

# Pathways into Retrofit Maps

ection 1: Construction and Trade Pathways into Retrofit	Pages 2-7
Multi-skills trades	2
Bricklaying, stonemasonry, groundwork	3
Carpentry and joinery, plastering	4
Energy efficiency, further domestic retrofit	
Insulation and building treatment	7
ection 2: Electrotechnical Pathways into Retrofit	Pages 8-11
Electrotechnical	8
Solar PV and energy storage	9
Electric vehicle charging, combination courses, energy efficiency	10
Further domestic retrofit	11
ection 3: Plumbing and Heating Pathways into Retrofit	Pages 12-14
Plumbing and heating	12
Energy efficiency, further domestic retrofit	
	Multi-skills trades Bricklaying, stonemasonry, groundwork Carpentry and joinery, plastering Scaffolding, welding Energy efficiency, further domestic retrofit Insulation and building treatment  ection 2: Electrotechnical Pathways into Retrofit Electrotechnical Solar PV and energy storage Electric vehicle charging, combination courses, energy efficiency Further domestic retrofit  ection 3: Plumbing and Heating Pathways into Retrofit Plumbing and heating Heat pumps, biomass, solar thermal





#### **Construction and Trades Pathway**

# Multi Skills Route

(combined training in areas such as bricklaying, plastering, carpentry etc)

Length: 2 weeks Eligibility: None

# Entry: Bootcamps (various e.g. Plant Bootcamp)

**Entry Level** 

**Entry: SWAP Construction** 

Length: Weeks Eligibility: 19+

#### Entry: Foundation Construction Skills

Length: 1 year

Eligibility: GCSE English and Maths (Grade 2+)

## gth: 1 year

Length: 1 year (part-time)

Eligibility: GCSE (grade 1+)

in English and Maths.

Level 1 - 'She Builds'

Construction Skills

Level 1

Level 1 BTEC Certificate in

Construction

Length: 10 days

Eligibility: None

Level 1 Diploma in

**Construction Skills** 

Length: 1 year

Eligibility: For female learners of all ages.

#### Level 1 – Construction Multi Trades

Length: 1 year

Eligibility: 16-18 years old. 3x GCSEs (Grade 2) including Maths and English

# Level 2

Level 2 – BTEC Certificate in Construction (trade focus)

Length: 8 weeks

Eligibility: 19+ years old and 4x GCSEs (Grade 3+) including Maths and English

#### Level 2 - Construction Skills

Length: 1 year

Eligibility: 4 x GCSEs (Grade 3+) including Maths and English

#### Level 2 – Property Maintenance Operative

Length: 15 months

Eligibility: level 2 English and Maths (GCSE 4/C)

#### T Level 3 in following:

- Design, Surveying and Planning for Construction
- Engineering, Manufacturing, Processing and Control

Level 3

- Maintenance, Installation and Repair for Engineering and Manufacturing

Length: 2 years

Eligibility: 16-18 year olds, 4-5x GCSEs (grades 4+) including English and Maths

# T Level 3 in Building Services Engineering for Construction

Length: 2 years

Eligibility: 16-18 year olds, 4-5x GCSEs (grades 4+) including English and Maths

#### Level 3 - Facilities Management Supervisor

Length: unknown

Eligibility: level 2 (GCSE 4/C) in English and Maths

#### Level 3 Apprenticeship Building Services Engineering Technician

Length: 3 years

Eligibility: Level 2 (grade 4+) in English and Maths

# Level 3BTEC Diploma in Building Services Engineering

Length: 3 years

Eligibility: Level 3 Building Services or other relevant Level 3 or industry experience.

#### Level 4 Apprenticeship – Construction Site Supervision

Level 4

Length: 3-4 years

Eligibility: level 2 (GCSE 4/C) in English and Maths or a relevant level 2 apprenticeship

# Level 4 HNC Construction Site Management

Length: 1 year

Eligibility: varies (UCAS points or level 2 qualifications grades 4/C

# Level 4 HNC Quantity Surveying BTEC

Length: 1 year

Eligibility: varies (UCAS points or level 2 qualifications grades 4/C

#### Level 4 Apprenticeship Construction Management Site

Supervision Length: 1 year

Eligibility: GCSE English Language grade C/4 and GCSE Maths grade B/5.

#### Level 4 Apprenticeship Building Services Engineering Senior Technician

Length: 1 year

Eligibility: GCSE English Language grade C/4 and GCSE Maths grade B/5.

#### Level 5 HNC/HND Construction and Built Environment

Level 5

Length: 1 year

Eligibility: varies (UCAS points)

#### Level 6 NVQ Diploma in Construction Site Management

Level 6-7

Length: 1 year

Eligibility: varies (UCAS points)

#### Level 6 Apprenticeship – Chartered Surveyor

Length: 5 years

Eligibility: 2x A levels or a HNC in Construction.

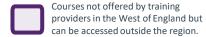
#### Level 7 Apprenticeship – Chartered Town Planner

Length: 4 years

Eligibility: Graduates, or relevant level 3 and experience.

#### COLOUR KEY:

Courses offered by training providers within the West of England

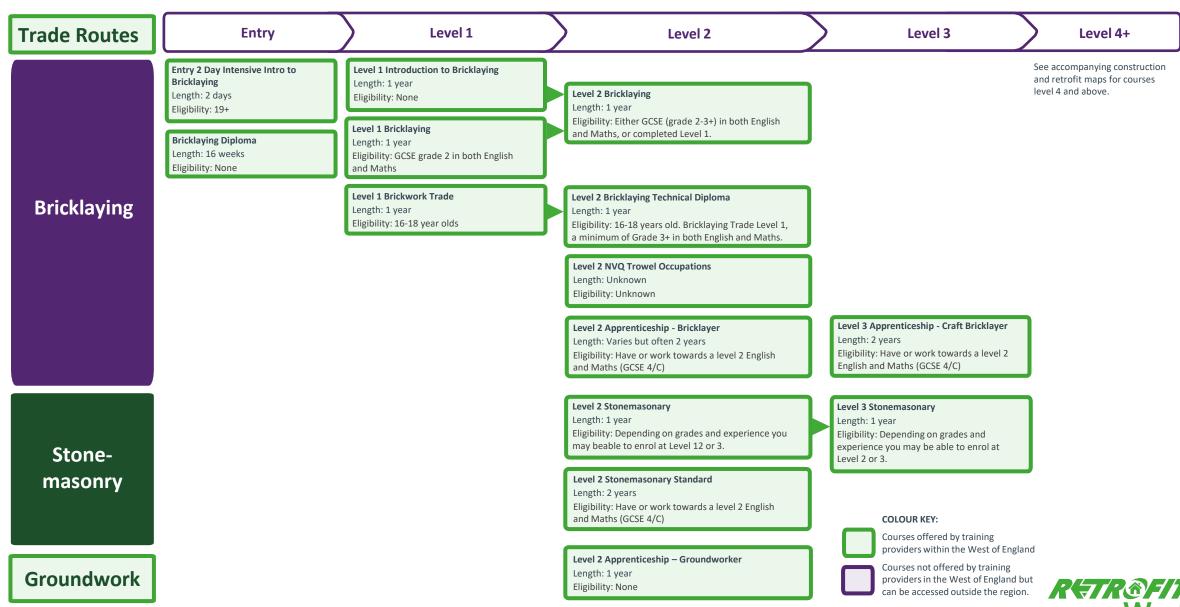


For more information, or to speak to an advisor visit www.skillsconnect.org.uk





## **Construction and Trades Pathway**





## **Construction and Trades Pathway**

**Trade Routes** Level 1 **Entry** Level 2 Level 3 Level 4+ See accompanying construction Entry: 2 Day Intensive Intro to Level 1 Carpentry and Joinery Diploma **Level 2 Site Carpentry** and retrofit maps for courses Carpentry Length: 1 year Length: 1 year level 4 and above. Length: 2 days Eligibility: GCSE grade 3 in both English and Eligibility: GCSE grades 3-4 in both English and Eligibility: None Maths. Ideally completed Level 1. **Entry: Carpentry Construction Skills Level 2 Site Carpentry Technical Diploma Level 1 Carpentry Trade** Certificate Length: 1 year Length: 1 year Length: Weeks Eligibility: 16-18 years old. Carpentry Trade Eligibility: 16-18 years old Eligibility: None level 1, and Grade 3 or above in both English and maths. Carpentry Level 3 Apprenticeship - Site Carpentry **Carpentry Taster** Length: 15months and Joinery Level 2 Apprenticeship - Site Carpentry Length: 6 weeks Eligibility: Level 2 Carpentry and Joinery Length: Varies (15months – 2 years) Eligibility: 19+ Apprenticeship Eligibility: Either a qualifying Level 1 qualification or 5x GCSEs (grade 2+ and two at grade 4+) **Level 3 Apprenticeships Craft Carpentry** and Joinery Length: 2 years Level 2 Apprenticeship in Carpentry & Eligibility: Completed Level 2 Joinery Apprenticeship and GCSE grade 2 in both Length: 2 years English and Maths. Eligibility: Have or work towards a Level 1 in maths and English **Plastering Technical** Entry 2 Day Intensive Intro to **Level 1 Plastering Trade** Length: 1 year Plastering Length: 1 year Eligibility: 16-18 years old. Plastering Trade Length: 2 days Eligibility: 16-18 Level 1 and a Grade 3+ in both English and Eligibility: None Maths **Level 1 Plastering COLOUR KEY: Plastering Diploma** Length: 1 year **Plastering** Level 2 Plastering Length: 16 weeks Courses offered by training Eligibility: GCSE grade 2 in both English and Length: 1 year providers within the West of England Eligibility: None Eligibility: GCSE grade 2-3+ in both English Courses not offered by training and Maths. Ideally level 1 or demonstrable providers in the West of England but knowledge. can be accessed outside the region. Level 2 Apprenticeship - Plasterer Length: Unknown Eligibility: Unknown



## **Construction and Trades Pathways**

**Trade Routes** Level 1 Level 2 Level 3+ Level 2 Apprenticeship - Scaffolder See accompanying construction and retrofit maps for courses Length: 18 months Scaffolding level 3 and above. Eligibility: A minimum of five GCSEs at grade 9-2 with at least two at grade 4, or a qualifying Level 1 qualification. Level 2 MAG Welding Skills Award Level 1 MAG Welding Skills Award Length: Unknown Length: 8 weeks Eligibility: Unknown Eligibility: none Level 1 MMA Welding Skills Award Level 2 MMA Welding Skills Award Length: Unknown Length: Unknown Eligibility: Unknown Eligibility: Unknown Level 2 TIG Welding Skills Award Level 1 TIG Welding Skills Award Welding Length: Unknown Length: Unknown Eligibility: Unknown Eligibility: Unknown Level 2 TIG Aluminium Welding Skills Award Length: Unknown Eligibility: Unknown Level 2 Oxy-Acetylene Welding Skills Award Length: Unknown Eligibility: Unknown **COLOUR KEY:** Courses offered by training Level 2 Apprenticeship – General Welder providers within the West of England Length: 18 months Courses not offered by training Eligibility: To have or work towards a Level 2 in providers in the West of England but **English and Maths** can be accessed outside the region. **Plumbing** See separate Retrofit maps for full details. and Heating



**Electrical** 

See separate Retrofit maps for full details.



#### **Construction and Trades Pathways into Retrofit**

**Energy Efficiency** 

#### Level 1

#### Level 2

#### Level 3

#### Level 1 Award in Energy Efficiency and Sustainability

Length: 3 weeks Eligibility: None

#### Level 2 LCL Award Certificate in the Principles of Metering for **Renewable Heat Installations**

Length: 1 day Eligibility: None

#### Level 2 Apprenticeship in Dual Fuel Smart Meter Installer

Length: 14months Eligibility: GCSE English and Maths

#### **Level 3 Apprenticeship** Smart Home Technician

Length: 1.5 years Eligibility: GCSE English and Maths

#### Level 3 Apprenticeship in Smart Home Technician Metering Length: 21 months

Eligibility: Relevant employment GCSE English and Maths

#### Level 1 Certificate in Energy Management Essentials

Length: 60 hours Eligibility: GCSE English and Maths or equivalent and experience using Microsoft Excel

#### **Level 2 Energy Management Professional**

Length: 200 hours Eligibility: 2+ years' relevant experience or completion of the Level 1 Certificate in Energy Management Essentials

#### Level 2 LCL Award Diploma in **Smart Metering**

Length: 1 year Eligibility: Working for an energy supplier

#### Level 3 Energy Efficiency (Part L) **Training Course**

Length: 1 day Eligibility: Experienced installers and/or design engineers.

#### Level 3 Award in Energy Efficiency for Older and **Traditional Buildings**

Length: Usually 2 days (online) Eligibility: Working within an energy assessment role

#### COLOUR KEY:

Courses offered by training providers within the West of England

Courses not offered by training providers in the West of England but can be accessed outside the region.

**Further Domestic** Retrofit

#### Informal

## Level 1-2

#### Retrofit Advisor

#### Course: Level 3 Certificate in **Domestic Retrofit Advice**

Length: 30 hours (online) Eligibility: 18+ years

#### Level 3 Certificate in Retrofit

Length: 20 weeks Eligibility: None but interest in Retrofit Advice is valuable and relevant.

Level 3

#### Course: Level 3 Award in Domestic Energy Assessment

Length: Davs-Weeks depending on the course Eligibility: No previous qualifications or experience required

#### Course: Level 3 Certificate for Retrofit Assessors

Length: Davs-Weeks depending on the course Eligibility: A Domestic **Energy Assessment** Qualification

#### Course: Skills Bootcamp - L4 Award in Domestic Retrofit Assessment

Length: Usually 60 (online) Eligibility: Level 3 **Domestic Energy** (if you do not have combined courses

Eligibility: Level 3

#### Retrofit Designer

Level 4-5

#### Level 4-5 Retrofit Designer Course

Length: 80 hours Eligibility: Either Qualified and practising as a Retrofit Coordinator OR Qualified in architecture, architectural technology, surveying or construction management with experience in using design software.

#### **Retrofit Coordinator**

#### Course: L5 Diploma in **Retrofit Coordination and Risk Management**

Length: 145hours self-paced (online/in-person)

Eligibility: Usually 2years experience in built environment or a relevant level 3 qualification.

#### Skills Bootcamp - L5 Diploma in Retrofit Coordination and **Risk Management**

Length: 103 hours across 13 weeks Eligibility: A level 3 qualification in a built environment

# RETRÔFIT

Retrofit 101 (online) Length: 2 hours Eligibility: None and it's free

#### Level 2 Award Understanding Domestic Retrofit (online)

General Retrofit

Length: 30hours (self-paced) Eligibility: None

#### Level 2 Award Introduction to **Domestic Renewable Low Carbon** Technologies (online)

Length: 1-2 days Eligibility: basic literacy and numeracy

#### Level 2 Retrofit Skills (mix of online and in-person)

Length: Self-paced Eligibility: 1 year work experience in Construction

#### Level 2 Certificate in Retrofit

Length: 20 weeks Eligibility: None but experience in Construction is helpful

## Domestic / Retrofit Energy Assessor

hours across 10 weeks Assessor qualification this already there are available).

#### Level 4 Award in Domestic **Retrofit Assessment**

Length: 80 hours **Domestic Energy** Assessment



## **Construction Trades Pathways into Retrofit**

Insulation &
Building

**Treatment** 

#### **Entry**

#### Level 2

#### Level 3

Level 3 NVQ Thermal Insulation

Length: unknown

Eligibility: unknown

Cold Roof Insulation

Length: Self-paced Online (hours) Eligibility: None

Warm Roof Insulation

Length: Self-paced Online (hours) Eligibility: None

**Underfloor Insulation** 

Length: Self-paced Online (hours) Eligibility: None

Introduction to Insulation

Length: Self-paced Online (hours) Eligibility: None

**Working Safely in Lofts** 

Length: Self-paced Online (hours) Eligibility: None

**Draught Proofing** 

Length: Self-paced Online (hours) Eligibility: None Level 2 Award in Introduction to External Wall Insulation

Length: Self paced (online) Eligibility: None

Level 2 NVQ Thermal Insulation in either - Fabricate Protection or Fit Protection

Length: unknown Eligibility: unknown

Level 2 Award in recognising damp, mould, and condensation in buildings

Length: unknown Eligibility: unknown

Level 2 NVQ Cold Roof Insulation

Length: unknown Eligibility: unknown

Level 2 NVQ Internal Insulation

Length: unknown Eligibility: unknown

Level 2 NVQ Warm Roof Insulation

Length: unknown Eligibility: unknown

Level 2 NVQ Cavity Wall Insulation

Length: unknown Eligibility: unknown

Level 2 NVQ in Insulation and Building Treatments

Length: 10 hours (online)

Eligibility: Level 2 qualification in fitting relevant measures.

COLOUR KEY:

Courses offered by training providers within the West of England

Courses not offered by training providers in the West of England but can be accessed outside the region.



## **Electrotechnical Pathway**

#### **HOW TO GUIDE**

Page 1: Demonstrates the different types of training available at varying levels within the electrical career pathway. Pages 2-4: Demonstrates the opportunities to train in different areas of retrofit for people working in the electrical industry.

**Informal** 

Level 1-2

Level 3

Level 4-5

Level 6-7

#### **Key Stage Electrical Course**

Length: 5 days Eligibility: None

#### Level 1 Introduction to Electrical Installation

Length: 1year Eligibility: 4+ GCSE including a grade

3(D) in Maths

#### Level 2 Electrical Installation

Length: 1 year Eligibility: 4+ GCSE (grade 4 or above) ncluding Maths

#### Level 3 NVQ Diploma in Installing Electrotechnical Systems & Equipment (Building, Structures or Environment) from EAL or City &

Length: Usually 3-4 years Eligibility: GCSE grade 4+ in English and Maths.

#### Level 2 City & Guilds **Technical Certificate in** Route) (Electrical Installation

Length 1year

Route)

**Building Services** 

Eligibility: GCSE English and Maths at Grade 4

#### Level 3 City & Guilds Advanced **Technical Diploma in Building** Services (Electrical Installation

#### Length 2years

Eligibility: Level 2 Technical Certificate or 4 GCSEs at grades 5+ including English and Maths

#### **Level 3 Apprenticeship Domestic Electrician**

Length: Usually 3-4 years

Eligibility: GCSE grade 4+ in English and Maths. Employed with an appropriate employer.

#### Level 3 Apprenticeship Installation & Maintenance Electrician

Length: Usually 3-4 years

Eligibility: GCSE grade 4+ in English and Maths. Employed with an appropriate employer.

#### **Retrofit Training**

Eligibility: varies for each course

Installation courses usually require a Level 2 or 3 qualification.

Level 3 Certificate in installation and maintenance of:

- · Solar PV
- Electrical Storage Systems
- EV Charging Points

Informal retrofit courses for Continuous Professional Development (CPD)

Informal retrofit courses for Continuous Professional Development (CPD)

Retrofit Skills Bootcamps

Accredited courses in the new retrofit roles

View details on the Retrofit Map overleaf.

#### Level 4 Higher National Certificate (HNC) Electrical and **Electronic Engineering**

Length: 2 years

Eligibility: Various depending on experience and qualifications.

Level 4 Higher National Certificate (HNC) Building Services Engineering Length: 2 years Eligibility: Level 3 Building Services or other relevant Level 3 or industry experience.

Level 4 Apprenticeship Building **Energy Management Systems** (BEMS) Controls Engineer

Length: 3 years

Eligibility: English and maths minimum requirement is Entry Level 3

Level 5 Higher National Certificate (HNC) Electrical and **Electronic Engineering** 

Length: 1 year

Eligibility: HNC Engineering or equivalent qualifications with Grade C/4 including English and Maths.

Level 6 BEng Electrical and Electronic Engineering Length: 3 years

Eligibility: UCAS points

Level 7 MEng Electrical and **Electronic Engineering** Length: 4 years Eligibility: UCAS points

Level 6 BEng Mechanical and Electrical Engineering Length: 3 years Eligibility: UCAS points

> Level 7 MEng Mechanical and **Electrical Engineering** Length: 4 years Eligibility: UCAS points

#### Level 6 Apprenticeship in Building Services Design Engineer

Length: 5 years

Eligibility: relevant level 3 or 4 qualifications in the field

#### Level 6 Apprenticeship in Building **Services Engineer**

Length: 5 years

Eligibility: relevant level 3 or 4 qualifications in the field

# 16-18 years old ...

#### **Level 3 T Level in Building Services Engineering for Construction specialising in** Electrical

Length: 2vears

Eligibility: 16-19-year-olds, 4+ GCSEs in grades 4(C) or equivalent, including English and Maths

For more information, or to speak to an advisor visit

www.skillsconnect.org.uk

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#### **COLOUR KEY:**

Courses offered by training providers within the West of

Courses not offered by training providers in the West of England but can be accessed outside the region.

#### Continuous Professional Development (CPD) short courses for experienced electricians, examples include:

Level 2/3 Inspection and Testing (5 days) Level 3 Award in the Initial Verification and Certification of Electrical Installations (4 days) Level 3 Certificate in Building Regulations



## **Domestic Retrofit (Electrotechnical) Pathway**

These are some (not all) of the courses available for professionals to train in areas of domestic retrofit.

#### Level 3 Level 7 Level 3 LCL Award in Installation and Maintenance of Level 7 in Solar Industry Leader Programme Level 3 EAL Award in the Installation of Small Scale Solar **Small Scale Solar Photovoltaic Systems Photovoltaic Systems** Length: 18months Length: 3 days Eligibility: Working in a leadership role within a solar company Length: 5 days **Solar PV** Eligibility: Level 3 Award Requirements for Electrical Eligibility: good knowledge of the latest edition of BS7671, of Installations plus Level 3 Award in the Initial Verification & inspection, testing and certification of electrical installations Certification of Electrical Installations (or combined award including Periodic Inspection & Testing) **Level 3 Skills Bootcamps** Length: Varies (usually 60 hours spread over several weeks) Eligibility: 19+ years old and free. Level 3

**Energy Storage** 

Level 3 BPEC Electrical Energy Storage Systems (EESS)

Length: 2 days

Eligibility: Level 3 in relevant electrotechnical qualification plus ECS Gold card, JIB Electrician or Approved Electrician Card

**Level 3 Skills Bootcamps** 

Length: Varies (usually 60 hours spread over several weeks) Eligibility: 19+ years old and free. Level 3 LCL Award: Design, Installation and Commissioning of Electrical Energy Storage Systems

Length: 2 days

Eligibility: Level 3 Award in the Requirements for Electrical Installations plus Level 3 Award in the Initial Verification and Certification of Electrical Installations (or a combined award including Periodic Inspection & Testing)

Level 3 EAL Award in the Design and Installation and Commissioning of Electrical Energy Storage Systems (EESS)

Length: 3.5 days

Eligibility: Level 3 Award in the Requirements for Electrical Installations plus Level 3 Award in the Initial Verification and Certification of Electrical Installations (or a combined award including Periodic Inspection & Testing)

#### COLOUR KEY:

Courses offered by training
providers within the West of
England

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#### **Domestic Retrofit (Electrotechnical) Pathway**

These are some (not all) of the courses available for professionals to train in areas of domestic retrofit.

# Electric Vehicle **Charging**

#### Level 3

#### Level 3 City and Guilds Award in the design and Installation of domestic and small commercial electric vehicle charging installation

Length: 2 days

Eligibility: Candidates need to be experienced in electrical installation practices, inspection and testing and certification of electrical installations.

#### Level 3 EAL Award in the Requirements for the Installation of Electric **Vehicle Charging Points**

Length: 2 days

Eligibility: Competent electrician with relevant Level 3 qualification or ECS gold card

#### Level 3 City and Guilds Award in Domestic, Commercial & Industrial EV **Charging Equipment Installation**

Length: 2 days

Eligibility: Candidates need to be already experienced in electrical installation practices, inspection and testing and certification of electrical installations.

#### Skills Bootcamp: Level 3 Electric Charging Point

Length: 60+ hours

Eligibility: 19+, practicing electrician with Level 3 qualification

#### COLOUR KEY:

Courses offered by training providers within the West of England

Courses not offered by training providers in the West of England but can be accessed outside the region.

# Combination Courses

#### Level 3

#### Level 3 LCL Award Small Scale Solar Photovoltaic Systems and Electrical **Energy Storage Systems**

Length: 5 days

Eligibility: Level 3 in Electrical Installations or Initial Verification and Certification of Electrical Installations or a combined award including Periodic Inspection and Testing

#### Skills Bootcamp: Level 3 EAL in Solar PV Installation, Electric Vehicle **Charging and Electrical Energy Storage Systems**

Level 3

Length: 60+ hours

Eligibility: 19+, practicing electrician with Level 3 qualification

#### Level 1-2

# Energy **Efficiency**

#### Level 1 Award in Energy **Efficiency and Sustainability**

Length: 3 weeks

Eligibility: None

#### Level 2 LCL Award Certificate in the Principles of Metering for Renewable Heat Installations

Eligibility: GCSE English and Maths

Length: 1 day Eligibility: None

Length: 14months

#### for Older and Traditional Buildings Length: Usually 2 days (online) Eligibility: Working within an energy

#### **Level 3 Apprenticeship Smart Home** Technician

Eligibility: GCSE English and Maths

#### Level 3 Energy Efficiency (Part L) **Training Course**

Length: 1 day

Eligibility: Experienced installers and/or design engineers.

#### Level 2 LCL Award Diploma in Level 2 Apprenticeship in Dual Smart Metering **Fuel Smart Meter Installer**

Length: 1 year

Eligibility: employed by or working for an energy supplier

Level 3 Award in Energy Efficiency

Length: 1.5 years

assessment role

#### Level 3 Apprenticeship in Smart **Home Technician Metering** Length: 21 months

Eligibility: Relevant employment GCSE English and Maths





## **Domestic Retrofit (Electrotechnical) Pathway**

These are some (not all) of the courses available for professionals to train in areas of domestic retrofit.

Informal

Level 1-2

Level 2 Award Understanding

Domestic Retrofit (online)

Eligibility: None

Technologies (online)

Length: 1-2 days

numeracy

Length: 30hours (self-paced)

Level 2 Award Introduction to

Eligibility: basic literacy and

**Domestic Renewable Low Carbon** 

Level 3

Level 4-5

Level 4-5 Retrofit Designer

Eligibility: Either Qualified

and practising as a Retrofit

Coordinator OR Qualified in

architecture, architectural

construction management

technology, surveying or

with experience in using

design software.

Course

Length: 80 hours

General Retrofit

Retrofit 101 (online)

Length: 2 hours

Eligibility: None and it's free

Retrofit Advisor

Course: Level 3 Certificate in Domestic Retrofit Advice

Length: 30 hours (online) Eligibility: 18+ years

Level 3 Certificate in Retrofit

Length: 20 weeks Eligibility: None but interest in Retrofit Advice is valuable and relevant. Domestic / Retrofit Energy Assessor

Course: Level 3 Award in Domestic Energy Assessment

Length: Days-Weeks depending on the course Eligibility: No previous qualifications or experience required

Course: Level 3 Certificate for Retrofit Assessors

Length: Days-Weeks depending on the course Eligibility: A Domestic Energy Assessment Qualification Course: Skills
Bootcamp – L4 Award
in Domestic Retrofit
Assessment

Length: Usually 60 hours across 10 weeks (online)
Eligibility: Level 3
Domestic Energy
Assessor qualification (if you do not have this already there are combined courses available).

Level 4 Award in Domestic Retrofit Assessment

Length: 80 hours Eligibility: Level 3 Domestic Energy Assessment Retrofit Designer Retrofit Coordinator

Course: L5 Diploma in Retrofit Coordination and Risk Management

Length: 145hours self-paced (online/in-person)

Eligibility: Usually 2years experience in built environment or a relevant level 3 qualification.

Skills Bootcamp – L5 Diploma in Retrofit Coordination and Risk Management

Length: 103 hours across 13 weeks Eligibility: A level 3 qualification in a built environment

Further Domestic Retrofit

Level 2 Retrofit Skills (mix of online and in-person)

Length: Self-paced Eligibility: 1 year work experience in Construction

Level 2 Certificate in Retrofit

Length: 20 weeks Eligibility: None but experience in Construction is helpful



## Plumbing and Heating Pathway

#### **HOW TO GUIDE**

Page 1: Demonstrates the different types of training available at varying levels within the plumbing and heating career pathway. Pages 2-3: Demonstrates the opportunities to train in different areas of retrofit for people working in the plumbing and heating industry.

Level 1-2 Level 4-5 Level 3 Level 6-7

#### Level 1 NVQ **Plumbing Studies**

Length: 1year

Eligibility: 2x GCSE grade 2+ (inc English and Maths), or entry 3 qualification, Certificate in Skills for Working Life or Life Skills, ESOL Entry L3

**Level 1 Plumbing** 

**Trade Certificate** 

Length: 1 year

Eligibility: 16-

English

18 years, grade 3+

in maths and

#### Level 2 NVQ Plumbing Studies

Length: 1 year

Eligibility: GCSE **English and Maths** (grade 4+) plus 2 GCSEs (grade 3+) or relevant Level 1 with GCSE English and Maths.

Level 2 Technical

Certificate in

Length: 1 year

years. Level 1

(grade 4+)

Eligibility: 16-18

Plumbing

#### Level 3 NVQ Plumbing and **Domestic Heating**

(heat pumps, or solar thermal pathway options)

Length: Usually 3-4 years

Eligibility: Varies depending on experience and former quals (usually a level 2 qualification or equivalent)

#### **Low-Carbon Heating Technician Apprenticeship**

Length: Usually 3-4 years

Eligibility: Individual employers set their own entry requirements, typically includes GCSE English and Maths (grade C+).

### **Domestic Heating Technician Apprenticeship**

Eligibility: 5 GCSEs (Grade 4+ including English and Maths) or a Level 2 course and functional skills.

#### Plumbing Trade certificate, English and maths

#### **COLOUR KEY:**

16-18 years old ...

Courses offered by training providers within the West of England Courses not offered by training

providers in the West of England but can be accessed outside the region.

# Level 3 Plumbing and

Length: Usually 3-4 years

#### Level 3 T Level in Building Services **Engineering for Construction** specialising in Plumbing **Engineering and Heating** Engineering.

Length: 2years

Eligibility: 16-19-year-olds, usually requires 4-5 GCSEs in grades 9 to 4 (A\* to C) or equivalent, including **English and Maths** 

#### Water Regulations and Unvented Hot Water Systems

Eligibility: Experienced Installers

#### **Domestic Ventilation Systems** Eligibility: Experienced Installers

#### **Retrofit Training**

Eligibility: varies for each course

Installation courses usually require a Level 2 or 3 qualification.

#### Level 3 Certificate in installation and maintenance of:

- **Ground-Source Heat Pumps**
- Air-source Heat Pumps
- **Biomass Systems**
- Low-Temperature Heating and Hot Water Systems

#### Manufacturer Retrofit Courses

Informal retrofit courses for Continuous Professional Development (CPD)

Retrofit Skills Bootcamps

Accredited courses in new retrofit roles

View details on the Retrofit Map overleaf.

Level 4 HNC/HND Building **Services Engineering Senior Technician Apprenticeship** 

Length: 3 years

Eligibility: English and maths minimum requirement is entry Level 3

#### Level 4 Higher National Certificate (HNC) Building Services Engineering

Length: 2 years Eligibility: Level 3 Building Services or other relevant Level 3 or industry experience.

#### Level 4 Apprenticeship Building **Energy Management Systems** (BEMS) Controls Engineer

Length: 3 years

Eligibility: English and maths minimum requirement is Entry Level 3

#### Level 6 Apprenticeship in **Building Services Design** Engineer

Length: 5 years Eligibility: relevant level 3 or 4 qualifications in the field

#### Level 6 Apprenticeship in **Building Services Engineer**

Length: 5 years

Eligibility: relevant level 3 or 4 qualifications in the field

> The plumbing occupation is not controlled or licenced with a specific qualification. The Chartered Institute for Plumbing and Heating Engineering describe Level 2 as a way to enter the industry, and level 3 as the most comprehensive training option (and often considered the industry-recognised standard). In some cases, learners can begin training at level 3, so be sure to speak to training providers about all training options available to you.

For more information, or to speak to an advisor visit www.skillsconnect.org.uk





## **Domestic Retrofit (Plumbing and Heating) Pathway**

These are some (not all) of the courses available for professionals to train in areas of domestic retrofit.

Domestic Hot Water Storage Systems

#### Level 1-2 Level 3 Informal **BPEC Level 3 Award in air** OFTEC Installation, commissioning and **BPEC Low Temperature Hot Water** LCL level 3 Award in the source heat pump system (nonservicing of air source heat pumps **Heating Systems** Installation and Maintenance refrigerant circuits) of Heat Pump Systems (Non-Length: 2 days refrigerant Circuits) Length: 3 days OFTEC Installation, commissioning and Eligibility: Practicing plumbers and heating Length: 3 days Eligibility: Several years in servicing of ground source heat pumps engineers who wish to design and install plumbing or conventional heating energy efficient low temperature hot water Eligibility: L2/3 in relevant **Heat Pumps** engineering, an NVQ level 3 in heating systems that use heat pumps as the qualification plus WRAS Water plumbing, heating engineering or heat source Regulations/Water Byelaws OFTEC Design of Heat Pump Systems equivalent. Skills Bootcamps NICEIC Certificate in Air Source Heat Pumps BPEC Level 3 Award in the Length: Varies (usually 60 hours Installation and Maintenance of spread over several weeks) **Heat Pump Systems** Manufacturers offer a variety of different Eligibility: 19+ years old and free. Length: 3 days training. Examples are provided by the Heat Eligibility: L2/3 relevant Pump Association qualification or several years industry experience plus water regs and bylaws Level 3 Level 4-5 Informal Level 3 LCL Award in installation, commissioning and **BPEC - Solid Biomass (NOS Mapped) Level 4 HETAS Biomass Appliance Installer** maintenance of Wood Pellet Burning Appliances Length: 5 days **Biomass** Length: 5days Eligibility: Either L2/3 in relevant qualification plus Eligibility: Either L2/3 in relevant qualification plus Eligibility: Either L2/3 in relevant qualification plus Water Water Regulations/ Water Byelaws, Energy Water Regulations/Water Byelaws OR experienced Regulations/Water Byelaws OR experienced workers can present Efficiency for Domestic Heating, Unvented hot workers can present portfolio of work for approval portfolio of work for approval water Level 3 BPEC Award in the installation and Level 3 LCL Award in the Installation of Solar Thermal Hot maintenance of solar thermal hot water Water System Solar Length: 3 days Length: 3 days Eligibility: L2/3 in relevant qualification plus Water **Thermal** Eligibility: L2/3 in relevant qualification, minimum 3 years Regulations/Water Byelaws and Unvented experience, plus Water Regulations/Water Byelaws and Unvented

Domestic Hot Water Storage Systems







#### **Domestic Retrofit (Plumbing and Heating) Pathway**

# Energy Efficiency

**Further** 

**Domestic** 

Retrofit

#### Level 1

#### Level 2

#### Level 3

#### Level 1 Award in Energy Efficiency and Sustainability

Length: 3 weeks Eligibility: None

#### Level 2 LCL Award Certificate in the Principles of Metering for Renewable Heat Installations

Length: 1 day Eligibility: None

#### Level 2 Apprenticeship in Dual Fuel Smart Meter Installer

Length: 14months Eligibility: GCSE English and Maths

#### Level 3 Apprenticeship Smart Home Technician

Length: 1.5 years Eligibility: GCSE English and Maths

#### Level 3 Apprenticeship in Smart Home Technician Metering Length: 21 months

Eligibility: Relevant employment GCSE English and Maths

# Level 1 Certificate in Energy Management Essentials

Length: 60 hours Eligibility: GCSE English and Maths or equivalent and experience using Microsoft Excel

#### Level 2 Energy Management Professional

Length: 200 hours Eligibility: 2+ years' relevant experience or completion of the Level 1 Certificate in Energy Management Essentials

# Level 2 LCL Award Diploma in Smart Metering

Length: 1 year Eligibility: Working for an energy supplier

#### Level 3 Energy Efficiency (Part L) Training Course

Length: 1 day
Eligibility: Experienced installers
and/or design engineers.

#### Level 3 Award in Energy Efficiency for Older and Traditional Buildings

Length: Usually 2 days (online) Eligibility: Working within an energy assessment role

#### COLOUR KEY:

Courses offered by training providers within the West of England

Courses not offered by training providers in the West of England but can be accessed outside the region.

#### Informal

#### Level 1-2

#### Level 3

#### Level 4-5

#### General Retrofit

#### Retrofit 101 (online)

Length: 2 hours Eligibility: None and it's free

#### Level 2 Award Understanding Domestic Retrofit (online)

Length: 30hours (self-paced)
Eligibility: None

#### Level 2 Award Introduction to Domestic Renewable Low Carbon Technologies (online)

Length: 1-2 days Eligibility: basic literacy and numeracy

# Level 2 Retrofit Skills (mix of online and in-person)

Length: Self-paced Eligibility: 1 year work experience in Construction

#### Level 2 Certificate in Retrofit

Length: 20 weeks Eligibility: None but experience in Construction is helpful

#### Retrofit Advisor

#### Course: Level 3 Certificate in Domestic Retrofit Advice

Length: 30 hours (online) Eligibility: 18+ years

#### Level 3 Certificate in Retrofit

Length: 20 weeks Eligibility: None but interest in Retrofit Advice is valuable and relevant.

## Domestic / Retrofit Energy Assessor

# Course: Level 3 Award in Domestic Energy Assessment

Length: Days-Weeks depending on the course Eligibility: No previous qualifications or experience required

#### Course: Level 3 Certificate for Retrofit Assessors

Length: Days-Weeks depending on the course Eligibility: A Domestic Energy Assessment Qualification

# Course: Skills

#### Bootcamp – L4 Award in Domestic Retrofit Assessment

Length: Usually 60 hours across 10 weeks (online) Eligibility: Level 3 Domestic Energy Assessor qualification (if you do not have this already there are combined courses available).

#### Level 4 Award in Domestic Retrofit Assessment

Length: 80 hours Eligibility: Level 3 Domestic Energy Assessment

#### Retrofit Designer

#### Level 4-5 Retrofit Designer Course

Length: 80 hours Eligibility: Either Qualified and practising as a Retrofit Coordinator OR Qualified in architecture, architectural technology, surveying or construction management with experience in using design software.

## Retrofit Coordinator

#### Course: L5 Diploma in Retrofit Coordination and Risk Management

Length: 145hours self-paced (online/in-person)

Eligibility: Usually 2years experience in built environment or a relevant level 3 qualification.

# Skills Bootcamp – L5 Diploma in Retrofit Coordination and Risk Management

Length: 103 hours across 13 weeks Eligibility: A level 3 qualification in a built environment

