

## Aim

This Skills Map aims to provide a clear outline of qualifications and training opportunities across Wales that are available to support Retrofit requirements.

## Context

Industry, Employers and Stakeholders have called for a comprehensive skills and training map for Wales. Set out below is PHASE 1 – as many of the existing training routes have been reviewed in recent months, the position outlined below is effective from **1 August 2022**.

## Phased Approach

On-going developments in technologies and test and learn programmes such as the Optimised Retrofit Programme in Wales mean that this matrix will evolve. Set out below is the picture now and further phased updates will be published as required. Future iterations will aim to include agreed industry standard skills, new qualifications and possibly competencies linked to the various core elements. This will allow all stakeholders and customers of such trades / specialists to identify with the required standards for the various work elements.

## Training Options / Funding Routes

Include Apprenticeships, Further (FE) & and Personal Learning Accounts (PLAs) only.

## Note

There are a range of **manufacturer or 'other' training routes** available that are also supporting the industry. We have not included that detail in this first phase but they should always be considered and explored as they provide a valuable range of complementary skills and training options. Higher Education **Institutes in Wales** also offer and are supporting a wider range of net-zero skills needs and developments, including retrofit.

## Supporting Information from Certification Schemes / Trade Organisations / Industry Training Boards

These organisations provide industry help and advice on recognised installers and manufacturers under their schemes

[www.trustmark.org.uk](http://www.trustmark.org.uk)

[www.mcscertified.com](http://www.mcscertified.com)

[www.thebesa.com](http://www.thebesa.com)

[www.actuateuk.org.uk](http://www.actuateuk.org.uk)

**CITB: Construction Industry Training Board – CITB**

**Home Page - ECITB**

# PHASE 1

September 2022

Whole House Approach (Orp)	Industry Specialisms / Pathways	Sector	Qualifications	Training Options
<b>Building &amp; Fabric</b>				
<b>Building Fabric</b> (windows / doors/ roofing)	General Building Skills	Construction	A range of NVQ qualifications (at levels 2 and 3) are designated for public funding,	<u>Apprenticeships</u> <u>FE</u> <u>PLAs</u>
	Roof Slating & Tiling	Construction	The Foundation in Construction and Building Services Engineering (Level 2) qualification, delivered in FE, features a roofing occupations pathway. The Progression in Construction (Level 2) qualification features a roof slating and tiling pathway. These qualifications may be taken prior to commencing an apprenticeship.  A roof slating and tiling apprenticeship framework includes the new City & Guilds Construction (Level 3) – Roof Slating and Tiling qualification.  NVQ qualifications in roofing occupations continued to be designated for on-site assessment and training programmes (NVQs in the workplace – FE funded).	<u>Apprenticeships</u> <u>FE</u>
	Insulation and building treatments, including external wall insulation	Construction	A range of NVQ qualifications at levels 2 and 3 are designated for public funding, from City & Guilds and NOCN.  A new knowledge qualification has been developed by NOCN in Insulation & Building Treatments and will be available from Summer 2022.	<u>Apprenticeships</u> <u>PLAs</u> <u>FE</u>
	Solar PV Roofing Contractor	Construction	A roof slating and tiling apprenticeship framework includes the new City & Guilds Construction (Level 3) – Roof Slating and Tiling qualification.  A range of electrical qualifications are available to support the installation requirements.  Note (only if working on pre-1919 buildings);  <ul style="list-style-type: none"> <li>Level 3 Award In Energy Efficiency Measures for Older and Traditional Buildings. (Available from two recognised awarding bodies; details are on <a href="http://www.qiw.wales">www.qiw.wales</a>)</li> </ul>	<u>Apprenticeships</u> <u>PLAs</u> <u>FE</u>
	Ductwork Planning & Installation	<b>Building Services Engineering</b>	The Foundation in Construction and Building Services Engineering (Level 2) qualification, delivered in FE, features a plumbing, heating and ventilation pathway. This qualification may be taken prior to commencing an apprenticeship.  Existing qualifications in heating and ventilating industrial and commercial installation are designated for public funding. From September 2022, two new made-for-Wales qualifications will be available for use on apprenticeship frameworks:  <ul style="list-style-type: none"> <li>EAL Building Services Engineering (Level 3) – Heating and Ventilating Installation</li> <li>EAL Building Services Engineering (Level 3) - Heating and Ventilating Craftsperson.</li> </ul>	

Whole House Approach (Orp)	Industry Specialisms / Pathways	Sector	Qualifications	Training Options
<b>Technologies / Additional Installations</b>				
<b>Building Fabric (Installation)</b>	Electrical Installations	<b>Building Services Engineering</b>	<p>The Foundation in Construction and Building Services Engineering (Level 2) qualification, delivered in FE, features an electrotechnical systems and equipment pathway. The Progression in Building Services Engineering (Level 2) also features a follow-on pathway. These qualifications may be taken prior to commencing an apprenticeship.</p> <p>A new qualification for use on apprenticeship frameworks will be available:</p> <ul style="list-style-type: none"> <li>EAL Building Services Engineering (Level 3) – Electrotechnical Installation.</li> </ul> <p>Existing industry requirements on wiring regulations and achievement measurement will continue to be in place [Wiring Regulations (BS7671) or equivalent]</p>	<p><b>FE</b></p> <p><b>Apprenticeships</b></p>
	Air Conditioning and Maintenance	<b>Building Services Engineering</b>	<p>An existing qualification is currently used on apprenticeship frameworks for this pathway:</p> <ul style="list-style-type: none"> <li>City &amp; Guilds Level 2 NVQ Diploma in Installing, Testing and Maintaining Air Conditioning and Heat Pump Systems.</li> </ul>	<p><b>Apprenticeships</b></p> <p><b>PLAs</b></p>
	Refrigeration Systems	<b>Building Services Engineering</b>	<p>An existing qualification is currently used on apprenticeship frameworks for this pathway:</p> <ul style="list-style-type: none"> <li>City &amp; Guilds Level 2 NVQ Diploma in Installing and Maintaining Refrigeration Systems.</li> </ul>	<b>Apprenticeships</b>
	Heating and Ventilating	<b>Building Services Engineering</b>	<p>The Foundation in Construction and Building Services Engineering (Level 2) qualification, delivered in FE, features a plumbing, heating and ventilation pathway. This qualification may be taken prior to commencing an apprenticeship.</p> <p>Two new made-for-Wales qualifications will be available for use on apprenticeship frameworks:</p> <ul style="list-style-type: none"> <li>EAL Building Services Engineering (Level 3) – <b>Heating and Ventilating Installation.</b></li> <li>EAL Building Services Engineering (Level 3) – <b>Heating and Ventilating Craftsperson.</b></li> </ul>	<p><b>FE</b></p> <p><b>Apprenticeships</b></p>
<b>Heating / Heat Pumps (including low carbon heat technologies ie Hydro boilers, air / ground source, under floor etc)</b>	Plumbing and Heating Specialisms	<b>Building Services Engineering</b>	<p>The Foundation in <b>Construction and Building Services Engineering</b> (Level 2) qualification, delivered in FE, features a plumbing, heating and ventilation pathway. This qualification may be taken prior to commencing an apprenticeship.</p> <p>A new made-for-Wales qualification will be available for use on apprenticeship frameworks:</p> <ul style="list-style-type: none"> <li>EAL Building Services Engineering (Level 3) – <b>Plumbing and Heating.</b></li> </ul> <p>Plumbing Specialisms:</p> <p><b>1. Fossil Fuel – Natural Gas (this aligns to IGEM IG1 and ACS assessment standards)</b></p> <p>Learner should complete a training package through a formal Managed Learning Program approved by IGEM to IG 1 Standards of training in gas work and complete both of the following ACS Assessments (as a minimum):</p> <ul style="list-style-type: none"> <li>Core Domestic Gas Safety – <b>CCN1</b></li> <li>Central Heating Boilers &amp; Water Heaters – <b>CENWAT</b></li> </ul>	<p><b>FE</b></p> <p><b>Apprenticeships</b></p>

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<b>Technologies / Additional Installations</b>				
			<p><b>2. Environmental Technologies (this aligns to MCS requirements)</b></p> <p>Learner should complete training to MCS025 and include both of the following:</p> <ul style="list-style-type: none"> <li>• Heat Pumps to MIS3005</li> <li>• Solar Thermal to MIS3001</li> </ul> <p><i>Learners may wish to explore industry qualifications and training in water regulations/byelaws and vented/unvented hot water, which are offered at some centres in Wales.</i></p> <p>Note (only if working on pre-1919 buildings);</p> <ul style="list-style-type: none"> <li>• Level 3 Award In Energy Efficiency Measures for Older and Traditional Buildings. (Available from two recognised awarding bodies; details are on <a href="http://www.qiw.wales">www.qiw.wales</a>)</li> </ul>	<u>PLAs</u>
<b>PV (electric / solar) Thermal generation</b>	Solar Thermal	<b>Building Services Engineering</b>	<p>The Foundation in Construction and Building Services Engineering (Level 2) qualification, delivered in FE, features a plumbing, heating and ventilation pathway. A plumbing and heating pathway is also available in the follow-on Progression in Building Services Engineering (Level 2) qualification. These qualifications may be taken prior to commencing an apprenticeship.</p> <p>Three new made-for-Wales qualifications will be available for use on relevant apprenticeship frameworks;</p> <ul style="list-style-type: none"> <li>• EAL Building Services Engineering (Level 3) – <b>Plumbing and Heating</b></li> <li>• EAL Building Services Engineering (Level 3) – <b>Heating and Ventilating Installation</b></li> <li>• EAL Building Services Engineering (Level 3) – <b>Heating and Ventilating Craftsperson.</b></li> </ul> <p>In addition, a range of awarding bodies offer regulated qualifications at level 3 in:</p> <ul style="list-style-type: none"> <li>• Installation and Maintenance of <b>Solar Thermal Hot Water Systems.</b></li> </ul> <p><i>Learners may wish to explore industry qualifications and training in water regulations/byelaws and vented/unvented hot water, which are offered at some centres in Wales.</i></p>	<u>FE</u>  <u>Apprenticeships</u>  <u>PLAs</u>
	Solar PV Electrician	<b>Building Services Engineering</b>	<p>The Foundation in Construction and Building Services Engineering (Level 2) qualification, delivered in FE, features an electrotechnical systems and equipment pathway. The Progression in Building Services Engineering (Level 2) also features a follow-on pathway.</p> <p>These qualifications may be taken prior to commencing an apprenticeship.</p> <p>A <b>new qualification</b> for use on apprenticeship frameworks will be available:</p> <ul style="list-style-type: none"> <li>• EAL Building Services Engineering (Level 3) – <b>Electrotechnical Installation.</b></li> </ul> <p>A range of awarding bodies currently offer regulated level 3 qualifications in:</p> <ul style="list-style-type: none"> <li>• Installation and Maintenance of <b>Small Scale Solar Photovoltaic Systems.</b></li> </ul> <p><b>Wiring regulations</b> qualifications are also designated and regulated in Wales.</p> <p>Note (only if working on pre-1919 buildings):</p> <ul style="list-style-type: none"> <li>• Level 3 Award In Energy Efficiency Measures for Older and Traditional Buildings. (Available from two recognised awarding bodies; details are on <a href="http://www.qiw.wales">www.qiw.wales</a>)</li> </ul>	<u>FE</u>  <u>Apprenticeships</u>  <u>PLAs</u>

Whole House Approach (Orp)	Industry Specialisms / Pathways	Sector	Qualifications	Training Options
<b>Technologies / Additional Installations</b>				
<b>Energy Storage (Battery – Electric Heat – water)</b>	Heat Battery	<b>Building services engineering</b>	<p>The Foundation in Construction and Building Services Engineering (Level 2) qualification, delivered in FE, features a plumbing, heating and ventilation pathway. A plumbing and heating pathway is also available in the follow-on Progression in Building Services Engineering (Level 2) qualification. These qualifications may be taken prior to commencing an apprenticeship.</p> <p>A new made-for-Wales qualification will be available for use on apprenticeship frameworks:</p> <ul style="list-style-type: none"> <li>EAL Building Services Engineering (Level 3) – <b>Plumbing and Heating</b>.</li> </ul> <p><i>Learners may wish to explore industry qualifications and training in water regulations/byelaws and vented/unvented hot water, which are offered at some centres in Wales.</i></p> <p>Note (only if working on pre-1919 buildings):</p> <ul style="list-style-type: none"> <li>Level 3 Award In Energy Efficiency Measures for Older and Traditional Buildings. (Available from two recognised awarding bodies; details are on <a href="http://www.qiw.wales">www.qiw.wales</a>)</li> </ul>	<p><b>FE</b></p> <p><b>Apprenticeships</b></p>
	Mechanical Ventilation Heat Recovery	<b>Building services engineering</b>	<p>The Foundation in Construction and Building Services Engineering (Level 2) qualification, delivered in FE, features plumbing, heating and ventilation and electrotechnical systems and equipment pathways. Plumbing and heating and electrotechnical systems and equipment installation pathways are also available in the follow-on Progression in Building Services Engineering (Level 2) qualification. These qualifications may be taken prior to commencing an apprenticeship.</p> <p>Four new made-for-Wales qualifications will be available for use on relevant apprenticeship frameworks:</p> <ul style="list-style-type: none"> <li>EAL Building Services Engineering (Level 3) – <b>Plumbing and Heating</b>.</li> <li>EAL Building Services Engineering (Level 3) – <b>Electrotechnical Installation</b>.</li> <li>EAL Building Services Engineering (Level 3) – <b>Heating and Ventilating Installation</b>.</li> <li>EAL Building Services Engineering (Level 3) – <b>Heating and Ventilating Craftsperson</b>.</li> </ul> <p>Additionally, an industry programme in domestic ventilation systems may be of interest, and several regulated qualifications are offered at level 3 by awarding bodies in:</p> <ul style="list-style-type: none"> <li>Energy Efficiency Measures for Older And Traditional Buildings.</li> </ul>	<p><b>FE</b></p> <p><b>Apprenticeships</b></p>
	Battery Storage	<b>Building services engineering</b>	<p>The Foundation in Construction and Building Services Engineering (Level 2) qualification, delivered in FE, features an electrotechnical systems and equipment pathway. The Progression in Building Services Engineering (Level 2) also features a follow-on pathway. These qualifications may be taken prior to commencing an apprenticeship.</p> <p>A new qualification for use on apprenticeship frameworks will be available:</p> <ul style="list-style-type: none"> <li>EAL Building Services Engineering (Level 3) – <b>Electrotechnical Installation</b>.</li> </ul> <p>Wiring regulations qualifications are also designated and regulated in Wales.</p>	<p><b>FE</b></p> <p><b>Apprenticeships</b></p>

Whole House Approach (Orp)	Industry Specialisms / Pathways	Sector	Qualifications	Training Options
<b>Technologies / Additional Installations</b>				
<b>Smart Homes technologies (energy management / electric systems)</b>	Smart Heating Controls	<b>Building services engineering</b>	<p>The Foundation in Construction and Building Services Engineering (Level 2) qualification, delivered in FE, features <b>plumbing, heating and ventilation</b> and <b>electrotechnical systems and equipment</b> pathways. <b>Plumbing and heating and electrotechnical systems and equipment installation</b> pathways are also available in the follow-on Progression in Building Services Engineering (Level 2) qualification. These qualifications may be taken prior to commencing an apprenticeship.</p> <p><b>Four new made-for-Wales qualifications</b> will be available for use on relevant apprenticeship frameworks:</p> <ul style="list-style-type: none"> <li>• EAL Building Services Engineering (Level 3) – <b>Plumbing and Heating</b>.</li> <li>• EAL Building Services Engineering (Level 3) – <b>Electrotechnical Installation</b>.</li> <li>• EAL Building Services Engineering (Level 3) – <b>Heating and Ventilating Installation</b>.</li> <li>• EAL Building Services Engineering (Level 3) – <b>Heating and Ventilating Craftsperson</b>.</li> </ul> <p>Several regulated qualifications are offered at level 3 by awarding bodies in:</p> <ul style="list-style-type: none"> <li>• Energy Efficiency Measures for Older And Traditional Buildings.</li> </ul>	<p><u>FE</u></p> <p><u>Apprenticeships</u></p>
<b>Rainwater Harvesting</b>	Grey Water Harvesting		<p>The Foundation in Construction and Building Services Engineering (Level 2) qualification, delivered in FE, features a plumbing, heating and ventilation pathway. A plumbing and heating pathway is also available in the follow-on Progression in Building Services Engineering (Level 2) qualification. These qualifications may be taken prior to commencing an apprenticeship.</p> <p>A <b>new made-for-Wales qualification</b> will be available for use on apprenticeship frameworks:</p> <ul style="list-style-type: none"> <li>• EAL Building Services Engineering (Level 3) – <b>Plumbing and Heating</b>.</li> </ul> <p>Water Efficiency Apprenticeship – Level 2,3,4 (last updated 2017)</p> <p>Note (only if working on pre-1919 buildings):</p> <ul style="list-style-type: none"> <li>• Level 3 Award In Energy Efficiency Measures for Older and Traditional Buildings. (Available from two recognised awarding bodies; details are on <a href="http://www.qiw.wales">www.qiw.wales</a>)</li> </ul>	<p><u>Apprenticeships</u></p>

Whole House Approach (Orp)	Industry Specialisms / Pathways	Sector	Qualifications	Training Options
<b>Technologies / Additional Installations</b>				
	Biomass	Building Services Engineering	<p>The Foundation in Construction and Building Services Engineering (Level 2) qualification, delivered in FE, features a plumbing, heating and ventilation pathway. A plumbing and heating pathway is also available in the follow-on Progression in Building Services Engineering (Level 2) qualification. These qualifications may be taken prior to commencing an apprenticeship.</p> <p>Three new made-for-Wales qualifications will be available for use on relevant apprenticeship frameworks:</p> <ul style="list-style-type: none"> <li>• EAL Building Services Engineering (Level 3) – <b>Plumbing and Heating.</b></li> <li>• EAL Building Services Engineering (Level 3) – <b>Heating and Ventilating Installation.</b></li> <li>• EAL Building Services Engineering (Level 3) – <b>Heating and Ventilating Craftsperson.</b></li> </ul> <p>Learners may wish also to explore industry qualifications and training in vented/unvented hot water, which may be available locally in Wales. Additionally, an industry programme in domestic ventilation systems may be of interest, and several regulated qualifications are offered at level 3 by awarding bodies in:</p> <ul style="list-style-type: none"> <li>• Energy Efficiency Measures for Older And Traditional Buildings.</li> </ul> <p>Existing qualifications in electrotechnical installation (and a new qualification for use on apprenticeship frameworks from September 2022) are available.</p> <p><b>Wiring regulations</b> qualifications are also designated and regulated in Wales.</p>	<p><u>FE</u></p> <p><u>Apprenticeships</u></p>
	Energy Generation / Micro Hydro	Building Services Engineering	<p>The Foundation in Construction and Building Services Engineering (Level 2) qualification, delivered in FE, features an electrotechnical systems and equipment pathway. The Progression in Building Services Engineering (Level 2) also features a follow-on pathway. These qualifications may be taken prior to commencing an apprenticeship.</p> <p>A new qualification for use on apprenticeship frameworks will be available:</p> <ul style="list-style-type: none"> <li>• EAL Building Services Engineering (Level 3) – Electrotechnical Installation.</li> </ul> <p><b>Wiring regulations</b> qualifications are also designated and regulated in Wales.</p>	<p><u>FE</u></p> <p><u>Apprenticeships</u></p>
<b>Surveying Element:</b>				
<p><b>Retrofit Advisors</b>  <b>Retrofit Assessors</b>  <b>Retrofit Co-ordinators</b>  <b>Retrofit Designers</b></p>			<p>Skills and qualifications are currently being developed, including EPC assessors.</p> <p>We are working closely with these programmes through ORP to see how they fit into the Wales net zero strategy and wider qualifications development.</p>	<p><u>PLAs</u></p>

# Training Options

## Apprenticeships

Apprenticeships in the Construction sector have always been a good option for delivering a strong skills pipeline. There are a wide range of frameworks with pathway / qualification options available – see below.

**Eligibility:** Aged 16+, employed status, supporting new entrants and upskilling requirements.

**Delivery:** A network of quality approved training provider's delivers our apprentice programme across Wales.

**Funding:** Fully funded by the Welsh Government (if approved and published framework, some restrictions apply)

	Framework Detail	Associated Information & Links	Occupations / Specialisms Covered (Pathways)
<b>Construction</b>	<p><b>Current Frameworks:</b></p> <ul style="list-style-type: none"> <li>Construction Specialist</li> <li>Construction Building</li> <li>Construction Technical (L3)</li> <li>Higher App in Construction Management</li> </ul> <p>Note: A new <b>Construction &amp; Building Services Framework</b> will be available from September 2022 with a suite of new pathways and qualifications.</p> <p>These start at Level 3 with progression routes available.</p> <p>Level 2 will not be available as an apprenticeship but can be accessed via FE.</p> <p><b>New Framework:</b></p> <ul style="list-style-type: none"> <li>Construction &amp; Building Services</li> </ul> <p><b>New Developments in 2022:</b></p> <p>A pathway in 'Building Control' including new qualifications, at Level 4 (HNC/Foundation Degree).</p>	<p><b>1. Framework Content including qualifications</b></p> <p>If you wish to view the content of an apprenticeship framework please visit; <a href="http://www.acwcerts.co.uk">www.acwcerts.co.uk</a></p> <p>Search within the 'FRAMEWORK LIBRARY' and enter key word.</p> <p><b>2. General Information – Apprenticeship Frameworks</b></p> <p><a href="http://www.gov.wales/apprenticeship-frameworks">www.gov.wales/apprenticeship-frameworks</a></p> <p><b>3. Apprenticeship Information</b></p> <p><a href="http://www.gov.wales/apprenticeships">www.gov.wales/apprenticeships</a></p> <p><b>4. Qualifications Wales sector review (2018) report</b></p> <p><a href="#">Qualifications Wales / Construction and the Built Environment</a></p> <p>Suite of new qualifications for this sector</p> <p><a href="#">Qualifications Wales / Construction and the Built Environment</a></p> <p><b>5. Apprenticeship approved training providers</b></p> <p><a href="#">Apprenticeship training providers   GOV.WALES</a></p>	<p><b>Construction (new):</b></p> <ul style="list-style-type: none"> <li>Civil Operations – Groundwork</li> <li>Architectural Joinery</li> <li>Painting and Decorating</li> <li>Solid Plastering</li> <li>Timber Frame Erecting</li> <li>Dry Line Fixing</li> <li>Bricklaying</li> <li>Site Carpentry</li> <li>Roof Slating &amp; Tiling</li> <li>Wall and Floor Tiling</li> </ul> <p><b>Construction Specialist (existing/continuing):</b></p> <ul style="list-style-type: none"> <li>Accessing Operations and Rigging</li> <li>Cladding Occupations</li> <li>Interior Systems</li> <li>Stonemasonry</li> <li>Insulation and Building Treatments</li> <li>Fitted Interiors</li> <li>Mastic Asphaltting</li> <li>Thermal Insulation</li> <li>Applied Waterproof Membranes</li> </ul> <p><b>Construction Building (existing/continuing):</b></p> <ul style="list-style-type: none"> <li>Decorative Finishing and Industrial</li> <li>Maintenance Operations</li> <li>Woodmachining</li> <li>Building Maintenance Multi-trade Repair and Refurbishment Operations</li> <li>Construction Technical</li> <li>Construction Civil Engineering</li> <li>Higher Construction Management</li> </ul>



	Framework Detail	Associated Information & Links	Occupations / Specialisms Covered (Pathways)
<b>Building Services Engineering (BSE)</b>	<p><b>Current Frameworks:</b></p> <ul style="list-style-type: none"> <li>• Building Energy Management Systems (FR03691)</li> <li>• Consumer Electrical &amp; Electronic Products (FR03693)</li> <li>• Building Services Engineering Technology &amp; Project Management (FR04359)</li> <li>• Electro technical</li> <li>• Domestic Heating</li> <li>• Plumbing &amp; Heating</li> <li>• Refrigeration &amp; Air Conditioning</li> <li>• Heating &amp; Ventilation Systems</li> </ul> <p>Note: A <b>new set of Frameworks</b> will be available from September 2022 with a suite of new pathways and qualifications.</p> <p><b>New Frameworks:</b></p> <ul style="list-style-type: none"> <li>• Electro technical Installation</li> <li>• Heating and Ventilating Craftsperson</li> <li>• Plumbing &amp; Heating</li> <li>• Refrigeration and Air Conditioning</li> </ul>		<p><b>Building Services (new):</b></p> <ul style="list-style-type: none"> <li>• Electrotechnical Installation</li> <li>• Heating and Ventilating Craftsperson</li> <li>• Plumbing and Heating</li> <li>• Refrigeration</li> <li>• Air Conditioning</li> </ul>
<b>Other BSE</b>	<ul style="list-style-type: none"> <li>• Gas Operations</li> <li>• Water Industry Operations</li> <li>• Smart Metering</li> <li>• Wind Turbine Technician (currently under review)</li> </ul>		<ul style="list-style-type: none"> <li>• Gas Operations</li> <li>• Water Industry Operations</li> <li>• Smart Metering</li> </ul>
<b>Energy Management / Technologies</b>	<p><b>New Developments in 2022:</b></p> <ul style="list-style-type: none"> <li>• Energy Management</li> </ul> <p>A new Pathway is currently being developed.</p>		

- Civil Operations – Groundwork
- Architectural Joinery
- Painting and Decorating
- Solid Plastering
- Timber Frame Erecting
- Dry Line Fixing
- Bricklaying
- Site Carpentry
- Roof Slating & Tiling
- Wall and Floor Tiling

## Personal Learning Accounts (PLAs)

The PLA Programme is designed to help individuals earn higher salaries and assist businesses to prepare for future skills and qualifications needs by supporting upskilling.

**Eligibility:** Aged over 19 and earning below £29,534 per annum - open to businesses and individuals looking to Upskill.

**Delivery:** FE colleges.

**Funding:** Fully funded by the Welsh Government.

**Supporting the sector:** ‘Green Energy’ and ‘Green Construction’ are priority Programme sectors

**Course Options:** Several currently approved training courses are highlighted below. As a new Programme the eligible course list is constantly being updated with qualifications - from vendor through to Level 5 - which respond to sector demand. Employers should discuss their requirements with their local Colleges.

	Course Options	Associated Information & Links
<b>General</b>	<ul style="list-style-type: none"> <li>Understanding Domestic Retrofit – Level 2</li> <li>NICEIC Energy Efficiency – vendor</li> </ul>	1. Employer PLA information: <a href="#">Personal Learning Account   Business Wales Skills Gateway (gov.wales)</a>
<b>Assessors / Coordinators</b>	<ul style="list-style-type: none"> <li>Energy Retrofit Assessor/co-ordinator Training – Level 5</li> <li>Trustmark approved Retrofit Assessor - vendor</li> <li>Trustmark approved Retrofit Coordinator – vendor</li> <li>Domestic Energy Assessor – Level 3</li> <li>Non-Domestic Energy Assessor – Level 3,4</li> <li>Non-Domestic Energy Assessor (DSM) Training – Level 5</li> </ul>	2. Individual PLA information: <a href="#">Rewrite your career with a Personal Learning Account   Working Wales (gov.wales)</a>
<b>Environmental / Sustainability</b>	<ul style="list-style-type: none"> <li>NEBOSH Certificate in Environmental Management – vendor</li> <li>Principles of Sustainable Resource Management – Level 2,3</li> <li>PMO Industrial Environment Awareness – Level 2</li> <li>CITB Site Environmental Awareness Training Scheme (SEATS) – Level 2</li> <li>BPEC Water Regulations – vendor</li> <li>WAMITAB Level 4 High Risk Operator</li> <li>WAMITAB Level 3 Medium Risk Operator</li> <li>City &amp; Guilds Sustainable Construction Certificate / Diploma</li> </ul>	

	Course Options	Associated Information & Links
Heating / Heat Pumps	<ul style="list-style-type: none"> <li>• Samsung Heat Pumps- Level 2</li> <li>• Level 3 Award in the Installation and Maintenance of Heat Pumps Systems (Non-refrigerant Circuits) – Level 3</li> <li>• NICEIC Domestic Heat Pumps Ground Source and Air Source – vendor</li> <li>• BPEC Warm Water Underfloor Heating Systems – vendor</li> </ul>	
Energy Storage	<ul style="list-style-type: none"> <li>• BPEC Battery Storage Training course - vendor</li> <li>• BPEC Domestic Unvented Hot Water storage systems – vendor</li> </ul>	
Thermal Generation	<ul style="list-style-type: none"> <li>• Level 3 Award in the Installation and Maintenance of Small Scale Solar Photovoltaic Systems – Level 3</li> <li>• Level 3 Award in the Installation and Maintenance of Solar Thermal Hot Water Systems – Level 3</li> </ul>	

## Further Education

The Further Education sector offers a variety of courses to support the skills pipeline in green industries, including a variety of apprenticeships and work-based learning options.

**Eligibility:** Aged 16+

**Delivery:** A network of high quality colleges delivers skills and training across Wales both on campus and off-site as desired.

**Funding:** Dependant on the type and nature of the course..

College	Website Links	Generic Email Contact Address
Coleg Ceredigion	<a href="http://www.ceredigion.ac.uk/">www.ceredigion.ac.uk/</a>	<a href="mailto:enquiries@ceredigion.ac.uk">enquiries@ceredigion.ac.uk</a>
Addysg Oedolion	<a href="http://www.adultlearning.wales/#">www.adultlearning.wales/#</a>	<a href="mailto:info@adultlearning.wales">info@adultlearning.wales</a>
Coleg Penybont	<a href="http://www1.bridgend.ac.uk/">www1.bridgend.ac.uk/</a>	<a href="mailto:hello@bridgend.ac.uk">hello@bridgend.ac.uk</a>
Coleg Cambria	<a href="http://www.cambria.ac.uk/">www.cambria.ac.uk/</a>	<a href="mailto:enquiries@cambria.ac.uk">enquiries@cambria.ac.uk</a>
Cardiff and Vale	<a href="http://www.cavc.ac.uk/en">www.cavc.ac.uk/en</a>	<a href="mailto:info@cavc.ac.uk">info@cavc.ac.uk</a>
Coleg Sir Gar	<a href="http://www.colegsirgar.ac.uk/">www.colegsirgar.ac.uk/</a>	<a href="mailto:admissions@colegsirgar.ac.uk">admissions@colegsirgar.ac.uk</a>
Coleg y Cymoedd	<a href="http://www.cymoedd.ac.uk/">www.cymoedd.ac.uk/</a>	<a href="mailto:enquiries@cymoedd.ac.uk">enquiries@cymoedd.ac.uk</a>
Merthyr	<a href="http://www.merthyr.ac.uk/">www.merthyr.ac.uk/</a>	<a href="mailto:enquiries@merthyr.ac.uk">enquiries@merthyr.ac.uk</a>
Gower College Swansea	<a href="http://www.gcs.ac.uk/">www.gcs.ac.uk/</a>	<a href="mailto:enquiries@gowercollegeswansea.ac.uk">enquiries@gowercollegeswansea.ac.uk</a>
Coleg Llandrillo	<a href="http://www.gllm.ac.uk/">www.gllm.ac.uk/</a>	<a href="mailto:generalenquiries@gllm.ac.uk">generalenquiries@gllm.ac.uk</a>
Coleg Gwent	<a href="http://www.coleggwent.ac.uk/">www.coleggwent.ac.uk/</a>	<a href="mailto:hello@coleggwent.ac.uk">hello@coleggwent.ac.uk</a>
NPTC Group	<a href="http://www.nptcgroup.ac.uk/">www.nptcgroup.ac.uk/</a>	<a href="mailto:Enquiries@nptcgroup.ac.uk">Enquiries@nptcgroup.ac.uk</a>
Coleg Sir Benfro	<a href="http://www.pembrokeshire.ac.uk/new/">www.pembrokeshire.ac.uk/new/</a>	<a href="mailto:admissions@pembrokeshire.ac.uk">admissions@pembrokeshire.ac.uk</a>
St David's college	<a href="http://www.stdavidscollege.ac.uk/">www.stdavidscollege.ac.uk/</a>	<a href="mailto:enquiries@stdavidscollege.ac.uk">enquiries@stdavidscollege.ac.uk</a>
Coleg Cymraeg Cenedlaethol	<a href="http://www.colegcymraeg.ac.uk/cy/">www.colegcymraeg.ac.uk/cy/</a>	<a href="mailto:gwybodaeth@colegcymraeg.ac.uk">gwybodaeth@colegcymraeg.ac.uk</a>