

Climate change and environmental skills strategy: Summary





Foreword

Climate change is the greatest challenge we face. We want to make sure individuals and employers can secure the skills they need to help the country meet its legal obligation to achieve net zero carbon emissions by 2050, secure long-term sustainable growth, and restore and protect our natural environment.

Achieving these outcomes will mean thinking and doing things differently, transforming our economy, delivering high skill jobs and growth. For IfATE that means working to make sure apprenticeships and technical education play their part in increasing the level of climate change and environmental knowledge, skills, and behaviours across the workforce

Apprenticeships and technical education need to make sure that the country is equipped with the skills to adapt to changes in the way we do things. This includes moving from high carbon to low and no carbon solutions in energy generation, distribution, industrial and domestic consumption. We will also need the skills to work out new and better ways of doing things to give us low and no carbon solutions across every sector of the economy.

But this is not just about a technological change. We also need to equip individuals across the economy to support the change, such as those in digital, finance, management, and procurement, with the climate change and environmental knowledge, skills, and behaviours needed to be change makers. Through our occupational maps, we will enable people to explore careers in a wide range of green occupations, including those in areas such as reforestation and habitat restoration needed to restore biodiversity and develop nature-based solutions. We recognise that different regions of England have climate change and environmental skills priorities most appropriate to their geography, economy and people, which IFATE will seek to understand and support through our national standards.

IfATE is helping to drive this change. Working with employers, we are making sure that each occupation in the apprenticeship and technical system covers climate change and environmental skills. We are also identifying where we need to add apprenticeships and technical qualifications to occupations to give employers and individuals access to the skills they need. Surveys have shown over 60% of young people want to work in a role committed to tackling climate change¹ and we will make it easier for employers and individuals to find the right apprenticeship or technical qualification for them.

We believe we are well placed to bring together employers and wider stakeholders to look ahead to understand where new skills needs are emerging. We can accelerate making training for stakeholders available through apprenticeships and technical qualifications, maximising the part that apprenticeships and technical education play in helping the country achieve sustainable growth and meet its net zero targets.



Judy Ling Wong

Chair of the Green Apprenticeship and Technical Education Advisory Panel



Executive Summary: Our vision for a more sustainable skills system

The UK Government was the first major economy to legislate to reduce carbon emissions to net zero by 2050. To meet the net zero targets, we need to see a fundamental shift in the skills of the UK workforce and the Government has set an ambition for two million green jobs in the UK by 2030. Updating the existing training offer will be vital in achieving this shift.

There are already over 420,000 jobsⁱⁱ in low carbon businesses and their supply chains with an estimated turnover of £41.2 billion in 2020. Over 80% of the workforce of 2030 is already in work today, so reaching net zero by 2050 will require government and industry to work together to ensure workers in high carbon sectors can retrain and upskill as they move into jobs in the green economy.

IfATE's aim is to work with employers so that apprenticeships and technical education can help the country to achieve sustainable growth and meet net zero targets.

OUR THREE GREEN PRINCIPLES

- Apprenticeships and technical qualifications will be ready to fill the very latest environmental and climate change skills needs
- T Levels and Higher Technical Qualifications will play their part in helping students prepare for and people access high-skill and rewarding careers in tackling climate change. We'll help employers, providers and others in the sector to ensure there are a range of choices for students, working with them to establish whether further T Levels are needed
- IfATE will lead by example, embedding a sustainable culture across our own organisation

To deliver on these principles we created the Green Apprenticeships and Technical Education Advisory Panel, packed with experts on sustainability, to support IfATE on how to make jobs and skills training greener.

Their mission is to:

- Enhance our current apprenticeships and technical education qualifications to ensure that they meet the needs of the employers within the growing green economy
- Create new apprenticeships and technical education qualifications to reflect new occupations, which will help us to reach net zero

Following work by the Green Apprenticeships and Technical Education Advisory Panel, our trailblazer groups, made up of around 5,000 employers, have confirmed that 100 of our standards are ready to deliver sustainability and climate change skills. We are committed to greening half of standards the panel has mapped to green sectors by June 2023 and the rest in 2024.

Here are just some of the examples of how green skills have been added to occupational standards:

Sustainability business specialist occupational standard

The apprenticeship now includes a wider range of sectors than ever before, helping organisations to manage the resources they use and the waste they generate. There were 47 apprenticeship starts in the year 2021/22.

Domestic electrician occupational standard

Newly approved apprenticeship, training people to maintain domestic heat pumps, solar panels and EV charging points.

Forest craftsperson occupational standard

New apprenticeship focused on creating, maintaining and harvesting forests and woodlands, contributing to increasing tree canopy and woodland cover across England by 2050.

Building services engineering senior technician occupational standard

Updated the apprenticeship to bring in principles of sustainable development, making sure that the environment is properly considered by apprentices during the planning and resourcing stage of building services engineering projects.

Over the next year we will be responding to the panel's recommendations and working with employers to develop or revise the following:

Battery manufacturing technician occupational standard

We are working with employers to scope and define what a new apprenticeship would look like in this space, with employers aiming to deliver starts by Summer 2023. Batteries will play a key role in the environmental agenda, providing storage for renewable energy generation and power to electric vehicles.

Installation electrician and maintenance electrician occupational standard

Revising this apprenticeship will help to add in crucial skills to support the government ambition of 300,000ⁱⁱⁱ publicly accessible EV charging points by 2030. This new generation of electricians will be ready to install and maintain these EV charging points.

Low Carbon Heating Technician occupational standard

This standard has been designed to play a key part in delivering the uplift of installers needed to install 600,000^{iv} heat pumps per year by 2028. It will equip apprentices with the skills to plan, install, service and repair a range of low carbon technologies including ground source heat pumps, air source heat pumps, water source heat pumps and solar thermal systems. Discussions with training providers and end-point assessment organisations are already taking place with the aim to go live in spring 2023.

Retrofit coordinator

Due to the pressing need to insulate homes we are looking at ways to use the knowledge, skills and behaviours of being a retrofit coordinator to create apprenticeships and technical qualifications which deliver the skills required to do this key green job.

Further detail about what we have done and what we plan to do is provided in our accompanying climate change and environmental skills action plan document.

- Evaluating and updating our sustainability framework, which provides a simple toolkit for employers, to make sure it is helping to deliver green skills through apprenticeships and technical education.
- Including a new 'green occupation' filter on our occupational maps, so that employers and learners can see which apprenticeships and technical education products support a green career. To improve data

sharing, an Application Programming Interface (API) will be made available, containing all occupational maps data so people can use the list of green occupations in careers advice, research or policy development.

- Publishing a future facing innovation strategy, in Spring 2023, which will set out how IfATE plans to accelerate capturing and reflecting emerging skills needs in apprenticeships and technical qualifications
- Continuing our work to provide expert inputs to Ministers on apprenticeship and technical education, including in support of the Ministerial Green Jobs Delivery Group

All of these actions are an important first step in achieving our vision. But it is just a first step. We need to continue to work with all partners to build on what we've started and ensure technical education is playing its part in the journey to net zero.

The current set of commitments takes us through to the end of 2024. At that point we will review progress and set out planned next steps.





References

-
- ⁱ Skills for a net-zero economy: insights from employers and young people – World Skills UK ([GreenSkillsReport-2022_v3b.pdf \(worldskillsuk.org\)](#))
 - ⁱⁱ [Low carbon and renewable energy economy indirect estimates - Office for National Statistics \(ons.gov.uk\)](#)
 - ⁱⁱⁱ [Tenfold expansion in chargepoints by 2030 as government drives EV revolution - GOV.UK \(www.gov.uk\)](#)
 - ^{iv} [Boost for innovative heat pump projects to drive cleaner heating - GOV.UK \(www.gov.uk\)](#)

