

Resourcing the net zero transition: What do workers in their mid- and late-careers think of 'green' jobs?

October 2024

Summary

Delivering net zero is not only a technological challenge, but a human one. While the net zero transition offers clear avenues for economic growth through job creation, skills gaps are a critical challenge hindering delivery of projects. The new UK Government has been explicit in its commitment to the transition and has set a mission to deliver clean power by 2030. The availability of skilled labour will need to increase to meet that ambition and the emissions reductions set out in the Fifth and Sixth Carbon Budgets. The green skills gap, estimated at 200,000 workers¹, cannot be bridged by new labour market entrants and early career workers alone; encouraging mid- to late-career workers to switch careers is essential to meeting near-term climate goals.

This report focuses on the perceptions of mid- to late-career workers towards career switching into roles that support the UK's climate commitments. Through focus groups in the West Midlands,

interviews with policy and business experts, and a review of existing research, this report identifies three main findings.

Workers in their mid- and late-careers represent a key part of the workforce required to facilitate the net zero transition, but are not currently motivated to switch careers

In 2023, the Climate Change Committee estimated that as many as 725,000 jobs could be created by 2030 in low-carbon sectors such as buildings retrofit, renewable energy generation, and the manufacture of electric vehicles.² In order to fulfil this potential, encouraging workers with relevant skills and expertise to take up 'green' jobs in the short term is pivotal. This includes mid- to late-career workers, who constitute a substantial and growing proportion of the workforce. Approximately one third of the UK workforce is over the age of 50,³ many of whom work

¹ IEMA, UK facing Green skills gap of 200,000 workers, August 2022

² Climate Change Committee, A net zero Workforce, May 2023

³ Ageing Better, The State of Ageing 2023, August 2023

in sectors that are transitioning or phasing down and have valuable transferrable skillsets. Despite this, our research found that many such workers are hesitant to take on these roles, citing concerns such as job insecurity, salary expectations, unclear job descriptions and uncertainty about their qualifications.

'Green jobs' is an unhelpful descriptor lacking a common definition, compounding existing barriers to changing careers

A lack of clarity on what constitutes a 'green' job presents a hurdle for workers. Focus group participants were unable to identify what the term meant and felt they would not be able to undertake associated roles. These roles were seen as too technical and better suited to a younger demographic (recent research has shown young people also lack interest in green jobs, despite feeling strongly about environmental issues⁴). Mid- to late-career workers also report an averseness to switching careers, citing barriers such as a reluctance to retrain, technological capabilities, and low awareness of

opportunities. Though these issues are not unique to green jobs, adding 'green' as a descriptor of a role produced the effect among focus group participants of compounding existing barriers to career switching.

Awareness of local action is poor and many workers in their mid- and late-careers are unsure when green jobs might materialise

The West Midlands, where our focus groups were conducted, is home to several traditional manufacturing industries that are likely to be significantly affected by the transition. Focus group participants, while aware of the narrative around net zero nationally, struggled to identify any actions at a regional or local level to encourage retraining or upskilling, or local opportunities. This was accompanied by a belief that green jobs are 'future jobs' that may not be available until the 2030s. This added to nervousness around career switching, with many mid- to late-career workers planning that their current or next role will be their last before retirement.

Key Recommendations

The UK Industrial Strategy Council and the Office for Clean Energy Jobs should investigate the role of mid- to late-career workers for achieving growth and decarbonisation goals. Greater insights are needed not only on the number, requirements and locations of vacancies, but also the profiles of existing workers who could be encouraged to transition into these roles. Further clarity is required on the transferable skills and qualifications that can be applied in green jobs, and case studies of mid- to late-career workers who have successfully completed such career shifts should be amplified.

Meanwhile, employers seeking to tackle age bias in their recruitment processes should emphasise requirements and pay rather than environmental purpose when promoting green jobs. Job adverts should be clear about what tasks are done in the role, as well as what skills and qualifications are needed to be successful in it.

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⁴ The Prince's Trust, Generation Green Jobs?, November 2023

Introduction

A major effort from both government and employers across the UK will be needed to ensure that our workforce is able to deliver the net zero transition. The Climate Change Committee estimated in 2023 that the transition could create anywhere between 135,000 and 725,000 net new jobs by 2030 alone.⁵ However, the role of mid- to late-career workers in the transition has been conspicuously absent in policy discussions and research. The bulk of existing literature and policy intervention tends to focus on early-career workers, new market entrants, and the education system. Discussions and research largely focus on schooling and the apprenticeship system rather than retraining and career transitioning. For vacancies to be filled before 2030, attention will need to be paid to mid- to late-career workers who can transition into new roles that contribute to our net zero targets. Previous research has found that only 39% of over 55s said they would be interested in going on a green skills training course, lower than any other age group.⁶ However, there are now almost 11 million UK workers aged 50 or over, up 29% from a decade ago, constituting roughly a third of the current workforce.⁷ The UK is projected to have 2.2 million more people aged over 60 by 2030 than in 2023.⁸

This exploratory research attempts to begin filling that gap. Through focus groups in the West Midlands, interviews with policy and business experts, and a review of existing research, we aimed to test

awareness of green jobs amongst mid- to late-career workers, identify the barriers preventing them from taking up such roles, and determine what would encourage their switching to jobs in low carbon sectors. Research from the Resolution Foundation found that 17% of UK workers are currently in roles that face direct change in the nature of their work as a result of the net zero transition, either due to their role changing or their industry 'sunsetting'⁹. Despite this, our research indicated that it is particularly hard to attract mid- to late-career workers into switching careers and entering the fields which are projected to grow because of the net zero transition. This can be attributed to a lower risk appetite than younger workers and a desire for roles that are available immediately.

Context

The shifting impact of net zero on the labour market

The scale of the green jobs challenge is well documented. Approximately 20% of UK workers currently work in sectors (including power, construction, and waste) that will see the biggest changes as a result of the net zero transition over the next decade.¹⁰ The current makeup of green jobs nationally is concentrated in the construction,

5 CCC, A Net Zero Workforce, May 2023

6 Nesta, How to increase the appeal of green skills and training, June 2023

7 Ageing Better, The State of Ageing 2023, August 2023

8 Ibid.

9 Resolution Foundation, Net Zero Jobs, June 2022

10 UK Parliament, Green Skills in Education and Employment, January 2024

manufacturing, agriculture and energy sectors.¹¹ These jobs are most commonly technical, administrative or project management focussed; often requiring a high skill level or a qualification such as a STEM degree. Workers tend to be male, middle aged, highly educated, and concentrated in London and the South East.¹² As the transition continues, there will be different 'shades' of green job; some roles will hardly change, others will be transformed, and entirely new roles will be created.

As we move further into the delivery phase of net zero, and with a new government committed to a rapid increase in the pace of infrastructure delivery, many new roles will be required in the building or the maintenance of infrastructure. These new roles will require lower skill levels and have physical demands, will be spread across the UK, and centred on routine tasks.¹³ Ecuity and LGA analysis estimates that by 2050, most 'green' jobs will be engaged in constructing or installing low-carbon technologies. This amounts to an estimated 491,000 workers or 42% of total low-carbon jobs by 2050. Jobs supporting operations and maintenance are estimated to account for 35% (~410,000) of total jobs by 2050. Around one quarter (~281,000) of jobs will be engaged in manufacturing and producing low-carbon technologies.¹⁴ Examples of in-demand roles include welding, bricklaying, project management, heat pump engineers and retrofit coordinators.

Defining 'green jobs'

'Green job' is a contested term – this report adopts the definition put forth by the Office of National Statistics. Green jobs are: "employment in an activity that contributes to protecting or restoring the environment, including those that mitigate or adapt to climate change."

Green jobs are often categorised as: new and emerging jobs; existing jobs requiring enhanced skills; and existing jobs which are now more in demand. For the purpose of this report, we are primarily focussing on new jobs or transformed jobs.

UK Government has promised a raft of new institutions which will work together to bolster the UK skills landscape: Skills England, the Office for Clean Energy Jobs, the Industrial Strategy Council, and a National Infrastructure and Service Transformation Authority. Our interviews with policy and business experts confirmed the urgency with which government needs to act, with the previously expected Net Zero and Nature Workforce Action Plan having been indefinitely delayed.

With a boom in more productive jobs, we are also likely to see significant local economic growth and inward investment in regional strengths, such as manufacturing for sectors such as offshore wind. Spurred by public investment, such as the £6.2 million earmarked by the government to help the West Midlands reach its target of becoming carbon neutral by 2041, training opportunities and highly productive, well-paying vacancies are likely to arise in

¹¹ Resolution Foundation. Net Zero jobs, June 2022

¹² Ibid.

¹³ Interview, Anna Valero, Grantham Research Institute, June 2024

¹⁴ LGA and Ecuity, Local Green Jobs, June 2021

the region.¹⁵ The key challenge is ensuring that local workers at all career stages are motivated to grasp these job opportunities and are able to access them.

Green jobs have a comms problem

Vacancies for roles supporting the net zero transition are often at a disadvantage when competing against more 'traditional' roles. Research from Nesta and BIT previously found that framing jobs around environmental and social impact does not make them more attractive to mid- to late-career workers.¹⁶ Our groups found that mid- to late-career workers are motivated to change careers primarily by salary, increased job security, utilising existing skills or developing new skills, not necessarily by environmental purpose. This tallies with previous research undertaken by Phoenix Insights which confirmed the importance of salary and a lack of confidence as key considerations for career switching.¹⁷ Phoenix Insights' previous report, *Never Too Late to Learn* also found that for workers over the age of 50, a guaranteed job outcome was a key incentive for retraining or upskilling.¹⁸

Interviews with industry stakeholders revealed that for green jobs, barriers for career switching are more pronounced. Green jobs are not well known or understood, poorly defined, lack clear training or career paths, and compete against more traditional roles which are seen as 'safer bets'. A lack of awareness of retraining opportunities compounds this challenge. These barriers are recognised against

a backdrop of ever more flexible and inclusive job roles in other sectors.



"You used to have to be a strong bloke to be able to do these jobs, but that's not the case anymore. You could be a woman, disabled, not in the country, because the nature of jobs has changed."

WMCA skills and employment lead

Previous research has found that a similar lack of awareness and misconceptions about green jobs meant that the roles were seen as less appealing: associated with lower pay and slower career progression, and not seen as more or less secure than other jobs.¹⁹



"How do you talk to people about these jobs when they don't know what they are, they don't know what they'd be like?... as long as we don't make them visible, then people won't think 'yes, they are for me.'"

WMCA skills and employment lead



"...Huge task in educating the public about the path to net-zero... without a stronger brand, individuals are less likely to consider career opportunities in the home efficiency, automotive and clean power sectors."

Confederation of British Industry

CBI, Skills and training for the green economy, April 2021

15 BBC News, *Region set for net zero neighbourhood rollout*, March 2024

16 Nesta, *How to increase the appeal of green skills and training*, June 2023

17 Phoenix Insights, *Careers Advice for Longer Lives*, May 2023

18 Phoenix Insights, *Never Too Late to Learn*, October 2022

19 Public First, *Generation Green Jobs*, November 2023

There is a widespread lack of confidence in the stability provided by green job opportunities. Our interviewees who worked in local authorities suggested that it was particularly hard to attract mid- to late-career workers to green jobs because their appetite for risk was lower than that of workers earlier in their career. Additionally, mid- to late-career workers are primarily seeking roles which are available *now*, as opposed to young people who may be more willing to train for roles that will be in high demand in five years' time. We have not identified prior research covering this topic in the UK.



"You'd have to know that very quickly it can turn into a job... the idea that in five or ten years a job will be there is not enough of an incentive."

WMCA skills and employment lead

All interviewees agreed that the vagueness of the term 'green jobs' complicates recruitment, citing the Environmental Audit Committee's 2021 report calling on the Government to provide greater clarity on defining green jobs, their geographies, sectors, and functions.²⁰ Communicating the benefits of these jobs to workers across demographics is vital, but Government has not yet made progress in responding to the Committee's recommendations. IEMA's polling finds that 64% of people don't understand the term 'green job', while 65% believe they do not have access to green skills training.



"There's real uncertainty about the level of demand for these jobs and skills... and that definitely puts them off training. Even for those making much smaller changes."

Demos Researcher

Why the West Midlands

To understand the attitudes of mid- to late-career workers who are likely to be affected by the transition, we carried out two focus groups in the West Midlands. We chose this region because of its economy's weighting towards high carbon, energy intensive industries, including metals, cement, construction products, automotive, and ceramics. The region has taken proactive steps to decarbonise, such as development of the West Midlands Combined Authority's Climate Action Plan and launch of the Black Country Industrial Decarbonisation Programme.^{21 22} These plans highlight the significant challenges that West Midlands businesses face in decarbonising, including upgrading machinery, high electricity costs, and process / fuel switching. This limits capacity for upskilling and transitioning staff.

Efforts to decarbonise the region are set against the backdrop of decades-long industrial decline. Since 1996 more than 260,000 manufacturing jobs have been lost in the West Midlands.²³ While the region has a large existing automotive industry, it enjoys fewer of the geographical advantages needed for international trade compared to the UK's coastal

20 Environmental Audit Committee, Third Green Jobs Report, October 2021

21 LGA and Ecuity, Local Green Jobs, June 2021 / WMCA, Response to net zero call for evidence, August 2023

22 WMCA, Green Industrial Revolution, September 2022

23 Onward, Green Jobs, Red Wall, December 2022

industrial hubs. Challenges in being connected to low carbon energy infrastructure (offshore wind, carbon capture and storage, and hydrogen) also persist.

The region also has relatively poor growth and low skills levels. It has the lowest productivity per hour and the lowest job density of any of England's LEP areas, while over half of working age Black Country residents have only level 1 or level 2 qualifications.²⁴ To secure jobs in the West Midlands, national and devolved government needs to take a more 'hands-on' approach, a theme which emerged from our interviews with key local stakeholders.

Given this backdrop, the West Midlands provides a compelling case study for the skills gaps holding back the net zero transition. The views of its workers are particularly important when considering how government and businesses can tackle this challenge.

Defining 'changing careers'

Careers can change in many different ways, whether it's a total 360 degree pivot or more of a slight shift in direction; whether it's by choice, at a time of someone's choosing, or involuntary due to factors more outside of someone's control.

Here, we include **internal shifts** (a change of role and team but staying with current employer), **functional shifts** (new job, new employer, different tasks, but same industry), and **total reinventions** (new job, new employer, different tasks within a different industry) all as examples of changing careers, so long as the new role contributes to national and / or international climate goals.²⁵

Findings from Focus Groups

Our focus groups found that mid-to late-career workers:

1. Are more aware of the national narrative around net zero and job creation than activity in their local area.
2. Are noticing that their work is becoming more environmental, but don't expect to see drastic changes.
3. Doubt they would be qualified for most green jobs; though they believe that they have transferable skills they could contribute.
4. Are expecting new green jobs to be more suited to and appealing for young people and those already working in low-carbon sectors.
5. Are reluctant to change career into green jobs due to their lack of knowledge about roles and their perceived insecurity. They are unsure about what 'green jobs' means in reality.

We explore each of these five findings in more detail before identifying recommendations for policymakers, employers and industry associations.

1. Mid- to late-career workers are more aware of the national narrative around net zero and job creation than activity in their local area

Almost all participants were aware of UK's target to achieve net zero by 2050, with many expressing that they felt passionately about doing 'their bit' for the next generation. Despite this, there was limited awareness of how the West Midlands specifically was

²⁴ Demos, Net Zero to Level Up, March 2023

²⁵ Phoenix Insights, When is a career change not a career change, August 2024

contributing to reducing emissions, as well as the jobs which would be associated with this.



“The industrial revolution in the West Midlands is long gone. It’s not like we’re the centre of that kind of industry anymore. So I suspect it’ll be pretty much the same for the West Midlands as any other large city in the UK[...] banking and insurance.”

Male, aged 47, IT manager, A Levels

Participants were aware of the region’s historic industrial footprint and largest employers, but were either unaware of progress with decarbonising, or thought that progress was slow.

2. Mid- to late-career workers are noticing that their work is becoming more environmental, but don’t expect to see drastic changes

Almost all participants were aware of UK’s target to achieve net zero by 2050, with many expressing that they felt passionately about doing ‘their bit’ for the next generation. Despite this, there was limited awareness of how the West Midlands specifically was

contributing to reducing emissions, as well as the jobs which would be associated with this.



“We really push for net zero, we’re putting more efficient networks out there...but I’m a software guy and that’s going to be the same irrespective, it’ll just be a different software language or a different company I’m working for.”

Male, aged 47, IT manager, A Levels

Many anticipated that any significant changes were likely to come into effect after they had personally retired. They therefore saw new opportunities or changes to their current roles as peripheral to their career plans.



“I think it’s maybe a generational thing ...as soon as I reached 50 I was looking towards retirement.”

Male, aged 55, education officer, A Levels

This was a more pronounced factor among the older focus group, with more participants viewing their current role as their last before retirement.

Focus group methodology

We conducted two focus groups in June 2024 in the West Midlands. Both groups were 75 minutes long, with the following criteria. Participants all:

- Live in the West Midlands
- Are open to career change
- Are neutral or supportive towards the government’s net zero target
- Come from a mix of educational backgrounds, genders, occupations and socio-economic groups

The two groups were differentiated by age, to explore divergences in attitudes:

- 40-50 year olds
- 55-65 year olds

3. Mid- to late-career workers doubt they would be qualified for most green jobs; though they believe they have transferable skills they could contribute

There was a clear distinction in the groups between their views on having skills that could be applied in a green job and being qualified for a green job. Most felt that they did not have the transferable qualifications to be accepted into green job roles. This was particularly clear for more technical roles and for people who did not have a university degree.



“The younger kids coming through college now, this is going to appeal to them because it’s all they know. Whereas for people who are older, we’re kind of stuck in our ways, and we’re going to be a bit worried about transferring over, but for kids in school now and getting their qualifications it’ll be normal.”

Male, aged 50, factory worker, GCSEs



“There is nothing there that I would even be able to do so none of them would fit me at all... I wouldn’t have the skills for any of those jobs... you’re going to have to have qualifications and you know a degree. I don’t have a degree. They sound like very high up jobs.”

Female, aged 46, carer, GCSEs

However, despite scepticism amongst some, the groups were positive about potential ways that their skills might contribute to environmental goals. This was particularly evident for people in more senior roles who had experience in management, leadership and decision making.



“Every single one of us could do probably any of these jobs. It’s just that we convinced ourselves that we can’t.”

Female, aged 61, carer, GCSEs



“Management level [or] strategic level I could probably help with or do, and I would enjoy it.

The hands on building things? I wouldn’t go anywhere near anything I’d built.”

Male, aged 55, IT consultant, A Levels

4. Mid- to late-career workers are expecting new green jobs to be more suited to and appealing for young people and those already working in low-carbon sectors

Several participants expressed that the green jobs on offer in the West Midlands would be more suited to younger people. As older workers, they doubted that they would be successful if applying for these roles.



“Going to one of these places, they’re not going to look at me, they can look at the 20 to 30 year olds.”

Male, aged 62, support worker, A Levels



[when asked if they would move industry] “Well that’s the scariest part because I’ve been in the industry I’ve been in for 20 years now... I think it’s quite daunting to move away from what you know.”

Male, aged 38, area manager, A Levels

There was also the perception that green jobs were more likely to be suited to people already working in similar industries rather than those undertaking a full career change.



"I think if you're in the industry, it'll be attractive to you... if you're working in that sector, for example construction or for Jaguar it might sound attractive because it's what you're used to... but for someone like me in my sector, I wouldn't."

Female, aged 46, carer, GCSEs



"I don't know why when I've got a job that I've got the skills for, and then go into a manual role. Because it's just not me, and you'd have so many other people that were better than me... Why would I completely change my trajectory from what I do now to something that I'm not naturally good at? You wouldn't want me making a car or anything, trust me."

Male, aged 38, area manager, A Levels

There was often a disconnect between what participants felt they could do to be more sustainable in their personal lives and what they could do for work. For many, there was more interest in how they could change their personal behaviours than changing careers into a green job.

5. Mid- to late-career workers are reluctant to change career into green jobs due to their lack of knowledge about roles and their perceived insecurity. They are unsure about what 'green jobs' means in reality.

The lack of information about what roles involved, including salary, working hours and skills and

qualifications needed to do the job, was the biggest barrier for focus group participants.



"Information about the role, working hours, qualification skills and salary, because that's the one that means you ultimately will make a decision as to whether you're going to do anything. So that's got to be first and foremost."

Male, aged 47, IT manager, A Levels

The label 'green jobs' was ambiguous for many focus group participants. They perceived associated roles as offering lower salaries and requiring them to spend time and money on retraining. Therefore, many shared that they would need a significant incentive to move from their current role into a green job.



"I could be a project manager. But I'd have to retrain in the same industry that I'm in to get to the level that I'm already at. So there's no point doing that."

Female, aged 44, quantity surveyor, degree



"It's not so much that it's significant training... Unless I was out of work and needed to find a job quickly it's not something I would do. You get to a point in your career and ask do you really want to reskill to do something that pays you less? That I am not going to do."

Male, aged 47, IT manager, A Levels

Recommendations

- **Employers should emphasise requirements and pay rather than environmental purpose when promoting green jobs.**
 - Take care when including technical language or terms such as 'green' or 'net zero' in advertisements; these can be ambiguous and alienating for many mid- to late-career workers, particularly those who view their current role as one they are likely to maintain until retirement. Job adverts should be clear about what tasks are done in the role as well as what skills and qualifications are needed to be successful in it. They must also be upfront about the pay and flexible working arrangements of the job since these are essential pieces of information for mid- to late-career workers. A useful resource that can support employers to reduce age bias in recruitment is the 'Good Recruitment for Older Workers Toolkit', produced by the Centre for Ageing Better.
- **The UK Industrial Strategy Council and the Office for Clean Energy Jobs should investigate the role of mid- to late-career workers for achieving decarbonisation and economic growth goals**
 - Working with Skills England, the Department for Education, the Department for Business and Trade, and industry, greater insights are required on the workforce we need. This should include not only the number, requirements and locations of vacancies across sectors, but also the profiles of existing workers who could be encouraged to transition into these roles.
 - Improved labour market intelligence can in turn support a strategic approach to retraining programmes, developing effective incentives, and promoting awareness in priority sectors and regions.
- **The Office for Clean Energy Jobs, working with Skills England and the Department for Education, should develop greater clarity on the transferable skills and qualifications that can be applied in green jobs, and amplify case studies of mid- to late-career workers who have successfully completed such career shifts.**
 - Case studies can demonstrate how the interpersonal and organisational skills gained from working in other sectors can be applied to jobs in a net zero economy, such as retail skills used by retrofit coordinators. This may be particularly effective for women who, in our focus groups, were less likely to see themselves making the transition into a green job.
- **The government and employers should ensure training programmes can be completed flexibly, and have tangible prospects.**
 - Intensive training can be inaccessible for some mid- to late-career workers; retraining programmes should seek to offer more flexibility and improve access. To boost demand, skills programmes should highlight the tangible job prospects attached to them.