

# GREEN SKILLS FOR THE NORTH

#GreenSkillsforTheNorth





SUPPORTING PROVIDERS  
IN GREENING UP THE  
CURRICULUM

[#GreenSkillsforTheNorth](#)



The Northern Skills Network is a not for profit organisation made up of the **8 provider networks** spread across the north of England.

The company's primary purpose is to promote & represent the interests of its member networks & the FE and Skills sector, ultimately being the **single voice for skills across the North.**

The NSN aim is to represent training and education providers from all persuasions and promote the value of vocational and technical education, especially apprenticeships, to employers and other important stakeholders.





**Greater Merseyside  
Learning Providers'  
Federation**

**GMLPN**   
**Greater Manchester  
Learning Provider Network**

CUMBRIA  
**WBLP**  
FORUM



**YLP**  
Yorkshire Learning Providers



*North East*  
**Learning  
Providers**

**SYPN**

Lancashire   
WBL EXECUTIVE FORUM

**Cheshire and  
Warrington Network**



AGENDA

- **Welcome and Introduction – Alex Miles**, Managing Director of Yorkshire Learning Providers, and Director & Co-Chair of Northern Skills Network
- **Setting the National Scene – Charlotte Bonner**, National Head of Education for Sustainable Development at Education & Training Foundation
- **Green Skills Development Ambition – Alex Miles**, YLP & NSN
- **Training the Workforce of/for the Future – Ian Green**, Managing Director of Complete Skills Solutions & Complete Training Solutions, and **Paul Amann**, Principal Officer Employment and Skills at Liverpool City Region Combined Authority
- **Developing the Green Curriculum – Lesley McCormack**, Managing Director of Michaeljohn Training School and **Gabriella McCormack**, Director of Education
- **Showcasing a College Response – Danny Wild**, Principal of Harrogate College
- **Supporting Apprentices – Jeannie Paschalis**, Development Coach, Programme and Sustainable Development Lead at BePro Professional Development
- **West Yorkshire Green Jobs Taskforce – Michelle Hunter**, Programme Development Lead -Employment and Skills at West Yorkshire Combined Authority and **Natasha Copp**, Policy Coordinator at West Yorkshire Combined Authority
- A word from our sponsor, NCFE, **David Jones**

## Setting the national scene

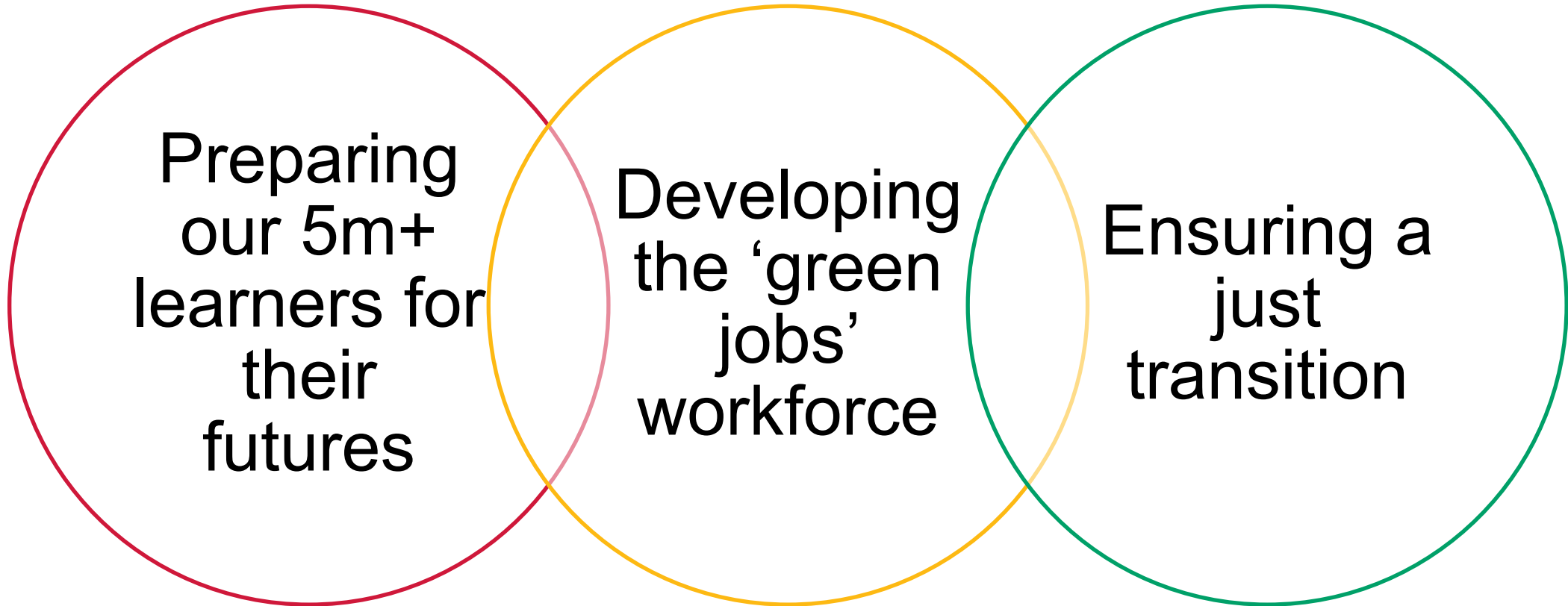
**Green skills for the North – supporting providers in greening up the curriculum**

October 2022

Charlotte Bonner

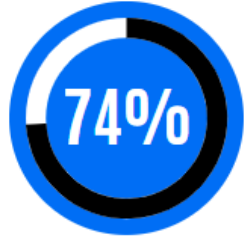
National Head of Education for Sustainable Development

# ESD presents a huge opportunity for the FE and Training sector...



# Experiences and perceptions of ESD

<https://www.et-foundation.co.uk/resources/esd/esd-research/>

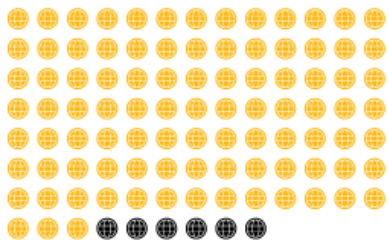


of teaching staff feel that they haven't received adequate training to embed sustainability in their work nor to educate learners about sustainability or climate change.



The majority of respondents (85%) agree that that the FE and Training sector has a valuable role to play in the achievement of sustainability goals.

68% feel that the current UK post-16 education system does not adequately educate learners on sustainability issues.



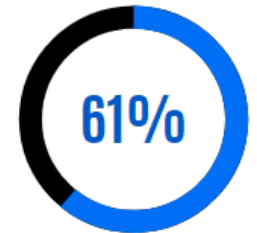
Nearly all respondents (94%) believe that all UK learners should be taught about sustainability issues – this is often referred to as an ESD curriculum entitlement.



43%

of people are familiar with the sustainable development goals (SDGs).

61% of respondents (who teach a diverse range of subject specialisms) report that they already actively incorporate sustainability themes into their teaching/work to some extent.



Only 35% of respondents agree that the curriculum requirements support delivery of sustainability issues.

24% of respondents didn't know what their organisational approach to sustainability is.



30%

of respondents feel sustainability is an issue for all parts of their organisation.



# Sustainability content in qualification specifications is low

<https://www.et-foundation.co.uk/resources/esd/esd-research/>



The current Individualised Learner Record (ILR) shows 3,466,069 enrolments on 10,815 different qualifications.

Just 1.5% of qualifications (160) account for half of all enrolments nationally and all of these were included in the audit.

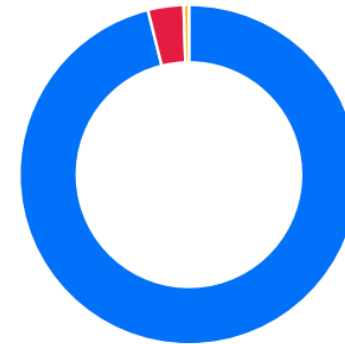


Around 3% of all FE learners are enrolled on qualifications with some ESD or 'green skills' content (116,833 out of 3,466,069)

Around 0.5% of all FE learners are enrolled on qualifications with significant ESD content (18,474 out of 3,466,069)

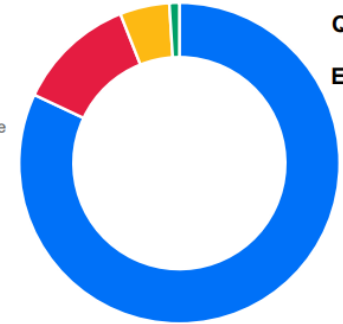


9 out of 10 of those are studying Geography or Environmental Science (17,462 out of 18,474)



All post-16 enrolments

- No ESD coverage
- Partial ESD coverage
- Broad ESD coverage



Qualifications with broad ESD coverage

- Geography
- Environmental Science
- Sustainability
- Climate change



Qualifications with partial ESD coverage

- Biology
- Chemistry
- Economics
- Engineering
- Politics
- Public Service
- Construction

# A fast moving landscape

**The Department for Education's vision is for the UK to have a world-leading education sector in sustainability and climate change by 2030.**

- Multiple Government strategies and policies
- COP26
- IFATE
  - Green apprenticeship advisory panel
  - Sustainability framework for route panels
- Climate Action Roadmap for FE Colleges
- ESD included in revisions of
  - Occupational standards
  - Professional standards
  - Minimum core
- Business demand
- Learner demand

# Within Yorkshire and the Humber



## Green Jobs Barometer

**35 / 100**

For the purposes of aggregation of pillars across the UK, we have created an overall index. 0 denotes the worst performing region across every individual Pillar, and 100 the best.



### 1: Green job creation

The number of green job advertisements, expressed as a proportion of total job advertisements.

**1.2%**

max: 1.7%

Average across all regions 1.2%. Higher numbers are better



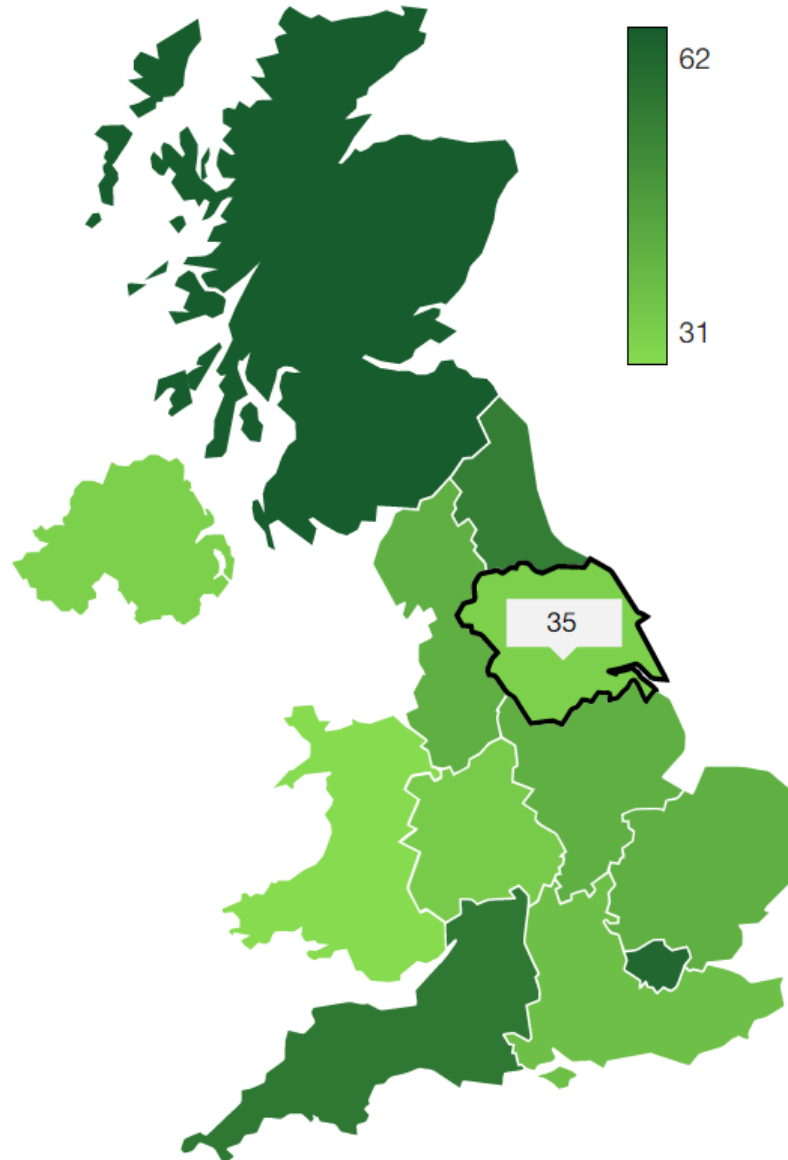
### 2: Wider benefits from green jobs

For every green job created there are an additional x jobs created elsewhere in the economy.

**2.3x**

max: 3x

Average across all regions 2.4x. Higher numbers are better



### 3: Sunset jobs to disappear

Percentage of the expected jobs lost by 2030 to the green transition concentrated in the selected region.

**6.9%**

max: 15.6%

Average across all regions 8.3%. Smaller numbers are better



### 4: Carbon intensity of employment

Carbon dioxide emissions per employee.

**10.2 tonnes of CO<sub>2</sub> per employee**

Average across all regions 10.1 tonnes of CO<sub>2</sub> per employee. Smaller numbers are better



### 5: Green workplaces

Employee sentiment about the environmental friendliness of their jobs and workplaces.

**6.3 / 10**

Average across all regions 6.5. Higher numbers are better

# Within the North West



## Green Jobs Barometer

42 / 100

For the purposes of aggregation of pillars across the UK, we have created an overall index. 0 denotes the worst performing region across every individual Pillar, and 100 the best.



### 1: Green job creation

The number of green job advertisements, expressed as a proportion of total job advertisements.

1.5%

max: 1.7%

Average across all regions 1.2%. Higher numbers are better



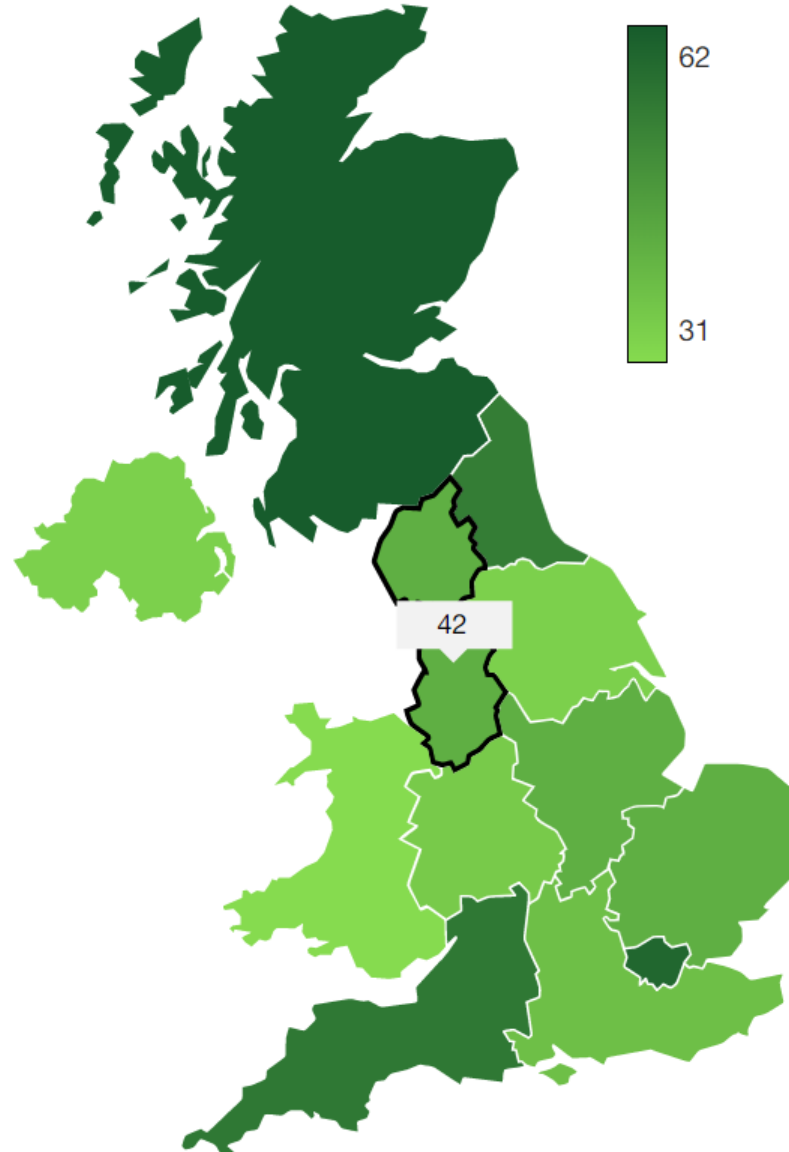
### 2: Wider benefits from green jobs

For every green job created there are an additional x jobs created elsewhere in the economy.

2.0x

max: 3x

Average across all regions 2.4x. Higher numbers are better



### 3: Sunset jobs to disappear

Percentage of the expected jobs lost by 2030 to the green transition concentrated in the selected region.

10.9%

max: 15.6%

Average across all regions 8.3%. Smaller numbers are better



### 4: Carbon intensity of employment

Carbon dioxide emissions per employee.

9.2 tonnes of CO<sub>2</sub> per employee

Average across all regions 10.1 tonnes of CO<sub>2</sub> per employee. Smaller numbers are better



### 5: Green workplaces

Employee sentiment about the environmental friendliness of their jobs and workplaces.

6.5 / 10

Average across all regions 6.5. Higher numbers are better

# Within the North East



## Green Jobs Barometer

**55 / 100**

For the purposes of aggregation of pillars across the UK, we have created an overall index. 0 denotes the worst performing region across every individual Pillar, and 100 the best.



### 1: Green job creation

The number of green job advertisements, expressed as a proportion of total job advertisements.

**1.3%**

max: 1.7%

Average across all regions 1.2%. Higher numbers are better



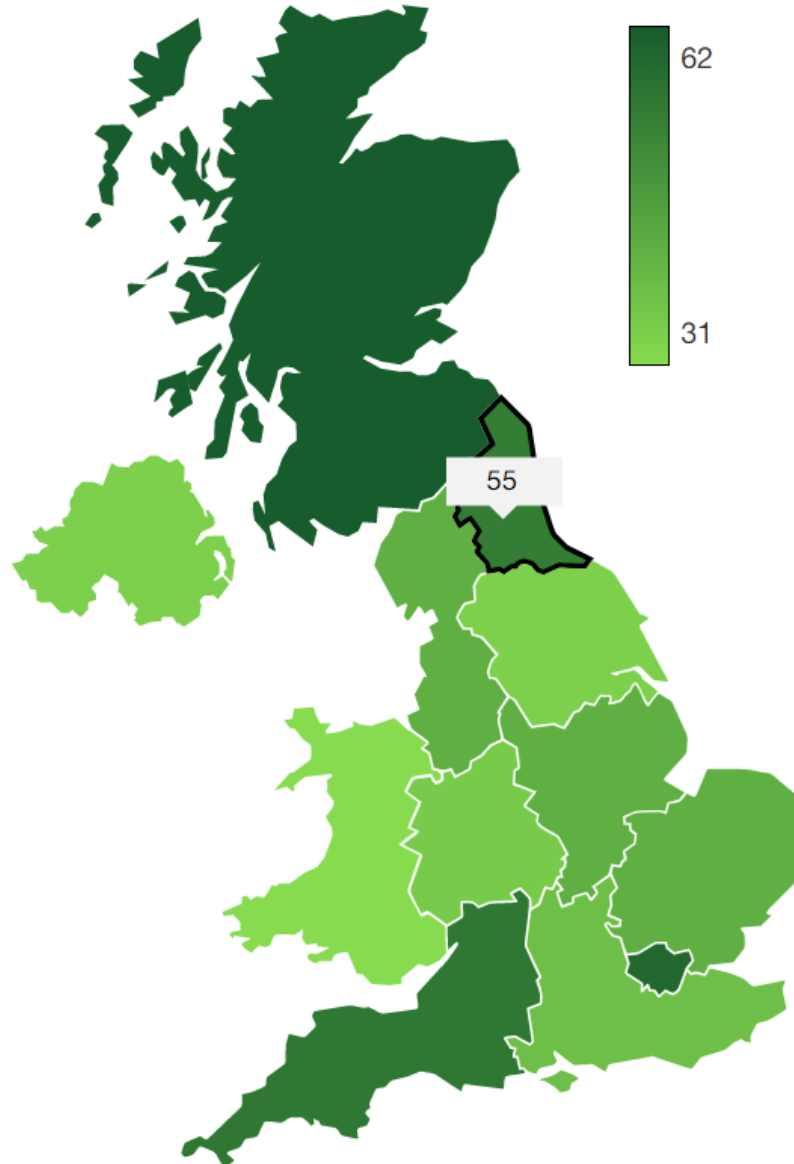
### 2: Wider benefits from green jobs

For every green job created there are an additional x jobs created elsewhere in the economy.

**2.4x**

max: 3x

Average across all regions 2.4x. Higher numbers are better



### 3: Sunset jobs to disappear

Percentage of the expected jobs lost by 2030 to the green transition concentrated in the selected region.

**3.8%**

max: 15.6%

Average across all regions 8.3%. Smaller numbers are better



### 4: Carbon intensity of employment

Carbon dioxide emissions per employee.

**11.6 tonnes of CO<sub>2</sub> per employee**

Average across all regions 10.1 tonnes of CO<sub>2</sub> per employee. Smaller numbers are better



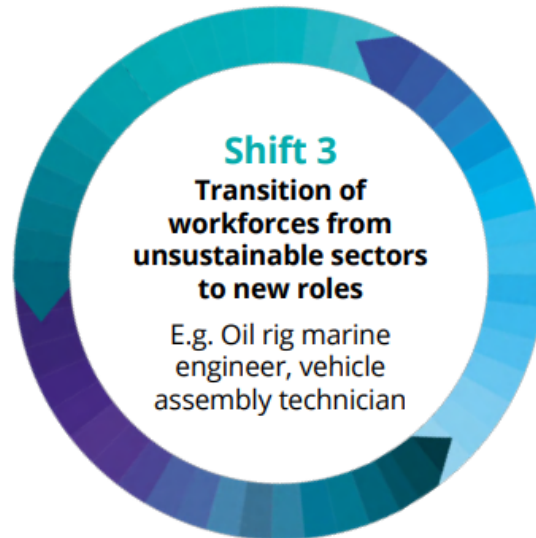
### 5: Green workplaces

Employee sentiment about the environmental friendliness of their jobs and workplaces.

**6.6 / 10**

Average across all regions 6.5. Higher numbers are better

# Four shifts in the market for green jobs and green skills



# An awareness problem?

**56%**

of the public  
haven't heard of  
green jobs

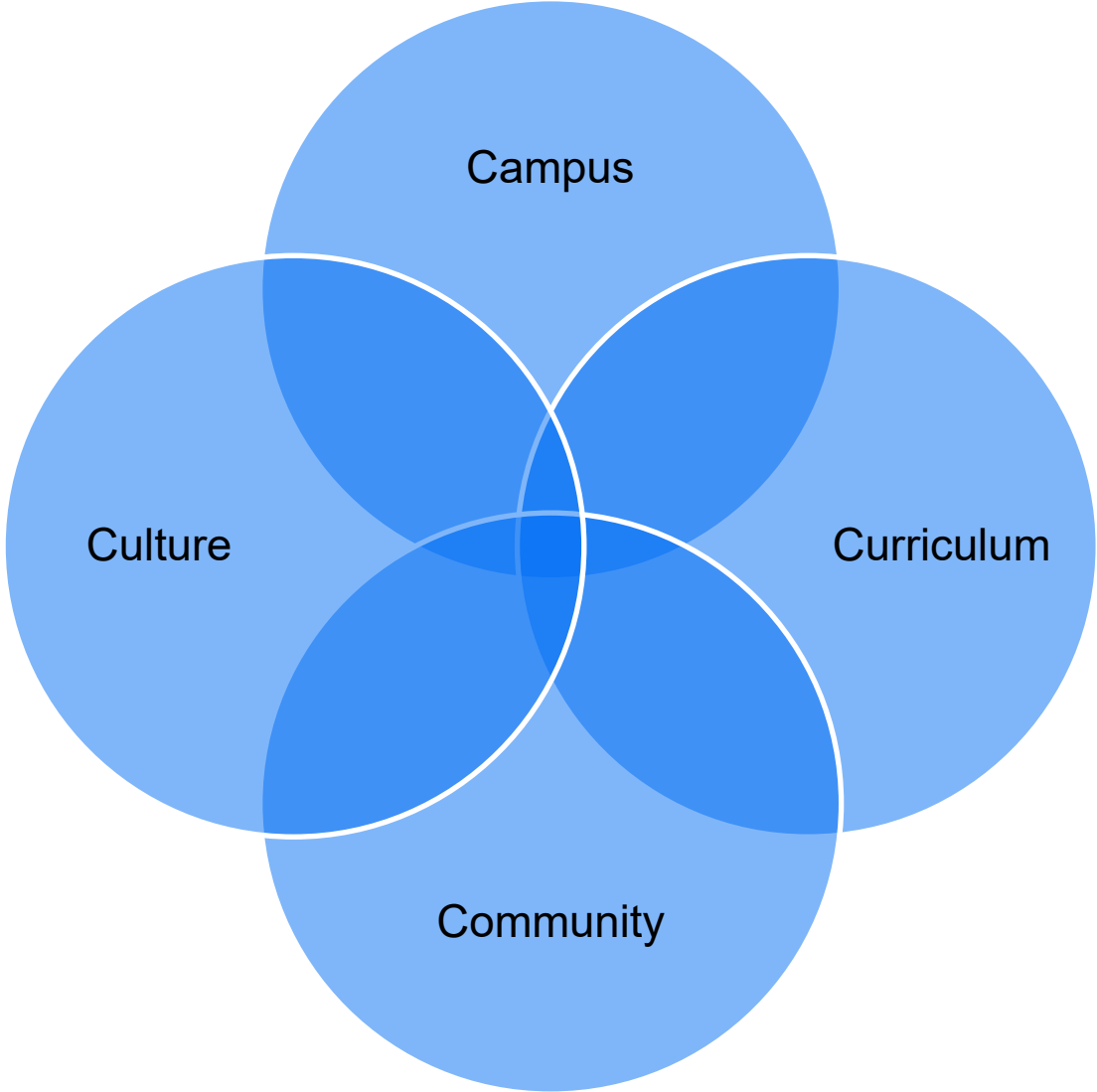
**62%**

don't understand  
what 'green  
skills' means

**65%**

don't have  
access to  
relevant training

# Whole organisation approaches





# A new professional standard

<https://www.et-foundation.co.uk/professional-standards>

**PS#2: Promote and embed education for sustainable development (ESD) across learning and working practices.**



# Support that's available

## Research and insights

- Workforce opinion
- Curriculum audit
- Case studies

## Tools

- Map the curriculum
- Team prompts
- Teach sustainability qualifications
- Subject specialism guide

## Articles and podcasts

## Community of practice

## CPD

- Webinar library
- Online short course for educators, teachers and tutors
- Introduction to ESD for Governors online learning
- Leadership mentoring
- \*Leadership and Governance development
- \*ITT support package

## Bespoke support, training, sessions and consultancy

# Resources to help you

## [www.et-foundation.co.uk/ESD](http://www.et-foundation.co.uk/ESD)



[ABOUT US](#) [PROFESSIONAL DEVELOPMENT](#) [PROFESSIONAL STANDARDS](#) [RESOURCES](#) [NEWS](#) [EVENTS](#) [SET MEMBERSHIP](#)

## Education for sustainable development (ESD)

[Home](#) » [Resources and support](#) » [Education for sustainable development \(ESD\)](#)

The Education and Training Foundation (ETF) recognises the vital role the Further Education (FE) and Training sector has to play in combating climate change and achieving sustainability and social justice both nationally and globally.

Our approach is to:

- Weave ESD through our CPD and SET offers
- Develop new specialist ESD support including CPD and resources
- Work collaboratively with others from across the sector to create a more enabling environment for ESD
- Understand, scrutinise and improve our own organisation's sustainability impacts.

### [Join the ESD mailing list](#)

Keep up-to-date with the ETF's ESD work, including announcements when new resources, tools and support are launched.

### Podcast: Experiences of Education for Sustainable Development (ESD) in the FE and Training sector



# A growing number of case studies

<https://www.et-foundation.co.uk/news/case-studies/category/esd/>



## ESD case study: Foundation Learning at Wiltshire College

*Posted on Thu 26 May, 2022 | Category Education for Sustainable Development*  
Introduction by Charlotte Bonner, National Head of Education for Sustainable Development (ESD) at the Education and Training Foundation (ETF). Throughout our blog series of case studies from the report 'Leadership for ESD in the FE Curriculum', we have consistently seen ESD initiatives and activities that symbiotically benefit the learner, educator and teaching organisation. They also [...]

[Read more >](#)



## ESD case study: The award-winning Michaeljohn Training School

*Posted on Tue 26 Apr, 2022 | Category Education for Sustainable Development*  
In this case study, Michaeljohn Training School (MJTS) in Manchester share their story of weaving sustainability into their hairdressing and barbering programs.

[Read more >](#)



## ESD case study: Redbridge Institute ESOL programme

*Posted on Thu 10 Mar, 2022 | Category Education for Sustainable Development*  
There are many Further Education and Training providers and educators who are keen to play their part in education for sustainable development (ESD) and training for 'green' employment. Here, Charlotte Bonner, National Head of Education for ESD at the Education and Training Foundation (ETF), asks how these providers are successfully implementing ESD within their practices. [...]

[Read more >](#)



## ESD case study: Accountancy at West Suffolk College

*Posted on Tue 17 May, 2022 | Category Education for Sustainable Development*  
Introduction by Charlotte Bonner, National Head of Education for Sustainable Development (ESD) at the Education and Training Foundation (ETF). The ETF's report 'Leadership for ESD in the FE Curriculum', has highlighted a range of successful initiatives that support Education for Sustainable Development (ESD). In the report, we've heard from various FE and Training providers, who [...]

[Read more >](#)



## Burnley College: Whole-organisation approach to ESD

*Posted on Thu 31 Mar, 2022 | Category Education for Sustainable Development*  
In this case study, we hear first-hand from construction and curriculum staff on how the college empowers learners with practical knowledge on environmental topics throughout their Level 2 and Level 3 qualifications.

[Read more >](#)

# Embedding sustainability in different subject areas

<https://www.et-foundation.co.uk/resources/esd/esd-resources/esd-in-different-subject-areas/>

|                          |                             |                        |
|--------------------------|-----------------------------|------------------------|
| Accounting and finance > | Education and early years > | Media studies >        |
| Agriculture >            | Economics >                 | Public services >      |
| Animal care >            | Engineering >               | Physics >              |
| Art and design >         | English and ESOL >          | Plumbing and heating > |
| Biology >                | Hair and beauty >           | Politics >             |
| Business >               | Health and social care >    | Psychology >           |
| Catering >               | History >                   | Sociology >            |
| Chemistry >              | ICT and digital >           | Sport >                |
| Construction >           | Law >                       | Textiles and fashion > |
| Dentistry >              | Manufacturing >             | Travel and tourism >   |
| Design and Technology >  | Maths >                     |                        |

# Mapping where you're at and monitoring change

<https://www.et-foundation.co.uk/resources/esd/esd-resources/map-the-curriculum-tool/>

Excel 20211208-Map-the-Curriculum-Tool - View-only

Search (Alt + Q)

File Home Insert Draw Page Layout Formulas Data Review View Help Viewing

B5 Vocational

| Area, course or module                   |                   |               |   |           | Skills development   |                   |   | Sustainable development goals - <a href="https://sdgs.un.org/goals">https://sdgs.un.org/goals</a> |  |   |  |   |  |  |  |   |  |  |
|--|-------------------|---------------|---|-----------|--|-------------------|---|---|--|---|--|---|--|--|--|---|--|--|
| Area (department, course or module name) | Department        | Learner level | Number of learners (whole numbers only) | Your name | Green skills for jobs<br>e.g. skills aimed at fulfilling the requirements of green jobs and supporting the transition to a just low carbon green economy | Green life skills | Skills for a green transformation<br>e.g. adaptive skills aimed at transforming unjust social and economic structures | SDG 1: No poverty   | SDG 2: Zero hunger   | SDG 3: Good health and wellbeing                                | SDG 4: Quality education   | SDG 4: Gender equality                                  | SDG 6: Clean water and sanitation  | SDG 7: Affordable and clean energy   | SDG 8: Decent work and economic growth   | SDG 9: Industry, innovation and infrastructure  | SDG 10: Reduced inequalities                 | SDG 11: Sustainable cities and communities                                   |
|  |                   |               |   |           |  |                   |   |   |  |   |  |   |  |  |  |   |  |  |
|  |                   |               |   |           |  |                   |   | End poverty in all its forms everywhere   | End hunger, achieve food security and improved nutrition and promote sustainable agriculture | Ensure healthy lives and promote well-being for all at all ages | Ensure inclusive and equitable quality education and promote lifelong learning opportunities | Achieve gender equality and empower all women and girls | Ensure availability and sustainable management of water and sanitation for all | Ensure access to affordable, reliable, sustainable and modern energy for all | Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all | Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation | Reduce inequality within and among countries | Make cities and human settlements inclusive, safe, resilient and sustainable |
| Public services                          | Vocational        | L2            | 300                                     | Geoff     | 0  | 0                 | 0   | 2   | 1  | 1   | 2  | 0   | 1  | 0  | 2  | 0   | 2  | 0  |
| Catering                                 | Vocational        | L4            | 24                                      | Sarah     | 1  | 1                 | 0   | 2   | 1  | 1   | 1  | 0   | 1  | 0  | 0  | 0   | 2  | 0  |
| Business administration                  | Vocational        | L3            | 245                                     | Sandeep   | 1  | 1                 | 1   | 0   | 1  | 2   | 1  | 2   | 2  | 2  | 1  | 0   | 1  | 0  |
| ESOL                                     | Functional skills | L2            | 65                                      | Ahmed     | 0  | 2                 | 1   | 1   | 1  | 0   | 2  | 0   | 2  | 1  | 0  | 2   | 1  | 1  |
| Travel and tourism                       | Vocational        | L3            | 34                                      | Haneem    | 0  | 1                 | 0   | 2   | 1  | 0   | 0  | 2   | 2  | 0  | 1  | 1   | 1  | 0  |
| Construction                             | Vocational        | L5            | 255                                     | Heather   | 2  | 0                 | 0   | 0   | 1  | 0   | 1  | 0   | 2  | 1  | 0  | 0   | 2  | 1  |
| French                                   | Languages         | L1            | 80                                      | Bob       | 0  | 0                 | 0   | 2   | 1  | 0   | 1  | 0   | 2  | 0  | 1  | 0   | 2  | 0  |
| English                                  | Functional skills | L3            | 80                                      | Jay       | 0  | 0                 | 0   | 1   | 1  | 0   | 0  | 0   | 2  | 0  | 0  | 0   | 2  | 0  |
| Maths                                    | Functional skills | L2            | 256                                     | Alex      | 0  | 0                 | 0   | 0   | 1  | 2   | 1  | 0   | 2  | 1  | 0  | 0   | 2  | 1  |

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[ETFOUNDATION.CO.UK](http://ETFOUNDATION.CO.UK)



**Thank you**  
**Any Questions?**

# NSN Greening up the Curriculum



**Alex Miles**  
**Managing Director**  
**Yorkshire Learning Providers**

**Northern Skills Network**  
**Green Conference**





# The Why?

All LEPs & MCAs across Yorkshire (& the North) have declared a climate emergency

80% of students want their institutions to be doing more on sustainable development, with 60% of students wanting to learn more about sustainability within their existing courses (NUS sustainability survey 2020)

90% of students (aged 16-24) have eco-anxiety (SoS Survey 2021) with the climate crises having a growing toll on their mental health

Many SME's do not know where to start on their sustainability journey, therefore struggling to meet the growing demands of this agenda on their business

60% of millennials & Gen Z will pay up to 20% more for products & services that are developed in a more sustainable & environmentally friendly way and Over 60% of millennials & Gen Z would rather work for companies that are more aware of their carbon footprint & supply chains – this is also the case when choosing where & what to study

FE & skills institutions have a responsibility to prepare learners, of all ages, levels and abilities, for life in modern Britain and make improved educated & informed choices about their future.

# Teachers want to know more....

**9/10**

teachers in the UK  
think climate change  
education should be  
compulsory in schools.

**7/10**

feel ill-equipped to  
teach it.



# Our Regional response so far...

- ❑ Working Group established in 2020 to review curriculum development across ALL areas
- ❑ Adopted **Education for Sustainable Development** as a strategy for change
- ❑ Developed an ESD health Check for training organisations to self-assess & plan
- ❑ **Green & Sustainable Development AMBITION** launched in 2021
- ❑ GSD Champions network developed to share practice, inform developments and support practitioners
- ❑ Green Apprenticeship Challenge launched in NAW22
- ❑ **Mapping GSD & UNESCO ESD & 17 Goals into curriculum areas and Ofsted criteria**
- ❑ **WY Green Jobs taskforce** – representing ITPs
- ❑ **YNY College Chairs sustainability Group** – institutional response for building & curriculum
- ❑ Engaging with Wakefield college & council on CRF Green Curriculum for the future research and development
- ❑ GSD webinars & workshops with other networks inc AELP, GMLPN, NSN
- ❑ Member of the **Circular Learning Network** – Ellen MacArthur Foundation
- ❑ Pan-Northern adoption of the GSD AMBITION
- ❑ **Green Skills conference for the North**
- ❑ Recognition that GSD is for ALL learners, at ALL levels, across ALL sectors & ALL abilities
- ❑ **Upcycle digital devices for deprived learners**, food bank charities
- ❑ **SME Climate Hub**



# SUSTAINABLE DEVELOPMENT GOALS

17 GOALS TO TRANSFORM OUR WORLD

**1** NO POVERTY

**2** ZERO HUNGER

**3** GOOD HEALTH AND WELL-BEING

**4** QUALITY EDUCATION

**5** GENDER EQUALITY

**6** CLEAN WATER AND SANITATION

**7** AFFORDABLE AND CLEAN ENERGY

**8** DECENT WORK AND ECONOMIC GROWTH

**9** INDUSTRY, INNOVATION AND INFRASTRUCTURE

**10** REDUCED INEQUALITIES

**11** SUSTAINABLE CITIES AND COMMUNITIES

**12** RESPONSIBLE CONSUMPTION AND PRODUCTION

**13** CLIMATE ACTION

**14** LIFE BELOW WATER

**15** LIFE ON LAND

**16** PEACE, JUSTICE AND STRONG INSTITUTIONS

**17** PARTNERSHIPS FOR THE GOALS

SUSTAINABLE DEVELOPMENT GOALS

# The ESD Challenge for FE

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- To shift to a sustainable future, we need to rethink what, where and how we learn to develop the knowledge, skills, values and attitudes that enable us all to make informed decisions and take individual and collective action on local & national urgencies & policy
- ESD is a lifelong learning process and an integral part of quality education that enhances cognitive, social and emotional and behavioural dimensions of learning. It is holistic and transformational and encompasses learning content and outcomes, pedagogy and the learning environment itself
- by 2030, all learners should acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development.
- Promote life-skills for sustainable livelihoods and to address the unequal distribution of wealth
- Lifelong learning, including Technical and Vocational Education and Training (TVET) can help ensure professionals and communities are well prepared to meet the changes
- Leaders and staff of TVET institutions and training institutions for private companies should work together to develop the capacities of educators in TVET and private companies on knowledge, skills, values and attitudes to achieve sustainable development, with a focus on green economies and sustainable production and consumption. Leaders and staff of training institutions for non-formal educators should also integrate ESD into all their capacity-building activities
- ESD must be integrated in regional and national policies related to education and sustainable development so that these policies can create an enabling environment for pedagogies that support individual empowerment and provide skills for socio-political engagement.



# A Green and Sustainable Development AMBITION for the FE & Skills Sector

Yorkshire & Humberside

December 2021



Greener



Fairer



Stronger

Yorkshire Learning Providers in partnership with Craven College and York and North Yorkshire LEP have developed a **Green Skills & Sustainable Development AMBITION** to aid FE & Skills organisations in their response to sustainability and to provide an opportunity to work together to support the implementation of a greener curriculum and economy by adopting environmental, circular and sustainability practices as part of their strategic, operational and curriculum development.

Our AMBITION acts as a pledge that supports the Government's ambition to move towards net-zero by 2050 and the ambitious target set by York and North Yorkshire to be England's first carbon negative region by 2040. Education is front and centre to achieve this by ensuring our learners and apprentices have the skills they need for modern Britain and to succeed in our future economy. Our AMBITION to move towards net-zero requires us to transform the way we create products, services, and systems, and this is fully dependent on how individuals, teams and organisations learn to innovate and apply those learnings in the real world.

This will require a transformative shift in the way we have previously worked in the skills sector & this AMBITION will support local FE & Skills organisations to show their collective commitment to a green and sustainable curriculum, share practice, work with partners and highlight the ways in which FE & Skills across our region are acting as a trailblazer in a collaborative response to tackling climate action.

**Vision:** The FE & Skills Sector in York and North Yorkshire leading the way towards a sustainable, net-zero future for institutions, employees, apprentices & learners.



FE & Skills providers identify, monitor and reduce their environmental impact towards becoming carbon net-zero and share their progress and impact in this area



Sustainability, regeneration and net-zero practices are promoted and embedded into every curriculum area, with effective CPD for practitioners and overarching strategies in place to raise the profile of this agenda across FE & Skills in York and North Yorkshire



Through project work, workplace activities, resources and case-studies, learners and apprentices support local businesses to increase net-zero knowledge and understanding and provide a platform for learners to be involved in positive change



Working with sector stakeholders, such as AoC, ETF, NSN, AOs, LEPs and MCAs to support prioritising and raising the profile of sustainability, funding and qualifications that increase a whole sector and region response. Influenced by a united York and North Yorkshire voice

## Transforming Institutions

FE & Skills organisations have a responsibility to teach learners about sustainability but to commit to becoming truly sustainable institutions and for all to be working towards net zero by 2030.

Resources such as:

- AoC Green College Commitment
- Climate Action Roadmap for FE Colleges
- UNESCO 17 Goals to Transform Our World,
- UNESCO ESD Roadmap
- The Y&H Climate Commission
- Ten Point Plan for a Green Industrial Revolution

will help the sector implement sustainability strategies and governance frameworks leading to greener institutions.



## Embedding and Promoting in the curriculum

In order to meet local and national net-zero goals, education for sustainable development needs to be embedded and promoted into all areas of the curriculum. By doing this we will better equip our learners for their future learning, careers and life choices.

As FE and skills organisations commit to embedding, promoting and contextualising sustainability matters into the curriculum, we will build a bank of resources and case studies that support the wider skills community and share activities that lead to greater knowledge and understanding of sustainability issues both for employers and learners. A resources & support Padlet will aid this Ambition & its responses.



## Learners Acting as Agents of Change

As part of the response to 'green up' the curriculum, FE & Skills organisations have an important role to play in raising the profile of sustainability across the business sector through projects and activities apprentices and learners undertake.

By identifying sustainability projects and activities, learners and apprentices will gain greater knowledge and a deeper understanding of the issues that affect young people and adults. FE & Skills providers need to listen to that voice, allow learners to generate ideas and ultimately influence and lead positive change for their future.



## Support the Sector to Influence Future Change

Through building successful long-term relationships with key sector partners that support green, circular and sustainable development, we commit to provide a platform to learn, share and develop this agenda.

By working collaboratively and playing our part we can ensure sustainable development across the region is given the priority and recognition it requires to be impactful. This pledge will offer the skills system a clear voice to influence local policy and funding decisions and support the raising of quality standards and curriculum development through sharing of good practice.





# GSD Ambition



# Digital Badges



# Difference between Green Jobs & Green Skills

**Green jobs are only a small share of rising green demand**  
Title-based and skills-based volumes of job postings for 'green' demands



Data: Emsi Job Posting Analytics

# Projects & Activities...

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- Apprentices completing waste audits within their employer ( Mgt, TL, Finance, HR) – saving £000's
- Apprentices adopting a recycle, reuse, reduce approach & plan for their business
- Apprentices developing a local supply chain & purchasing policy
- Complete digital footprint review & find approaches to increase digital services - Review digital transformation opportunities
- Learners Signing up to climate change pledges, local social groups and online communities to have a platform to share their ideas or voices & bring back to the learning environment
- Apprentices acting as organisations champion, providing greater opportunities for additional learning & KSBs
- Training Providers developing ‘Go Green, lean & clean” projects, Green Month, Sustainable Education activities & discussions into the curriculum
- Provide opportunities for learners / apprentices to work collaboratively on projects (i.e hospitality & horticulture apprentices completing joint projects for a local gold club)
- Listen to the people this affects the most! Learner voice sessions to gain valuable insight into sustainability matters across a range of sectors, ages and levels.



# Oysted Link

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- Personal development – providing learners with the knowledge & understanding to make educated, informed life decisions
- Personal development – Providing opportunities for learners to engage in debate, project work or community activities
- Personal Development – Enhancing learners cultural capital
- Behaviour & Attitudes – better informed to make greener decisions
- Behaviour & Attitudes – how sustainability is linked to cultural diversity / wealth and equality
- Quality of Education – contextualise green skills / sustainability into curriculum
- Quality of Education – Pedagogical considerations to implementing agenda
- L&M – CPD for staff to Green skills / Sustainability agenda
- L&M – Top down approach to setting strategy with departmental response
- L&M – How boards can / should promote sustainable practice

# Oxsted Reports – Recent findings

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*"Apprentices have become more environmentally conscious as part of their programme".*



*"Apprentices benefit from training on aspects such as being more energy & environmentally efficient"*



*Apprentices have been supported in completing workplace projects such as identifying efficiencies in internal processes which has effectively resulted in significant savings for their employers.*



*"Apprentices have a particularly good understanding of the ethical impact of their work on the environment and on their service"*

# Next steps...



Review ESD health Check as starting point



Develop institutional response using UNESCO 17 sustainability goals



Review curriculum opportunities to promote & embed



Develop the learner voice



Identify CPD opportunities - lobby for funding from LEPs & MCAs



Be committed to your development & journey - greenwashing is not helpful



Keep in touch

# NSN Greening up the Curriculum

Alex Miles  
Managing Director  
Yorkshire Learning Providers

[Alex.miles@wylp.org.uk](mailto:Alex.miles@wylp.org.uk)

07859 339949





# Liverpool City Region Green Skills Opportunities



LIVERPOOL  
CITY REGION  
COMBINED AUTHORITY

METROMAYOR  
LIVERPOOL CITY REGION

*Paul Amann MBA (Urban  
Regeneration)*

# Low Carbon Skills for Growth Action Plan

Published in 2018, covering 2018-2020

Refresh to be published imminently



## Refresh currently being finalised

- Breaks down the key green projects of Liverpool City Region
- As well as the ubiquitous focus on retrofit, PV, and EV, we have a significant projects more unique to our City Region:
  - Mersey Tidal Power
  - HyNet
  - Offshore Wind
- Additionally, we are keenly focused on carbon literacy across all our population, recognising the need for all to contribute

- Hynet:

[https://vimeo.com/560384154?embedded=true&source=vimeo\\_logo&owner=142228138](https://vimeo.com/560384154?embedded=true&source=vimeo_logo&owner=142228138)

- Mersey Tidal Power:

<https://youtu.be/3W7cieUuDAg>



**METROMAYOR**  
LIVERPOOL CITY REGION

# Skills

Employment support through mainstream DWP and additional programmes:

- Jobcentre Plus
- Ways to Work and Households into Work
- Directions, New Horizons, Talent Match and others

Skills support for individuals and employers:

- Devolved Adult Education Budget Level 3 offer
- Skills Bootcamps
- Be More targeted funding



**Complete**  
Skills  
Solutions



**Complete**  
Training  
Solutions

**Training the workforce of/for the future**

Ian Green

Managing Director CTS/CSS

# Who we are & What we do



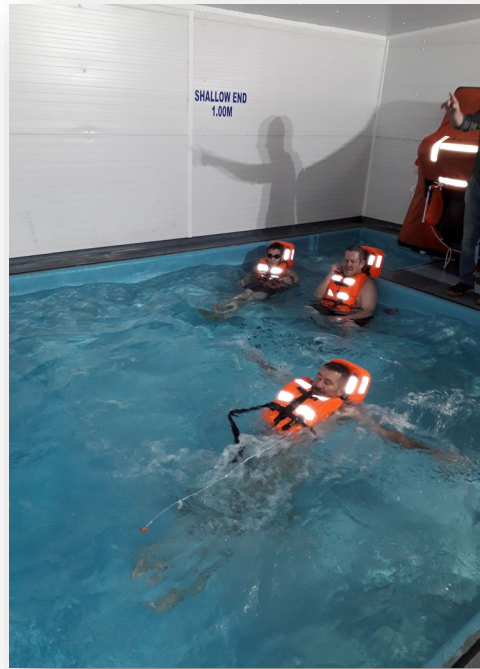
- **CSS** – LCR Contracted Adult Education Provider



- **CTS** – Commercial Training Provider focused on the Renewable Energy & Construction Sectors

We:

- Prepare people for employment
- Support career progression & development



# Our Centres and Facilities



# Test & Learn

- Liverpool City Region thinking differently and creatively about ways to support its City Residents
- T&L allows providers up to £50,000 to experiment with new and innovative approaches to skills and knowledge programmes to improve individuals life chances.
- What did we do?

# How to Guides



## Wind

The UK is working hard to achieve its target of becoming carbon neutral by 2050.

Ireland is a rapidly emerging market for wind energy growth. Currently having a 25MW capacity Ireland is set to grow to 5GW by 2030.

## Solar

The UK currently has over 14GW of solar generation capacity installed and is on track to treble this aiming for 40GW by 2030.

# How to Enter the Wind Industry



## Contracts

Technicians in the wind energy sector usually work as temporary contractors on most projects in the UK and Europe. This is on PAYE (pay as you earn) basis. Normally, the contract is an annualised hours agreement whereby you are paid a salary equivalent to working a set number of hours per month.

Not all contracts shutdown, so sometimes work continues and a technician can "bank" hours. If they bank a good portion of their pay – as many do in the UK on 2/1 rotations – then winter is a rest period where a wage can be drawn from banked hours. Basically, the more work is done, the more that can be earned.

### AVERAGE WIND INDUSTRY SALARIES



## Durations of work UK & EU

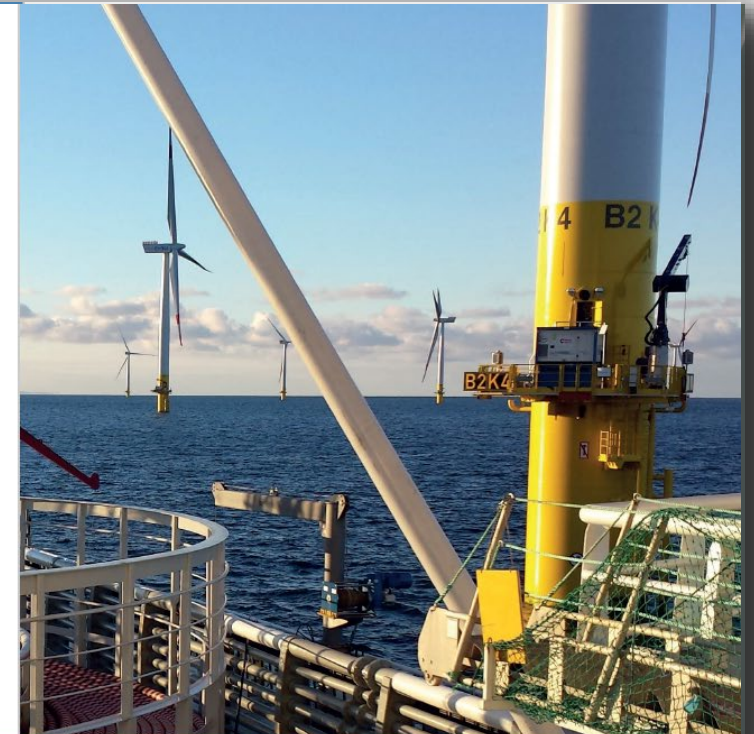
**GERMANY** – Usually from March to the end of September (off-shore). Onshore may be longer as it is not weather and water/vessel transfer dependent. Germany (BMU 2006 and 2008) is the country where most wind-related jobs have been created, with around 38,000 directly attributable to wind energy companies and a slightly higher amount from indirect effects

**UK** – Usually from February to October. Some sites can continue throughout the winter months, but that is heavily dependent on need and skill of the person. In the UK, the importance of offshore wind energy and small-scale wind turbines is reflected by the existence of many job-creating businesses in this area. This country also has some of the most prestigious wind energy engineering and consultancy companies.

**HOLLAND** – October for the main campaigns. Some work can then extend on across winter also. Onshore assembly is all year round.



£££  
Earn from  
23k to 50k



### Did you know?

The average annual wage for a newly trained wind technician starts at £23,000 and goes up to £50,000 for an experienced technician? The working hours are usually between 30-40 hours per week. There is plenty of room for progression and development within this role and as with most jobs, with more experience and knowledge, comes a higher salary.



# DfE Bootcamps

- Employer & Employment Focused
- Helping Employers recruit a workforce with skills their business needs
- Cost subsidy for employers looking to re-skill existing staff
- Our Green Skills Bootcamp:
  - Basic Safety Training
  - IRATA
  - Basic Technical Training



# Other opportunities

- Schools
- Colleges
- National Citizen Service
- Electrical Contractors Association
- And more....



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Questions?



# Thank you

Ian Green

**e:** [ian.green@completeskillssolution.co.uk](mailto:ian.green@completeskillssolution.co.uk)

**w:** [www.completeskillssolutions.co.uk](http://www.completeskillssolutions.co.uk)

**w:** [www.completetrainingsolutions.co.uk](http://www.completetrainingsolutions.co.uk)



**In the heart of Manchester, established for 40 years  
offering Level 2 and Level 3 Hairdressing, Level 2 Barbering &  
Traineeships.**

**Presentation by  
Lesley McCormack, Managing Director & DSL  
& Gabriella McCormack, Education Lead**





# Who are we?

- **Mission:** Michaeljohn Training School will provide outstanding Traineeships, Apprenticeships and opportunities that create sustained employment and progression, improving life chances to people from all walks of life in Britain.
- **Vision:** To be the Provider of choice, developing and inspiring learners to become the entrepreneurs/business owners of tomorrow.
- **MJTS reviews it's Environmental and Sustainability Policy Annually.**



# About MJTS

- MJTS has achieved the gold award environmental business pledge.
- MJTS environmental pledge goals embedded into core values & curriculum delivery.
- Curriculums provide opportunities to develop Maths & English, critical thinking entrepreneurial skills.
- Curriculum intent is to develop ethical employers of tomorrow, who share MJTS ambition ESD ambitions, that make a difference.
- Reinforcing the 17 United Nations Sustainable Development Goals with apprentices





# Curriculum

- Curriculum examples
- Development of entrepreneurs.
- Contextualising Maths. Educator illustrates to apprentices the impact of sustainable business practices.

## Feedback from learners

*“Still turn my taps off between shampoos all these years later it’s because of that lesson”*

*“So saving the environment actually saves you money in the long run it’s win-win”*

*“It was so shocking when we actually threw the money in the bin! I can’t believe what a big impact small changes can have.”*

*“Sustainability makes a difference to me because it makes me be more aware of the choices I make.”*



# Curriculum

- Encouraging apprentices to have a good purchasing habits. The impacts of fast fashion on the environment.
- Recycling.
- Procurement of sustainable products modern slavery/ ethics tools and equipment how to reduce and monitor energy costs. Eco-champion scheme Greater Manchester.



# Curriculum

- Embedding health and well-being into the curriculum.
- Exercise and diet.
- Mental health.
- Vegan day .
- Competitions.



*Strictly Come Dancing winner's wig  
coloured at MJTS*

# Curriculum

- Contribution to ESD target.
- 12 & 11
- Supporting the homeless in GM With ethically resourced clothing to attend job interviews.
- Volunteering



# Curriculum

- Apprentices encouraged to promote ESD in salons,
- Introducing recycling and monitoring of product waste, refilling shampoo to refill packs to cut out the use of plastic .
- Use of online booking systems to cut down on the use of paper.



# Curriculum

- Encourage staff and learners to recycle their waste, in particular single use drinks bottles and cans.
- Looking into Paper not Foil – paper foils that are made from stone. They are reusable many times, easy to use, comfortable for your clients, faster application time and degradable.
- Supporting local second-hand shops to see if they would be interested in doing a fashion show including encouraging learners to bring in outfits, accessories, etc, or supporting Charity.
- Host a 'Pop Up Shop', inviting local, sustainable Manchester Companies to have a stall at MJTS, so we'd be promoting others and advertising sustainable and local companies.
- Encouraging learners to use high street schemes such as 'trade in' clothes at H&M and receive a £10 voucher, donate empty bottles to shops such as L'occitane and receive money off vouchers, which can be used towards Christmas presents.





## Impact of MJTS holistic approach to ESD. Learner voice.

- "I now shop charity shops to reduce the nature of fast fashion."*
- "I don't throw my clothes away I donate them . I look where I shop I review them online. "*
- "Recycling bins should be more available."*
- "When I'm contributing to the environment, I feel like making a change for the community and the city."*
- "The government should stop large companies from using so much plastic or make them pay towards a solution (tax)"*
- "ESD makes a difference to me because it makes me more aware of the choices I make."*

# Green Skills Conference

A Whole College Approach To Sustainability And Green Skills Into College Curriculum Through  
Stakeholder Engagement

# The Starting Point – Regional to Local Context

- North Yorkshire ambition to be the first carbon neutral region by 2034.
- Primary Growth Sectors for North Yorkshire centre on low carbon economy.
- Harrogate Borough Council Recognise there is Climate Emergency.

## Harrogate College

- Recognise Importance through strategic priorities. Importantly governor buy in.
- Publish sustainability pledge to make public commitment to sustainability practices and green skills.

# Sustainability Pledge

- Harrogate College is progressing to be a centre of green excellence and has made a pledge to move toward being net zero. We advocate sustainable practice and a green, circular economy.
- We pledge to:
  - Become a Net Zero Carbon college as soon as we can.
  - Support and advocate for sustainable practice which drives a greener, fairer and stronger society.
  - Make students and staff aware of environmental issues and climate action. Transform our institution to be prepared for the future, using the Climate Action Roadmap to guide us.
  - Change the physical, cultural and behavioural aspects of Harrogate College



# Sustainability Pledge in Action

***Support and advocate for sustainable practice which drives a greener, fairer and stronger society.***

- We have established an employer network to align our curriculum to the needs of local businesses
  - Skills / Behaviours / Knowledge
  - Training
  - Upskill/ReSkill/Local

HCC / EMPLOYERS  
NETWORK



# Sustainability Pledge in Action

*Make students and staff aware of environmental issues and climate action.  
Transform our institution to be prepared for the future, using the Climate Action Roadmap to guide us.*

HARROGATE  
COLLEGE

## Green Month

Harrogate College is hosting a green month for students and the wider Harrogate community.

All staff and students involved.



Three Digital Media students joined the [Techbuyer](#) Group, a sustainable IT solutions provider that operates globally with its roots firmly in Harrogate.



Harrogate College, as part of Green Month, brought together students and staff to educate them on the impact of food waste.

## Carbon Literacy Project



All staff and students trained and qualified.

# Sustainability Pledge in Action

- ***Change the physical, cultural and behavioural aspects of Harrogate College***



The Level 2 students were looking for a more reliable mode of transport. So when an opportunity to convert their bicycles into e-bikes presented itself at



An artist from Harrogate College has teamed up with the [National Trust](#) and [Henshaws](#) to create a stunning water-based art trail.



Harrogate college level 3 art & design students collaborate with fountains abbey to save the planet through art.

# Sustainability Pledge in Action

- ***Become a Net Zero Carbon college as soon as we can.***
  - DFE FE Capital Transformation Fund





# Next Steps

- New Curriculum
  - Passive Haus
  - Air Source Heat Pump
  - EV Network Installation
  - Renewable Energy
- Embed Green Skills across the curriculum
- Increase Employer Engagement in Curriculum Design



**EDUCATION & TRAINING  
FOUNDATION**

**HC / EMPLOYERS  
NETWORK**

# Apprentice's Delivery and Sustainability



- As a learning provider, we believe, we are in a unique position and have a responsibility to develop our organisation, our people, and our learners into a sustainable way of thinking and we have sustainable development at the forefront of our minds
- We aim to enable our people and our learners to develop knowledge and awareness of the sustainability agenda. In turn, giving them the 'Green Skills' to take action to transform processes and behaviours in their organisation utilising the knowledge, skills and behaviours within the apprenticeship to embed learning.

## Objectives of the Sustainable Development Plan

### Teaching and learning

- Using the curriculum and learner experience how can we develop an apprentice's understanding and responsibility for a sustainable future using the knowledge, skills and behaviours.

### Operations

- Maximising Be Pros organisation operations (buildings, systems, and processes) to support sustainable development and enhance our sustainability performance.

### Partnerships

- ESD and sustainability are built into Be Pros partnerships and community activities and used as a vehicle to stimulate innovation, quality and impact.

### People

- Developing a culture within our team that allows them to support sustainable development for us as an organisation but also to have the skills and confidence to support their apprentices with activities within the workplace.



## Teaching and Learning

- We have included Sustainable Development Learning into the curriculum through workshops, these link to the KSBs of the programme and to their current role. This allows the learning to be relatable, it is included within the scheme of work for every programme and the employers we work with know we are delivering it.
- We encourage the learners to develop business projects and work activities to complete within their team/department, reflect upon the activity and gather evidence. This can be linked to the KSBs, therefore can be Off-The-Job-Hours and evidenced for portfolios/professional discussions.
- We are developing learners' critical thinking skills so they can reflect on individual values, attitudes, and behaviours as well as lifestyle choices and that of their organisation.
- We are developing our tutor and coaches' knowledge and understanding within their programme so that they can support the learners with their activities and projects. This then supports the off-the-job hours and gives great examples for the interview/professional discussions at the end point assessment.

## Teaching and Learning: L3 HR and Sustainable Development Workshop

- To understand what Sustainable Development is
- To understand what the UN Sustainable Development Goals are
- Discover what your organisation is doing to support sustainability
- Recruitment and selection
- Performance management
- Learning and development
- Leadership and engagement
- Consider Steps for a Business Case for Sustainability in your organisation

**Business understanding**  
**HR Legislation and Policy**  
**HR Function**  
**Process improvement**  
**Personal Development**  
**Honesty & Integrity**

## Teaching and Learning: L3 Business Admin and Sustainable Development Workshop

### Workshop Objectives

- Bring insight and understanding of Sustainable Development
- Understand the Three Pillars of Sustainability
- UN Sustainable Development Goals
- What is Carbon Footprint
- Energy Conservation
- Renewable Energy
- Travel
- Benefits to the business to reducing CO2 Footprint

**Decision Making**  
**Interpersonal Skills**  
**The Organisation**  
**Values of their Skills**  
**Policies**  
**Business Fundamentals**  
**External Environments**  
**Professionalism**  
**Responsibility**

## Teaching and Learning: L5 Coaching Practitioner and Sustainable Development Workshop

- Bring insight and understanding of Sustainable Development
  - Understand the Three Pillars of Sustainability
  - UN Sustainable Development Goals
  - Explore their own organisation's commitments
  - Identify how coaching can support Sustainable Development
  - GROW model and Environmental Sustainability
  - Coaching Opportunities
  - Coaching Activity
- The theory of organisational culture (and values) and leadership styles, and the impact these can have on individuals and their behaviour
  - Coaching Models
  - Questioning techniques to raise the self-awareness of those receiving coaching.
  - Applies coaching theories, models and tools, techniques and ideas beyond the core communication skills in order to bring about insight and learning.
  - Committed to self-development, including self-reflection, and gathering information on the effectiveness of their own practice.





**SUCCESS**

I really enjoyed the session yesterday and would like to pick your brain about delivering a small compressed sustainability talk at our team day next week. It will be my first ever presentation, and more importantly my first as a baby coach any resources you could send my way would be fantastic. I am only aiming for an hour and there are roughly 30-32 people. I am conscious that breaking them up into groups will be challenging and wondered if you had any thoughts on how this would be easier?



first and for most I would to thank you for being awesome and giving me your time and expertise, my presentation was probably the most terrified I had been for a long time. It went so well I am so pleased and mostly proud, not just of standing up there like a deer in headlights but also my team were amazing. I received great feedback; I probably could use some from a grown-up coach for some coaching feedback, I am sure there will be time for that later.

I also wanted to say that your webinar was the inspiration and without that I would not have ever considered doing it, you delivered something that I have mini delivered to my team and we now have a clear plan to reduce waste on a team level, they were so receptive and had some fantastic ideas. I learned so much from doing that and from the webinar. You have started something and has gone from a little dent to a little bigger dent.

As always, this course is throwing up some unexpected positives and journeys, something I can honestly say I would not have navigated as well in the past. I just wanted you to know how much I am benefitting and growing on a personal and professional level so once again thank you,



## People

Our Team are engaged monthly with learning, this can be added to their CPD, this will be part of the framework of their 1-2-1 reviews with their managers, this is a working progress.

This learning promotes and acknowledges sustainable lifestyles

We have different sustainability Champs each month to ensure we have fresh ideas and this supports engagement

Tutors are now delivering their own workshops which encourage them to be engaged with the topic.

Development coaches are starting to have meaningful conversations in reviews.





**SUCCESS**



# Green Jobs Pledge

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**West Yorkshire Combined Authority Employment**

**Speakers-**

**Michelle Hunter, Employment and Skills Programme Development Lead**

**Natasha Copp, Policy Coordinator**

# Green Jobs Pledge & Taskforce

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**West Yorkshire Combined Authority Employment and Skills Policy Team**

**Speakers-**

**Michelle Hunter, Employment and Skills Programme Development Lead**

**Natasha Copp, Policy Coordinator**

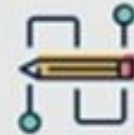
# Introduction

## Employment and Skills Framework

**Skilled people,  
good jobs,  
strong businesses**



Quality technical education



Great education connected to business



Accessing and progressing in good work



Creating a culture of investment in workforce skills



Driving innovation and productivity through high level skills



**Inclusive growth**



**Digital skills**



**Transitioning to net zero carbon**





# **1,000 Green Jobs Mayoral Pledge Overview and Progress**

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**Speaker- Natasha Copp**





# 1000 Green Jobs Overview

## *Mayoral Pledge*

***Create 1,000 well paid, green skilled jobs for young people.***

### **What are green jobs?**

The government's Green Jobs Taskforce defined a green job as 'employment in an activity that directly contributes to - or indirectly supports - the achievement of the UK's net zero emissions target and other environmental goals, such as nature restoration and mitigation against climate risks.'

### **What is well paid?**

The real living wage is £9.90 per hour.

### **What is skilled?**

Skilled roles are commonly considered to be those requiring a Level 4+ qualification or equivalent. A role that offers clear progression into level 4+ roles could also be appropriate (e.g. level 3 apprenticeship).

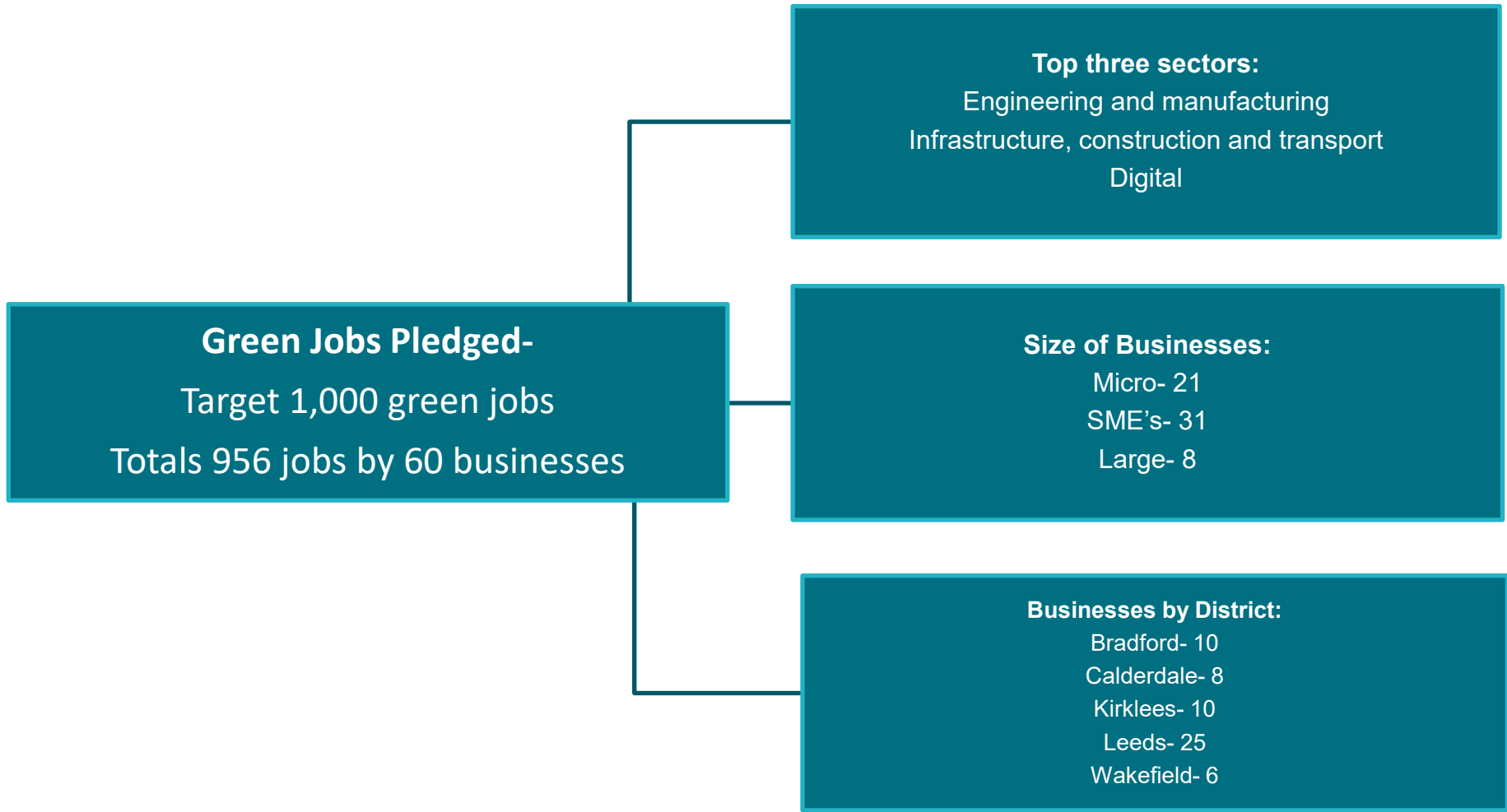
### **Who is it for?**

This pledge focuses on supporting young people into well paid and skilled jobs the; age range could be considered as 18-30.

# Business Support Process

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# Green Jobs Taskforce and Recommendations

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Speaker- Michelle Hunter

# Climate and Environment Plan - background

- West Yorkshire Climate and Environment Plan (CEP) was approved by the Combined Authority in October 2021.
- Mayor and Combined Authority's response to addressing the climate emergency, protecting the environment and achieving a net-zero carbon West Yorkshire.
- Highlights the critical action for the next three years to cut emissions, support nature recovery and be ready for the impacts of a changing climate.
- Framed around eight themes across 39 proposals over the period up to 2024.
- £40m allocated by the Combined Authority, via Gainshare, over the next three years to deliver against tackling the climate emergency and environmental sustainability.
- 2-stage prioritisation exercise carried out to prioritise the 39 proposals, resulting in 15 proposals being identified for Gainshare funding.
- Green skills interventions will form part of wave 1 funding
- The Climate and Environment Plan will accelerate recommendations from the Mayor's Green Jobs Taskforce



# Purpose of Green Jobs Taskforce

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The Green Jobs Taskforce, which brings together experts from business, education and training, and the third and public sectors aims to position West Yorkshire as a leader and set out deliverable actions underpinned by evidence to deliver the skills and jobs needed to address the climate emergency.

# Taskforce and research feedback themes

## Individuals

- Young people – inspiration and education – understanding the sector
- Adults – access to training and information
- Improved diversity within construction and other green sectors
- Young persons and adult's voice should form part of recommendations
- Worker voice is essential particularly around themes such as job retention

## Businesses

- Support for SME's to become zero carbon
- Apprenticeship and graduate recruitment support
- Importance of the role of SMEs within West Yorkshire
- Access to advice and support
- Adequate training

## Educators

- Upskilling and retraining
- Sector responsiveness
- Building capacity to find expertise and knowledge
- Adequate resources should be available to enable the sector to respond to green employers

# Green Skills & Employment Interventions

Our draft recommendations are based on an evidence-led proposed green interventions





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**ANY QUESTIONS?**

# **Sustainability: What is NCFE doing?**



# What we'll talk about

- Introduction and context
- Different solutions:
  - Sustainability in the early years
  - National Energy Action
- Where next
- Questions

# Sustainability in the early years

## Sustainability resource

Visit [ncfe.org.uk](https://www.ncfe.org.uk) – sector specialisms – CACHE early years and childcare

<https://www.ncfe.org.uk/media/xbcbjrfj/early-years-sustainability-resource.pdf>



**An Early Childhood Education for Sustainability resource that embeds the Sustainable Development Goals and STEM into pedagogical practice**

## Other resources



**Sustainability**

On our [CPD carousel](#) there is a theme around sustainability and includes various resources, webinars and podcasts to watch and listen to.

“

It's important that we begin the conversation about sustainability in the early years so children can understand the impact they can have, and the responsibility they have as a human being on this planet and within their communities.

---

KELLY HILL, OWNER OF CODSALL COMMUNITY NURSERY

2017

# National Energy Action

## About NEA

National Energy Action (NEA) is the national fuel poverty charity that has worked across England, Wales, and Northern Ireland for the last 40 years, to ensure that everyone in the UK can afford to live in a warm and safe home.

We work across both the energy and water sectors, with frontline practitioners, companies, regulators and Government, to improve the lives of people in vulnerable circumstances.

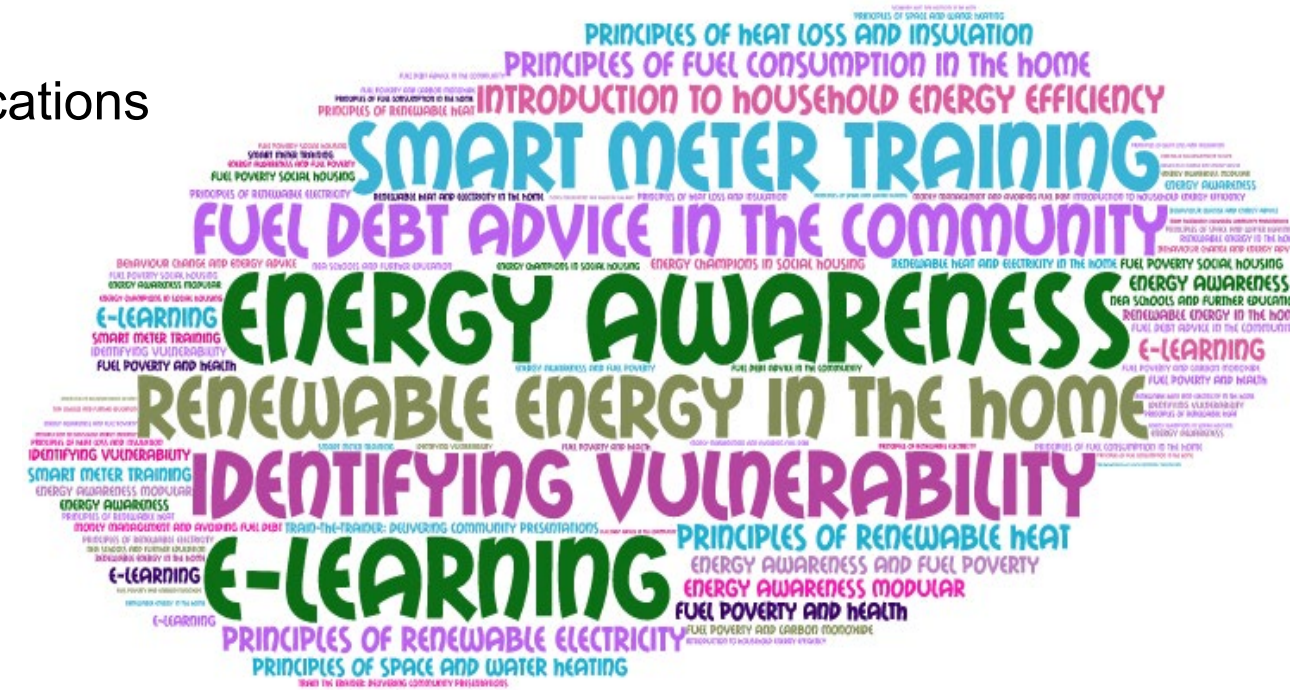




# NEA training and education

- Delivering training and assessment for over 35 years
- We train over 5,000 learners every year
- Wide range of training courses and qualifications
- Evidence based learning
- Supported digital learning
- Education resources.

[www.nea.org.uk/training](http://www.nea.org.uk/training)



# Value of knowledge

“Clear advice and support enables people to retrofit their homes, help reduce their energy bills and choose the appropriate low carbon heating solution, which is critical for a zero-carbon future.

A worrying gap in this support is creating barriers to people adopting low carbon technologies in their home.”

(MCS Foundation ‘Energising Advice’ Report)



# Skills development

Based on NEA's own extensive experiences of trialling the use of low carbon technologies in low-income and vulnerable households:

- NEA recommends all stakeholders undertake some form of training in this area to ensure a fair transition to net zero
- Low carbon technologies can provide significant benefits, but it is critical that solutions are tailored to the resident and residents are effectively engaged with how to make the best use of an alternative system
- Without accurate accompanying information and advice, a change in system could lead to resident detriment and exacerbate fuel poverty.

# Decarbonising Homes: Technologies, Impacts and Solutions

This new suite of modules have been developed to provide a practical understanding of a range of low carbon and renewable technologies, their impacts, and how they can help people living in fuel poverty

- Identify and understand the links and issues associated with low carbon measures and their impacts on householders
- Identify householder / community engagement as a priority
- Consider the potential impact of a selection of low carbon technologies on household bills and comfort
- Explain how to select suitable technologies for different property types
- Identify common installation and operational issues
- Explain how to effectively engage and assist residents with understanding the technology.





# Decarbonising Homes: Technologies, Impacts and Solutions

It will discuss the benefits of these technologies and use case studies from NEA's innovation trials to illustrate examples of resident satisfaction, the advantages of each technology but also potential issues and considerations.

- 9 flexible eLearning modules:
  - Module 1: Introduction (Compulsory) 30m
  - Module 2: How heating systems are evolving with new technologies 10h
  - Module 3: The role of heat pumps 12h
  - Module 4: The role of electric heating 10h
  - Module 5: The role of insulation 12h
  - Module 6: The role of solar technologies and energy storage 15h
  - Module 7: The role of heat networks and biomass 10h
  - Module 8: Appropriate electricity tariffs for new technologies 15h
  - Module 9: Tacking fuel poor homes through decarbonisation 12h
- Assessments take 2-3 hours to complete for each module.
- Level 4 NCFE qualification or credits based on number of modules taken

# Decarbonising Homes: Technologies, Impacts and Solutions

Example module: The Role of Solar Technologies and Energy Storage



Action for Warm Homes

Decarbonising homes:  
technologies, impacts and solutions

The Role of Solar Technologies  
and Energy Storage



## Main menu



Action for Warm Homes

Click the forward button to continue or choose an option below to jump directly to that Section:

Section 1 - Technology overview

Section 7 - Best Practice for Solar PV

Section 2 - Project Considerations: Financing and savings with solar PV

Section 8 - Storing electricity with batteries: Technology Overview

Section 3 - What things should you consider - when selecting a solar PV installer?

Section 9 - Project Considerations

Section 4 - Estimating annual PV generation

Section 10 - Impacts

Section 5 - Other considerations

Section 11 - Best Practice for Batteries

Section 6 - Making it Work for the Householder

Section 12 - Heat Storage



# Decarbonising Homes: Technologies, Impacts and Solutions

## Example module: The Role of Solar Technologies and Energy Storage

### Diagram of solar PV system



The main components of a solar PV system are:

- **Solar panels** - generate DC electricity.
  - The power output for solar panels has increased in recent years as the panels have become larger and more efficient. Most current models have a maximum power output of 300 to 400W, although a few panels are now available which are rated above 500W
- **Inverter** - converts DC electricity from the solar panels to AC electricity which can be used in the home
  - Best fitted in a cooler area - the life span is reduced in areas like lofts where temperatures are hotter
- **Generation meter** - records the accumulated PV generation. Acts as a meter for Feed-in tariff payments and for monitoring performance



Please click on the hot spots in the image to reveal more information.

### Factors affecting annual PV generation (click hot spot for audio info)



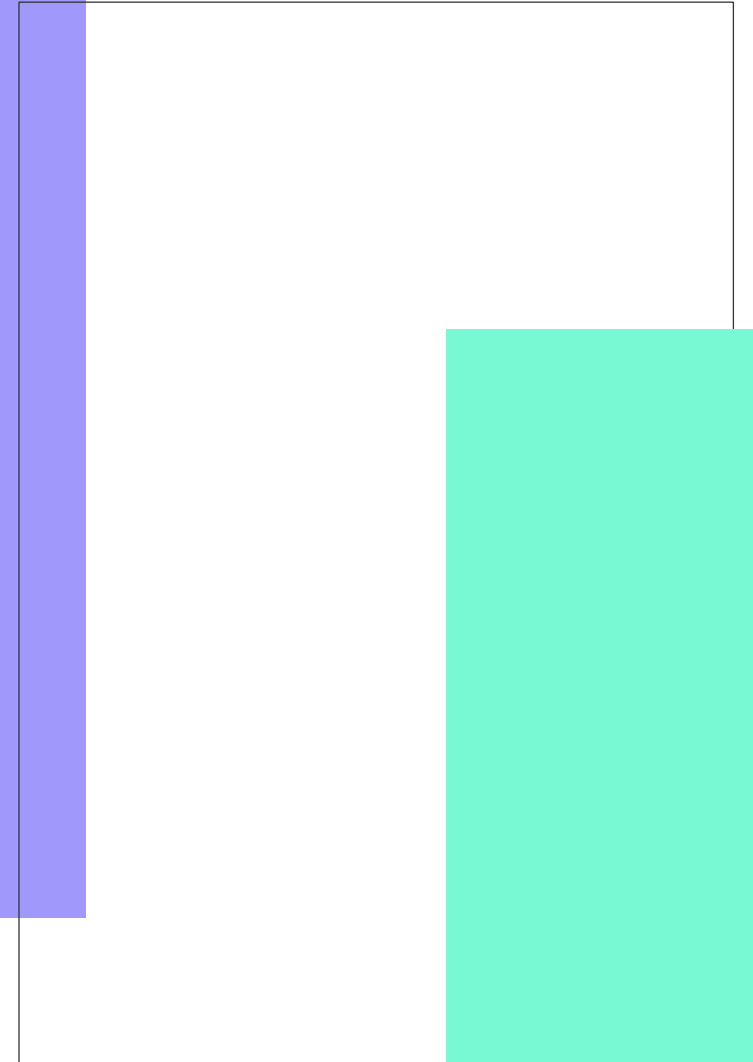
- Size of PV system
  - Inverter, solar panels
- Orientation
- Tilt
- Shading
- Location
  - Latitude, Climate
- Reliability



|                           |            | West |      | SW   |      |      | South |      |      | SE   |      | East |      |     |
|---------------------------|------------|------|------|------|------|------|-------|------|------|------|------|------|------|-----|
|                           |            | 270° | 255° | 240° | 225° | 210° | 195°  | 180° | 165° | 150° | 135° | 120° | 105° | 90° |
| Angle (°) from horizontal | Horizontal | 0°   | 90   | 90   | 90   | 90   | 90    | 90   | 90   | 90   | 90   | 90   | 90   | 90  |
|                           | 10°        | 89   | 91   | 92   | 94   | 95   | 95    | 96   | 95   | 95   | 94   | 93   | 91   | 90  |
|                           | 20°        | 87   | 90   | 93   | 96   | 97   | 98    | 98   | 98   | 97   | 96   | 94   | 91   | 88  |
|                           | 30°        | 86   | 89   | 93   | 96   | 98   | 99    | 100  | 100  | 98   | 96   | 94   | 90   | 86  |
|                           | 40°        | 82   | 86   | 90   | 95   | 97   | 99    | 100  | 99   | 98   | 96   | 92   | 88   | 84  |
|                           | 50°        | 78   | 84   | 88   | 92   | 95   | 96    | 97   | 97   | 96   | 93   | 89   | 85   | 80  |
|                           | 60°        | 74   | 79   | 84   | 87   | 90   | 91    | 93   | 93   | 92   | 89   | 86   | 81   | 76  |
|                           | 70°        | 69   | 74   | 78   | 82   | 85   | 86    | 87   | 87   | 86   | 84   | 80   | 76   | 70  |
|                           | 80°        | 63   | 68   | 72   | 75   | 77   | 79    | 80   | 80   | 79   | 77   | 74   | 69   | 65  |
|                           | Vertical   | 90°  | 56   | 60   | 64   | 67   | 69    | 71   | 71   | 71   | 71   | 69   | 65   | 62  |

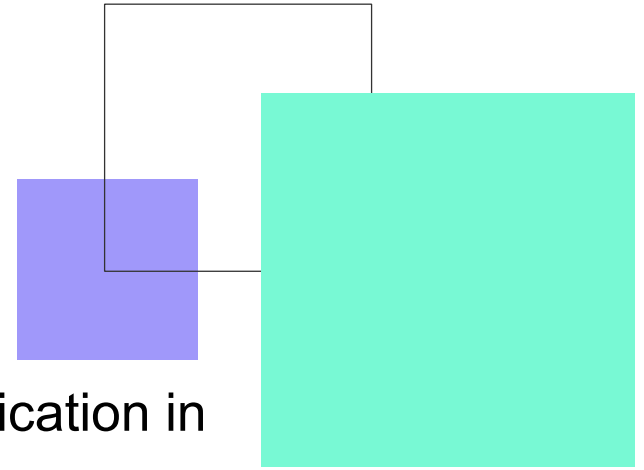


**Where next?**





# Learning solutions



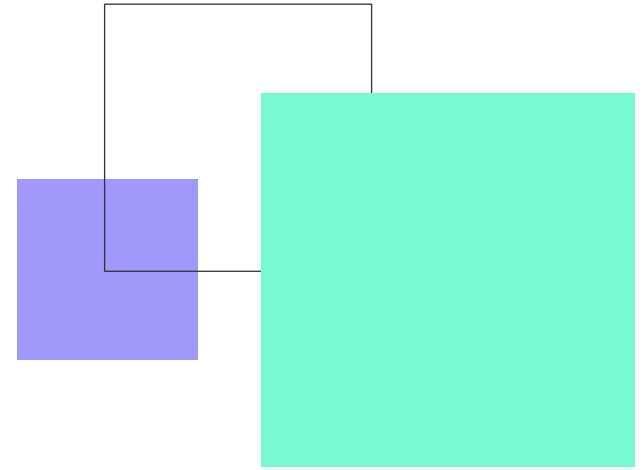
We currently offer the following pathways for those wanting to gain a qualification in sustainability:

- Level 2 Certificate in Understanding Climate Change and Environmental Awareness
- Level 3 Certificate in Championing Sustainability in the Workplace (NEW)
- Level 4 Certificate in Decarbonising Homes: Technologies, Impacts and Solutions (with National Energy Action)
- Environmental Awareness Y/502/0650/UNIT



# Collaboration

- Meeting employer and learner need
- Careers guidance
- Actions and outputs
- Supporting the North.



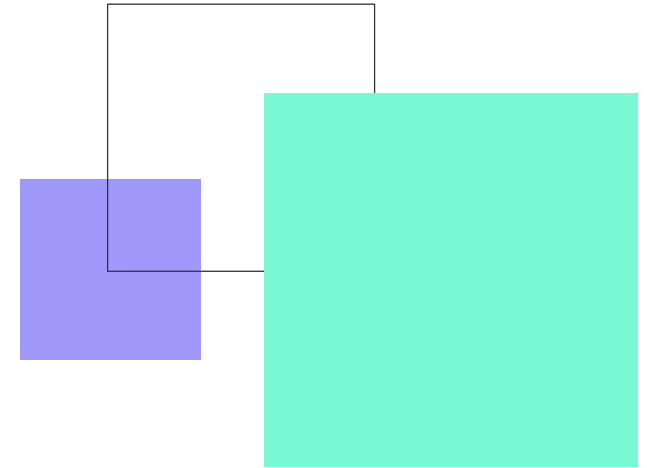


# Questions and contact

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FOR FURTHER QUESTIONS  
PLEASE CONTACT –  
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DIGITAL DELEGATE PACK  
TO FOLLOW

THANK YOU FOR  
ATTENDING

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