

# apprenticeship FRAMEWORK

## The Gas Industry (Wales)

### IMPORTANT NOTIFICATION FOR ALL APPRENTICESHIP STARTS FROM 14 OCTOBER 2016

Modifications to SASW came into effect on 14 October 2016. These changes relate to the Essential Skills and Employer Rights and Responsibilities requirements of a framework and they **ONLY** apply to new Apprenticeship starts on, or after, 14th October. Apprenticeship starts before this date must continue to meet the 2013 SASW requirements for Essential Skills and Employer Rights and Responsibilities.

For more details of the changes and how they will affect new apprenticeship starts, please read the following preface page to the framework document. NB: Please check the "Revising a Framework" section for information on any additional changes that may have been made to this framework.

### Latest framework version?

For any previous versions of this framework: [www.acwcerts.co.uk/framework\\_library](http://www.acwcerts.co.uk/framework_library)

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# The Gas Industry (Wales)

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# Framework information

## Information on the Issuing Authority for this framework:

### Energy and Utility Skills

The Apprenticeship sector for occupations in electricity, gas and water supply, and waste management (also includes gas utilisation, recycling and waste water collection and treatment)

Issue number: 8	This framework includes:
Framework ID: FR03989	Level 2 <input checked="" type="checkbox"/> Level 3 <input checked="" type="checkbox"/> Level 4-7 <input type="checkbox"/>
Date this framework is to be reviewed by: 29/09/2017	This framework is for use in: Wales

### Short description

The gas industry faces some key challenges including an ageing workforce and a skills deficit in craft and technical roles.

The purpose of this Foundation Apprenticeship and Apprenticeship is to support the industry to address these challenges by developing occupational competence in a wide range of job roles in the gas transmission and distribution and gas utilisation parts of the industry.

# Contact information

## Proposer of this framework

The new level 3 pathway in Gas Network Operations is proposed by the Gas Network Skills Forum facilitated by EU Skills and chaired by Scotia Gas Networks.

The purpose of the forum is to determine the mechanisms and processes required by Asset Owners to ensure that appropriate skills-related frameworks are available to support the development and demonstration of competence in gas transportation activities and emergency service provision.

The following organisations are represented on this forum: Wales and West Utilities, Phoenix Natural Gas, Scotia Gas Networks, National Grid and Northern Gas Networks.

This forum has been instrumental to the qualification and pathway development process and have been involved at every stage.]

## Developer of this framework

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# Revising a framework

## Why this framework is being revised

[This framework is being revised to take out the EAL Qualifications in the level 2 pathway 1 Network Construction Operations and level 3 pathway 1 Gas Fired Wet Central Heating

Employer Rights and Responsibilities (ERR)

The final modification to SASW is to Employer Rights and Responsibilities (ERR) which is no longer compulsory in frameworks. Please refer to the Employer Rights and Responsibilities section within this framework document to confirm specific requirements

## Summary of changes made to this framework

[This framework is being revised to take out the EAL Qualifications in the level 2 pathway 1 Network Construction Operations and level 3 pathway 1 Gas Fired Wet Central Heating

Employer Rights and Responsibilities (ERR) - updated to reflect changes to SASW.

## Qualifications removed

[Qualification Number Title

600/0578/6 EAL Level 3 Diploma in Gas Utilisation Installation and Maintenance: Domestic Warm Air (QCF)

600/0579/8 EAL Level 3 Diploma in Gas Utilisation Installation and Maintenance: Domestic Space Heating (QCF)

600/0580/4 EAL Level 3 Diploma in Gas Utilisation Installation: Cookers, Tumble Dryers, Leisure and Domestic Space Heating (QCF)

600/0581/6 EAL Level 3 Diploma in Gas Utilisation Maintenance: Cookers, Tumble Dryers, Leisure and Domestic Space Heating (QCF)

600/1034/4 EAL Level 3 Diploma in Gas Utilisation Installation: Water Heating and Wet Central Heating (QCF)

600/1038/1 EAL Level 3 Diploma in Gas Utilisation Maintenance: Cookers, Tumble Dryers, Leisure, Domestic Space Heating, Water Heating, Wet Central Heating and Domestic Warm Air (QCF)

600/1039/3 EAL Level 3 Diploma in Gas Utilisation Installation and Maintenance: Cookers, Tumble Dryers, Leisure, Domestic Space Heating, Water Heating and Wet Central Heating and Domestic Warm Air (QCF)

600/1040/X EAL Level 3 Diploma In Gas Utilisation Installation: Cookers, Tumble Dryers, Leisure, Domestic Space Heating, Water Heating, Wet Central Heating and Domestic Warm Air (QCF)

600/1041/1 EAL Level 3 Diploma In Gas Utilisation Installation and Maintenance: Cookers, Tumble Dryers, Leisure, Domestic Space Heating, Water Heating and Wet Central Heating (QCF)

600/1042/3 EAL Level 3 Diploma in Gas Utilisation Installation: Cookers, Tumble Dryers, Leisure, Domestic Space Heating, Water Heating and Wet Central Heating (QCF)

600/1653/X EAL Level 3 Diploma in Gas Utilisation Maintenance: Cookers, Tumble Dryers, Leisure, Domestic Space Heating, Water Heating and Wet Central Heating (QCF)

600/1660/7 EAL Level 3 Diploma in Gas Utilisation Maintenance: Water Heating and Wet Central Heating (QCF)

600/2684/4 EAL Level 3 Diploma in Gas Utilisation Maintenance: Cookers, Tumble Dryers, Leisure, Domestic Space Heating, Water Heating, Limited Wet Central Heating and Domestic Warm Air (QCF)

600/3471/3 EAL Level 2 Diploma in Network Construction Operations (Gas) –Main layer (QCF)

600/3470/1 EAL Level 2 Diploma In Network Construction Operations (Gas) - Service layer (QCF)

## Qualifications added

*[(no information)]*

## Qualifications that have been extended

[N/A]

# Purpose of this framework

## Summary of the purpose of the framework

The term “beach to burner” is often used to summarise the breadth of the gas industry. It primarily covers the activities associated with the transportation of gas (“transmission and distribution”) and the installation and maintenance of gas appliances within the customers’ property (“utilisation”).

### Gas Transmission and Distribution

The transmission and distribution part of the industry consists of the transportation of gas from the terminals where gas enters the UK, through the National Transmission System (NTS) to twelve Local Distribution Zones (LDZs) organised into eight major regional networks, and then up to, and including, the main control valve, usually adjacent to the customers’ property.

The NTS is owned and operated by National Grid on a monopoly basis. The eight networks are owned and operated by four asset owners, National Grid (four networks), Scotia Gas (two networks), Wales & West Utilities (one network) and Northern Gas Networks (one network). These monopoly companies are economically regulated by the Office of the Gas and Electricity Markets (Ofgem) which sets their costs, prices and investment levels at Price Control Reviews (PCR) on an eight year cycle.

It is estimated that 21,600 people are employed in gas transmission and distribution in the UK.

### Gas Utilisation

Gas utilisation covers all activities that take place on the customer's side of the main control valve, which also includes the meter. These activities comprise the installation, repair and maintenance of many different appliances, meters, systems and controls. Included within this range is central heating installation and maintenance, usually within a domestic property, but sometimes extending to commercial premises.

For many engineers in the industry, the work they undertake in the consumer’s property often extends into the installation of cold and hot water systems, bathrooms and showers etc. in addition to heating systems, which themselves may be fuelled by gas, oil or in rural areas, liquid petroleum (bottled) gas. However, other engineers may focus more exclusively on the installation and maintenance of gas fired central heating systems, but with increased emphasis on energy efficiency awareness, smart technology and greater consumer need for energy saving advice. This is particularly important for energy supply companies who have legal obligations in these areas, to incorporate these aspects in the competence development of their employees.

The gas utilisation industry is comprised of 65,000 Gas Safe Registered businesses, with a



large majority being self-employed sole traders or micro SME companies. There are a few energy supplier exceptions, with the largest being British Gas with over 8,000 engineers. These businesses provide installation and maintenance services to industrial, commercial and domestic customers and also, in some cases, micro-generation renewable energy. It is estimated that 137,000 people are employed in gas utilisation activities in the UK.

Gas utilisation is not economically regulated, and is very competitive. There is a statutory, safety driven, requirement for all businesses and their employees operating in the industry to be registered with the Gas Safe Register. Registration demonstrates competence in matters of gas safety for work on natural gas and liquid petroleum appliances.

### **Skills in the Gas Industry**

The gas industry (in particular, gas utilisation) is experiencing an ageing workforce. For example, compared to the UK average where 22.2% of the workforce is aged 45-54, 27.1% of the gas utilisation workforce fall into this age group. EU Skills' Workforce Planning Model forecasts that this situation is set to worsen over the next 15 years; the model presents a picture of significant levels of retirements, specifically in technical and engineering roles.

Skills gaps in craft and technical roles are also caused by the fast-paced introduction of new technologies (such as Smart Metering) and working practices, and a general industry failure to recruit, develop and train sufficient staff to meet the requirements of natural wastage.

Economic regulation has a strong influence on skills strategy and investment in gas transmission and distribution, as the regulatory cycle incentivises management to focus on a shorter time horizon than may be appropriate for skills development, given the lengthy lead times from recruitment to achieving competence.

Until recently, the PCR process has taken little account of skills; the rationale being that this is a normal business activity and special provision is unnecessary. However, the skills legacy from the past is running out and investment in new skills is essential. During the last PCR the gas distribution network requested spend for Apprenticeships to tackle anticipated skills gaps based on evidence from the Workforce Planning Model.

In addition, the length and type of contracts issued by asset owners to companies operating within the supply chain have increased, which now warrants investment in Apprenticeships. Contractors are able to "grow their own" workforce through Apprenticeships to mitigate against the effect skills shortages will have on their competitive edge.

### **Apprenticeships in the Gas Industry**

The purpose of this Apprenticeship is to provide a recruitment and training tool to bring new people into the industry and develop whole job competence (beyond the requirements for the Gas Safe Register) in a range of job roles. This Apprenticeship provides employers with the ability to develop a sustainable workforce and address current and anticipated skills gaps, critical today where skilled employees are becoming increasingly difficult to recruit.

This Apprenticeship offers four pathways, each tailored to meet the requirements of employers and new entrants.

- Intermediate Level Apprenticeship in Network Construction Operations (Gas)
- Advanced Level Apprenticeship in Network Construction Operations (Gas)
- Advanced Level Apprenticeship in Gas Fired Wet Central Heating
- Advanced Level Apprenticeship in Gas Heating and Energy Efficiency

The Intermediate Level Apprenticeship in Network Construction Operations (Gas) is appropriate for individuals laying, repairing and maintaining gas service and main pipes in the gas transmission and distribution network.

The Advanced Level Apprenticeship in Network Construction Operations (Gas) is appropriate for individuals involved in a range of more complex job roles supporting the operation of the gas transmission and distribution network.

The Apprenticeship in Gas Fired Wet Central Heating incorporates a series of plumbing units and is designed for workers who intend to install a wide range of plumbing and heating systems and appliances. This pathway is likely to be most suitable for new entrants working across the overlap between plumbing and heating, with greater emphasis on the range of installation and maintenance activities. Typically, this pathway would suit someone working in an SME business, where flexibility and an ability to install a wide range of plumbing and heating systems is needed.

The Apprenticeship in Gas Heating and Energy Efficiency concentrates on the gas installation and maintenance activities, with less emphasis on the broader range of plumbing activities. There is a need for such workers to understand and comply with legislation in the areas of Water Bylaws and Building Regulations, and these aspects are included. There is also greater emphasis on the provision of energy efficiency advice to consumers and measures that may be used to reduce energy use. Typically this pathway would suit someone working for an energy supplier business, where the range of installations will be more limited, and energy efficiency advice has a greater emphasis.]

## **Aims and objectives of this framework (Wales)**

### **Aim:**

To contribute to the development of a sustainable workforce for the UK gas industry.

### **Objectives:**

- To attract new workers to the industry.
- To develop occupational competence in a wide range of job roles in gas transmission,

distribution and utilisation.

- To facilitate progression within the industry.
- To support the Government's ambition outlined in Skills that Work for Wales for a strong Apprenticeship System.]

# Entry conditions for this framework

The Apprenticeship in the Gas Industry does not impose any restrictions to entry. Responsibility for the selection and recruitment of apprentices lies with the employer who will have a clear idea of their requirements.

The qualifications included within this Apprenticeship are demanding and many employers will expect applicants to have gained the Welsh Baccalaureate Intermediate Diploma to demonstrate an ability to complete the Apprenticeship. The qualifications within the Foundation Apprenticeship are less complex and consequently employers may relax their recruitment criteria.

Employers must be confident that the prospective Apprentice has the learning potential/capacity, motivation and aptitude to achieve all of the mandatory outcomes of the framework. However, employers are asked to be flexible when recruiting people onto the Apprenticeship. Where employers/providers have robust learner support systems in place (such as tutorials and mentoring programmes), an individual who historically has not done particularly well at reading, writing and numeracy may thrive on an Apprenticeship where the relevance and application of these subjects is understood.

This Apprenticeship programme may be attractive to learners who have completed The Diploma in Construction and the Built Environment, and The Diploma in Engineering.

Individuals with the following characteristics and attributes are likely to be suitable for this Apprenticeship:

- Gas is dangerous if not handled correctly, so the safety of apprentices, their work colleagues and the public are of the upmost importance in this job. Apprentices must be very safety conscious and have a very responsible attitude to work, working in accordance with company health and safety procedures at all times.
- Apprentices must be prepared to wear Personal Protective Equipment (PPE) when required.
- These are physically demanding jobs that involve bending and lifting so a basic level of fitness is important to be able to conduct the job efficiently.
- Some of these jobs (in particular within network construction operations) involve work outdoors, so apprentices should be prepared to work in any kind of weather.
- Apprentices will need to have good practical skills for handling tools and instruments and be prepared for some hard work. These are very skilled jobs and some aspects require significant amounts of concentration.
- Some of these jobs involve travelling as apprentices will work at different sites, may be responding to emergencies day and night and will travel between customers' properties. Apprentices therefore need to be adaptable and flexible. Some employers will insist that Apprentices will hold or be working towards a full UK driving license on commencement

of their Apprenticeship and must be in possession of a full UK driving licence on completion.

- Apprentices will need an interest in the gas industry and in mechanical/electrical/physical equipment and networks.
- Most of these job roles involve dealing with the general public on a day-to-day basis so apprentices should be presentable and have a polite and courteous manner. Apprentices will need excellent verbal communication skills and be able to provide a good level of customer care.
- Clean and tidy by nature with good self-discipline and timekeeping.
- The ability to work within a team and independently.

### **Initial Assessment**

Initial assessment may be used to identify prior learning and experience to tailor the Apprentice's Individual Learning Plan as appropriate, not for screening our applicants. In the case of APL for the combined qualifications or Functional Skills, the Apprenticeship programme should be tailored to allow the Apprentice to undertake new learning, including learning at a higher level and develop new skills.

# Level 2

Title for this framework at level 2

## Foundation Apprenticeship in Network Construction Operations (Gas)

Pathways for the framework at level 2:

Pathway 1: Foundation Apprenticeship in Network Construction Operations (Gas)

# Level 2, Pathway 1: Foundation Apprenticeship in Network Construction Operations (Gas)

## Description of this pathway

The Foundation Apprenticeship in the Network Construction Operations (Gas) requires a minimum total of 49 credits to be achieved broken down as follows:

Combined qualification - 37 (of which a minimum of 13 are knowledge)

ESW Communication - 6

ESW Application of Number - 6

## Entry requirements for this pathway in addition to the framework entry requirements

There are no entry requirements for this pathway in addition to the general framework entry requirements.

Job title(s)	Job role(s)
Gas Mainlayer - Self Lay	Working for a contracting organisation using maps and plans to locate digging location, preparing excavations by hand or use of mechanical equipment, laying and repairing pipes and mains systems, repairing excavations and pavements on completion of work.
Gas Mainlayer - Distribution	Using maps and plans to locate digging location, preparing excavations by hand or use of mechanical equipment, laying and repairing pipes and mains systems, connecting homes and business premises to the gas network, repairing excavations and pavements on completion of work.
Gas Mainlayer - Repair and Maintenance	Following identification of an external gas leak an apprentice will use maps and plans to locate digging location, prepare excavations by hand or use of mechanical equipment, lay and repair pipes and mains systems and repair excavations and pavements on completion of work.
Gas Servicelayer - Self Lay	Working for a contracting organisation using maps and plans to locate digging location, preparing excavations by hand or use of mechanical equipment, laying and repairing pipes and service systems, repairing excavations and pavements on completion of work.
Gas Servicelayer - Distribution	Using maps and plans to locate digging location, preparing excavations by hand or use of mechanical equipment, laying and repairing pipes and service systems, connecting homes and business premises to the gas network, repairing excavations and pavements on completion of work.
Gas Servicelayer - Repair and Maintenance	Following identification of an external gas leak an apprentice will use maps and plans to locate digging location, prepare excavations by hand or use of mechanical equipment, lay and repair pipes and service systems and repair excavations and pavements on completion of work.



# Qualifications

## Competence qualifications available to this pathway

N/A

## Knowledge qualifications available to this pathway

N/A

## Combined qualifications available to this pathway

### B1 – City & Guilds Level 2 Diploma in Network Construction Operations (Gas) - Main layer (QCF)

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
B1a	600/1534/2	City & Guilds	44	210-323	N/A

### B2 – City & Guilds Level 2 Diploma in Network Construction Operations (Gas) - Service layer (QCF)

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
B2a	600/1535/4	City & Guilds	38	190-285	N/A

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## Relationship between competence and knowledge qualifications

Apprentices must complete the combined qualification appropriate to their job role.

Apprentices working on gas mains pipes must complete B1 and apprentices working on gas service pipes must complete B2.

There are three pathways within each competence qualification:

- Self lay
- Distribution
- Repair and Maintenance

Apprentices must complete the pathway that is appropriate to their job role.

Knowledge and competence are addressed through combined units within the integrated qualifications. Within the units, knowledge and understanding is separately identified and assessed through dedicated learning outcomes, for example “demonstrate knowledge and understanding of installing equipment for safe working on the highway”.

Completion of the mainlayer qualification provides a minimum of 16 credits of knowledge.

Completion of the servicelayer qualification provides a minimum of 13 credits of knowledge. |

# Essential Skills

An apprenticeship framework must specify as a Welsh certificate requirement the expected achievement levels of Essential Skills in Communication and the Application of Number.

Where Essential Skills qualifications are specified in an apprenticeship framework, the apprenticeship framework must specify the acceptance of a recognised proxy qualification for Communication and Application of Number.

## Communication

For the current list of acceptable proxy qualifications and appropriate **minimum** grade/level requirements, please refer to the most recent version of [SASW](#) on the [gov.wales](#) website. Additional guidance materials can be found on the [Knowledge Base](#) section of the [ACW](#) website.

**Does this framework require Communication achievement above the minimum SASW requirement?**    **YES**    ☐ **NO** ☒

If YES, please state the grade/level required for English and give a brief **REASON** as to why this is required:

[Enter alternative grade/level requirements and reasons here.]

## Application of Number

For the current list of acceptable proxy qualifications and appropriate **minimum** grade/level requirements, please refer to the most recent version of [SASW](#) on the [gov.wales](#) website. Additional guidance materials can be found on the [Knowledge Base](#) section of the [ACW](#) website.

**Does this framework require Application of Number achievement above the minimum SASW requirement?**    **YES**    ☐ **NO** ☒

If YES, please state the grade/level required for Maths and give a brief **REASON** as to why this is required:

Enter alternative grade/level requirements and reasons here.

## Inclusion of Digital Literacy (ICT)

Digital Literacy (ICT) is an **optional** framework requirement.

Is Digital Literacy a requirement in this framework? **YES** ☐ **NO** ☒

### Digital Literacy (ICT)

**Please note that there are currently no acceptable proxy qualifications for Digital Literacy (ICT).**

For the current **minimum** grade/level requirements, please refer to the most recent version of [SASW](#) on the [gov.wales](#) website. Additional guidance materials can be found on the [Knowledge Base](#) section of the [ACW](#) website.

**Does this framework require Digital Literacy (ICT) achievement above the minimum SASW requirement?** **YES** ☐ **NO** ☒

If YES, please state the grade/level required for **Digital Literacy (ICT)** and give a brief **REASON** as to why this is required:

Enter alternative grade/level requirements and reasons here.

# Progression routes into and from this pathway

## Progression routes into the pathway:

Applicants may come from a range of routes including:

- Relevant work or work experience
- Training and/or experience which could include a portfolio showing what they have done
- Academic qualification(s) such as the Welsh Baccalaureate
- Achievement of Essential Skills Wales

Individuals must meet the entry conditions (see entry conditions) of the Foundation Apprenticeship and the recruiting employer.

Existing members of the workforce may also progress into this Foundation Apprenticeship.

## Progression routes out of the pathway:

The apprentice's knowledge about career pathways, information sources and the names of relevant professional bodies are developed as part of the Employee Rights and Responsibilities component of this Foundation Apprenticeship.

Throughout any career in the gas industry, individuals will be provided with the necessary on-going on and off job training, including refresher training and new skills training, to enable them to carry out their job role competently.

On completion of the Foundation Apprenticeship under normal circumstances apprentices will continue to work in their current job role.

Completion of the Foundation Apprenticeship in Network Construction Operations (Gas) supports progression into the Apprenticeship in Network Construction Operations (Gas). The Apprenticeship in Gas Utilisation does not provide a sensible progression pathway for apprentices that have completed the Foundation Apprenticeship in Network Construction Operations (Gas). This is because the skills required in these job roles are very different - there is no real relationship between the two qualifications involved.

For the right individual, this Foundation Apprenticeship can provide a springboard to an exciting career in the gas industry.

For further information on careers in the gas industry please visit [www.euskills.co.uk/careers](http://www.euskills.co.uk/careers)

... The Gas Industry (Wales)  
..... level 2  
..... Pathway 1

]

## UCAS points for this pathway:

[N/A]

# Employee rights and responsibilities

Please note that for Apprenticeship starts from 14/10/2016 onwards ERR is no longer a **mandatory** requirement in all frameworks.

However, it may still be included in some frameworks and where it is not explicitly stated that ERR is not a requirement then confirmation of an Apprentice's ERR achievement will still remain a requirement for Apprenticeship certification purposes.

Is ERR a requirement for this framework?    **YES**    ☐    **NO**    ☒

## Delivery and assessment

Although this is no longer mandatory the Gas industry suggest that learners should still complete this workbook, but it is not required to achieve the Apprenticeship Certificate.

To ensure full coverage of the nine national outcomes/standards for Employee Rights and Responsibilities (ERR), an ERR workbook has been developed by EU Skills in partnership with Adams Associates. The workbook is not accredited, but records and formally assesses learning for ERR.

The knowledge in the workbook is intended to be covered throughout the Apprenticeship, therefore, whilst Induction is a critical way of meeting some of the ERR requirements; the workbook should be revisited throughout the Apprenticeship to embed learning.

The workbook can be downloaded from: [www.euskills.co.uk](http://www.euskills.co.uk)

Apprenticeship completion certificates are issued through Apprenticeship Certification Wales available at: <https://acwcerts.co.uk>

# Level 3

Title for this framework at level 3

## Apprenticeship in the Gas Industry

Pathways for the framework at level 3:

- |            |  |
|------------|--|
| Pathway 1: | Apprenticeships in Gas Fired Wet Central Heating                       |
| Pathway 2: | Apprenticeships in Gas Heating and Energy Efficiency                   |
| Pathway 3: | Advanced Level Apprenticeship in Network Construction Operations (Gas) |



# Level 3, Pathway 1: Apprenticeship in Gas Fired Wet Central Heating

## Description of this pathway

The Apprenticeship in Gas Fired Wet Central Heating requires a minimum total of 141 credits to be achieved which are broken down as follows:

Combined qualification - 123 (of which a minimum of 57 are knowledge)

ESW Communication - 6

ESW Application of Number - 6

ESW ICT - 6

## Entry requirements for this pathway in addition to the framework entry requirements

There are no entry requirements for this pathway in addition to the general framework entry requirements.

Job title(s)	Job role(s)
First Call Operative	Dealing with public reported gas escapes to determine actions required and make safe, protecting people and property.
Gas Installation Engineer - Gas Fired Wet Central Heating	Carry out the installation and commissioning of a range of gas fired wet central heating appliances and systems to required safety and quality standards.
Gas Maintenance Engineer - Gas Fired Wet Central Heating	Carry out the fault diagnosis, repair and maintenance of a range of gas fired wet central heating appliances and systems to required safety and quality standards.
Gas Installation & Maintenance Engineer - Gas Fired Wet Central Heating	Carry out the installation and commissioning, fault diagnosis, repair and maintenance of a range of gas fired wet central heating appliances and systems to required safety and quality standards.

# Qualifications

## Competence qualifications available to this pathway

N/A

## Knowledge qualifications available to this pathway

N/A

## Combined qualifications available to this pathway

### B1 – Level 3 Diploma in Gas Utilisation Maintenance: Cookers, Tumble Dryers, Leisure, Domestic Space Heating, Water Heating, Wet Central Heating and Domestic Warm Air (QCF)

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
B1a	600/0915/9	City & Guilds	243	1588	N/A

### B2 – Level 3 Diploma in Gas Utilisation Installation: Cookers, Tumble Dryers, Leisure, Domestic Space Heating, Water Heating, Wet Central Heating and Domestic Warm Air (QCF)

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
B2a	600/0908/1	City & Guilds	243	1647	N/A

### B3 – Level 3 Diploma for Gas Emergency First Call Operative (QCF)

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
B3a	600/0575/0	EAL	260	1316	N/A
B3b	600/0897/0	City & Guilds	260	1316	N/A

**B4 – Level 3 Diploma in Gas Utilisation Installation and Maintenance: Cookers, Tumble Dryers and Leisure (QCF)**

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
B4a	600/0574/9	EAL	123	769	N/A
B4b	600/0922/6	City & Guilds	123	769	N/A

**B5 – Level 3 Diploma in Gas Utilisation Installation and Maintenance: Cookers, Tumble Dryers, Leisure and Domestic Space Heating (QCF)**

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
B5a	600/0576/2	EAL	153	945	N/A
B5b	600/0910/X	City & Guilds	153	945	N/A6

**B6 – Level 3 Diploma In Gas Utilisation Installation and Maintenance: Cookers, Tumble Dryers, Leisure, Domestic Space Heating, Water Heating and Wet Central Heating (QCF)**

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
B6a	600/0920/2	City & Guilds	275	1810	N/A

**B7 – Level 3 Diploma in Gas Utilisation Installation and Maintenance: Cookers, Tumble Dryers, Leisure, Domestic Space Heating, Water Heating and Wet Central Heating and Domestic Warm Air (QCF)**

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
B7a	600/0921/4	City & Guilds	298	1918	N/A

**B8 – Level 3 Diploma in Gas Utilisation Installation and Maintenance: Domestic Space Heating (QCF)**

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
B8a	600/0923/8	City & Guilds	130	837	N/A

**B9 – Level 3 Diploma in Gas Utilisation Installation and Maintenance: Domestic Warm Air (QCF)**

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
B9a	600/0924/X	City & Guilds	135	871	N/A

**B10 – Level 3 Diploma in Gas Utilisation Installation: Cookers, Tumble Dryers, Leisure and Domestic Space Heating (QCF)**

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
B10a	600/0899/4	City & Guilds	125	803	N/A

**B11 – Level 3 Diploma in Gas Utilisation Installation: Cookers, Tumble Dryers, Leisure, Domestic Space Heating, Water Heating and Wet Central Heating (QCF)**

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
B11a	600/0905/6	City & Guilds	231	1593	N/A

**B12 – Level 3 Diploma in Gas Utilisation Installation: Water Heating and Wet Central Heating (QCF)**

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
B12a	600/0919/6	City & Guilds	206	1451	N/A

**B13 – Level 3 Diploma in Gas Utilisation Maintenance: Cookers, Tumble Dryers, Leisure and Domestic Space Heating (QCF)**

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
B13a	600/0917/2	City & Guilds	128	803	N/A

### B14 – Level 3 Diploma in Gas Utilisation Installation and Maintenance: Water Heating and Wet Central Heating (QCF)

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
B14a	600/1661/9	EAL	222	1526	N/A
B14b	600/0918/4	City & Guilds	222	1526	

### B15 – Level 3 Diploma in Gas Utilisation Maintenance: Water Heating and Wet Central Heating (QCF)

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
B15a	600/0914/7	City & Guilds	204	1392	N/A

### B16 – Level 3 Diploma in Gas Utilisation Maintenance: Cookers, Tumble Dryers, Leisure, Domestic Space Heating, Water Heating and Wet Central Heating (QCF)

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
B16a	600/0916/0	City & Guilds	232	1534	N/A

### B17 – Diploma in Gas Utilisation Maintenance: Cookers, Tumble Dryers, Leisure, Domestic Space Heating, Water Heating, Limited Wet Central Heating and Domestic Warm Air (QCF)

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
B17a	600/2661/3	City & Guilds	236	1580	N/A

## Relationship between competence and knowledge qualifications

The qualifications in this pathway provide the knowledge and skills required for job competence for apprentices employed in the following job roles:

First Call Operative

Gas Installation Engineer – Gas Fired Wet Central Heating

Gas Maintenance Engineer – Gas Fired Wet Central Heating  
Gas Installation & Service Engineer – Gas Fired Wet Central Heating

Apprentices must take the qualification that is aligned to their job role.

Apprentices working as a First Call Operative must complete B3.

Apprentices working in an installation role must take one of the installation qualifications (B2, B10, B11, B12).

Apprentices working in a maintenance role must take one of the maintenance qualifications (B1, B13, B14, B15, B17).

Apprentices working in an installation and maintenance role must take one of the installation and maintenance qualifications (B4, B5, B6, B7, B8, B9, B16).

In addition to the above, Apprentices must take the qualification that is aligned to the range of appliances that they will be expected to work with in their job role.

There are separate knowledge and competence units within the integrated qualifications. All qualifications contain the following 5 core knowledge units which total 57 credits. These units are separately identified and assessed.

Understanding Health and Safety in Gas Utilisation – 11 credits  
Understanding Scientific Principles in Gas Utilisation – 4 credits  
Understanding Combustion and Properties of Gas – 15 credits  
Understanding Buildings, Services and Structures – 12 credits  
Understanding Gas Safety – 15 credits

# Essential Skills

An apprenticeship framework must specify as a Welsh certificate requirement the expected achievement levels of Essential Skills in Communication and the Application of Number.

Where Essential Skills qualifications are specified in an apprenticeship framework, the apprenticeship framework must specify the acceptance of a recognised proxy qualification for Communication and Application of Number.

## Communication

For the current list of acceptable proxy qualifications and appropriate **minimum** grade/level requirements, please refer to the most recent version of [SASW](#) on the [gov.wales](#) website. Additional guidance materials can be found on the [Knowledge Base](#) section of the [ACW](#) website.

**Does this framework require Communication achievement above the minimum SASW requirement?**    **YES**    ☐ **NO** ☒

If YES, please state the grade/level required for English and give a brief **REASON** as to why this is required:

Enter alternative grade/level requirements and reasons here.

## Application of Number

For the current list of acceptable proxy qualifications and appropriate **minimum** grade/level requirements, please refer to the most recent version of [SASW](#) on the [gov.wales](#) website. Additional guidance materials can be found on the [Knowledge Base](#) section of the [ACW](#) website.

**Does this framework require Application of Number achievement above the minimum SASW requirement?**    **YES**    ☐ **NO** ☒



If YES, please state the grade/level required for Maths and give a brief **REASON** as to why this is required:

Enter alternative grade/level requirements and reasons here.

## Inclusion of Digital Literacy (ICT)

Digital Literacy (ICT) is an **optional** framework requirement.

Is Digital Literacy a requirement in this framework? **YES** ☒ **NO** ☐

## Digital Literacy (ICT)

**Please note that there are currently no acceptable proxy qualifications for Digital Literacy (ICT).**

For the current **minimum** grade/level requirements, please refer to the most recent version of [SASW](#) on the [gov.wales](#) website. Additional guidance materials can be found on the [Knowledge Base](#) section of the [ACW](#) website.

**Does this framework require Digital Literacy (ICT) achievement above the minimum SASW requirement?** **YES** ☐ **NO** ☒

If YES, please state the grade/level required for **Digital Literacy (ICT)** and give a brief **REASON** as to why this is required:

Enter alternative grade/level requirements and reasons here.

# Progression routes into and from this pathway

## Progression routes into the pathway:

Applicants may come from a range of routes including:

- Work or work experience
- Training and/or experience which could include a portfolio showing what they have done
- Academic qualification(s) such as the Welsh Baccalaureate
- Achievement of Essential Skills Wales
- Successful completion of a (14-19) Diploma in particular The Diploma in Construction and the Built Environment
- A Foundation Apprenticeship

Existing members of the workforce may also progress into this Apprenticeship.

Individuals must meet the entry conditions (see entry conditions) of the Apprenticeship and the recruiting employer.

## Progression routes out of the pathway:

The Apprenticeship provides the best possible preparation to achieving skilled status within the industry. Historically apprentices have progressed significantly in the industry and many have gone on to become Supervisors, Managers and General Managers. Many have remained in the industry for their whole career.

The apprentice's knowledge about career pathways, information sources and the names of relevant professional bodies are developed as part of the Employee Rights and Responsibilities component of this Apprenticeship.

Throughout any career in the gas industry, individuals will be provided with the necessary

on-going on and off job training, including refresher training and new skills training, to enable them to carry out their job role competently.

On completion of the Apprenticeship under normal circumstances apprentices will continue to work in their current job role.

Completion of one of the level 3 combined qualifications satisfies the Engineering Council requirements for Engineering Technician status and therefore enables the apprentice to become a professional engineer as defined by all the Engineering institutions (for example the Institute of Gas Engineers and Managers – IGEM). This will support career progression to Technician, Supervisor and Manager roles.

Apprentices can also progress horizontally within the industry to complete competence qualifications at the same level. For apprentices who wish to study at a higher level, Aston University offers a Foundation Degree in Gas Transmission.

For the right individual, this Apprenticeship can provide a springboard to an exciting career in the gas industry.

For further information on careers in the gas industry please visit [www.euskills.co.uk/careers](http://www.euskills.co.uk/careers)

### UCAS points for this pathway:

Not applicable

## Employee rights and responsibilities

Please note that for Apprenticeship starts from 14/10/2016 onwards ERR is no longer a **mandatory** requirement in all frameworks.

However, it may still be included in some frameworks and where it is not explicitly stated that ERR is not a requirement then confirmation of an Apprentice's ERR achievement will still remain a requirement for Apprenticeship certification purposes.

Is ERR a requirement for this framework?    **YES**    ☐    **NO**    ☒

### Delivery and assessment

Although this is no longer mandatory the Gas industry suggest that learners should still complete this workbook, but it is not required to achieve the Apprenticeship Certificate.

To ensure full coverage of the nine national outcomes/standards for Employee Rights and Responsibilities (ERR), an ERR workbook has been developed by EU Skills in partnership with Adams Associates. The workbook is not accredited, but records and formally assesses learning for ERR.

The knowledge in the workbook is intended to be covered throughout the Apprenticeship, therefore, whilst Induction is a critical way of meeting some of the ERR requirements; the workbook should be revisited throughout the Apprenticeship to embed learning.

The workbook can be downloaded from: [www.euskills.co.uk](http://www.euskills.co.uk)

# Level 3, Pathway 2: Apprenticeship in Gas Heating and Energy Efficiency

## Description of this pathway

The Apprenticeship in Gas Heating and Energy Efficiency requires a minimum of 160 credits broken down as follows:

Combined qualification - 148 (of which 57 are knowledge)

ESW - 12

## Entry requirements for this pathway in addition to the framework entry requirements

There are no additional requirements other than the general entry condition.

Job title(s)	Job role(s)
Gas Installation Engineer - Gas Heating and Energy Efficiency	Carry out the installation and commissioning of a range of gas heating appliances and systems to required safety and quality standards. Provide sounds advise to customers in respect of energy saving, insulation measures and carbon management delivering a high level of customer satisfaction
Gas Maintenance Engineer - Gas Heating and Energy Efficiency	Carry out the fault diagnosis, repair and maintenance of a range of gas heating appliances and systems to required safety to required safety and quality standards. Provide sounds advise to customer in respect of energy saving, insulation measure and carbon management delivering a high level of customer satisfaction

# Qualifications

## Competence qualifications available to this pathway

N/A

## Knowledge qualifications available to this pathway

N/A

## Combined qualifications available to this pathway

### B1 – City & Guilds Level 3 Diploma In Gas Utilisation (QCF)

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
B1a	601/6533/9	City & Guilds	148	1023	N/A
B1b	601/7886/3	EAL	148	1023	N/A

## Relationship between competence and knowledge qualifications

Qualification B1a provides the knowledge and skills required for job competence for apprentices employed in the following job roles:

Gas Installation Engineer - Gas Heating and Energy Efficiency

Gas Maintenance Engineer - Gas Heating and Energy Efficiency

The qualification contains two pathways. Apprentices in an installation role must take the installation pathway and apprentices in a maintenance role must take the maintenance pathway.

Knowledge and skills units are separate within the combined qualification. Both qualification pathways contain the following 5 knowledge units which total 57 credits.

Understanding Health and Safety in Gas Utilisation – 11 credits  
Understanding Scientific Principles in Gas Utilisation – 4 credits  
Understanding Combustion and Properties of Gas – 15 credits  
Understanding Buildings, Services and Structures – 12 credits  
Understanding Gas Safety – 15 credits

All applicable Matters of Gas Safety are assessed as intrinsic elements of this qualification. Successful completion of this qualification will enable the newly qualified gas engineer to become Gas Safe Registered, the specific Gas Safe Registration Categories are dictated by the qualification pathway options.

The installation pathway leads to: CCN1, CENWAT, CPA1, MET1/2 & CoNGLP1 PD.

The maintenance pathway leads to: CCN1, CKR1, LAU1, LEI1, HTR1, CENWAT, DAH1, CPA1, MET1/2 & CoNGLP1 PD.



# Essential Skills

An apprenticeship framework must specify as a Welsh certificate requirement the expected achievement levels of Essential Skills in Communication and the Application of Number.

Where Essential Skills qualifications are specified in an apprenticeship framework, the apprenticeship framework must specify the acceptance of a recognised proxy qualification for Communication and Application of Number.

## Communication

For the current list of acceptable proxy qualifications and appropriate **minimum** grade/level requirements, please refer to the most recent version of [SASW](#) on the [gov.wales](#) website. Additional guidance materials can be found on the [Knowledge Base](#) section of the [ACW](#) website.

**Does this framework require Communication achievement above the minimum SASW requirement?**    **YES**    ☐ **NO** ☒

If YES, please state the grade/level required for English and give a brief **REASON** as to why this is required:

Enter alternative grade/level requirements and reasons here.

## Application of Number

For the current list of acceptable proxy qualifications and appropriate **minimum** grade/level requirements, please refer to the most recent version of [SASW](#) on the [gov.wales](#) website. Additional guidance materials can be found on the [Knowledge Base](#) section of the [ACW](#) website.

**Does this framework require Application of Number achievement above the minimum SASW requirement?**    **YES**    ☐ **NO** ☒

If YES, please state the grade/level required for Maths and give a brief **REASON** as to why this is required:

Enter alternative grade/level requirements and reasons here.

## Inclusion of Digital Literacy (ICT)

Digital Literacy (ICT) is an **optional** framework requirement.

Is Digital Literacy a requirement in this framework? **YES** ☐ **NO** ☒

## Digital Literacy (ICT)

**Please note that there are currently no acceptable proxy qualifications for Digital Literacy (ICT).**

For the current **minimum** grade/level requirements, please refer to the most recent version of [SASW](#) on the [gov.wales](#) website. Additional guidance materials can be found on the [Knowledge Base](#) section of the [ACW](#) website.

**Does this framework require Digital Literacy (ICT) achievement above the minimum SASW requirement?** **YES** ☐ **NO** ☒

If YES, please state the grade/level required for **Digital Literacy (ICT)** and give a brief **REASON** as to why this is required:

Enter alternative grade/level requirements and reasons here.

# Progression routes into and from this pathway

## **Progression routes into the pathway:**

Employers would expect applicants for the Apprenticeship to hold a Welsh Baccalaureate Intermediate Diploma to demonstrate that the individual has the potential to complete the Apprenticeship.

## **Progression routes out of the pathway:**

The Apprenticeship provides the best possible preparation to achieving skilled status within the industry. On completion of the Apprenticeship and under normal circumstances, apprentices may continue to work in their current job role. Historically, apprentices have progressed significantly in the industry. Technical Support, Training and Management roles are all possible examples of career progression.

Apprenticeships are highly regarded within the industry. Many of the current leadership & management teams within larger organisations are themselves former apprentices. This fact indicates the value of the programme and demonstrates to new recruits the potential career paths that can be launched from Apprenticeships. Many have remained in the industry for their whole career.

The apprentice's knowledge about career pathways, information sources and the names of relevant professional bodies are developed as part of the Employee Rights and Responsibilities component of this Apprenticeship.

Throughout any career in the gas industry, individuals will be provided with the necessary on-going on and off job training, including refresher training and new skills training, to enable them to carry out their job role competently.

Apprentices can also progress horizontally within the industry to complete competence qualifications at the same level. For the right individual, this Apprenticeship can provide a springboard to an exciting career in the gas industry.

For further information on careers in the gas industry please visit [www.euskills.co.uk/careers](http://www.euskills.co.uk/careers)

## **UCAS points for this pathway:**

*No Information*

# Employee rights and responsibilities

Please note that for Apprenticeship starts from 14/10/2016 onwards ERR is no longer a **mandatory** requirement in all frameworks.

However, it may still be included in some frameworks and where it is not explicitly stated that ERR is not a requirement then confirmation of an Apprentice's ERR achievement will still remain a requirement for Apprenticeship certification purposes.

Is ERR a requirement for this framework?    **YES**    ☐    **NO**    ☒

## Delivery and assessment

Although this is no longer mandatory the Gas industry suggest that learners should still complete this workbook, but it is not required to achieve the Apprenticeship Certificate.

To ensure full coverage of the nine national outcomes/standards for Employee Rights and Responsibilities (ERR), an ERR workbook has been developed by EU Skills in partnership with Adams Associates. The workbook is not accredited, but records and formally assesses learning for ERR.

The knowledge in the workbook is intended to be covered throughout the Apprenticeship, therefore, whilst Induction is a critical way of meeting some of the ERR requirements; the workbook should be revisited throughout the Apprenticeship to embed learning.  
The workbook can be downloaded from: [www.euskills.co.uk](http://www.euskills.co.uk)

# Level 3, Pathway 3: Advanced Level Apprenticeship in Network Construction Operations (Gas)

## Description of this pathway

The Apprenticeship in the Network Construction Operations (Gas) requires a minimum total of 85 credits to be achieved broken down as follows:

Combined qualification - 73 (of which a minimum of 24 are knowledge)

ESW - 6

ESW - 6

## Entry requirements for this pathway in addition to the framework entry requirements

There are no entry requirements for this pathway in addition to the general framework entry requirements.

Job title(s)	Job role(s)
Maintenance Engineer	Carry out all aspects of maintenance and repair to all plant and equipment used in or on the network in a workshop setting
Network Service Engineer	Conduct pressure control management on the network, electrical and instrumentation activities i.e. in a control room and maintenance of plant and equipment.
Gas Mainlayer/ Servicelayer - Self Lay/ Distribution/ Repair and Maintenance	Prepare, excavate, install, replace and/or repair and maintain gas mains/service pipes in complex, non-routine environments.
Craftsperson, Technician, Network Technician, Senior Network Technician	All aspects of installation, maintenance and repair to pressure regulators and high pressure pipelines.
Craftsperson, Technician, Network Technician, Senior Network Technician	All aspects of installation, maintenance and repair to all electrical work and telemetry involved in pressure reduction stations or pipelines on the network.

# Qualifications

## Competence qualifications available to this pathway

N/A

## Knowledge qualifications available to this pathway

N/A

## Combined qualifications available to this pathway

### B1 – City & Guilds Level 3 Diploma in Gas Network Construction Operations (QCF)

No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
B1a	601/2739/9	City & Guilds	73	318	N/A

## Relationship between competence and knowledge qualifications

All apprentices must complete this qualification.

Knowledge and competence are addressed through combined units within the integrated qualifications. Within the units, knowledge and understanding is separately identified and assessed through dedicated learning outcomes, for example “demonstrate knowledge and understanding of installing equipment for safe working on the highway”.

This combined qualification provides a minimum of 24 credits of knowledge.

# Essential Skills

An apprenticeship framework must specify as a Welsh certificate requirement the expected achievement levels of Essential Skills in Communication and the Application of Number.

Where Essential Skills qualifications are specified in an apprenticeship framework, the apprenticeship framework must specify the acceptance of a recognised proxy qualification for Communication and Application of Number.

## Communication

For the current list of acceptable proxy qualifications and appropriate **minimum** grade/level requirements, please refer to the most recent version of [SASW](#) on the [gov.wales](#) website. Additional guidance materials can be found on the [Knowledge Base](#) section of the [ACW](#) website.

**Does this framework require Communication achievement above the minimum SASW requirement?**    **YES**    ☐ **NO** ☒

If YES, please state the grade/level required for English and give a brief **REASON** as to why this is required:

Enter alternative grade/level requirements and reasons here.

## Application of Number

For the current list of acceptable proxy qualifications and appropriate **minimum** grade/level requirements, please refer to the most recent version of [SASW](#) on the [gov.wales](#) website. Additional guidance materials can be found on the [Knowledge Base](#) section of the [ACW](#) website.

**Does this framework require Application of Number achievement above the minimum SASW requirement?**    **YES**    ☐ **NO** ☒



If YES, please state the grade/level required for Maths and give a brief **REASON** as to why this is required:

Enter alternative grade/level requirements and reasons here.

## Inclusion of Digital Literacy (ICT)

Digital Literacy (ICT) is an **optional** framework requirement.

Is Digital Literacy a requirement in this framework? **YES** ☐ **NO** ☒

## Digital Literacy (ICT)

**Please note that there are currently no acceptable proxy qualifications for Digital Literacy (ICT).**

For the current **minimum** grade/level requirements, please refer to the most recent version of [SASW](#) on the [gov.wales](#) website. Additional guidance materials can be found on the [Knowledge Base](#) section of the [ACW](#) website.

**Does this framework require Digital Literacy (ICT) achievement above the minimum SASW requirement?** **YES** ☐ **NO** ☒

If YES, please state the grade/level required for **Digital Literacy (ICT)** and give a brief **REASON** as to why this is required:

Enter alternative grade/level requirements and reasons here.

# Progression routes into and from this pathway

## Progression routes into the pathway:

Applicants may come from a range of routes including:

- Relevant work or work experience
- Training and/or experience which could include a portfolio showing what they have done
- Academic qualification(s) such as the Welsh Baccalaureate Intermediate Diploma
- Achievement of Essential Skills Wales
- Successful completion of a relevant Foundation Apprenticeship for example in Network Construction Operations (Gas)

Existing members of the workforce may also progress into this Apprenticeship.

The Foundation Apprenticeship in Gas Utilisation does not provide a sensible route into this pathway because the skills required in gas utilisation and gas networks job roles are very different - there is no real relationship between the qualifications involved.

## Progression routes out of the pathway:

The Apprenticeship provides the best possible preparation to achieving skilled status within the industry. On completion of the Apprenticeship and under normal circumstances, apprentices can expect to continue in their current role.

Progression thereafter will depend on the performance and motivation of the individual and the vacancies/opportunities available within the organisation and other organisations in the industry.

Apprenticeships are highly regarded within the industry and historically, apprentices have progressed significantly.

Technical Support, Training and Management roles are all possible examples of career progression. Many of the current leadership & management teams within larger organisations are themselves former apprentices. This indicates the value of the programme and demonstrates to new recruits the potential career paths that can be launched from Apprenticeships. Many have remained in the industry for their whole career.

The apprentice's knowledge about career pathways, information sources and the names of relevant professional bodies are developed as part of the Employee Rights and Responsibilities component of this Apprenticeship.

Throughout any career in the gas industry, individuals will be provided with the necessary on-going on and off job training, including refresher training and new skills training, to enable them to carry out their job role competently.

Apprentices can also progress horizontally within the industry to complete competence qualifications or units at the same level.

For the right individual, this Apprenticeship can provide a springboard to an exciting career in the gas industry.

For further information on careers in the gas industry please visit [www.greenstem.org.uk](http://www.greenstem.org.uk)

### UCAS points for this pathway:

Not applicable

# Employee rights and responsibilities

Please note that for Apprenticeship starts from 14/10/2016 onwards ERR is no longer a **mandatory** requirement in all frameworks.

However, it may still be included in some frameworks and where it is not explicitly stated that ERR is not a requirement then confirmation of an Apprentice's ERR achievement will still remain a requirement for Apprenticeship certification purposes.

Is ERR a requirement for this framework?    **YES**    ☐    **NO**    ☒

## Delivery and assessment

Although this is no longer mandatory the Gas industry suggest that learners should still complete this workbook, but it is not required to achieve the Apprenticeship Certificate.

To ensure full coverage of the nine national outcomes/standards for Employee Rights and Responsibilities (ERR), an ERR workbook has been developed by EU Skills in partnership with Adams Associates. The workbook is not accredited, but records and formally assesses learning for ERR.

The knowledge in the workbook is intended to be covered throughout the Apprenticeship, therefore, whilst Induction is a critical way of meeting some of the ERR requirements; the workbook should be revisited throughout the Apprenticeship to embed learning.

The workbook can be downloaded from: [www.euskills.co.uk](http://www.euskills.co.uk)

Apprenticeship completion certificates are issued through Apprenticeship Certification Wales available at: <https://acwcerts.co.uk>

*The remaining sections apply to all levels and pathways within this framework.*

# How equality and diversity will be met

## **Under-representation**

No data is available from the Gas Safe Register in terms of the gender and ethnicity of the gas utilisation workforce; however it is accepted that both females and those of BME background are under-represented. One large employer reported that of their 2011 recruitment, 4% of Apprentice Installation Engineers were female and 6% of Apprentice Maintenance Engineers were female. 27% of the gas transmission and distribution industry is female compared to the 43% UK average. 7% of the workforce is from a black or minority ethnic (BME) background compared to 8% of the UK average.

## **Barriers to entry and progression**

Unfounded social perceptions about the suitability of job roles within the industry for women provide the main barrier for these under-represented groups.

## **Solutions to entry and progression**

Apprenticeships are seen as a vital route to encourage and facilitate a greater diversity of individuals into the industry. This Apprenticeship does not discriminate. Employers/providers must be able to demonstrate that there are no overt or covert discriminatory practices in selection and employment. All promotion, selection and training activities must, as a minimum, comply with relevant legislation, in particular, the protected characteristics of the Equality Act 2010. For guidance please refer to:

[www.equalityhumanrights.com/advice-and-guidance/new-equality-act-guidance/](http://www.equalityhumanrights.com/advice-and-guidance/new-equality-act-guidance/)

Equal opportunities policies and procedures will contribute to the Employee Rights and Responsibilities component of this Apprenticeship. It is recommended that employers/providers conduct an exit interview if the Apprentice leaves the Apprenticeship before completion.

The larger employers in the industry are actively involved in initiatives to increase the representation of women and BME groups in the industry. For example, British Gas have a Diversity Team whose core purpose is to support British Gas and Centrica in achieving its vision of becoming an employer of choice with a workforce that more closely reflects the diversity of its customer base and UK demographics. To achieve this purpose and attract more female and BME applications for the Apprenticeships available the team has:

- Promoted a positive engineering and career opportunity message to an estimated mix of 75,000 young, female and under-represented people via a creative blend of events, school visits, advertising and interactive media / games.
- Created female centric campaigns to attract a female audience.

- Developed sound relationships and recruitment ties with varied black and minority ethnic organisations and communities.
- Held female and BME only open days within their training centres and with local community groups.
- Sent details of all open days to schools that have a high female or BME population i.e. Manchester Muslim High School for Girls.
- Uniforms available in both male and female sizes.
- Ensured all promotional literature promotes female and BME engineers to reflect our workforce.
- A large number of both female and BAME ambassadors to attend events, to increase applications from minority groups.
- Involvement in the development of Plotr, an interactive youth inspiration platform that has been created to help young people plot their careers. |

# On and off the job training

## Summary of on- and off-the-job training

Training hours attached to the Apprenticeship refers to the time taken by the apprentice to develop the practical skills and underpinning knowledge to demonstrate competence in their job role.

Training hours are delivered during contracted working hours under an Apprenticeship Agreement, or during a qualifying period ending on the date of application for a certificate (5 years is recommended, but a shorter/longer timescale can be set).

On and off the job training hours:

must be planned, reviewed and evaluated jointly between the apprentice and tutor, teacher, mentor or manager;

must allow training support via a tutor, teacher, mentor or manager;

are delivered through one or more of the following methods: individual and group teaching, e-learning, distance learning, coaching, mentoring; feedback and assessment;

collaborative/networked learning with peers; guided study

The industry would expect the Foundation Apprenticeship in Gas Network Operations to take a minimum of 12 months to complete. Where this is the case a minimum of 340 training hours must be completed over the duration of the Foundation Apprenticeship.

The industry would expect apprentices on the Apprenticeship in Gas Fired Wet Central Heating taking qualification B4 to take a minimum of 12 months to complete. A minimum of 964 training hours must be completed over the duration of the Apprenticeship.

The industry would expect apprentices on the Apprenticeship in Gas Fired Wet Central Heating taking one of qualifications B5, B8, B9, B10 or B13 to take a minimum of 24 months to complete. Where this is the case, a minimum of 1014 training hours must be completed over the duration of the Apprenticeship.

The industry would expect apprentices on the Apprenticeship in Gas Fired Wet Central Heating taking one of qualifications B1, B2, B3, B6, B7, B11, B12, B14, B15, B16 or B17 to take a minimum of 36 months. Where this is the case, a minimum of 1543 training hours must be completed over the duration of the Apprenticeship.

The industry would expect the Apprenticeship in Gas Heating and Energy Efficiency to take a minimum of 12 months to complete. Where this is the case a minimum of 1173 training hours must be completed.

The industry would expect the Apprenticeship in Network Construction Operations (Gas) to take a minimum of 24 months to complete. Where this is the case a minimum of 530 training hours must be completed.

EU Skills recommends that a plan is developed at the outset of the Apprenticeship to determine how the training hours requirement will be met. It is also recommended that a record of training hours is kept by the apprentice. ]

## Off-the-job training

Off the job training hours are the hours associated with learning that takes place “away from the immediate pressures of the job” for example, in a training room on the employers’ premises.

Over the duration of the Foundation Apprenticeship in Network Construction Operations (Gas) a minimum of 280 training hours must be completed off the job. It is anticipated that these will be broken down as follows:

- 14 - induction
- 130 - knowledge element of combined qualification
- 90 - ESW
- 30 - related to completion of the Employment Rights and Responsibilities workbook
- 4 - progress reviews (at least one hour every 12 weeks for the duration of the programme)
- 12 - mentoring (at least one hour every month for the duration of the programme)

Over the duration of the Apprenticeship in Gas Fired Wet Central Heating, apprentices taking qualification B4 must complete a minimum of 605 training hours off the job. It is anticipated that these will be broken down as follows:

- 14 - induction
- 410 - knowledge units within combined qualification
- 135 - ESW
- 30 - related to completion of the Employment Rights and Responsibilities workbook
- 4 - progress reviews (at least one hour every 12 weeks for the duration of the programme)
- 12 - mentoring (at least one hour every month for the duration of the programme)

Over the duration of the Apprenticeship in Gas Fired Wet Central Heating, apprentices taking qualifications, B5, B8, B9, B10 or B13 must complete a minimum of 621 training hours off the job. It is anticipated that these will be broken down as follows:

- 14 - induction
- 410 - knowledge units within combined qualification
- 135 - ESW
- 30 - related to completion of the Employment Rights and Responsibilities workbook
- 8 - progress reviews (at least one hour every 12 weeks for the duration of the programme)
- 24 - mentoring (at least one hour every month for the duration of the programme)

Over the duration of the Apprenticeship in Gas Fired Wet Central Heating, apprentices taking qualifications B1, B2, B3, B6, B7, B11, B12, B14, B15, B16 or B17 must complete must complete a minimum of 637 training hours off the job. It is anticipated that these will be broken down as follows:

- 14 - induction
- 410 - knowledge units within combined qualification
- 135 - ESW
- 30 - related to completion of the Employment Rights and Responsibilities workbook
- 12 - progress reviews (at least one hour every 12 weeks for the duration of the programme)
- 36 - mentoring (at least one hour every month for the duration of the programme)

Over the duration of the Apprenticeship in Gas Heating and Energy Efficiency, a minimum of 560 training hours must be completed off the job. It is anticipated that these training hours will be broken down as follows:



- 14 - induction
- 410 - knowledge units within combined qualification
- 90 - ESW
- 30 - related to completion of the Employment Rights and Responsibilities workbook
- 4 - progress reviews (at least one hour every 12 weeks for the duration of the programme)
- 12 - mentoring (at least one hour every month for the duration of the programme)

Over the duration of the Apprenticeship in Network Construction Operations (Gas), a minimum of 318 training hours must be completed off the job. It is anticipated that these training hours will be broken down as follows:

- 14 - induction
- 106 - knowledge units within combined qualification
- 90 - ESW
- 30 - related to completion of the Employment Rights and Responsibilities workbook
- 8 - progress reviews (at least one hour every 12 weeks for the duration of the programme)
- 70 - mentoring (at least one hour every month for the duration of the programme)

### How this requirement will be met

Training hours delivered under an Apprenticeship agreement may vary depending on the previous experience and attainment of the apprentice. The amount of off-the-job training required to complete the Apprenticeship under the Apprenticeship agreement may then be reduced accordingly, provided the total number of off-the-job hours for this framework can be verified for Apprenticeship certification.

### Previous attainment

Where a learner enters an apprenticeship agreement having previously attained parts or all of the relevant qualifications, this prior learning needs to be recognised using either QCF credit transfer for achievements within the QCF; or through recording certificated learning outside of the QCF, for example Principal Learning qualifications. For apprentices who have already achieved the relevant qualifications, they must have been certificated within five years of applying for the Apprenticeship Certificate. Previous experience Where a learner enters an Apprenticeship agreement with previous work-related experience, this prior learning needs to be recognised [see QCF Guidance on Claiming Credit for further details]. To count towards Apprenticeship certification, previous experience must be recorded using the appropriate Awarding Organisation's CQFW 'Recognition of Prior Learning' (RPL) procedures and the hours recorded may then count towards the off-the-job hours required to complete the Apprenticeship. For apprentices with prior uncertificated learning experience, the off-the-job learning must have been acquired within five years of application for the Apprenticeship Certificate or have been continuously employed in the relevant job role in the industry for three years duration.

### Delivery and recording of off the job training hours:

Off-the-job training hours will be delivered through the knowledge qualification, Essential Skills Wales, ERR, progress reviews, mentoring and coaching. This could include training hours delivered through access to a computer through working hours, day release, block release etc.

EU Skills recommends that a plan is developed at the outset of the Apprenticeship to determine how the training hours requirement will be met. Training hours must be recorded by the apprentice; for example through a diary, portfolio or timesheets.

### Evidence of completion of the total off the job training hours:

Off-the-job training hours will be evidenced through the record kept by the apprentice and through the certificate of achievement for the knowledge qualification and Essential Skills Wales.

At the point of applying for an Apprenticeship Completion Certificate, a declaration signed by the provider and apprentice, must be provided to confirm that the training hours requirements of the Apprenticeship have been achieved. The Apprenticeship Completion Certificate cannot be issued without this declaration -available at Apprenticeship Certification Wales (ACW - <https://acwcerts.co.uk>)

A completion certificate will only be issued through ACW when all component parts of the framework, including training hours, have been achieved, evidenced and checked by Energy & Utility Skills (the Certification Body).]

## On-the-job training

On the job training hours refer to the time taken to develop the practical skills applied in the context of the apprentices' day to day job role. It can be seen as the time the apprentice spends undertaking activities that are routine for their job role and that provide the opportunity to learn, develop and practice skills.

The minimum on the job training hours are:

Foundation Apprenticeship in Network Construction Operations (Gas): 60

Apprenticeship in Gas Fired Wet Central Heating (qualification B4): 359

Apprenticeship in Gas Fired Wet Central Heating (qualifications B5, B8, B9, B10 or B13): 393

Apprenticeship in Gas Fired Wet Central Heating (qualifications B1, B2, B3, B6, B7, B11, B12, B14, B15, B16 or B17): 906

Apprenticeship in Gas Heating and Energy Efficiency: 613

Apprenticeship in Network Construction Operation (Gas): 212

These training hours will be delivered through the skills element of the combined qualification.

## How this requirement will be met

On-the job training is defined as skills, knowledge and competence gained within normal work duties. These hours may vary depending on previous experience and attainment of the apprentice. Where a learner enters an Apprenticeship agreement having previously attained or acquired the appropriate competencies or knowledge, this prior learning needs to be recognised and documented using the relevant QCF credit transfer, QCF exemption or RPL procedures (as off-the-job above). The amount of on-the-job training required to complete the Apprenticeship under the Apprenticeship agreement may then be reduced accordingly, provided the total number of on-the-job hours for this framework can be verified for Apprenticeship certification.

Apprentices who commence training under a new Apprenticeship agreement with a new employer may bring a range of prior experience with them. When an apprentice can claim 25% or more hours towards the on-the-job framework total through prior learning acquired from previous full-time education, employment or other vocational programmes, then the apprentice's learning programme should include 'customisation'. Training providers are

encouraged to identify additional on-the-job training programmes that customise the learning to the new workplace. Customisation programmes may include:

- selecting appropriate additional Unit(s) from QCF qualifications, or relevant units

- recognised as Quality Assured Lifelong Learning [QALL] through a CQFW recognised body
- following Essential Skills at a level higher than that specified in the framework
- including one or more Wider Key Skills or other competency-based qualifications/units relevant to the workplace.

For apprentices who have already achieved the relevant qualifications, they must have been certificated within 5 years from the date of application for the Foundation

Apprenticeship/Apprenticeship Certificate or have been continuously employed in the industry for three years. Job roles within the Power Sector require a thorough level of technical competence and knowledge, which will be undertaken through work-based training, practice and experience.

**Delivery, recording and evidence of on the job training hours:**

On-the-job training hours will be delivered, recorded and evidenced through successful completion (demonstrated through a certificate of achievement) of the relevant competence qualification.

EU Skills recommends that a plan is developed at the outset of the Apprenticeship to determine how the training hours requirement will be met. Training hours must be recorded by the apprentice; for example through a diary, portfolio or timesheets.

At the point of applying for an Apprenticeship Completion Certificate, a declaration signed by the provider and apprentice, must be provided to confirm that the training hours requirements of the Apprenticeship have been achieved. The Apprenticeship Completion Certificate cannot be issued without this declaration -available at Apprenticeship Certification Wales (ACW - <https://acwcerts.co.uk>)

A completion certificate will only be issued through ACW when all component parts of the framework, including training hours, have been achieved, evidenced and checked by Energy & Utility Skills (the Certification Body). ]

# Wider key skills assessment and recognition

While Wider Key Skills are not a **mandatory** part of the framework, training providers are encouraged to provide apprentices the opportunity to achieve them.

For this framework, there are natural opportunities for Wider Key Skills to be embedded within the mandatory units of the following qualifications:

[Enter Qualification Names]
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## Improving own learning and performance

[This is not a mandatory outcome of the framework because these skills are not essential for effective performance in the job role; however, apprentices are encouraged to complete this wider key skill where they are able to and providers should support apprentices that wish to do so. ]

## Working with others

[This is not a mandatory outcome of the framework because these skills are not essential for effective performance in the job role; however, apprentices are encouraged to complete this wider key skill where they are able to and providers should support apprentices that wish to do so. ]

## Problem solving

[This is not a mandatory outcome of the framework because these skills are not essential for effective performance in the job role; however, apprentices are encouraged to complete this wider key skill where they are able to and providers should support apprentices that wish to do so. ]

# apprenticeship FRAMEWORK

For more information visit-  
[www.acwcerts.co.uk/framework\\_library](http://www.acwcerts.co.uk/framework_library)