

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

www.mcscertified.com

www.thebesa.com

www.actuateuk.org.uk

[CITB: Construction Industry Training Board – CITB](#)

[Home Page – ECITB](#)

PHASE 2

December 2024

Whole House Approach (Orp)	Industry Specialisms / Pathways	Sector	Qualifications	Training Options
Building & Fabric				
Building Fabric (windows / doors/ roofing)	General Building Skills	Construction	A range of National Vocational Qualification (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. Welsh Apprenticeship Framework in Construction includes the City & Guilds Construction (Level 3) – Roof Slating and Tiling national qualification. This qualification is also available for funding through Occupational Qualifications FE funding for on-site assessment and training programmes. An NVQ in roofing occupations also currently continues to be designated under the Occupational Qualifications funding, details are on www.qiw.wales	<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. A new national Insulation and building treatments qualification is in development and is expected to be made available by September 2026.	<u>Apprenticeships</u> <u>PLAs FE</u> <u>PLAs</u>
	Solar PV Roofing Contractor	Construction	The Welsh apprenticeship framework in Construction 2022 includes the City & Guilds Construction (Level 3) – Roof Slating and Tiling national 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"> Level 3 Award In Energy Efficiency Measures for Older and Traditional Buildings. 	<u>Apprenticeships</u> <u>PLAs</u> <u>FE</u>
	Ductwork Planning & Installation	Building Services Engineering	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. Two national qualifications are available for use on apprenticeship frameworks: <ul style="list-style-type: none"> EAL Building Services Engineering (Level 3) – Heating and Ventilating Installation. EAL Building Services Engineering (Level 3) – Heating and Ventilating Craftsperson. 	

Whole House Approach (Orp)	Industry Specialisms / Pathways	Sector	Qualifications	Training Options
Technologies / Additional Installations				
Building Fabric (Installation)	Electrical Installations	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 national qualification for use on apprenticeship frameworks is also available:</p> <ul style="list-style-type: none"> EAL Building Services Engineering (Level 3) – Electrotechnical Installation. An additional follow on electrotechnical installation qualification was made available from September 2025 which may be taken prior to commencing an apprenticeship. EAL Level 3 Extended Progression in Electrotechnical Installation. <p>Existing industry requirements on wiring regulations and achievement measurement will continue to be in place [Wiring Regulations (BS7671) or equivalent].</p>	<p>FE</p> <p>Apprenticeships</p>
	Air Conditioning and Maintenance	Building Services Engineering	<p>An existing qualification is currently used on apprenticeship frameworks for this pathway:</p> <ul style="list-style-type: none"> City & Guilds Level 2 NVQ Diploma in Installing, Testing and Maintaining Air Conditioning and Heat Pump Systems. <p>A new national qualification is currently in development and is expected to be available by September 2026.</p>	<p>Apprenticeships</p> <p>PLAs</p>
	Refrigeration Systems	Building Services Engineering	<p>An existing qualification is currently used on apprenticeship frameworks for this pathway:</p> <ul style="list-style-type: none"> City & Guilds Level 2 NVQ Diploma in Installing and Maintaining Refrigeration Systems. <p>A new national qualification is currently in development and is expected to be available by September 2026.</p>	<p>Apprenticeships</p>
	Heating and Ventilating	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. This qualification may be taken prior to commencing an apprenticeship.</p> <p>Two national qualifications are available for use on apprenticeship frameworks:</p> <ul style="list-style-type: none"> EAL Building Services Engineering (Level 3) – Heating and Ventilating Installation. EAL Building Services Engineering (Level 3) – Heating and Ventilating Craftsperson. 	<p>FE</p> <p>Apprenticeships</p>
Heating / Heat Pumps (including low carbon heat technologies ie Hydro boilers, air / ground source, under floor etc)	Plumbing and Heating Specialisms	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. This qualification may be taken prior to commencing an apprenticeship.</p> <p>A national qualification is available for use on apprenticeship frameworks:</p> <ul style="list-style-type: none"> EAL Building Services Engineering (Level 3) – Plumbing and Heating. <p>Plumbing Specialisms:</p> <p>1. Fossil Fuel – Natural Gas (this aligns to IGEM IG1 and ACS assessment standards)</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"> Core Domestic Gas Safety – CCN1. Central Heating Boilers & Water Heaters – CENWAT. 	<p>FE</p> <p>Apprenticeships</p>

Whole House Approach (Orp)	Industry Specialisms / Pathways	Sector	Qualifications	Training Options
Technologies / Additional Installations				
Heating / Heat Pumps (including low carbon heat technologies ie Hydro boilers, air / ground source, under floor etc) (continued)			<p>2. Environmental Technologies (this aligns to MCS requirements)</p> <p>Learner should complete training to MCS025 and include both of the following:</p> <ul style="list-style-type: none"> Heat Pumps to MIS3005. Solar Thermal to MIS3001. <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"> Level 3 Award In Energy Efficiency Measures for Older and Traditional Buildings. 	<u>PLAs</u>
PV (electric / solar) Thermal generation	Solar Thermal	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 national qualifications are available for use on relevant apprenticeship frameworks:</p> <ul style="list-style-type: none"> EAL Building Services Engineering (Level 3) – Plumbing and Heating. EAL Building Services Engineering (Level 3) – Heating and Ventilating Installation. EAL Building Services Engineering (Level 3) – Heating and Ventilating Craftsperson. <p>In addition, a range of awarding bodies offer regulated qualifications at level 3 in:</p> <ul style="list-style-type: none"> Installation and Maintenance of Solar Thermal Hot Water Systems. <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	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.</p> <p>These qualifications may be taken prior to commencing an apprenticeship.</p> <p>A national qualification for use on apprenticeship frameworks is available:</p> <ul style="list-style-type: none"> EAL Building Services Engineering (Level 3) – Electrotechnical Installation. An additional follow on electrotechnical installation qualification was made available from September 2025 which may be taken prior to commencing an apprenticeship. EAL Level 3 Extended Progression in Electrotechnical Installation. <p>A range of awarding bodies currently offer regulated level 3 qualifications in:</p> <ul style="list-style-type: none"> Installation and Maintenance of Small Scale Solar Photovoltaic Systems. <p>Wiring regulations 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"> Level 3 Award In Energy Efficiency Measures for Older and Traditional Buildings. 	<u>FE</u> <u>Apprenticeships</u> <u>PLAs</u>

Whole House Approach (Orp)	Industry Specialisms / Pathways	Sector	Qualifications	Training Options
Technologies / Additional Installations				
Energy Storage (Battery – Electric Heat – water)	Heat Battery	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>A national qualification is available for use on apprenticeship frameworks:</p> <ul style="list-style-type: none"> EAL Building Services Engineering (Level 3) – Plumbing and Heating. <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"> Level 3 Award In Energy Efficiency Measures for Older and Traditional Buildings. 	<p><u>FE</u></p> <p><u>Apprenticeships</u></p>
	Mechanical Ventilation Heat Recovery	Building services engineering	<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 national qualifications are available for use on relevant apprenticeship frameworks:</p> <ul style="list-style-type: none"> EAL Building Services Engineering (Level 3) – Plumbing and Heating. EAL Building Services Engineering (Level 3) – Electrotechnical Installation. EAL Building Services Engineering (Level 3) – Heating and Ventilating Installation. EAL Building Services Engineering (Level 3) – Heating and Ventilating Craftsperson. An additional follow on electrotechnical installation qualification was made available from September 2025 which may be taken prior to commencing an apprenticeship. EAL Level 3 Extended Progression in Electrotechnical Installation. <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"> Energy Efficiency Measures for Older And Traditional Buildings. 	<p><u>FE</u></p> <p><u>Apprenticeships</u></p>
	Battery Storage	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 national qualification for use on apprenticeship frameworks is available:</p> <ul style="list-style-type: none"> EAL Building Services Engineering (Level 3) – Electrotechnical Installation. An additional follow on electrotechnical installation qualification was made available from September 2025 which may be taken prior to commencing an apprenticeship. EAL Level 3 Extended Progression in Electrotechnical Installation. <p>Wiring regulations qualifications are also designated and regulated in Wales.</p>	<p><u>FE</u></p> <p><u>Apprenticeships</u></p>

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Technologies / Additional Installations				
Smart Homes technologies (energy management / electric systems)	Smart Heating Controls	Building services engineering	<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 national qualifications are available for use on relevant apprenticeship frameworks:</p> <ul style="list-style-type: none"> • EAL Building Services Engineering (Level 3) – Plumbing and Heating. • EAL Building Services Engineering (Level 3) – Electrotechnical Installation. • EAL Building Services Engineering (Level 3) – Heating and Ventilating Installation. • EAL Building Services Engineering (Level 3) – Heating and Ventilating Craftsperson. • An additional follow on electrotechnical installation qualification was made available from September 2025 which may be taken prior to commencing an apprenticeship. • EAL Level 3 Extended Progression in Electrotechnical Installation. <p>Several regulated qualifications are offered at level 3 by awarding bodies in:</p> <ul style="list-style-type: none"> • Energy Efficiency Measures for Older And Traditional Buildings. 	<p><u>FE</u></p> <p><u>Apprenticeships</u></p>
Rainwater Harvesting	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 national qualification is available for use on apprenticeship frameworks:</p> <ul style="list-style-type: none"> • EAL Building Services Engineering (Level 3) – Plumbing and Heating. <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"> • Level 3 Award In Energy Efficiency Measures for Older and Traditional Buildings. 	<p><u>Apprenticeships</u></p>

Whole House Approach (Orp)	Industry Specialisms / Pathways	Sector	Qualifications	Training Options
Technologies / Additional Installations				
Rainwater Harvesting (continued)	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 national qualifications are available for use on relevant apprenticeship frameworks:</p> <ul style="list-style-type: none"> • EAL Building Services Engineering (Level 3) – Plumbing and Heating. • EAL Building Services Engineering (Level 3) – Heating and Ventilating Installation. • EAL Building Services Engineering (Level 3) – Heating and Ventilating Craftsperson. <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"> • Energy Efficiency Measures for Older And Traditional Buildings. <p>A national electrotechnical installation qualification for use on apprenticeship frameworks is available:</p> <ul style="list-style-type: none"> • EAL Building Services Engineering (Level 3) – Electrotechnical Installation. • An additional follow on electrotechnical installation qualification was made available from September 2025 which may be taken prior to commencing an apprenticeship. • EAL Level 3 Extended Progression in Electrotechnical Installation. <p>Wiring regulations 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 national qualification for use on apprenticeship frameworks is available:</p> <ul style="list-style-type: none"> • EAL Building Services Engineering (Level 3) – Electrotechnical Installation. • An additional follow on electrotechnical installation qualification was made available from September 2025 which may be taken prior to commencing an apprenticeship. • EAL Level 3 Extended Progression in Electrotechnical Installation. <p>Wiring regulations qualifications are also designated and regulated in Wales.</p>	<p><u>FE</u></p> <p><u>Apprenticeships</u></p>
Surveying Element:				
Retrofit Advisors Retrofit Assessors Retrofit Co-ordinators Retrofit Designers			<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)
Construction	<p>Current Frameworks:</p> <ul style="list-style-type: none"> • Construction – Level 3. • Construction Specialist. • Construction Building. • Construction Technical – Level 3. • Construction Civil Engineering – Level 3. • Higher App in Construction Management. • Welsh Apprenticeship Framework In Construction – Level 3, 4, 5. • Construction Degree Apprenticeship – Level 6. • Engineering Construction – Level 2. • Advanced Engineering Construction – Level 3. 	<p>1. Framework Content including qualifications If you wish to view the content of an apprenticeship framework please visit; www.acwcerts.co.uk Search within the 'FRAMEWORK LIBRARY' and enter key word.</p> <p>2. General Information – Apprenticeship Frameworks www.gov.wales/apprenticeship-frameworks</p> <p>3. Apprenticeship Information www.gov.wales/apprenticeships</p> <p>4. Qualifications Wales sector review (2018) report Qualifications Wales / Construction and the Built Environment Suite of new qualifications for this sector. Qualifications Wales / Construction and the Built Environment</p> <p>5. Apprenticeship approved training providers Apprenticeship training providers GOV.WALES</p>	<p>Construction (new):</p> <ul style="list-style-type: none"> • 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 • Plant Operating <p>Construction Specialist (existing / continuing):</p> <ul style="list-style-type: none"> • Accessing Operations and Rigging • Interior Systems • Stonemasonry level 2 & 3 • Fitted Interiors • Floorcovering • Plastering (fibrous) level 2 & 3 • Applied Waterproof Membranes <p>Construction Building (existing / continuing):</p> <ul style="list-style-type: none"> • Decorative Finishing and Industrial • Maintenance Operations • Wood occupations shopfitting and bench work <p>Construction Technical:</p> <ul style="list-style-type: none"> • Built Environment and Design • Civil Engineering for Technicians • Construction Contracting Operations • Occupational Work Supervision

	Framework Detail	Associated Information & Links	Occupations / Specialisms Covered (Pathways)
Construction (continued)			<p>Construction Civil Engineering:</p> <ul style="list-style-type: none"> Occupational Work Supervision Formwork Occupations Highways Maintenance Construction Plant or Machinery Maintenance Plant Operations Steelfixing <p>Construction Degree Apprenticeship – Level 6:</p> <ul style="list-style-type: none"> Construction Management Civil Engineering Quantity Surveying Surveying <p>Higher Apprenticeship in Construction Management:</p> <ul style="list-style-type: none"> Level 4 Construction Site Supervisor Level 5 Construction Management Level 5 Construction Site Management
Building Services Engineering (BSE)	<p>Current Frameworks:</p> <ul style="list-style-type: none"> Electro technical Installation. Heating and Ventilating Installation and Craftsperson Plumbing & Heating. Refrigeration and Air Conditioning. 		<ul style="list-style-type: none"> Building Services Electrotechnical Installation Heating and Ventilating Installation and Craftsperson Plumbing and Heating Refrigeration and Air Conditioning
Other BSE	<ul style="list-style-type: none"> Gas Operations. 		<ul style="list-style-type: none"> Gas Operations
Energy Management / Technologies	<ul style="list-style-type: none"> Energy Management. 		

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 £30956 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 non accredited training through to Level 5 – which respond to sector demand. Employers should discuss their requirements with their local Colleges.

	Course Options	Associated Information & Links
General	<ul style="list-style-type: none"> Energy Efficiency – Vendor. Diploma in Operational Ratings – Level 3. 	<p>1. Individual PLA information: Rewrite your career with a Personal Learning Account Working Wales (gov.wales)</p> <p>2. Green PLA (Personal Learning Account): To support individuals to upskill or re-train in new emerging Net Zero skills within the Energy, Construction, Manufacturing and Engineering sectors. This new support is delivered the same way as normal PLA programme but includes the removal of the earning cap of £30,956.</p> <p>Green personal learning accounts (PLAs): approved courses GOV.WALES</p>
Assessors / Coordinators	<ul style="list-style-type: none"> Diploma in Retrofit Coordination and Risk Assessment – Level 5. Certificate in Domestic Retrofit Advice – Level 3. Certificate for Retrofit Assessors – Level 3. Award in Domestic Retrofit Assessment – Level 4. Award in Energy Efficiency for Older and Traditional Buildings – Level 3. Certificate in Domestic Energy Assessment – Level 3. Certificate in Domestic on Construction Energy Assessment – Level 3. Diploma in Non Domestic Energy Assessment – Level 4. 	
Environmental / Sustainability	<ul style="list-style-type: none"> NEBOSH National Diploma in Environmental Management – Vendor. NEBOSH Environmental Management Certificate – Vendor. IEMA Certificate in Environmental Management – Vendor. IEMA Foundation Certificate in Environmental Management – Vendor. IEMA Environmental Sustainability Skills for Managers – Vendor. IEMA Environmental Sustainability Skills for the Workforce – Vendor. IEMA Lead Environmental Auditor – Vendor. Water Regulations – Vendor. City & Guilds Level 2 Certificate in Sustainability and the Green Environment – Level 2. Agored Cymru Level 3 Diploma in Energy and Carbon Management – Level 3. 	

	Course Options	Associated Information & Links
Heating / Heat Pumps	<ul style="list-style-type: none"> • BPEC Domestic Air Source Heat Pum. • BPEC Domestic Ground Source Heat Pump. • BPEC Level 3 Award in Heat Pump Systems (Non-refrigerant Circuits). • Domestic Unvented Hot Water storage systems – Vendor. • LCL Level 3 Award in the Installation and Maintenance of Heat Pump Systems (non-refrigerant circuits). • LCL Level 3 Award in the Installation and Maintenance of Air Source Heat Pump Systems (non-refrigerant circuits). • LCL Level 3 Award in the Installation and Maintenance of Ground Source Heat Pump Systems (non-refrigerant circuits). • OFTEC Installation, Commissioning and Servicing of Air Source Heat Pumps. • OFTEC Installation, Commissioning and Servicing of Ground Source Heat Pumps. • NICEIC Air, Ground Source & Design Heat Pumps – Vendor Underfloor Heating Systems – Vendor. 	
Energy Storage	<ul style="list-style-type: none"> • BPEC Electrical Energy Storage Systems (EESS). • EAL Level 3 Award in the Design, Installation and Commissioning of Electrical Energy Storage Systems. • LCL Level 3 Award in the Design, Installation and Commissioning of Electrical Energy Storage Systems. 	
Thermal Generation	<ul style="list-style-type: none"> • EAL Level 3 Award in the Installation of Small Scale Solar Photovoltaic Systems – Level 3. • LCL Level 3 Award in the Installation and Maintenance of Small Scale Solar Photovoltaic Systems – Level 3. • BPEC Solar Photovoltaic Systems NOS Mapped – Vendor. • BPEC Solar Thermal Hot Water Systems NOS Mapped – Vendor. • LCL Level 3 Award in the Installation and Maintenance of Solar Thermal Hot Water Systems – Level 3. • NICEIC Solar Thermal Hot Water. • NICEIC Solar Photovoltaic (PV) Maintenance. 	

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	www.ceredigion.ac.uk/	enquiries@ceredigion.ac.uk
Addysg Oedolion	www.adultlearning.wales/#	info@adultlearning.wales
Coleg Penybont	www.bridgend.ac.uk/	hello@bridgend.ac.uk
Coleg Cambria	www.cambria.ac.uk/	enquiries@cambria.ac.uk
Cardiff and Vale	www.cavc.ac.uk/en	info@cavc.ac.uk
Coleg Sir Gar	www.colegsirgar.ac.uk/	admissions@colegsirgar.ac.uk
Coleg y Cymoedd	www.cymoedd.ac.uk/	enquiries@cymoedd.ac.uk
Merthyr	www.merthyr.ac.uk/	enquiries@merthyr.ac.uk
Gower College Swansea	www.gcs.ac.uk/	enquiries@gowercollegeswansea.ac.uk
Coleg Llandrillo	www.gllm.ac.uk/	generalenquiries@gllm.ac.uk
Coleg Gwent	www.coleggwent.ac.uk/	hello@coleggwent.ac.uk
NPTC Group	www.nptcgroup.ac.uk/	Enquiries@nptcgroup.ac.uk
Pembrokeshire College	www.pembrokeshire.ac.uk/	admissions@pembrokeshire.ac.uk
St David's college	www.stdavidscollege.ac.uk/	enquiries@stdavidscollege.ac.uk
Coleg Cymraeg Cenedlaethol	www.colegcymraeg.ac.uk/cy/	gwybodaeth@colegcymraeg.ac.uk