



Inquiry: Workforce planning to deliver clean, secure energy
Energy Security and Net Zero Committee

UK100 Submission

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Introduction

This submission is from UK100 which is a network of 116 local authorities and their leaders who have pledged to lead a rapid transition to net zero in their communities ahead of the Government's legal target.

Our submission focuses on the following key concerns that we consider crucial for achieving the objectives:

- 1. Develop a national skills strategy for net zero:** Skills England should establish a coordinated national framework to identify and standardise the wide range of skills required for the net zero transition, while tailoring solutions to local needs. This should include accredited training programs, clear career pathways, and financial incentives to reskill and upskill the workforce, with a focus on construction, energy, and retrofit sectors.
- 2. Empower local authorities to drive green skills development:** Provide local authorities with funding and strategic support to act as conveners, facilitating partnerships between businesses, training providers, and communities. Through devolution, local authorities should also play a lead role in developing local skills plans, aligning with national goals while addressing regional challenges.
- 3. Increase investment in training and education:** Boost funding for further education institutions, trainer programs, and green skills hubs to build capacity across sectors. Support employer engagement through financial incentives and market signals to encourage investment in long-term workforce development.

In our submission we answer the following questions asked by the Committee:

Q1. Does the Government have an appropriate understanding of the skill needed to deliver the Clean Energy Mission by 2030 as well as decarbonise homes and businesses?

No. The government should introduce a precise definition of the clean energy skills that will be required to deliver net zero. A definition would ensure consistency with training providers and provide a clear understanding of what exact apprenticeships are required..

Delivering net zero will require a transformation of the workforce, new technologies will need to be deployed across the country, and skilled professionals will be needed to deploy them.

A measure highlighted by members in our recent research [Local net zero 2.0](#), as being critical for local delivery is the need for a coordinated plan for skills and training in the construction, retrofit industry and energy sectors in order to deliver on their net zero ambitions. Local authorities have an important leadership role in overseeing the development of skills for net zero. They deliver this through coordinating and strategically driving relationships between business, providers and communities.

Key challenges

This measure has tremendous potential to support economic growth and the creation of green jobs. However, there are challenges that need to be overcome before it can deliver:

- The lack of skills and training are a barrier to delivery
- There is limited trust and reliability of local traders
- There is low consumer demand for installing energy efficiency measures
- There is no government/industry approved professional standards
- Small firms do not have the time/ resources to invest in upskilling their staff
- Lack of standardised courses/training programmes for the industry
- Transitioning from highly remunerated carbon intensive jobs to clean energy sectors with different salary structures, culture and skills

Many local councils have taken steps to address this skills gap by facilitating projects and collaborative partnerships with employers, education and skills

providers and communities¹. Their leadership and understanding of their communities gives them unique knowledge and expertise to support local economic plans to generate jobs and develop skills. But they could deliver more if they were better supported through a locally-led national strategy.

- Greater Manchester has initiated a scheme to fast-track people into roles in construction and green energy.
- The Mayor of London's Academy Programme has seen five hubs established across the capital which focus specifically on green skills development.
- Essex County Council conducted a Green Skills Infrastructure Review to clearly identify the potential actions and partnership opportunities between the local authority and businesses, training providers, funding bodies and others to best align green skills supply and demand in the county.
- And Gloucestershire has established an authority-wide Retrofit Academy which is helping 'able to pay' householders to access retrofit support. It assists with common barriers to entry including 'knowing where to start' and what is required for a particular property as well as assurances about trustworthy suppliers.

However, each local authority trying to develop their own solutions from scratch may not be the best use of time and resources. Members have suggested that a national strategy is needed to support the training and skills development of the construction industry. The solutions can then be tailored to cater to local needs. The government has showcased the intent to act on this challenge but more needs to be done to achieve the necessary scale. This should be a priority for Skills England.

The government could follow the approach of South Australia, who developed Skill Centres in areas where industry required apprentices. While not completely focused on green skills, the Skills Centres place trainees where they are required to help meet demand. A national strategy for skills could pick up on the work of the previous government on the cluster effect, and work with local authorities to identify who is best suited to host Green Skill Academies.

Regional specialisation and training hubs could be developed based on existing industry strengths, as identified in Green Alliance's cluster analysis. For example, North East Scotland could become a centre of excellence for electricity generation

¹Skills for Local net zero Delivery Insight Briefing, UK100, 2022.

<https://www.uk100.org/publications/skills-local-net-zero-delivery-insight-briefing>

training, Hampshire for sustainable aviation skills, and East Anglia for agricultural technology expertise².

By supporting local authorities to convene business and education institutions to establish specialised training centres in these areas, the government could create national centres of excellence that attract trainees from across the country. While similar courses could be offered nationwide, these specialist hubs would serve as flagship institutions, ensuring consistent high-quality training aligned with industry needs and helping address national skills shortages. These centres would act as pioneers in their respective fields, developing best practices that could then be adopted by other training providers across the UK.

This creates a hub-and-spoke model where expertise and innovation flows from these specialised centres to smaller training providers, while maintaining consistent standards nationwide. The centres would also benefit from close ties to their local industry clusters, ensuring training remains cutting-edge and directly relevant to employer needs.

The national government can provide the right signals to the market through regulations and targets, and create standardised accredited programmes in consultation with relevant stakeholders. They should galvanise the further education sector with financial incentives to train the next generation of professionals for the construction and retrofit industries. The delivery can be through a mix of national, local, developer and academic support to cater to the growing need.

Q2. To what extent can the Clean Energy Mission and the retrofitting of homes and businesses be carried out by the existing workforce and to what extent will it require new entrants to the workforce?

The scale of the training required should not be underestimated and the skills requirements will not be the same in all areas, for example workers in rural communities will require different training and skills to those in cities. According to the Heat Pump Association, the UK had trained 11,000 heat pump engineers by 2023. It's estimated we need over 33,000 installers to reach the government's target of 600,000 homes³.

²The Cluster Effect, Green Alliance, June 2023

https://green-alliance.org.uk/wp-content/uploads/2023/06/Cluster_effect_WEB.pdf

³ <https://www.heatpumps.org.uk/166-increase-in-qualified-heat-pump-installers/>

There is shortage of a trained workforce to execute existing programmes, and this shortage will only worsen with increasing ambitions⁴. Looking at the offshore wind industry, the Offshore Wind Industry Council's Skills Intelligence Report from 2023 estimated the workforce to be around 32,000. This needs to grow to 100,000 by 2030 to achieve the 50GW target of offshore wind energy⁵. Even supply chains need to be supported to be able to deliver if the growth targets are to be achieved. In addition, companies are also competing in international markets, many of which provide more certainty and scale.

In a survey by Federation of Master Builders (FMB), firms were confident in their ability to meet increased demand (42.5% were fairly confident with 25.5% very confident) through upskilling the current team and expanding the workforce. However, there is a lack of accepted suite of standard measures installed which should be backed by the government and accepted by industry⁶.

Government research suggests if the investments needed in retrofit are brought in, it would create economic growth and jobs and the UK's building industry could be £6 billion larger by 2030⁷. PwC estimates that if retrofit scales up between 10,000 and 66,000 new tradespeople will be needed each year⁸.

Community energy projects can play a critical role in decarbonising the energy system by producing clean, low-carbon energy in addition to other benefits such as promoting energy security, lowering energy costs, stimulating the local economy and getting communities engaged in the decarbonisation journey. However, they currently face significant barriers including the skills and supply as projects struggle to find the right people and materials. Community energy projects can, if delivered well, unlock a local economic and social dividend, including supporting local skills, jobs, apprenticeships and volunteer opportunities.

Current employer-led approaches are inadequate on their own because the market moves too slowly, meaning from local businesses which are not confident

⁴Electricity Networks Commissioner – Companion Report Findings and Recommendations, Catapult Energy Systems, June 2023.

<https://assets.publishing.service.gov.uk/media/64c8e85219f5622360f3c0ee/electricity-networkscommissioner-companion-report.pdf>

⁵Supply chain capability requirements for UK Floating Offshore Wind Farms: Inter-Array Dynamic Cable Systems, Catapult ORE, November 2023.

https://cms.ore.catapult.org.uk/wp-content/uploads/2024/04/ORE_Catapult_Inter_Array_Dynamic_Cables_Report_2023.pdf

⁶Delivering Healthy, Comfortable, net zero Housing, Federation of Master Builders, July 2024.

<https://www.fmb.org.uk/resource/delivering-healthy-comfortable-net-zero-housing.html>

⁷Energy Innovation Needs Assessment: Building Fabric, Vivid Economics for DBEIS, 2019.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/845654/energy-innovation-needs-assessment-building-fabric.pdf

⁸Green Skills as an Enabler of UK Retrofit, PwC, November 2022.

<https://www.pwc.co.uk/who-weare/purpose/green-jobs-barometer-retrofit.pdf>

to invest in skills for net zero. Government policies designed to stimulate the market for green skills have been too piecemeal and too short-term to create the certainty and confidence for businesses to change their practices and processes.

Q3. How might the Government ensure that the job market in clean energy roles is sustainable enough to incentivise private sector investment in training for 2030 and beyond?

Employer-led approach alone will not deliver at the pace and scale required because the market moves too slowly to drive employer demand for future skills. Many employers, particularly small and medium-sized businesses (SMEs), are either too focussed on immediate business needs, not confident that there will be sufficient demand in the nascent market, or simply cannot afford to invest in training. In practice this leads to an unrecognised but significant reliance on local authorities to lead local projects and to act as conveners and drivers of partnerships and relationships between SMEs and with other key stakeholders, at the local level.

The government needs to develop a strategy in collaboration with relevant stakeholders that takes into account the following -

- Identify the most effective geographic area for action to deliver green jobs and skills outcomes.
- Increase green job opportunities for people from diverse backgrounds using the levers available to local government.
- Develop and publish an evidence base using a clear chosen definition of green jobs and skills.
- Strengthen green skills and knowledge across the council so that all the council departments can play a role in boosting green jobs and skills.
- Work across local anchor organisations including local government, education, trade unions and business to stimulate demand for green jobs and skills.
- Use the evidence base and dialogue to take advantage of funding opportunities, build confidence in the market and deliver advocacy to ensure core investment priority messages are heard by the central government.

Local authorities are well placed to convene and facilitate the local partnerships and projects that will drive the development of local skills for net zero and they are the bodies most trusted by the public to deliver climate action.

What is needed is standardisation in training and a method of accreditation to build trust in the system and create a workforce that can cater to the growing demand. The newly formed Skills England can play a critical role in bridging this gap. It aims to work with central and local government, businesses, training providers and unions to address this issue, and the homes and energy sectors should become key focus areas for them.

Q4. How can the new Office for Clean Energy jobs contribute to workforce planning in the energy sector?

The new Office for Clean Energy jobs can contribute to workforce planning by:

- Establishing criteria to define clean energy job qualifications and requirements
- Identifying regional skill needs and collaborating with local authorities to connect businesses and training providers to develop skill centres
- It needs to be developed with an understanding of how it relates to the work of Skills England and the needs of local authorities and local supply chains and their respective roles within the energy transition.

Q5. What more can the Department for Energy Security and Net Zero do to ensure the workforce is in place to deliver the Clean Energy Mission and accelerate the retrofitting of homes and businesses?

It should be a strategic priority for Skills England to support the development of the construction industry to deliver net zero homes and the Clean Energy Mission at the scale and quality required. The key areas of focus need to be -

- A national framework identifying the wide range of skills for net zero and potential careers providing information on how employers can sponsor training and reskilling.
- Local authority funding settlements that reward greener approaches in areas such as sustainable procurement so that services commissioned by the council start to shape the local economy. Similar to Community Wealth Building approaches.
- Defining the local authority role in facilitating relationships with local stakeholders including businesses and education and training providers and in leading local projects designed to develop local skills for net zero delivery.
- Provide sufficient investment to enable further education institution providers to fund net zero training programmes.
- Government support for training 'trainers'.

- Improved data on skills and labour market analysis that identifies the current and future skills needs of each locality.
- Local authority investment in net zero projects to provide assurances to local businesses of potential supply chain and demand for skills.
- Signal to the market the technologies, such as heat pumps, that the government plans to invest in and deploy in the future and provide incentives, including additional funding, to support employers to reskill and upskill their workforce to meet these priorities.
- Introduce a system that rewards local authorities for green procurement which will in turn drive behaviour change from local businesses and suppliers.

We would be grateful if in addition to considering UK100's response to the committee. Please get in touch if you would like to know more or explore our response in more detail. We would also be happy to convene a discussion with our member local authorities, especially those working to deliver community energy to discuss the themes within this consultation and our response further.