

# Aldersgate Group response to Energy Security and Net Zero Committee's inquiry on workforce planning to deliver clean, secure energy

**January 2025**

## Background

The Aldersgate Group represents an alliance of major businesses, academic institutions and civil society organisations which drives action for a competitive and environmentally sustainable UK economy.<sup>1</sup> Our corporate members represent all major sectors of the economy, and include Associated British Ports, Aviva Investors, BT, CEMEX, the John Lewis Partnership, Johnson Matthey, Michelin, Nestlé, Siemens, SUEZ, Tesco, and Willmott Dixon. Aldersgate Group members believe that ambitious environmental policies make clear economic sense for the UK, and we work closely with members when developing our independent policy positions.

The consultation, including the full list of questions, is available [here](#).

## Questions

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

The skills challenge for the delivery of the Clean Energy Mission is well recognised by the government. Significant analysis on clean energy skill needs has been conducted, including through the Green Jobs Delivery Group under the previous government and more recently Skills England,<sup>2,3</sup> as presented in the Clean Power 2030 Action Plan.<sup>4</sup>

The evidence presented by government shows an understanding of the current situation at a high level. It will be crucial to better understand how skills needs may evolve over time and across different regions. The government must also increase its sector-specific and skill-specific understanding of challenges in order to design effective policy interventions.

For example, understanding the time requirement, availability and accessibility of training (including cost and geographic provision), and type of business, is crucial. The time needed to train to be a heat pump installer can be relatively short, from a few days to a few months. However, the sector is dominated by small businesses or sole traders who may not have the time or capacity to invest in training. In contrast, specialist skills in engineering or ecology can require multiple years of training and professional experience. The two examples here would likely benefit from different interventions to resolve challenges effectively.

One area not addressed in the Clean Power 2030 Action Plan is the role of the UK immigration system to help address skills shortages, especially for innovation and expert skills which may

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<sup>1</sup> Individual recommendations cannot be attributed to any single member and the Aldersgate Group takes full responsibility for the views expressed.

<sup>2</sup> GOV.UK, [Green Jobs Delivery Group](#)

<sup>3</sup> Department for Education, 2024, [Skills England: Driving growth and widening opportunities](#)

<sup>4</sup> UK Government, 2024, [Clean Power 2030 Action Plan: A new era of clean electricity](#)

take more time to develop. It is positive that Skills England is working closely with the Migration Advisory Committee, which can consider how to best attract global talent and help ensure the Shortage Occupation List and Immigration Salary List are aligned with the skills needs of the Clean Power mission. An appropriate, clear and consistent immigration system is important to ensure the UK is in a good position to attract global talent.

As highlighted in the Clean Power 2030 Action Plan, skills needed for clean energy are also in demand from other sectors including construction and planning to meet the government's house building target, and growth sectors identified in the government's Industrial Strategy green paper. The government must ensure that clean energy skills policy is not considered in isolation, and that joined-up policy is developed across relevant departments.

Creative thinking will also have an important role to play, identifying existing or innovative solutions to address critical shortages at pace, such as new technologies for training. For example, immersive technology was used to accelerate training for the manufacturing of ventilators during the COVID-19 pandemic<sup>5</sup>. Support or sign-posting to regional hubs providing access to expertise would also be valuable. The Local Net Zero Hubs are an interesting model, with regional hubs providing support for local authorities and communities with net zero-related challenges and solutions.<sup>6</sup>

Skills shortages, especially those affecting the public sector, require further attention and are critical to the success of the clean power mission. The current challenge is described in detail in the Aldersgate Group, RenewableUK and CPRE report, "Electric dreams: how the planning system can help deliver the UK's low-carbon energy".<sup>7</sup>

Skills and capacity shortages affecting statutory consultees contribute to delays and uncertainty on timescales to progress planning applications, undermining confidence for the private sector to invest. A freedom of information request to Natural England by Wildlife and Countryside Link highlighted that between 2022-2023, Natural England failed to meet deadlines for 17.1% of NSIP applications,<sup>8</sup> due to under-resourcing and workload issues in over a fifth of cases. Lack of resources within statutory consultees also contributes to reduced or limited participation during early engagement, which can lead to unexpected requests for additional time and information during the formal application process, further increasing uncertainty for developers. Productive conversations at early engagement stage help develop more thorough and high-quality applications upfront and reduce the back and forth in the formal process.

Local authorities interviewed as part of the project highlighted the time and resource required to develop the expertise and ability to navigate the Nationally Significant Infrastructure Projects regime amidst other competing pressures. Ecology and planning skills are particular areas of concern. Demand and competition for ecologists continues to increase with the introduction of

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<sup>5</sup> Future Visual, [The Ventilator Challenge: how immersive technology can be used for training in manufacturing](#).

<sup>6</sup> GOV.UK, 2024, [Guidance: Local net zero – central support for local authorities and communities](#)

<sup>7</sup> Aldersgate Group, Renewable UK, CPRE, 2024, [Electric dreams: how the planning system can help deliver the UK's low-carbon energy](#)

<sup>8</sup> Wildlife and Countryside Link, 2024, [Comprehensive Spending Review \(CSR\) submission](#)

biodiversity net gain. With regards to planners, remuneration is declining in real terms and up to a quarter of planners are estimated to have left the public sector since 2013.<sup>9</sup>

Public engagement skills are also necessary to ensure good practice is applied more consistently, and to increase the quality of participation and early engagement of local communities on new clean energy infrastructure projects. High quality engagement can help unlock opportunities to better inform project development with local knowledge, co-develop solutions, and deliver better outcomes for all stakeholders. Good practice exists and should become the norm. A contributing factor to poor or limited public engagement is lack of experience, expertise and capacity across developers, local authorities, and community members themselves. Good public engagement requires a particular skillset and can be resource-intensive to reach across whole communities. The government, local authorities and the energy sector should work together to increase capacity, expertise and sharing of good practice for public engagement around renewable and grid energy infrastructure at both a strategic policy making level and project level.

The government should ensure that statutory consultees such as the Environment Agency, Natural England and local authorities, are appropriately and efficiently resourced, with access to centralised or regional hubs and relevant expertise to help reduce uncertainty around timescales for applications and improve community engagement for new clean energy infrastructure.

## **2. 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?**

Meeting the UK's clean energy and energy efficiency targets will require a significant number of new market entrants to be trained. Research has found that the UK is on track for a 250,000 shortfall of tradespeople by 2030, including carpenters, electricians, and plumbers – skills critical for retrofitting homes.<sup>10</sup> This could cost the UK economy £98 billion in missed GDP growth opportunities to 2030. Energy and Utilities Skills Partnership has also estimated that the UK energy sector will need to fill 277,000 vacancies by 2030, which is equivalent to 50% of the current workforce.<sup>11</sup>

Phasing out fossil fuels means an end to operations in relevant sectors in future. The skill and expertise of their workforces may be highly transferable, as highlighted in the Clean Power 2030 Action Plan.<sup>12</sup> The government and industry must not miss the opportunity for retraining and upskilling and make best use of existing strengths to create new jobs in impacted areas.

## **3. 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?**

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<sup>9</sup> Royal Town Planning Institute, 2023, [State of the profession 2023](#)

<sup>10</sup> Kingfisher, 2024, [UK to lose out on £98bn of growth by 2030 due to shortage of tradespeople](#)

<sup>11</sup> Guidant Global, 2024, [Why skills shortages pose the greatest threat to organization's growth in the UK energy sector](#)

<sup>12</sup> UK Government, 2024, [Clean Power 2030 Action Plan: A new era of clean electricity](#)

To build a future-fit workforce, the government has a crucial role to play in: providing clear policy signals to support businesses and educational providers identify future skills needs; coordinating local authorities, businesses, education providers and devolved authorities to ensure a joined-up approach to skills policy; and ensuring an appropriate level of financial support for businesses (particularly SMEs), education providers, and individuals to incentivise investment in skills and training.

When considering skills for the clean power mission, the government will need to identify specific and tailored interventions for relevant sectors and with a geographic lens. For example, sectors operating with small profit margins may struggle to increase investment in skills, especially if demand is not clear or strong enough. In other cases, policy certainty or regulatory compliance may provide a sufficient signal to the private sector to invest in skills development.

The government should also consider where there are opportunities to align the delivery of publicly supported training and education, including in particular regions, and to raise awareness of the availability of training programmes and potential careers to develop skills pipelines where they may be lacking. For example, the government-supported skills passport for the clean energy transition is welcome and must urgently be developed further and put into practice.<sup>13</sup> Businesses also consider the availability of skills as part of wider investment decisions, so identifying where skills shortages are negatively affecting business investment decisions (and how these shortages could be addressed) will be essential to ensure deliverability of the government's ambition to increase UK-based supply chains.

The Aldersgate Group recommends a three-pillared approach to encouraging investment into training to ensure people are equipped with the skills needed for the future net zero economy:

- **Equipping tomorrow's workforce.** According to a survey commissioned by WSP, 75% of students agreed that they would like or would have liked to learn more about climate, sustainability, and environmental-related topics at school. Additionally, just 22% of students felt informed about the range of green jobs available to them.<sup>14</sup> The government should ensure climate change and environmental sustainability issues are embedded across all stages of the curriculum to equip students with the skills and knowledge needed for career opportunities in the low-carbon economy. This must be accompanied with better training for teachers, a proactive strategy to encourage the uptake of STEM skills (particularly amongst underrepresented groups), and a systemic approach to career advice in schools to improve awareness of the different pathways and training provisions (e.g., apprenticeships, skills bootcamps, sector-based work academy programmes etc.) to access low-carbon jobs.
- **Supporting today's workforce.** At least 80% of the UK's 2030 workforce is already in employment. However, recent research on mid- and late-career workers highlighted that they are not currently motivated to switch careers, with reluctance to retrain, low awareness of opportunities and concerns over job security. There is a belief that green

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<sup>13</sup> GOV.UK, 2024, [Delivering a skills passport for the Clean Energy Transition](#)

<sup>14</sup> WSP, 2022, [Students not drawn to careers in sectors crucial to UK's net zero ambitions, new research suggests](#)

jobs are 'future jobs' yet to materialise.<sup>15</sup> Measures to upskill and reskill the current workforce are therefore vital. The UK needs a tailored strategy to support those already in the workplace, particularly for those in sectors expected to phase-down over time.

The government should address these questions, building on the extensive work that has already been carried out and additional research and analysis where needed. Underpinned by sectoral assessments, work under the previous government for the Green Jobs Plan aimed to understand where there may be workforce shortages and skills gaps, and how government and business working together can better provide opportunities for new entrants and existing workers to develop skills required to join low carbon and nature-positive sectors and occupations.

Retraining and upskilling is costly. Employers may need help to cover the cost of training and the loss of income whilst staff are off-the-job (including the cost of backfill). Individuals, meanwhile, may need financial support to complete training as part of the process of transitioning between sectors. The Aldersgate Group is calling for the government to increase the Apprenticeship Incentive Payment to support SMEs to take on apprentices and replace the Apprenticeship Rate with the national minimum wage to improve the attractiveness of apprenticeships.<sup>16</sup>

- **Skills do not sit in a silo.** For businesses to invest in new green skills for their workforce, and for educational institutions to develop new courses, there needs to be a consistent and stable policy framework which provides some degree of certainty for employers and encourages investment in low-carbon infrastructure, products, and business models in the first place. This is particularly true of SMEs, which only have the capacity to focus on short-term business needs and lack confidence that there will be sufficient demand in emerging green markets. The government should publish clear sectoral decarbonisation pathways to give employers and training providers clarity on the future demand for low-carbon products and services, as well as future skills needs. The Warm Homes Plan, for example, will have a crucial role to play in supporting certainty of demand and confidence to scale up supply chains and relevant skills initiatives.

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

The new Office for Clean Energy Jobs has a crucial role to play bringing together the relevant data, analysis and making connections across government departments, devolved authorities, businesses and trade unions to ensure skills challenges are both well understood and effectively addressed. It will also be important to learn lessons from previous initiatives,

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<sup>15</sup> Phoenix Group, 2024, [Resourcing the net zero transition: What do workers in their mid-and late-careers think of 'green' jobs?](#)

<sup>16</sup> Aldersgate Group, 2024, [Beyond the levy: Ensuring the effective implementation of the growth and skills levy](#)

including policies that faced delivery challenges due to skills shortages, such as the Green Homes Grant.

Building on the research carried out by the Green Jobs Delivery Group, the Office for Clean Energy jobs should identify data gaps and address them to ensure the most up-to-date picture of the clean energy jobs landscape is available. This can help inform deep dives and prioritisation of policy interventions to mitigate challenges as much as possible. The Green Jobs Delivery Taskforce identified specific data gaps including the lack of diversity characteristics breakdown in the ONS low carbon and renewable energy economy (LCREE) survey.<sup>17</sup> The LCREE survey could be further improved with refined sub-sector level occupational data and more frequent updates to provide a dynamic picture of the skills landscape.

The Office for Clean Energy Jobs may also have a role to play in gathering evidence and better understanding where challenges arise across the skills pipeline. Lack of awareness of jobs or training opportunities, lack of available training, cost, timelines for training and other concerns for individuals, training providers or employers may require different solutions. Social research on particular skills may be necessary to better understand why individuals are not seeking opportunities.

The Office for Clean Energy should also ensure that the effectiveness of policy interventions is monitored and evaluated, to ensure that implementation challenges are resolved and desired policy outcomes successfully achieved.

##### **5. 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?**

The Department for Energy Security and Net Zero must provide policy clarity, especially with regard to demand, to accelerate investment in renewable energy and retrofitting.

Policy uncertainty is a significant barrier to businesses investing in skills. For example, the previous government's decision to scrap plans to require all rental properties to meet a minimum EPC rating C by 2028 undermined business confidence in the retrofit sector. According to a poll by Lloyds Banking Group, 57% of landlords were aware of the decision to scrap the target.<sup>18</sup> Of these, 42% said that they had since cancelled plans to invest in energy efficiency measures and 53% said that it made them less likely to invest in energy efficiency in the future. Without certainty of market demand, investment in skills carries significant risk for businesses.

The clean power mission and Warm Homes Plan provide a clear and strong signal to the private sector. To leverage private investment, the government must continue to demonstrate its commitment to delivering these policies and help address challenges that are outside the control of the private sector.

The Clean Power Action Plan and planning reform are positive first steps in growing a clean energy jobs market. As set out in previous questions, targeted interventions will now be needed.

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<sup>17</sup> Green Jobs Taskforce, 2022, [Report to Government, Industry and the Skills Sector](#)

<sup>18</sup> Lloyds Banking Group, 2023, [Decarbonising the UK's homes](#)

Engagement with industry, trade unions and local knowledge will be important to ensure interventions are designed to be effective.

With regards to retrofitting, demand signals need to be significantly strengthened alongside radical policy thinking to ensure supply chains ramp up at pace. Minimum energy efficiency standards, an independent energy advice service, low-interest grants and subsidies, taxation reform (e.g. stamp duty and addressing the imbalance in VAT rates in construction sector to incentivise retrofitting over demolition) may all have a role to play in supporting demand for retrofit. The sector's characteristics, with many sole or small traders and small profit margins, may also require additional public support for training.