired</li> <li>• Sight Issues</li> </ul>	<p>In addition, the apprentice portfolio will demonstrate instances where the apprentice has recognised the needs of vulnerable customers also demonstrates the reporting of situations where vulnerability is encountered, following guidance set out in:</p>



KSB Ref.	Criteria	To achieve a PASS, the Apprentice Portfolio must contain evidence of the following:	To achieve a DISTINCTION grade, additional marks can be gained from the following criteria in addition to ALL of the pass criteria:
	Gas and Electricity Markets (OFGEM) and Smart Installation Codes of Practice (SMICoP) company rules, policies and procedures as defined by the employer	<ul style="list-style-type: none"> <li>• Other health issues</li> <li>• English not first language</li> <li>• Financial or debt issues</li> <li>• Mental health problems</li> <li>• Customer is Elderly</li> <li>• No basic digital skills/no Internet access</li> <li>• Living with dementia</li> <li>• Unable to safeguard personal welfare</li> </ul>	<ul style="list-style-type: none"> <li>• The OFGEM Consumer Vulnerability Strategy</li> <li>• Company/Employer Operating Procedures and Processes</li> </ul>
<b>S2</b>	Take personal responsibility for maintaining safety standards and achieving job objectives	Portfolio provides evidence that the apprentice maintains safety standards at all times: <ul style="list-style-type: none"> <li>• During preparations to begin working day</li> <li>• Before setting off/whilst driving</li> <li>• On-foot approach to the property</li> <li>• Throughout the entire job/completion of</li> <li>• Works</li> <li>• On and after job completion</li> </ul>	N/A - Safety Standards must be maintained without compromise.

KSB Ref.	Criteria	To achieve a PASS, the Apprentice Portfolio must contain evidence of the following:	To achieve a DISTINCTION grade, additional marks can be gained from the following criteria in addition to ALL of the pass criteria:
<b>B1</b>	Have personal wellbeing and the safety of customers and others as a priority	<p>The portfolio provides evidence that the apprentice:</p> <ul style="list-style-type: none"> <li>• Demonstrates a focus on safety and wellbeing of all persons at the work site</li> <li>• Takes appropriate action to ensure the safety and wellbeing of people who may enter the work site</li> </ul>	<p>In addition, the portfolio provides good detail of how the apprentice:</p> <ul style="list-style-type: none"> <li>• Effectively communicates the safety control measures implemented and details of quality information being relayed to the customer</li> </ul>

#### Group 2: Risk Awareness and Risk Monitoring

KSB Ref.	Criteria	To achieve a PASS, the Apprentice Portfolio must contain evidence of the following:	To achieve a DISTINCTION grade, additional marks can be gained from the following criteria in addition to ALL of the pass criteria:
<b>S1</b>	Carry out a thorough and rigorous risk assessment to ensure safety of customer, self and	<ul style="list-style-type: none"> <li>• The apprentice carrying out metering work shall demonstrate a level of safety knowledge and experience necessary to identify and mitigate risk in a safe and efficient manner</li> </ul>	<ul style="list-style-type: none"> <li>• The portfolio provides evidence of the apprentice carrying out dynamic risk-assessment of their own, and the customer's safety, as</li> </ul>

KSB Ref.	Criteria	To achieve a PASS, the Apprentice Portfolio must contain evidence of the following:	To achieve a DISTINCTION grade, additional marks can be gained from the following criteria in addition to ALL of the pass criteria:
	property on arrival, during install and upon exit	<ul style="list-style-type: none"> <li>• Pre-arrival protocol/checks and relevant vehicle checks are carried out e.g.,               <ul style="list-style-type: none"> <li>○ vehicle checks (tyres/fuel/wipers/oil/screen wash); vehicle stock</li> <li>○ job notes on HHT for vulnerabilities; pre-call checks (estimated time of arrival, medical or sensitive equipment, safe to park, park safely, risk access route to door (trip hazards, or evidence of young children or pets), risk assessment of flues, terminals, presence of solar panels</li> </ul> </li> <li>• Company doorstep protocol is applied e.g., PPE worn, appropriate company introduction is provided</li> </ul>	well as safety of the work area throughout the entire job

KSB Ref.	Criteria	To achieve a PASS, the Apprentice Portfolio must contain evidence of the following:	To achieve a DISTINCTION grade, additional marks can be gained from the following criteria in addition to ALL of the pass criteria:
<b>S5</b>	Work with focus and clear purpose in all conditions and locations, covering business requirements, usually working alone and safely adapt working methods to reflect changes in working environments	<ul style="list-style-type: none"> <li>• Timescales taken to complete the job are appropriate to the circumstances/environment</li> <li>• Appropriate actions are taken where weather or other factors affect ability to complete the job safely</li> <li>• All work is carried out in accordance with company processes and procedures</li> <li>• Ability to adjust or adapt safety mitigations in circumstances where conditions or situations change, and to communicate effectively with the customer in such circumstances</li> </ul>	
<b>B2</b>	Work with focus and clear purpose in all conditions and locations, covering business	<ul style="list-style-type: none"> <li>• Can differentiate between a risk and a hazard</li> <li>• Can provide examples of the types of risks and hazards likely to arise and knows the hierarchy of risk control</li> </ul>	<ul style="list-style-type: none"> <li>• Portfolio evidence demonstrates compliance with business/company operating procedures and processes</li> </ul>

KSB Ref.	Criteria	To achieve a PASS, the Apprentice Portfolio must contain evidence of the following:	To achieve a DISTINCTION grade, additional marks can be gained from the following criteria in addition to ALL of the pass criteria:
	requirements, usually working alone and safely adapt working methods to reflect changes in working environments	<ul style="list-style-type: none"> <li>Operates in a self-regulated culture in accordance with company/employer operating and safety procedures</li> <li>All actions carried out comply with the relevant safety regulations, standards, and codes of practice</li> </ul>	

### Group 3: Customer Care and Welfare

KSB Ref.	Criteria	To achieve a PASS, the Apprentice Portfolio must contain evidence of the following:	To achieve a DISTINCTION grade, additional marks can be gained from the following criteria in addition to ALL of the pass criteria:
<b>K5</b>	Up-to-date knowledge of energy efficiency principles to be able to provide advice and	<ul style="list-style-type: none"> <li>Energy Efficiency savings must never be overstated</li> <li>Energy Efficiency messages to the customer are clear, simple and specific</li> </ul>	<ul style="list-style-type: none"> <li>Portfolio demonstrates evidence that Energy Efficiency messaging is non-generic and has been tailored to individual customer needs</li> </ul>

KSB Ref.	Criteria	To achieve a PASS, the Apprentice Portfolio must contain evidence of the following:	To achieve a DISTINCTION grade, additional marks can be gained from the following criteria in addition to ALL of the pass criteria:
	guidance to the customer	<ul style="list-style-type: none"> <li>Means of access (hard-copy or online service,) to current energy efficiency advice is always provided</li> </ul>	
<b>K6</b>	Knowledge of Smart metering systems to be able to discuss and advise the customer	<ul style="list-style-type: none"> <li>The Smart Meter system is explained to the customer in a clear and accurate manner</li> <li>The explanation will include what information is available from the Smart meter system, how this information can be accessed, and how to use the In-Home-Display (IHD)</li> <li>The Smart meter system demonstration will take account of any customer vulnerability, disability, or impairment and communication of information is at an appropriate level so that the consumer fully understands the principals involved</li> </ul>	<ul style="list-style-type: none"> <li>Evidence within the portfolio demonstrates an exceptional level of knowledge of Smart metering systems</li> </ul>

KSB Ref.	Criteria	To achieve a PASS, the Apprentice Portfolio must contain evidence of the following:	To achieve a DISTINCTION grade, additional marks can be gained from the following criteria in addition to ALL of the pass criteria:
<b>S6</b>	Work on customer premises/property showing appropriate care, respect whilst focusing on safety	<ul style="list-style-type: none"> <li>• Tools and equipment are situated where they will cause no obstruction or trip hazard</li> <li>• Hazards associated with young children and/or pets are addressed</li> <li>• All persons affected are made aware of the safety requirements/implications during the work activity</li> </ul>	<ul style="list-style-type: none"> <li>• The portfolio evidence demonstrates exceptional quality of how the work environment is set up and how methods of working are tailored to ensure the customer’s premises, property, and personal effects are treated with respect</li> </ul>
<b>B3</b>	Be energy aware and deliver appropriate advice to customers on energy efficiency	<p>Energy efficiency advice is provided within the requirements set out in SMICoP:</p> <ul style="list-style-type: none"> <li>• Clear, simple, and specific advice, tailored to each individual customer’s situation and accompanied by written or online material that meets SMICoP requirements</li> <li>• Linked to the information displayed on the Smart communication hub (IHD)</li> </ul>	<ul style="list-style-type: none"> <li>• The portfolio contains evidence that energy advice provided is delivered by excellent quality of communication, and the advice is varied with examples quoted to customers that match the circumstances found</li> </ul>

KSB Ref.	Criteria	To achieve a PASS, the Apprentice Portfolio must contain evidence of the following:	To achieve a DISTINCTION grade, additional marks can be gained from the following criteria in addition to ALL of the pass criteria:
		<ul style="list-style-type: none"> <li>• Never overstated, but is expanded as appropriate to assist in the customer's clarity/understanding</li> </ul>	
<b>B5</b>	Deliver a polite, courteous professional service to all customers and members of the public whilst safeguarding customer welfare and recognising vulnerability	<ul style="list-style-type: none"> <li>• Provision of consistently polite, courteous, and professional customer service across all interactions</li> <li>• Records instances of vulnerability where appropriate in line with company/employer processes and procedures and adapts actions accordingly</li> <li>• Reports any issues through the appropriate channel where concerns for welfare arise</li> </ul>	<ul style="list-style-type: none"> <li>• Evidence indicates that customer service provision from the apprentice demonstrates an outstanding level of professionalism</li> </ul>



Group 4: Communicating and Working with Others

KSB Ref.	Criteria	To achieve a PASS, the Apprentice Portfolio must contain evidence of the following:	To achieve a DISTINCTION grade, additional marks can be gained from the following criteria in addition to ALL of the pass criteria:
<b>S7</b>	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	<ul style="list-style-type: none"> <li>• Evidence of pre-calls from the apprentice to the customer, where a full explanation of the job is provided, covering:               <ul style="list-style-type: none"> <li>○ the reason for the visit and what it will entail</li> <li>○ estimated arrival time, and an</li> <li>○ estimate of time the job will take</li> <li>○ where power is to be switched off, enquiries are made as to the effect on any sensitive devices or medical equipment that would be affected by the power-down period and alternative arrangements are made where such circumstances are found</li> </ul> </li> </ul>	Communication methods are adjusted/adapted in circumstances where a vulnerable customer is present, in situations where the customer has a form of impairment, or in situations where English is not the first language

KSB Ref.	Criteria	To achieve a PASS, the Apprentice Portfolio must contain evidence of the following:	To achieve a DISTINCTION grade, additional marks can be gained from the following criteria in addition to ALL of the pass criteria:
<b>B4</b>	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	<ul style="list-style-type: none"> <li>• Establishes effective working relationships with people on site from different trades, disciplines, or backgrounds</li> <li>• Operates safely and professionally in situations where the Emergency Service Provider for Gas has to be called to site</li> <li>• Operates safely and professionally in situations where the Electricity Distribution Network Operator has to be called to site</li> </ul>	<ul style="list-style-type: none"> <li>• Portfolio contains evidence of circumstances where the apprentice has had to intervene and challenge any unsafe or discriminatory acts with other individuals or groups on site in an appropriate and professional manner</li> </ul>

Group 5: Effective Completion of Works

KSB Ref.	Criteria	To achieve a PASS, the Apprentice Portfolio must contain evidence of the following:	To achieve a DISTINCTION grade, additional marks can be gained from the following criteria in addition to ALL of the pass criteria:
<b>K2</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	<p><b>ELECTRIC METER CHECKS and TESTS</b></p> <ul style="list-style-type: none"> <li>• <b>Visual checks:</b> <ul style="list-style-type: none"> <li>○ Condition of installation, meter board</li> <li>○ and associated equipment</li> <li>○ Open ports are sealed/bunged</li> <li>○ Recognition of microgeneration/back feed problems</li> <li>○ Identification of types of earthing systems</li> </ul> </li> <li>• <b>Electrical Tests</b> <ul style="list-style-type: none"> <li>○ Prove-Use-Prove process applied to electrical test equipment at appropriate points</li> <li>○ Extraneous metal/polarity/socket and voltage tests</li> </ul> </li> </ul>	<p><b>DEMONSTRATION OF KNOWLEDGE:</b></p> <ul style="list-style-type: none"> <li>• Evidence of failure conditions of tests and assessments and knowledge of the actions to take as next steps where these circumstances arise</li> </ul>

KSB Ref.	Criteria	To achieve a PASS, the Apprentice Portfolio must contain evidence of the following:	To achieve a DISTINCTION grade, additional marks can be gained from the following criteria in addition to ALL of the pass criteria:
		<ul style="list-style-type: none"> <li>○ Confirmation of supply voltage – top and bottom of cut-out</li> <li>○ Voltage readings across meter terminals and confirmation of correct Live/Neutral positions</li> <li>● <b>Safe Isolation/prove dead, including:</b> <ul style="list-style-type: none"> <li>○ Voltage tester – check each side of cut-out and meter terminals</li> <li>○ Test lamps – confirm live supply to inlet/dead at outlet of cut-out, and dead across meter terminals 1 - 4</li> </ul> </li> </ul> <p><b>GAS APPLIANCE CHECKS</b>, including:  <b>Gas Appliance visual and operational checks</b></p> <ul style="list-style-type: none"> <li>● Safety Shut Off Valve check on lid</li> <li>● Signs of spillage</li> <li>● Ignition and flame picture checks</li> <li>● Ventilation and adventitious ventilation</li> </ul>	

KSB Ref.	Criteria	To achieve a PASS, the Apprentice Portfolio must contain evidence of the following:	To achieve a DISTINCTION grade, additional marks can be gained from the following criteria in addition to ALL of the pass criteria:
		<ul style="list-style-type: none"> <li>• Flue/Chimney: condition/route/sealing and termination checks</li> </ul> <p><b>GAS METER CHECKS and TESTS</b></p> <p><b>Meter installation visual checks:</b></p> <ul style="list-style-type: none"> <li>• General condition / bracket / earthing connection)</li> <li>• Volt stick checks on metal</li> <li>• Tightness test</li> <li>• Purging procedure</li> <li>• Working/standing pressure testing</li> </ul>	
<b>K3</b>	Gas and electrical theories and procedures involved in the practical application of installation, exchange, commission, decommission and	<p><b>ELECTRIC</b></p> <p><b>Evidence demonstrates knowledge of electrical theories and procedures:</b></p> <ul style="list-style-type: none"> <li>• Voltage and polarity</li> <li>• Relationship between current, fuse rating and cable sizing</li> </ul>	

KSB Ref.	Criteria	To achieve a PASS, the Apprentice Portfolio must contain evidence of the following:	To achieve a DISTINCTION grade, additional marks can be gained from the following criteria in addition to ALL of the pass criteria:
	maintenance of Smart metering systems and associated equipment and communication systems	<ul style="list-style-type: none"> <li>• Safe isolation/prove dead</li> <li>• Microgeneration and the effect on meter installations</li> <li>• Tampering and its effects</li> </ul> <p><b>GAS</b> <b>Evidence demonstrates knowledge of gas theories and procedures:</b></p> <ul style="list-style-type: none"> <li>• Properties of gas and combustion/flame picture</li> <li>• Pressure and gas flow</li> <li>• Tightness testing and purging</li> <li>• Standing and Working pressure</li> <li>• Installation and Commissioning procedures for both gas and electric meters and the associated Smart Communications system</li> <li>• Tampering and its effects</li> </ul>	

KSB Ref.	Criteria	To achieve a PASS, the Apprentice Portfolio must contain evidence of the following:	To achieve a DISTINCTION grade, additional marks can be gained from the following criteria in addition to ALL of the pass criteria:
		<p><b>GAS APPLIANCES</b></p> <p><b>Evidence demonstrates knowledge of theories and procedures associated with gas appliance installations:</b></p> <ul style="list-style-type: none"> <li>• Flueing/Chimneys/Ventilation</li> <li>• Signs of spillage and actions to take when spillage is found</li> <li>• Correct and incorrect flame picture(s)</li> </ul>	
K4	Relevant electrical/mechanical principles and how they are applied in work processes and procedures	<p><b>ELECTRIC</b></p> <ul style="list-style-type: none"> <li>• Cable jointing and securing methods</li> <li>• Installation of meter trails</li> <li>• Earthing systems</li> <li>• Fuse rating/selection, and checks that cables are correctly sized, relative to fuse rating</li> <li>• Polarity – Socket tester usage, actions to take if socket test result if faulty</li> </ul>	<ul style="list-style-type: none"> <li>• Evidence demonstrates understanding of the operating parameters of any connected equipment and an explanation of how such equipment works</li> </ul>

KSB Ref.	Criteria	To achieve a PASS, the Apprentice Portfolio must contain evidence of the following:	To achieve a DISTINCTION grade, additional marks can be gained from the following criteria in addition to ALL of the pass criteria:
		<p><b>GAS</b></p> <ul style="list-style-type: none"> <li>• Gas Pipework – screwed and soldered joints</li> <li>• Can identify safe operation of controls and valves, i.e., Safety Shut-Off Valve (SSOV)</li> <li>• Can identify correct flue/chimney installations</li> <li>• Can identify correct ventilation requirements and confirm correct sizing of existing ventilation</li> </ul>	
<b>S3</b>	Use tools, equipment, and personal protective equipment in a safe and appropriate manner	<ul style="list-style-type: none"> <li>• All electrical and gas tools, PPE and ancillary and equipment is/are inspected for damage before and after use</li> <li>• Tools and equipment are maintained to the required standard and stored in a neat and organised manner</li> </ul>	



KSB Ref.	Criteria	To achieve a PASS, the Apprentice Portfolio must contain evidence of the following:	To achieve a DISTINCTION grade, additional marks can be gained from the following criteria in addition to ALL of the pass criteria:
		<ul style="list-style-type: none"> <li>Apprentice understands the specifications for tools and equipment, including their limitations</li> <li>All testing is carried out using the correct/appropriate device(s,) proving the correct operation of any such devices before and after use</li> </ul>	
<b>S4</b>	Install, exchange, commission, decommission and ongoing maintenance of Smart metering systems, associated equipment and communication systems in accordance with industry standards	<p>The application of the appropriate skills to perform meter installation and exchange tasks in an orderly, neat and tidy approach, including:</p> <ul style="list-style-type: none"> <li>Correct application of all checks, tests and procedures, and correct interpretation of results (to MOCOPA / SMICoP / IG.UP.1B / BS 5440 / BS6400-2)</li> <li>Application of the correct cabling skills (Electric)</li> </ul>	<ul style="list-style-type: none"> <li>Evidence shows exemplary work output in terms of neatness and tidiness of completed works</li> </ul>

KSB Ref.	Criteria	To achieve a PASS, the Apprentice Portfolio must contain evidence of the following:	To achieve a DISTINCTION grade, additional marks can be gained from the following criteria in addition to ALL of the pass criteria:
		<ul style="list-style-type: none"> <li>• Application of the correct pipework and jointing skills (Gas)</li> <li>• Meter communications systems and pairing actions are correct effective</li> <li>• Meter details (old + new,) are recorded on appropriate device/document in accordance with business/company processes</li> </ul>	
<b>S8</b>	Identify where situations or conditions are to unsafe standards and take appropriate actions within your range of competency	<p>The Apprentice demonstrates the knowledge to recognise unsafe situations, and knows the actions to take that meet the requirements of:</p> <ul style="list-style-type: none"> <li>• Application of the The Gas Industry Unsafe Situations Procedure (IGEM/G/11)</li> <li>• Asset Condition Codes (A, B and C Codes: MOCOPA Guidance for Service Termination Issue Reporting)</li> <li>• Examples of 'At Risk' process</li> </ul>	Evidence of the application of the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013 (RIDDOR)

KSB Ref.	Criteria	To achieve a PASS, the Apprentice Portfolio must contain evidence of the following:	To achieve a DISTINCTION grade, additional marks can be gained from the following criteria in addition to ALL of the pass criteria:
		<ul style="list-style-type: none"> <li>Examples of 'Immediately Dangerous' process</li> </ul>	
<b>S10</b>	Prepare and sequence equipment and tasks in the order prescribed in relevant operational standards or according to a specific regulation or set of rules	<ul style="list-style-type: none"> <li>Selection, inspection, testing and use of correct tools / equipment and PPE is carried out at the correct stage(s) of the job</li> <li>Work is carried out in accordance with company rules, processes and procedures and is carried out using a methodical and orderly approach</li> </ul>	N/A

#### Group 6: Personal and Team Development

KSB Ref.	Criteria	To achieve a PASS, the Apprentice Portfolio must contain evidence of the following:	To achieve a DISTINCTION grade, additional marks can be gained from the following criteria in addition to ALL of the pass criteria
<b>S9</b>	Achieve individual and team tasks	<ul style="list-style-type: none"> <li>Evidence shows the apprentice acting in accordance with company processes and</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrates excellent levels of self-motivation and discipline in the</li> </ul>

KSB Ref.	Criteria	To achieve a PASS, the Apprentice Portfolio must contain evidence of the following:	To achieve a DISTINCTION grade, additional marks can be gained from the following criteria in addition to ALL of the pass criteria
	<p>which align to overall work objectives, be self-motivated and disciplined in the approach to work tasks</p>	<p>procedures at all times across all job aspects</p> <ul style="list-style-type: none"> <li>• Evidence of the apprentice providing updates and/or reports to the appropriate business colleagues/team members:</li> <li>• Evidence of seeking advice from the appropriate team member whenever required</li> <li>• Providing full and detailed reports where the job has to be aborted or where unsafe situations are encountered</li> <li>• Acting professionally in circumstances where other trades are present on the work site, in particular, where reporting or handing over any issue or situation to representatives of the Gas Emergency Service Provider (ESP,) and / or the Distribution Network Operator (DNO)</li> </ul>	<p>approach to work tasks and to making a positive contribution to the business reputation, sourced through:</p> <ul style="list-style-type: none"> <li>○ Mentor and Line Manager reports</li> <li>○ Review documentation</li> </ul>

KSB Ref.	Criteria	To achieve a PASS, the Apprentice Portfolio must contain evidence of the following:	To achieve a DISTINCTION grade, additional marks can be gained from the following criteria in addition to ALL of the pass criteria
		<ul style="list-style-type: none"> <li>• Maintaining a focus on successful completion of the job that meets or exceeds customer expectations</li> </ul>	
<b>B6</b>	To maintain and develop personal learning plans to continually develop knowledge and competence	<ul style="list-style-type: none"> <li>• Portfolio contains personal learning plan examples demonstrating how the objectives of the apprenticeship have been achieved, (signed off tasks, development reviews etc,) derived from:               <ul style="list-style-type: none"> <li>○ Training Provider comments and reports</li> <li>○ Mentoring reports</li> </ul> </li> <li>• Portfolio shows positive CPD progress through mentor and manager comments, successful completion of:               <ul style="list-style-type: none"> <li>○ Assessments and/or audits</li> <li>○ Examinations / tests</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Review information demonstrates awareness of career development pathways after completion of apprenticeship (i.e., electric vehicle charging etc)</li> </ul>

### Portfolio: Additional Evidence Scoring Summary

Group No.	Group	ST0158 Criteria	Marks Available	Minimum Score
1	Maintaining Safety Standards	K1 / K7 / S2 / B1	15	12
2	Risk Awareness and Risk Monitoring	S1 / S5 / B2	15	13
3	Customer Care and Welfare	K5 / K6 / S6 / B3 / B5	20	15
4	Communicating and Working with Others	S7 / B4	10	8
5	Effective Completion of Works	K2 / K3 / K4 / S3 / S4 / S8 / S10	30	25
6	Personal and Team Development	S9 / B6	10	7
Total Marks			100	80

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

Pass Score: To achieve a 'Pass' the apprentice must demonstrate complete competence across the entire standard. All categories must achieve the listed minimum mark to achieve a 'Pass' for the full Portfolio Assessment

## Component 1: Portfolio: Work Observation

The work observation is graded out of 100. The minimum mark must be achieved for each section. The total score will be multiplied by a factor of 0.2 to achieve the overall mark for the work observation. This mark will be used when calculating the final grading of the Portfolio of Evidence' element of the End-point Assessment. Once all of the elements have been observed and the marks awarded the employer technical expert will recommend a preliminary grade for the independent examiner.

The apprentice must be able to demonstrate the following core KSBs in an integrated way. The employer technical expert will be marking against the following criteria during the work observation:

### Group 1: Maintaining Safety Standards

Standard	To achieve a Pass the apprentice must achieve <b>ALL</b> of the following:	To achieve a Distinction grade additional marks can be gained from the following criteria in addition to <b>ALL</b> of the Pass criteria:
<b>S2</b> Take personal responsibility for maintaining safety standards and achieving job objectives	<p><b>Preparations prior to arrival:</b></p> <ul style="list-style-type: none"> <li>• Uniform and vehicle checks as per company operating processes and procedures</li> <li>• Checks job history/job notes</li> </ul> <p><b>At property:</b></p> <ul style="list-style-type: none"> <li>• Checks for signs of vulnerability/young children</li> </ul>	<ul style="list-style-type: none"> <li>• The approach to maintaining safety standards applied matches the circumstances as found on the job</li> <li>• Appropriate steps are taken to abort the job where the Apprentice evaluates that personal wellbeing may be compromised</li> </ul>

Standard	To achieve a Pass the apprentice must achieve <b>ALL</b> of the following:	To achieve a Distinction grade additional marks can be gained from the following criteria in addition to <b>ALL</b> of the Pass criteria:
	<ul style="list-style-type: none"> <li>• Company Doorstep protocol is applied</li> <li>• Stage of PPE being worn is appropriate to activity being conducted throughout job</li> </ul> <p><b>During works:</b></p> <ul style="list-style-type: none"> <li>• Safety equipment is correctly applied i.e., barriers/dust sheets</li> <li>• All Tools and equipment are placed in a safe manner so as not to cause an obstruction or trip hazard</li> <li>• Work area and the gas and electric services are ‘made-safe’ when operating in rooms/spaces that are away from the meter location</li> </ul> <p><b>Achieving job objectives:</b></p> <ul style="list-style-type: none"> <li>• All relevant meter data (i.e., MPAN, MPRN, current meter readings,) is recorded on the device/form utilised by the business</li> </ul>	



Standard	To achieve a Pass the apprentice must achieve <b>ALL</b> of the following:	To achieve a Distinction grade additional marks can be gained from the following criteria in addition to <b>ALL</b> of the Pass criteria:
	<ul style="list-style-type: none"> <li>• Ensures Job objectives are achieved satisfactorily</li> <li>• Removes all waste materials and redundant equipment on job completion</li> </ul>	
<p><b>B1</b> Have personal wellbeing and the safety of customers and others as a priority:</p>	<ul style="list-style-type: none"> <li>• Communicates timeously and effectively with the customer/responsible person regarding the wellbeing and safety of all persons on site throughout the entirety of the job</li> <li>• Ensures the work area cannot be inadvertently breached by unexpected visitors to site / property</li> </ul>	<ul style="list-style-type: none"> <li>• Communication of safety information to customer/responsible person exceeds the required standards, fully explaining the circumstances and why the safety standards are being applied</li> </ul>

Group 2: Risk Awareness and Risk Monitoring

Standard	To achieve a Pass the apprentice must achieve <b>ALL</b> of the following:	To achieve a Distinction grade additional marks can be gained from the following criteria in addition to <b>ALL</b> of the Pass criteria:
<p><b>S1</b> Carry out a thorough and rigorous risk assessment to ensure safety of customer, self and property on arrival, during install and upon exit</p>	<p>On arrival to customer’s property:</p> <ul style="list-style-type: none"> <li>• Parking safety assessment</li> <li>• Assessment of property condition</li> <li>• Risk assessment of route to door for trip or slip hazards</li> <li>• Risk assessment of customer circumstances / situation particularly where vulnerability is present or is found</li> <li>• Risk assessment of all tools, equipment, and PPE prior to use</li> </ul> <p><b>During Install:</b></p> <ul style="list-style-type: none"> <li>• Risk assessment of the work area/location and removes any materials or items causing impediment or danger</li> </ul> <p><b>Upon Exit:</b></p> <ul style="list-style-type: none"> <li>• Hazardous waste is correctly evaluated and disposed of in accordance with the required company operating processes and procedures</li> </ul>	<ul style="list-style-type: none"> <li>• Outstanding communication of risk assessment information is provided to the customer/responsible person</li> <li>• The apprentice can verify the appropriate agency to be contacted when risk mitigation requires external intervention i.e., the emergency service provider for gas, or the Distribution Network Operator for electric</li> </ul>

Standard	To achieve a Pass the apprentice must achieve <b>ALL</b> of the following:	To achieve a Distinction grade additional marks can be gained from the following criteria in addition to <b>ALL</b> of the Pass criteria:
	<ul style="list-style-type: none"> <li>• Risk assessment of completed job so as to ensure no hazardous circumstances are left present</li> </ul>	
<p><b>B2</b> Be risk aware showing the desire to reduce risks through systematic monitoring and checking information and the strict compliance with appropriate rules and regulations</p>	<ul style="list-style-type: none"> <li>• Demonstrates awareness of risks throughout job</li> <li>• Acts in strict compliance with standards (BS 6400 –1 2006,) regulations, (The Gas Safety (Installation and Use) Regulations 1998) and company operating processes and procedures</li> <li>• Dynamic risk assessment is applied throughout job to match activity and circumstances</li> <li>• Systematically checks risk levels through constant monitoring and evaluation of risks associated with the current activity and circumstances</li> </ul>	<ul style="list-style-type: none"> <li>• The apprentice can justify the difference between a hazard and a risk</li> </ul>

Group 3: Customer Care and Welfare

Standard	To achieve a Pass the apprentice must achieve <b>ALL</b> of the following:	To achieve a Distinction grade additional marks can be gained from the following criteria in addition to <b>ALL</b> of the Pass criteria:
<p><b>K6</b> Knowledge of Smart metering systems to be able to discuss and advise the customer</p>	<ul style="list-style-type: none"> <li>• The Smart Meter system is explained to the customer in a correct and accurate manner</li> <li>• The explanation includes what information is available from the Smart meter system, how this information can be accessed, and how to use the In-Home-Display (IHD)</li> <li>• The Smart meter system demonstration takes account of any customer vulnerability, disability, or impairment</li> <li>• Communication of information is stated at a level where the customer can fully understand the principles of the Smart meter system</li> </ul>	
<p><b>S6</b> Work on customer premises/property showing</p>	<ul style="list-style-type: none"> <li>• The work environment is set up and methods of working respect the customers premises, property, and</li> </ul>	<ul style="list-style-type: none"> <li>• Performance shows an outstanding application of care and attention to customers' property ensuring the</li> </ul>

Standard	To achieve a Pass the apprentice must achieve <b>ALL</b> of the following:	To achieve a Distinction grade additional marks can be gained from the following criteria in addition to <b>ALL</b> of the Pass criteria:
appropriate care, respect whilst focusing on safety	<p>personal effects (use of dust sheets, removal of personal items and effects from the work area, tools and equipment are placed carefully on surfaces whilst not in use)</p> <ul style="list-style-type: none"> <li>• Tools and metering equipment are situated where they will cause no obstruction or trip hazard</li> <li>• Hazards associated with soldering / hot work are identified and mitigations are applied</li> <li>• All customer property is protected as appropriate (i.e., furniture covers as required)</li> </ul>	customer and others affected by the works are always fully aware of any safety implications during the work activity
<b>B5</b> Deliver a polite, courteous professional service to all customers and members of the public whilst safeguarding	<ul style="list-style-type: none"> <li>• Provision of consistently polite, courteous, and professional customer service across all interactions with customers/members of the public</li> </ul>	<ul style="list-style-type: none"> <li>• The apprentice demonstrates a clear understanding of the types of vulnerability and its many forms</li> </ul>

Standard	To achieve a Pass the apprentice must achieve <b>ALL</b> of the following:	To achieve a Distinction grade additional marks can be gained from the following criteria in addition to <b>ALL</b> of the Pass criteria:
customer welfare and recognising vulnerability	<ul style="list-style-type: none"> <li>• Recognises vulnerability and adapts interactions accordingly</li> <li>• Records instances of vulnerability where appropriate in line with company/employer processes and procedures</li> <li>• Reports any issues through the appropriate channel where concerns for welfare arise</li> </ul>	<ul style="list-style-type: none"> <li>• The apprentice demonstrates awareness of the steps required to safeguard vulnerable persons</li> </ul>

Group 4: Communicating and Working with others

Standard	To achieve a Pass the apprentice must achieve <b>ALL</b> of the following:	To achieve a Distinction grade additional marks can be gained from the following criteria in addition to <b>ALL</b> of the Pass criteria:
<p><b>S7</b> 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</p>	<p><b>Written job record and personal interactions are delivered professionally, in a timely and positive manner, and demonstrate the best possible experience to customers:</b></p> <ul style="list-style-type: none"> <li>• On pre-arrival call</li> <li>• On greeting the customer at doorstep</li> <li>• Prior to commencement of works, informing customer what to expect</li> <li>• When conducting operations that will cause a smell of gas</li> <li>• When carrying out checks and tests that are off-site of the meter location</li> </ul> <p><b>Information from the customer is received courteously and noted accordingly:</b></p> <ul style="list-style-type: none"> <li>• When the apprentice enquires about sensitive devices or equipment</li> </ul>	<ul style="list-style-type: none"> <li>• The apprentice provides effective responses to any customer questions or queries, demonstrating an outstanding depth of knowledge and awareness of the subject matter</li> <li>• The quality and depth of energy efficiency advice provided to the customer is tailored to that customer's specific needs and circumstances</li> </ul>

Standard	To achieve a Pass the apprentice must achieve <b>ALL</b> of the following:	To achieve a Distinction grade additional marks can be gained from the following criteria in addition to <b>ALL</b> of the Pass criteria:
	<ul style="list-style-type: none"> <li>• When handing over the Smart meter system</li> <li>• When delivering Energy Efficiency advice and demonstrating the benefits of the Smart meter</li> <li>• On close-down of job and within written job report</li> </ul>	
<p><b>B4</b> 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</p>	<ul style="list-style-type: none"> <li>• The apprentice demonstrates effective professional discussions, appropriately detailed handover information with people from different disciplines or trades present on site i.e., representatives of the Emergency Service Provider and/or Distribution Network Operator, or other tradespersons on site</li> <li>• The apprentice adapts their approach when dealing with customers from</li> </ul>	<ul style="list-style-type: none"> <li>• The apprentice recognises and provides appropriate challenge to any discriminatory behaviour conducted by people on site from different trades/disciplines or backgrounds, leading to a satisfactory outcome</li> </ul>



Standard	To achieve a Pass the apprentice must achieve <b>ALL</b> of the following:	To achieve a Distinction grade additional marks can be gained from the following criteria in addition to <b>ALL</b> of the Pass criteria:
	<p>different backgrounds (i.e., where English is not the first language)</p> <ul style="list-style-type: none"> <li>• The apprentice will provide appropriate challenge to any unsafe acts undertaken by people from different trades / disciplines</li> </ul>	

Group 5: Effective Completion of Works

Standard	To achieve a Pass the apprentice must achieve <b>ALL</b> of the following:	To achieve a Distinction grade additional marks can be gained from the following criteria in addition to <b>ALL</b> of the Pass criteria:
<p><b>K2</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</p>	<ul style="list-style-type: none"> <li>• Extraneous metal checks</li> <li>• Polarity and socket tests</li> <li>• Voltage tests</li> <li>• Safe isolation and proving dead</li> <li>• Tightness testing</li> <li>• Purge procedure</li> <li>• Standing Pressure</li> <li>• Working Pressure</li> <li>• PPE checks</li> </ul> <p>The apprentice can state the course of action needed, relevant to results of tests and assessments listed above.</p>	<ul style="list-style-type: none"> <li>• The apprentice elaborates on why the tests and assessments are carried out and the dangers if results are incorrect</li> </ul>
<p><b>S3</b> Use tools, equipment and personal protective equipment in a safe and appropriate manner</p>	<ul style="list-style-type: none"> <li>• The apprentice selects the appropriate tools and equipment relative to the task</li> <li>• Inspects selected tools for damage before use</li> <li>• Test equipment is utilised following a prove-use-prove strategy:               <ul style="list-style-type: none"> <li>○ Single-Pole voltage Tester (VT7)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• The apprentice can explain the process to be followed where an item of personal protective equipment (PPE,) is found to be faulty</li> <li>• The apprentice describes how tools should be maintained to ensure they remain fit for purpose</li> </ul>

Standard	To achieve a Pass the apprentice must achieve <b>ALL</b> of the following:	To achieve a Distinction grade additional marks can be gained from the following criteria in addition to <b>ALL</b> of the Pass criteria:
	<ul style="list-style-type: none"> <li>○ Non-contact voltage indicator pen (VT4)</li> <li>○ Voltage Test Lamps (Drummonds)</li> <li>○ Socket Tester (Martindale)</li> <li>○ Manometer and tubes</li> <li>● Personal Protective Equipment (Gloves or gauntlets, and face visor,) is inspected for damage and appropriately tested (leakage test on gloves) before and after use</li> </ul>	
<p><b>S4</b> Install, exchange, commission, decommission and ongoing maintenance of Smart metering systems, associated equipment and communication systems in accordance with industry standards</p>	<ul style="list-style-type: none"> <li>● SMICoP V7.2</li> <li>● Activities during install, exchange, commission and decommission must be carried in accordance with industry standards:               <ul style="list-style-type: none"> <li>○ Preparing the metering equipment (Meter, regulator, comms unit,) for works</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● The works have been completed to an exceptional quality – i.e., cable and solder work are exemplary</li> </ul>

Standard	To achieve a Pass the apprentice must achieve <b>ALL</b> of the following:	To achieve a Distinction grade additional marks can be gained from the following criteria in addition to <b>ALL</b> of the Pass criteria:
	<ul style="list-style-type: none"> <li>○ Correct application of all checks and tests (listed in CK2)</li> <li>○ Demonstration of correct cabling skills</li> <li>○ Demonstration of correct pipe-jointing skills</li> <li>○ Installation of gas and electric meters and ancillary equipment (Meter, regulator, comms unit,)</li> <li>○ Installation of communication hub</li> <li>○ Ongoing maintenance of existing equipment as required i.e., Isolators, Emergency Control Valves, Fuse Carriers, Connector Blocks</li> </ul>	
<p><b>S10</b> Prepare and sequence equipment and tasks in the order prescribed in relevant</p>	<ul style="list-style-type: none"> <li>● Preparation and sequencing of tasks aligns with the requirements of standards (BS 6400 –1 2006,)</li> </ul>	<ul style="list-style-type: none"> <li>● The apprentice demonstrates a fully methodical and orderly approach in competing the tasks associated with the</li> </ul>

Standard	To achieve a Pass the apprentice must achieve <b>ALL</b> of the following:	To achieve a Distinction grade additional marks can be gained from the following criteria in addition to <b>ALL</b> of the Pass criteria:
operational standards or according to a specific regulation or set of rules	<p>regulations, (The Gas Safety (Installation and Use) Regulations 1998) and company operational processes and procedures:</p> <ul style="list-style-type: none"> <li>○ Exchange of electric meter including decommission of old meter, exchange and</li> <li>○ installation of new meter</li> <li>○ Exchange of gas meter including decommission of old meter, exchange and installation of new meter</li> </ul>	decommission of existing meters, and the exchange, install and commissioning of new meters

Group 6: Personal and Team Development

Standard	To achieve a Pass the apprentice must achieve <b>ALL</b> of the following:	To achieve a Distinction grade additional marks can be gained from the following criteria in addition to <b>ALL</b> of the Pass criteria:
<p><b>S9</b> Achieve individual and team tasks which align to overall work objectives, be self- motivated and disciplined in the approach to work tasks</p>	<ul style="list-style-type: none"> <li>• Acts in accordance with company processes and procedures throughout the job, and provides updates/reports to the appropriate business colleagues/team members as required by the company operating processes or procedures</li> <li>• Maintains a focus on achieving successful completion of the job that will meet customer expectations</li> </ul>	<ul style="list-style-type: none"> <li>• The apprentice demonstrates excellent levels of self-motivation and discipline when carrying out all work tasks</li> <li>• The depth of information provided in job reports exceeds the basic requirement laid down in the company operating processes and procedures</li> <li>• The apprentice shows awareness of support available from within the operational team, i.e., where a technical issue requires discussion with a specialist or coach</li> </ul>

Portfolio: Work Observation: Scoring Summary

Group No.	Work Observation Performance Element	Criteria	Marks Available	Minimum Score
1	Maintaining Safety Standards	S2 / B1	15	12
2	Risk Awareness and Risk Monitoring	S1 / B2	15	12
3	Customer Care and Welfare	K6 / S6 / B5	15	12
4	Communications and Working with Others	S7 / B4	15	12
5	Effective Completion of Works	K2 / S3 / S4/ S10	35	30
6	Personal and Team Development	S9	5	2
<b>Total</b>			<b>100</b>	<b>80</b>

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

Pass Score: To achieve a 'Pass' the apprentice must demonstrate complete competence across the entire standard. All categories must achieve the listed minimum mark to achieve a 'Pass' for the full Portfolio Assessment

## Component 2: End-point Interview (based on portfolio of evidence)

The end-point interview is graded out of 100. The minimum mark must be achieved for each section. This mark will be used when calculating the final grading of the end-point interview. The employer technical expert will be marking against the following criteria during the end-point interview:

### Group 1: Maintaining Safety Standards

#### Legislation/Regulations and Standards/Codes of Practice

Standard	To achieve a Pass the apprentice must achieve the following:	To achieve a Distinction grade additional marks can be gained from the following criteria in addition to the minimum Pass criteria:
<b>K1</b> Current Health, Safety and Environmental legislation and regulations applicable to work in the gas and power industries	<ul style="list-style-type: none"> <li>• HASAWA (Health and Safety @ Work Act 1974)</li> <li>• MOCOPA (DCP 044)</li> <li>• SMICoP v7.2</li> <li>• Gas Safety (Installation and Use) Regulations 1998</li> <li>• Electricity at Work Regulations 1989</li> <li>• RIDDOR (Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013)</li> <li>• Company/Employer Operating Procedures</li> </ul>	<ul style="list-style-type: none"> <li>• CoSHH (Control of Substances Hazardous to Health Regulations 2002)</li> <li>• The Management of Health and Safety at Work Regulations 1999</li> <li>• Provision and Use of Work Equipment Regulations 1998 (PUWER)</li> </ul>



Standard	To achieve a Pass the apprentice must achieve the following:	To achieve a Distinction grade additional marks can be gained from the following criteria in addition to the minimum Pass criteria:
<p><b>B5</b> Deliver a polite, courteous professional service to all customers and members of the public whilst safeguarding customer welfare and recognising vulnerability</p>	<ul style="list-style-type: none"> <li>• Vulnerabilities – Examples:               <ul style="list-style-type: none"> <li>○ Physical disability</li> <li>○ Hearing impaired</li> <li>○ Sight Issues</li> <li>○ Other health issues</li> <li>○ Poor literacy/English not first language</li> <li>○ Financial or debt issues</li> <li>○ Mental health problems</li> <li>○ Elderly</li> <li>○ Customer has no bank account</li> <li>○ No basic digital skills / no internet</li> <li>○ Living with dementia</li> <li>○ Unable to safeguard personal welfare</li> </ul> </li> </ul>	
<p><b>B1</b> Have personal wellbeing and the safety of customers and others as a priority</p>	<ul style="list-style-type: none"> <li>• Safeguard personal well being</li> <li>• Safeguard the customers safety</li> <li>• Safeguard the customer’s personal welfare</li> </ul>	<p>Can explain the checks that are carried out to ascertain if a customer may be considered as vulnerable</p>

Standard	To achieve a Pass the apprentice must achieve the following:	To achieve a Distinction grade additional marks can be gained from the following criteria in addition to the minimum Pass criteria:
<p><b>K7</b> Deliver a polite, courteous professional service to all customers and members of the public whilst safeguarding customer welfare and recognising vulnerability</p>	<ul style="list-style-type: none"> <li>• Can list the differing circumstances where people may be considered vulnerable, or regard themselves as vulnerable</li> <li>• Can provide examples of where vulnerability has been encountered</li> </ul>	<ul style="list-style-type: none"> <li>• Can describe the actions to be taken where the apprentice encounters a person who appears unable to safeguard their safety and personal welfare</li> </ul>

Group 2: Risk Awareness and Risk Monitoring

Standard	To achieve a Pass the apprentice must achieve <b>ALL</b> of the following:	To achieve a Distinction grade additional marks can be gained from the following criteria in addition to <b>ALL</b> of the Pass criteria:
<p><b>S1</b> Carry out a thorough and rigorous risk assessment to ensure safety of customer, self and property on arrival, during install and upon exit</p>	<ul style="list-style-type: none"> <li>• Vehicle               <ul style="list-style-type: none"> <li>○ Vehicle checks (tyres/fuel/wipers/oil/screen wash)</li> <li>○ Vehicle Stock</li> </ul> </li> <li>• Preparations               <ul style="list-style-type: none"> <li>○ Checks job notes on HHT for vulnerabilities</li> <li>○ Pre-Call Checks: Estimated time of Arrival Agreed, any medical or sensitive equipment, safe to park?</li> </ul> </li> <li>• On Arrival               <ul style="list-style-type: none"> <li>○ Park safely</li> <li>○ Risk assess route to door – trip hazards, or evidence of young children/pets?</li> <li>○ Risk assess flues / terminals / Solar panels present?</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Explanation of dynamic risk assessment with examples</li> <li>• Application of Dynamic risk assessment</li> </ul>

Standard	To achieve a Pass the apprentice must achieve <b>ALL</b> of the following:	To achieve a Distinction grade additional marks can be gained from the following criteria in addition to <b>ALL</b> of the Pass criteria:
	<ul style="list-style-type: none"> <li>• <b>Doorstep</b> <ul style="list-style-type: none"> <li>○ Stage 1 PPE worn</li> <li>○ Company introduction stated</li> </ul> </li> </ul>	
<p><b>B2</b> Be risk aware showing the desire to reduce risks through systematic monitoring and checking information and the strict compliance with appropriate rules and regulations</p>	<p>Appropriate rules and regulations:</p> <ul style="list-style-type: none"> <li>• HASAWA (Health and Safety @ Work Act 1974)</li> <li>• MOCOPA (DCP 044)</li> <li>• SMICoP v7.2</li> <li>• Gas Safety (Installation and Use) Regulations 1998</li> <li>• Electricity at Work Regulations 1989</li> <li>• RIDDOR (Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013)</li> <li>• Company/Employer Operating Procedures</li> </ul>	<ul style="list-style-type: none"> <li>• The apprentice performance demonstrates 'dynamic risk assessment' and can provide further relevant examples of dynamic risk assessment</li> </ul>

Group 3: Customer Care and Welfare

Standard	To achieve a Pass the apprentice must achieve <b>ALL</b> of the following:	To achieve a Distinction grade additional marks can be gained from the following criteria in addition to <b>ALL</b> of the Pass criteria:
<p><b>K5:</b> Up to date knowledge of energy efficiency principles to be able to provide advice and guidance to the customer</p>	<ul style="list-style-type: none"> <li>• Turn down heating thermostat</li> <li>• Install Cavity wall insulation</li> <li>• Remove appliance plugs in the evening – don't leave appliances on stand-by</li> <li>• Install low-energy lighting</li> <li>• Install attic insulation</li> <li>• Use Smart apps to control heating systems</li> <li>• Reduce usage of heavy consumption appliances</li> <li>• Take showers rather than baths</li> <li>• Learn how to interpret energy usage data on your bill</li> </ul>	

Standard	To achieve a Pass the apprentice must achieve <b>ALL</b> of the following:	To achieve a Distinction grade additional marks can be gained from the following criteria in addition to <b>ALL</b> of the Pass criteria:
<p><b>K6:</b> Knowledge of Smart metering systems to be able to discuss and advise the customer</p>	<ul style="list-style-type: none"> <li>• Smart meter system demonstrated and explained to customer in a clear and accurate manner, and customer understands the information being provided</li> <li>• Demonstration outlines what information is available from the Smart meter system and how it can be accessed from the In-Home-Display</li> <li>• Written instructions on how to use the system are left with the customer, or sent, or both</li> <li>• Demonstration is polite, courteous, and takes account of any specific customer needs/any known vulnerabilities</li> </ul>	
<p><b>B3:</b> Be Energy Aware and deliver appropriate advice to customers on energy efficiency</p>	<ul style="list-style-type: none"> <li>• Turn down heating thermostat</li> <li>• Install Cavity wall insulation</li> <li>• Remove appliance plugs in the evening – do not leave appliances on stand-by</li> <li>• Install low-energy lighting</li> </ul>	<p>Apprentice confidently describes the SMICoP / OFGEM Principles when delivering customer energy efficiency conversations, including:</p> <ul style="list-style-type: none"> <li>• Describes how the Smart meter system can be used to improve energy efficiency</li> </ul>

Standard	To achieve a Pass the apprentice must achieve <b>ALL</b> of the following:	To achieve a Distinction grade additional marks can be gained from the following criteria in addition to <b>ALL</b> of the Pass criteria:
	<ul style="list-style-type: none"> <li>• Install attic insulation</li> <li>• Use Smart apps to control heating systems</li> <li>• Reduce usage of heavy consumption appliances</li> <li>• Take showers rather than baths</li> <li>• Learn how to interpret energy usage data on your bill</li> </ul>	<ul style="list-style-type: none"> <li>• Conversation and recommendations are specific to the customers circumstances</li> <li>• Potential savings are never over-stated</li> </ul>
<p><b>B5:</b> Deliver a polite, courteous professional service to all customers and members of the public whilst safeguarding customer welfare and recognising vulnerability</p>	<ul style="list-style-type: none"> <li>• Smart meter system demonstrated and explained to customer in a clear and accurate manner, and customer understands the information being provided</li> <li>• Demonstration outlines what information is available from the Smart meter system and how it can be accessed from the In-Home-Display</li> <li>• Written instructions on how to use the system are left with the customer, or sent, or both</li> </ul>	

Standard	To achieve a Pass the apprentice must achieve <b>ALL</b> of the following:	To achieve a Distinction grade additional marks can be gained from the following criteria in addition to <b>ALL</b> of the Pass criteria:
	<ul style="list-style-type: none"> <li>• Demonstration is polite, courteous, and takes account of any specific customer needs/any known vulnerability</li> </ul>	

#### Group 4: Communicating and Working with Others

Standard	To achieve a Pass the apprentice must achieve <b>ALL</b> of the following:	To achieve a Distinction grade additional marks can be gained from the following criteria in addition to <b>ALL</b> of the Pass criteria:
<p><b>S7:</b> 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</p>	<ul style="list-style-type: none"> <li>• Provides a reflective account from portfolio of instances where communication methods had to be adapted to account for vulnerability when explaining the benefits of using Smart metering equipment</li> </ul>	



Standard	To achieve a Pass the apprentice must achieve <b>ALL</b> of the following:	To achieve a Distinction grade additional marks can be gained from the following criteria in addition to <b>ALL</b> of the Pass criteria:
include practical advice and the benefits of using the equipment		
<b>B4:</b> 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	<ul style="list-style-type: none"> <li>• Provide a reflective account from portfolio of instances of working with representatives from the Gas Emergency Service Provider (ESP)</li> <li>• Provide a reflective account of working with representatives from the Distribution Network Operator (DNO)</li> </ul>	<ul style="list-style-type: none"> <li>• Describes circumstances where the apprentice has had to provide challenge to both unsafe and discriminatory behaviour of others on site, or can describe the actions they would take if no such instances had occurred thus far</li> </ul>

Group 5: Effective Completion of Works

5a) Electrical Meter Exchange) NB: All criteria below relate to the Electrical installation only.

Standard	To achieve a Pass the apprentice must achieve <b>ALL</b> of the following:	To achieve a Distinction grade additional marks can be gained from the following criteria in addition to <b>ALL</b> of the Pass criteria:
<p><b>K2</b> Electrical testing and assessment procedures needed to establish the condition of the equipment and installation and the actions needed as a result</p>	<ul style="list-style-type: none"> <li>• Prove-Use-Prove process on electrical test equipment before and after each usage</li> </ul> <p>Tests and assessments Pre fuse-pull</p> <ul style="list-style-type: none"> <li>• Polarity - Socket Tester used</li> <li>• Carries out Extraneous Metal check using a voltage tester (K2)</li> <li>• Carries out voltage detection checks at top and bottom of fuse carrier and confirms voltage readings across meter terminals 1 – 4</li> </ul> <p>Assessments after fuse pull</p> <ul style="list-style-type: none"> <li>• Ensures safety and checks any open ports are sealed/bunged when establishing condition of the equipment and installation</li> </ul>	

Standard	To achieve a Pass the apprentice must achieve <b>ALL</b> of the following:	To achieve a Distinction grade additional marks can be gained from the following criteria in addition to <b>ALL</b> of the Pass criteria:
	<p>Test to 'Prove Installation Dead' after fuse pull</p> <ul style="list-style-type: none"> <li>• Voltage Tester check each side of cut-out</li> <li>• Uses Test Lamps to confirm live supply to inlet of cut-out/dead at outlet of cut-out, and dead across meter terminals 1 – 4</li> </ul> <p>Tests after fuse re-inserted</p> <ul style="list-style-type: none"> <li>• Uses voltage indicator tools to confirm polarity is correct across cut-out and at meter tails</li> <li>• Polarity at socket re-confirmed using socket tester</li> </ul>	
<p><b>K3</b> Gas and electrical theories and procedures involved in the practical application of installation, exchange, commission, decommission and maintenance of Smart</p>	<ul style="list-style-type: none"> <li>• Knowledge of types of microgeneration and backfeed</li> <li>• Recognises types of earthing systems</li> <li>• Checks Consumer Unit (CU) and records Residual Current Device (RCD) positions</li> </ul>	

Standard	To achieve a Pass the apprentice must achieve <b>ALL</b> of the following:	To achieve a Distinction grade additional marks can be gained from the following criteria in addition to <b>ALL</b> of the Pass criteria:
metering systems and associated equipment and communication systems	<ul style="list-style-type: none"> <li>• Describes Prove-Use-Prove (P-U-P) process for electrical test equipment on each usage</li> <li>• Correct test results/readings are described</li> <li>• Checks condition of fuse and checks cables are correctly sized, relative to fuse rating</li> </ul>	
<b>K4</b> Relevant electrical/mechanical principles and how they are applied in work processes and procedures	<ul style="list-style-type: none"> <li>• Checks condition of existing meter and cables (size, condition, tightness)</li> <li>• Checks for signs of scorching / burning around meter board</li> <li>• Checks Meter tails – no bare/exposed copper</li> <li>• Checks condition of cut-out and fuse carrier</li> <li>• Polarity - Socket Tester used (can describe correct actions if socket test result is faulty)</li> <li>• Fuse pull, whilst supporting fuse carrier and shroud inserted</li> <li>• The relevant electrical/mechanical principles including what the satisfactory</li> </ul>	

Standard	To achieve a Pass the apprentice must achieve <b>ALL</b> of the following:	To achieve a Distinction grade additional marks can be gained from the following criteria in addition to <b>ALL</b> of the Pass criteria:
	<p>condition of existing meter installation looks like</p> <ul style="list-style-type: none"> <li>• How meter tails should be installed</li> <li>• Knowledge of earthing systems</li> <li>• How to correctly size cables</li> </ul>	
<p><b>S4</b> Install, exchange, commission, decommission and ongoing maintenance of Smart metering systems, associated equipment and communication systems in accordance with industry standards</p>	<ul style="list-style-type: none"> <li>• Meter covers off, tails marked/labelled, then decommissions and removes existing meter</li> <li>• Trims and adjusts meter tails</li> <li>• Installs new meter</li> <li>• Checks tightness of terminal screws/confirms no copper exposed. Uses sleeves as required</li> <li>• Communications Hub installed</li> <li>• Shroud removed; fuse re-inserted and power re-instated</li> <li>• All seals refitted using sealing pliers</li> <li>• All Meter details recorded on appropriate device/document</li> </ul>	<ul style="list-style-type: none"> <li>• The quality of the description of works is outstanding and information provided exceptional</li> </ul>

Standard	To achieve a Pass the apprentice must achieve <b>ALL</b> of the following:	To achieve a Distinction grade additional marks can be gained from the following criteria in addition to <b>ALL</b> of the Pass criteria:
<b>S8</b> Identify where situations or conditions are to unsafe standards and take appropriate actions within your range of competency	<ul style="list-style-type: none"> <li>Recognises conditions where situations/outcomes of tests indicate conditions are to unsafe standards</li> </ul>	<ul style="list-style-type: none"> <li>Can describe the DNO Asset Condition Code category of unsafe situations and knows the appropriate actions relevant to that category</li> </ul>
<b>B1</b> Have personal wellbeing and the safety of customers and others as a priority	<ul style="list-style-type: none"> <li>Wears stage 1 PPE on arrival</li> <li>Ensures work area is clear and adequate space to work</li> <li>Discussion with customer on power off/sensitive equipment, expected time off and effect on wellbeing</li> </ul>	<ul style="list-style-type: none"> <li>Can explain how to secure safety of the electrical meter installation in accordance with employer's work process/procedures</li> </ul>
<b>B2</b> Be risk aware showing the desire to reduce risks through systematic monitoring and checking information and the strict compliance	<ul style="list-style-type: none"> <li>Stage 2 PPE – correctly selects, describes tests and wears at appropriate point prior to fuse pull</li> <li>Stage 2 PPE off once system proved dead</li> <li>Stage 2 PPE re-tested and re-worn (prior to fuse re-insertion)</li> </ul>	

Standard	To achieve a Pass the apprentice must achieve <b>ALL</b> of the following:	To achieve a Distinction grade additional marks can be gained from the following criteria in addition to <b>ALL</b> of the Pass criteria:
with appropriate rules and regulations	<ul style="list-style-type: none"> <li>• Stage 2 PPE removed (after correcting results of tests)</li> </ul>	
<b>B5</b> Deliver a polite, courteous professional service to all customers and members of the public whilst safeguarding customer welfare and recognising vulnerability	<ul style="list-style-type: none"> <li>• Politely and courteously Informs customer power ready to be re-instated</li> <li>• Hazardous waste removed to safeguard welfare; work area tidied</li> </ul>	

5b) Gas Meter Exchange NB: All criteria below relate to the Gas installation only.

Standard	To achieve a Pass the apprentice must achieve ALL of the following:	To achieve a Distinction grade additional marks can be gained from the following criteria in addition to ALL of the Pass criteria:
<p><b>K2</b> Gas testing and assessment procedures needed to establish the condition of the equipment and installation and the actions needed as a result</p>	<p><u>Gas Appliance checks</u></p> <ul style="list-style-type: none"> <li>• Volt stick check around appliance</li> <li>• Ignition and flame picture checked</li> <li>• Flue checked and inspected throughout length, correctly sealed</li> <li>• Terminal guard requirements described</li> <li>• Stability chain present</li> <li>• Safety Shut Off Valve check on cooker lid</li> <li>• Coal placement checks on fire</li> <li>• Flue checked throughout its length on boiler/fire</li> <li>• Termination confirmed on boiler/fire</li> </ul> <p><u>Meter Works</u></p> <ul style="list-style-type: none"> <li>• Meter Installation check</li> <li>• Voltage Indicator check</li> <li>• Emergency control valve correctly fitted and operating correctly</li> </ul>	



Standard	To achieve a Pass the apprentice must achieve <b>ALL</b> of the following:	To achieve a Distinction grade additional marks can be gained from the following criteria in addition to <b>ALL</b> of the Pass criteria:
	<ul style="list-style-type: none"> <li>• Appliances off/Cooker lid up during test</li> <li>• Describes Let-By Test and actions to be taken if Let-By test fails</li> <li>• Describes Temperature Stabilisation</li> <li>• Describes Tightness Test</li> <li>• Informs customer of the potential of a smell of gas during exchange and ventilates area</li> <li>• Describes correct purge process (in accordance with IG/UP/1B and company Operating procedures)</li> <li>• Describes correct Standing and Working pressure tests in accordance with IG/UP/1B and company operating procedures</li> <li>• Gauge off, test nipple replaced</li> <li>• Leak Detection Fluid applied and wiped off after 2 minutes</li> <li>• Marker pen on meter unions and test nipple (if within company process)</li> </ul>	

Standard	To achieve a Pass the apprentice must achieve <b>ALL</b> of the following:	To achieve a Distinction grade additional marks can be gained from the following criteria in addition to <b>ALL</b> of the Pass criteria:
<p><b>K3</b> Gas and electrical theories and procedures involved in the practical application of installation, exchange, commission, decommission and maintenance of Smart metering systems and associated equipment and communication systems</p>	<ul style="list-style-type: none"> <li>• Re-establishes supply to all appliances and resets any controls</li> </ul> <p><u>Gas Appliance Checks</u></p> <ul style="list-style-type: none"> <li>• No signs of spillage around appliance / casing (all appliances)</li> <li>• Ignition and flame picture checks (all appliances)</li> <li>• Conditions – signs of distress or damage (all appliances)</li> <li>• Ventilation and adventitious ventilation correctly described (all appliances)</li> </ul> <p><u>Gas Meter Works</u></p> <ul style="list-style-type: none"> <li>• Meter Installation check</li> <li>• Earthing and bonding checks</li> <li>• Enquires if any smell of gas</li> <li>• Describes Let-By Test and actions to be taken if Let-By test fails</li> <li>• Describes Temperature Stabilisation</li> </ul>	

Standard	To achieve a Pass the apprentice must achieve <b>ALL</b> of the following:	To achieve a Distinction grade additional marks can be gained from the following criteria in addition to <b>ALL</b> of the Pass criteria:
	<ul style="list-style-type: none"> <li>• Can state the parameters for permissible pressure drops for G4 and E6 meters</li> <li>• Describes correct purge process (in accordance with IG/UP/1B and company Operating procedures)</li> <li>• Describes correct Standing and Working pressure tests in accordance with IG/UP/1B and company operating procedures</li> <li>• Gauge off, test nipple replaced</li> <li>• Leak Detection Fluid applied and wiped off after 2 minutes</li> <li>• Marker pen on meter unions and test nipple if within company process</li> </ul>	
<p><b>S4</b> Install, exchange, commission, decommission and ongoing maintenance of Smart metering systems, associated equipment</p>	<ul style="list-style-type: none"> <li>• Meter Installation check</li> <li>• Temporary Continuity Bonds fitted</li> <li>• Enquires if any smell of gas</li> <li>• Checks manometer for damage and attaches</li> <li>• Existing Meter and Regulator decommissioned and removed</li> </ul>	<ul style="list-style-type: none"> <li>• Confidently explains the causes for gas being smelt where Tightness Test showed no drop</li> <li>• The Apprentice description of the gas meter exchange works is exemplary</li> </ul>

Standard	To achieve a Pass the apprentice must achieve <b>ALL</b> of the following:	To achieve a Distinction grade additional marks can be gained from the following criteria in addition to <b>ALL</b> of the Pass criteria:
and communication systems in accordance with industry standards	<ul style="list-style-type: none"> <li>• Pipework adjusted to meet requirements</li> <li>• New washers fitted</li> <li>• New regulator installed; new anti-shear bolts fitted to bracket</li> <li>• New meter installed and second tightness test</li> <li>• Old/New meter details are correctly recorded</li> <li>• Describes correct purge process (in accordance with IG/UP/1B and company Operating procedures)</li> <li>• Describes correct Standing and Working pressure tests in accordance with IG/UP/1B and company operating procedures</li> <li>• Gauge off, test nipple replaced</li> <li>• Leak Detection Fluid applied and wiped off after 2 minutes</li> <li>• Marker pen on meter unions and test nipple if within company process</li> <li>• Re-establishes supply to all appliances and resets any controls</li> </ul>	

Standard	To achieve a Pass the apprentice must achieve <b>ALL</b> of the following:	To achieve a Distinction grade additional marks can be gained from the following criteria in addition to <b>ALL</b> of the Pass criteria:
<p><b>S8</b> Identify where situations or conditions are to unsafe standards and take appropriate actions within your range of competency</p>	<p><b>Unsafe Situations -</b></p> <ul style="list-style-type: none"> <li>• <b>At Risk:</b> <ul style="list-style-type: none"> <li>○ Discussion with customer on circumstances found and explains next steps/corrective actions required</li> <li>○ Appliance left turned off</li> <li>○ A 'Danger Do Not Use' label/sticker applied</li> <li>○ Warning Notice left with customer</li> </ul> </li> <li>• <b>Immediately Dangerous:</b> <ul style="list-style-type: none"> <li>○ Gains permission from customer to isolate, and also discusses the circumstances found and corrective actions required</li> <li>○ Appliance isolated from supply</li> <li>○ A 'Danger Do Not Use' label/sticker applied to appliance</li> <li>○ Warning Notice left with customer</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Apprentice can provide a distinct example of when and how the industry term 'turning off will not remove the risk' should be applied</li> <li>• Confidently describes the actions to be taken if customer permission to isolate an appliance is refused when an immediately dangerous situation is found</li> </ul>

Standard	To achieve a Pass the apprentice must achieve <b>ALL</b> of the following:	To achieve a Distinction grade additional marks can be gained from the following criteria in addition to <b>ALL</b> of the Pass criteria:
<b>B1</b> Have personal wellbeing and the safety of customers and others as a priority	<ul style="list-style-type: none"> <li>• Ensures work area clear</li> <li>• Informs customer of the potential of a smell of gas during exchange and ventilates area in accordance with IG/UP/1B</li> <li>• Removes hazardous waste and tidies work area</li> </ul>	
<b>B2</b> Be risk aware showing the desire to reduce risks through systematic monitoring and checking information and the strict compliance with appropriate rules and regulations	<ul style="list-style-type: none"> <li>• PPE worn</li> <li>• Informs customer of the potential of a smell of gas during exchange and ventilates area in accordance with IG/UP/1B</li> </ul>	<ul style="list-style-type: none"> <li>• Confidently explain in detail how to secure safety of the installation and work area when not present</li> </ul>

Group 6: Personal and Team Development

Standard	To achieve a Pass the apprentice must achieve <b>ALL</b> of the following:	To achieve a Distinction grade additional marks can be gained from the following criteria in addition to <b>ALL</b> of the Pass criteria
<p><b>S9:</b> Achieve individual and team tasks which align to overall work objectives, be self-motivated and disciplined in the approach to work tasks</p>	<ul style="list-style-type: none"> <li>• The apprentice describes how they progressed their learning plan during the apprenticeship</li> <li>• The apprentice discusses how members of their work team contributed to the learning plan during the apprenticeship</li> </ul>	
<p><b>B6:</b> Maintain and develop personal learning plans to continually develop knowledge and competence</p>	<ul style="list-style-type: none"> <li>• The apprentice provides a description of their approach to learning</li> <li>• The apprentice discusses how they plan to continually develop their knowledge and experience</li> </ul>	<ul style="list-style-type: none"> <li>• The apprentice provides a confident outline of how they intend to progress any future studies, or how they intend to progress within their current role and/or within any future aspirational role.</li> <li>• The apprentice has a plan for continuous professional development</li> </ul>

### End-point Interview: Scoring Summary

Group No.	End-point Interview Performance Element and Standard	Sub-Section	Minimum Score	Maximum Score
1	Maintaining Safety Standards (K1; K7; B1; B5)	Legislation/Regulations and Standards/Codes of Practice	7	10
		Vulnerabilities	8	10
2	Risk Awareness and Risk Monitoring (S1; B2)	Risk Awareness and Risk Monitoring	9	10
3	Effective Completion of Works (K2; K3; K4; S4; S8; B1; B2; B5)	Electric meter	17	20
		Gas Appliance Checks and Unsafe Situations	8	10
		Gas meter	17	20
4	Customer Care and Welfare (K5; K6; B3; B5)	Handover of Smart Meter Installation and Energy Efficiency Conversation	7	10
5	Communications and Working with Others (S7; B4)	Reflective Accounts	6	8
6	Personal and Team Development (S9; B6)	Learning Plans/Development of Knowledge	1	2
<b>Total</b>			<b>80</b>	<b>100</b>

A Fail will be awarded if an apprentice has not achieved all the Pass criteria/descriptors. Pass Score: To achieve a 'Pass' the apprentice must demonstrate complete competence across the entire standard. All categories must achieve the listed minimum mark to achieve a 'Pass' for the full Portfolio Assessment



## Overall grading

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

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

The portfolio and end-point interview are all marked separately and awarded a fail, pass or distinction.

The knowledge test is based on the percentage score achieved. The grade and mark for the practical observation and end-point interview is based on the number and level of criteria achieved.

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

<b>Component 1 - Portfolio, including work observation and final review %</b>	<b>Grade</b>	<b>Component 2 – End-point interview based on the portfolio of evidence %</b>	<b>Grade</b>
<=64	Fail	<80	Fail
65-84	Pass	80 - 89	Pass
85 - 100	Distinction	90 - 100	Distinction

## Overall Grading

The overall grading for SMART Standard is based on the grades achieved in the individual components as follows:

- Fail – if a Fail is awarded for at least one of the components

- 
- Pass – if a combination of a Pass and Distinction is awarded across the 2 components
  - Distinction – if a distinction is awarded in the portfolio and end-point interview
- 

## Section 4: Resits and retakes

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

The employer and EUIAS agree the timescale for a re-sit or re-take. Failed EPA components must be re-sat or re-taken within the 3 month end-point assessment period, otherwise the EPA will need to be re-sat or re-taken in full.

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

An apprentice will get a maximum EPA grade of pass for a re-sit or re-take.

The EUIAS resit and re-take policy can be found at:

<https://www.euias.co.uk/end-point-assessment/policies-and-fees/>

## Section 5: Practical Guidance

### Level 2 Dual Fuel Smart Meter Installer Workplace Observation and Planning Form

#### Purpose

EUIAS provide a review service, to assist with planning the workplace observation, for all employers/training providers with apprentices registered on this standard. To access the service, see Appendix C, Level 2 Dual Fuel Smart Meter Installer Workplace Observation and Planning Form.'

3 months before the work observation is scheduled for the apprentice the employer must submit the following documentation to the EUIAS for approval:

- Produce the work observation task brief which should provide specification instructions for the apprentice to be able to:
  - 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
- determine action/organise tasks

- select and check operate tools and equipment
- plan the job
- focus on the skill
- work safely
- Photographs and or videos of the real working environment where the practical task(s) will be conducted

For example, the apprentice will be expected and must work to the tolerance and specifications as stated above consistent with a realistic working task. Note that the expectation is that the work observation must be carried out over 3 hours for completing the work observation and therefore must be sufficiently complex to match this duration and this includes time allocated for questioning.

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

Tasks should be designed to allow variation to be introduced, reducing predictability. The observation must be conducted in real working environments.

The employer must ensure:

- the practical observation enables the assessment of core and specific knowledge, skills and behaviours in a real working environment
- the equipment and tools are available

The employer must ensure that the practical task(s) is developed to allow the technical expert to observe the apprentice synoptically demonstrate core and specific KSBs.

## Submitting the form to EUIAS

The employer/training provider should complete and submit the 'Level 2 Dual Fuel Smart Meter Installer Workplace Observation and Planning Form' to the EUIAS Service Delivery Team for approval 3 months before the workplace observation.

## EUIAS Review Process

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

### **Please be aware:**

- Practical task/briefs review does not guarantee that the apprentice will pass the workplace observation
- No health and safety risk assessment has been carried out by EUIAS
- EUIAS review does not remove any of the employer obligations to ensure full coverage of the standard, and full compliance with relevant legislation
- EUIAS review is based only on information supplied and is not a guarantee that the practical tasks/briefs, selected plant/machinery/equipment on the day of the practical will be sufficient for an EPA workplace observation
- The information provided in this Level 2 Dual Fuel Smart Meter Installer Workplace Observation and Planning Form must not be shared with the apprentice

## Preparing for the Work Observation

Where possible, the employer/training provider should provide the apprentice with the opportunity to carry out a practice workplace observation as close to the real assessment described in Section 2 of this specification (Component 1).

The live work observation assessment also includes questioning from the line manager/trainer, safety or quality assurance engineer. The questioning is designed to confirm the apprentice's understanding of the rationale for actions taken and choices made to complete the task. To prepare the apprentice for this aspect of the practice practical assessment, we recommend developing some open-ended questions which focus on the rationale for each part of the task.

The tutor or supervisor carrying out the work observation should record their assessment of how the apprentice performed and provide feedback to the apprentice with guidance on what to do to improve their performance, taking note of the grading descriptors for pass and distinction in Section 3.

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

A template is provided to help ensure that the activities assessed during the practical observation will give complete coverage of the standard. See Appendix D, SMART Supporting Documents 'Practice Workplace Observation Template.'

## Preparing for the End-point Interview

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

## Guidance on Portfolio

The portfolio elements can be undertaken in any order, as shown below. The portfolio comprises:

- Work Observation Record (accounts for 20% of portfolio score)
- Additional Portfolio Evidence (accounts for 80% of the portfolio score)

The portfolio is not assessed during the interview. It serves the following purpose:

- Provides the opportunity to demonstrate the core and specific KSBs required across the standard.
- The assessor reviews the portfolio before the end-point interview to help focus and contextualise their questions.
- A carefully prepared mapped portfolio supports the apprentice during the end-point interview

## Quality vs Quantity

The apprentice should be supported in selecting and mapping evidence for their portfolio in the mapping document. They must gather evidence on the full range of KSBs required by the standard and be assessed on particular tasks or procedures or items of equipment during their practical observation.

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

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

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

## What to include in the Additional Portfolio Evidence?

The additional portfolio evidence:

- must contain a mapping document where evidence is mapped against the KSBs. A template has been produced to help the apprentices with collecting and mapping their evidence. A copy of the template is included. See Appendix F, Dual Fuel Smart Meter Installer Supporting Documents 'Portfolio Mapping Document.'
- must contain **at least one piece of quality evidence relating to each KSB**. This piece of quality evidence must demonstrate the KSBs as outlined in Section 2 of this Specification which will be assessed by the end-point interview based on the portfolio
- must include evidence that **covers all KSBs** required, and this would normally come from evidence relating to **at least 5 holistic jobs**
- **written accounts of activities** that have been completed and referenced against the knowledge, skills and behaviours supported by appropriate



annotated photographic evidence and work products. Examples of suitable evidence include:

- witness statements any employer contributions must focus on direct observation of evidence (e.g. review/witness statements) of competence rather than opinions
- reflective journals
- workplace documentation/records, for example job task/jobs cards/time sheets
- maintenance/service records
- annotated photographs
- safety documentation
- company policies and procedures as appropriate to the activities
- **a final progress review document** - which should be completed and recorded to determine competence across the entire occupational Standard
- **a gas safe registration certificate**
- **MOCOPA**
- will be available, during the end-point interview, allowing the apprentice to refer to it
- must contain demonstrations of work carried out over a period of time and must include evidence of work carried out within the last three months of the on programme period
- must contain a minimum of 2 and no more than 3 activities carried out by the apprentice that demonstrates the higher order knowledge, skills and behaviours
- where practicable this should include:
  - annotated images
  - annotated diagrams
  - job descriptions and witness evidence/testimony
  - situations that have been difficult and challenging, and how these have been overcome e.g. equipment breakdown which has results in a change in working practice while still adhering to company procedures

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



Evidence must be:

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

What can the apprentice do?

The apprentice should:

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

The role of the employer/training provider

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

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

What to expect in the practice end-point interview?

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

A practice end-point interview based on the portfolio template is provided for use to prepare the appropriate questions to ask and to record the apprentices' performance. See Appendix E, Dual Fuel Smart Meter Installer Supporting Documents 'Practice End-point interview Template.'

As part of the practice exercise, apprentices should have access to their portfolio to support their responses.

## Section 6: Authenticity and security of apprentice work

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

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

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



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