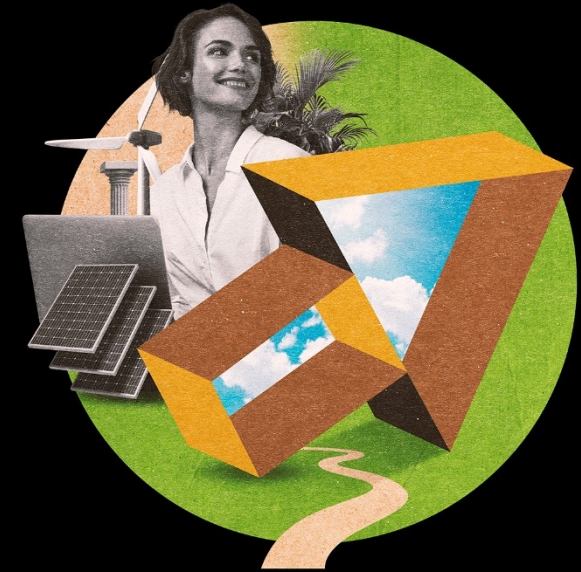




Turbocharging the UK's Economy in Pursuit of Net Zero

An exclusive, interactive day of learning and debate, where the UK's leaders in business, the public sector, academia and politics will collaborate to drive UK economic growth through sustainability and climate action.

Breakout group conversations are focused on tangible growth opportunities for the UK. This document provides a briefing on the growth opportunity you will be exploring in the breakout out group you have been assigned to during the 13:30 to 15:15 slot.



Develop the pipeline of qualified energy transition tradespeople in the UK's regions

- The energy workforce will need to grow significantly and at a fast pace and by 2050 fill around **400,000⁽¹⁾ roles associated with net zero**. Out of these 260,000 will be new roles and 140,000 will be replacing those leaving the workplace.
- The skills gap in critical areas of development, such as offshore/onshore wind distribution, transmission infrastructure buildup, and solar deployment, is hindering the UK's ability to scale up.
- **Shortages of skills** are in fast-growing, low-carbon roles, such as **heat pump technicians and solar power/wind turbine engineers**.
- The categories of jobs where there is a skills gap includes **civil, mechanical and electrical engineers, welders, data analysts, project managers, design and commissioning engineers and installation technicians**.
- This gap is further widened by a retiring workforce (20% of the oil and gas sector workforce is set to retire by 2030).
- The portability of qualifications of existing energy sector workers, training capacity available to reskill workers at pace, competition for a limited talent pipeline and lack of diversity are all making it harder to close this gap.
- Developing a pipeline of qualified practitioners is key to unlocking the true potential of the net zero transition. The availability of qualified resources stimulates economic growth, attracting investment, fostering innovation, and supporting related industries and supply chains.
- While London and Southeast regions benefit from better access to transport and infrastructure, driving increased productivity, most of the jobs are going to be created in **regional clusters in the areas that need levelling up, such as Scotland, Yorkshire, Humber and Northeast of England**. Plugging the skills gap will be key to addressing **regional inequalities**, including in relation to the productivity and wages.
- The 2021 Green Jobs taskforce report highlighted the need to address longer-term skills gaps by embedding green skills into the curricula of relevant subjects, collaborate across industry, develop learning pathways, ensure green jobs are of good quality, align training systems and capacities, and consider a broader, more diverse talent pool in order to support a just transition.
- The **Green Jobs Delivery** Group – a recommendation of the Taskforce – is identifying clear actions addressing report outcomes including workforce challenges and skill gaps.
- Continued effort is required to drive the policy reform needed, including investment in STEM teachers and R&D, delivery of skills passports, and clarification of visa requirements for skilled workers. This can help the UK to build the knowledge and expertise to **develop cutting edge solutions and create export opportunities**.

In your breakout group you will...

- **Discuss the size of this opportunity** for the UK with a cross-industry group of leaders
- **Consider the barriers** that are currently getting in the way of the UK realising this opportunity
- **Explore the levers** that breakout group participants could pull to overcome these barriers
- **Identify opportunities** to work together with other breakout group participants to accelerate progress



Reaching Net Zero requires investment and technology. But it also requires People – with the right skills and capacity in the right locations across the UK.

Over the next 30 years existing jobs will evolve and new jobs will be created, with low-productivity areas facing the greatest transition.

To realise our goals, the UK must overcome key challenges to build a diverse, motivated Net Zero Energy Workforce of the right scale, equipped with the right skills.

Millions of people in the UK want to use their careers to help the country reach its net zero ambition.

Can the government, industry and institutions partner together to harness this enthusiasm to attract prospective new joiners and motivate the sector's existing workers to help build a net zero energy workforce?

Talent Shortage

We are facing multiple challenges in the talent space creating a shortage of people required.

First, the sector is losing talent owing to two factors – 1. **a retirement crunch** – with 1/5th workforce set to retire by 2030 and 2. a loss of skilled trades following COVID, including people on career breaks or maternity leave not returning due to inflexible work hours and practices.

Second, there is **intense competition** for the same skills across sectors and industries. In the UK last year, more than 40% of physics graduates – a crucial target market for energy sector recruits – opted for careers in banking, finance or technology.

Third, attracting talent is hard, with **limited financial incentives**. An LSE study showed that while low carbon jobs have higher requirement for skills, they were not necessarily better paid. There is also a huge challenge in attracting young talent to physically-oriented roles like welders, solar fitters, and plumbers, where there is a shortage of aspirants.

Lack of Diversity

The **lack of a diverse and inclusive workforce** could impede our progress to net zero. Much of the growth in this sector is expected in STEM jobs and the manual trades, areas in which women and other disadvantaged groups have historically been underrepresented. Just **16.5% of British engineers are women**, a lower ratio than in any EU country.

Male dominated working cultures (e.g. sharing cabins and bathroom with male co-workers, living onsite for months at a time), and a lack of accessible role models can be daunting and therefore fewer women enter these jobs and rise through the ranks. According to statistics published by POWERful Women, only **14% of executive director roles in the Energy sector were held by women** and 62 of the 80 largest employers had no female executive directors on their boards.

Insufficient degree and apprenticeship programs to attract and promote young people, and not enough young people willing to enter the labour market, particularly into physical / manual jobs, is further impeding an age diverse workforce.

Reskilling

Despite the energy transition picking up pace there is a **significant gap in skills** required. There is a skills mismatch when trying to transition current tradesmen into future 'green' roles, where the skills are not lift.

Accreditation organisations and **training providers are hard to navigate** with the signing up process being equally cumbersome. This discourages tradespeople from signing up for training certification. Further, **demand** for low carbon products and services is still **patchy**, which undermines the confidence businesses and tradespeople need to invest in reskilling.

While there are emerging solutions, such as **the OPITO skills passport**, these have not yet deployed at scale. Suppliers are unwilling to invest in reskilling their workforce owing to 'poaching' behaviours from competitors.

Demand

Bad experiences resulting from unskilled tradesmen delivering poor installations or media campaigns against net zero technologies (for e.g. heat pump installers) are fuelling a **lack of consumer trust and confidence**. This is reinforced by the continued **cost premium** associated with some net zero technologies – compared to fossil fuel alternatives - as well as the 'hassle factor' associated with installation and retrofit.

Patchy consumer demand undermines the confidence of businesses and tradespeople (who are then reluctant to invest in reskilling), which in turn fuels a lack of confidence amongst training providers, preventing them from investing in the delivery of qualifications and the development of new training provision. This **vicious cycle** fuels mistrust amongst stakeholders and undermines progress towards net zero.

In room facilitators:

Sponsor: Shivani Maitra, Partner - *Private Sector Consulting Lead*

SME: Laila Takeh, Director - *Sustainability & Climate Strategy*

SME: Kate Sweeney, Partner - *Human Capital Consulting Lead*

SME: Angela Bowden, Partner - *Consulting*

Insights Lead: Vidya Srinivasan, *Consulting*

Additional Resources:

[Where is the UK on its energy transition?](#), Deloitte 2023

[The Net Zero Workforce](#), Deloitte 2023

[A blueprint for a Green Workforce Transition](#), Deloitte & IEMA 2022