ENERGY & UTILITY SKILLS

Workforce demand estimates – 2026 to 2032
Community and Domestic Low Carbon Technologies

Summary report
November 2026



Workforce demand estimates – 2026 to 2032

Community & Domestic Low Carbon Technologies

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Community and Domestic Low Carbon Technologies 2026 – 2032

Skills to deliver the UK's future

ENERGY & UTILITY SKILLS

Turning workforce evidence into action for a resilient community and domestic low carbon technologies sector.

Our ambition
A resilient community and domestic low carbon technologies sector that keeps the UK healthy, supports growth and protects the environment.

Our Growth
Creating jobs, skills and investment to deliver vital infrastructure across the UK.

Our Opportunity
Good careers. Stronger communities. A cleaner, greener future.

Research
Trusted evidence for action renewed every two years.

Core requirement of **116,800** people by 2032 — **77%** of the current workforce

Robust workforce evidence to guide investment and delivery.

- Credible, transparent forecasts and methodology.
- A consistent framework for monitoring industry progress and the accuracy of our forecasts.
- Insight across sub-industries, geographies, skill levels and occupations.

Trusted insights to inform decisions today and tomorrow.

Attract
Bring new people into the industry.

We forecast **89,300** new jobs by 2032 — **59%** growth in total employment

That's around **12,800** new jobs each year.

- More apprenticeships and training opportunities.
- A diverse and inclusive workforce.
- Rewarding, meaningful careers.

Attracting new talent is essential to deliver a safe, reliable and resilient community and domestic low carbon technologies sector.

Develop
Grow skills and embrace new technology.

Core requirement of **70,400** at RQF 3/SCQF 6 by 2032 — **71%** of the current workforce

Split across 58,100 in technical occupations and 12,300 in business support occupations.

- Increase productivity through innovation and technology.
- The adoption of AI and automation could reduce the core requirement by up to 3,200 people.

A more productive, higher skilled workforce that can deliver more.

Retain
Keep and develop our talented people.

We expect **27,400** retirements by 2032 — That's **18%** of today's workforce – around **3,900** people each year

- Improve job quality, health, safety and well-being.
- Create clear career pathways and progression.
- Through continuous improvement in workforce retention the industry could mitigate the effect of normal staff turnover by up to **33,800 people**.

Retaining our people protects expertise, builds stronger teams and keeps the sector moving forward.

Real economic impact. Stronger communities.

Growth as a % of current workforce
Northern Ireland = **72%**
Scotland = **62%**
England = **59%**
Wales = **48%**

89,300 new jobs could create **£3.6 billion** of additional earnings.

By 2032, total GVA could reach between **£22 billion** and **£41 billion.**

1 About this report

1.1 Introduction

1.1.1 This report is one in a series that contain current workforce estimates and forecasts for the number of new jobs and people required across the UK energy and utilities sector between 2026 and 2032 inclusive, including:

- **Energy and utilities sector** (containing the aggregate analysis from across all six industries of the sector)
- **Community & domestic low carbon technologies** (including community and district heating, and the installation and repair of domestic gas boilers, heat pumps, smart meters, solar PV and battery storage and EV chargepoints)
- **Electricity networks** (including electrical equipment manufacturing, construction and installation, operation and maintenance and the trade of electricity)
- **Gas networks** (including the manufacture, distribution and retail trade of gas through the networks)
- **Power generation** (including thermal power and clean energy technologies)
- **Waste and recycling** (including the collection, treatment, disposal and recycling of waste)
- **Water and wastewater** (including the collection, treatment and supply of water; sewerage; the construction of water assets)

1.1.2 This report focuses on the UK's domestic low carbon technologies industry, which includes:

- Community and district heating
- Gas utilisation
- Heat pumps
- Smart meters
- Solar PV and battery storage
- EV chargepoints

1.2 From workforce evidence to strategic action

1.2.1 This report provides a factual estimate of the workforce required by the UK Community & Domestic Low Carbon Technologies industry between 2026 and 2032. Its central purpose is to identify the gap between the number and mix of people the industry will require and the workforce available to meet that requirement.

1.2.2 The findings support the four pillars of the Energy and Utilities Skills Strategy 2025-2030[1] in distinct ways:

- **Research** provides the definitions, evidence, methodology and update cycle that make the estimates credible
- **Attract** identifies the core requirement for additional jobs and replacement of people retiring from the workforce
- **Develop** considers how productivity, artificial intelligence, automation and new working methods could reduce or reshape that requirement
- **Retain** shows how movement out of the industry could increase the number of new people who must be recruited.

1.2.3 These pillars are not separate forecasts. **Attract** provides the central workforce requirement, while **Develop** and **Retain** test the factors that could move it. **Research** establishes the credibility of the forecasts.

[1] https://euskills.co.uk/about/our-strategy/

2 Industry headlines

Figure 1: Current workforce estimates and forecast number of new jobs created, retirements and the total core requirement for people by 2032

Sub-Industry	Total employment		New jobs created		Retirements		Core requirement for people		
	2025 baseline	2032	Number	% Growth	Number	% of current workforce	Total	% of current workforce	Average per year
Community/district heating	3,600	23,900	20,300	*561%*	2,100	*56%*	22,400	*617%*	3,200
Gas utilisation	130,000	177,600	47,600	*37%*	21,300	*16%*	69,000	*53%*	9,900
Heat pumps	4,500	21,700	17,100	*378%*	2,000	*44%*	19,100	*422%*	2,700
Smart meters	6,300	6,900	600	*9%*	900	*14%*	1,400	*23%*	200
Solar PV & battery storage	5,000	7,100	2,100	*43%*	800	*16%*	2,900	*59%*	400
EV chargepoints	1,600	3,300	1,600	*98%*	300	*21%*	2,000	*119%*	300
Domestic Low Carbon Technologies	**151,000**	**240,400**	**89,300**	*59%*	**27,400**	*18%*	**116,800**	*77%*	**16,700**

Note: Figures may not sum to the grand total due to rounding.

2.1 Attract: The core workforce requirement

2.1.1 Community & domestic Low Carbon Technologies has a core requirement for 116,800 people by 2032, equivalent to 77% of the current workforce. Employment is projected to increase from 151,000 to 240,400, creating 89,300 new jobs (59% growth), alongside 27,400 retirements.

2.1.2 Annual workforce demand remains consistently high, rising from 16,300 people in 2026 to a peak of 17,200 in 2029, before falling to 16,200 in 2031 and recovering slightly to 16,500 in 2032.

2.1.3 New job creation is the main driver of workforce demand throughout the period, although its contribution declines towards 2032. New jobs fall from 13,100 in 2026 to 11,900 in 2032, while retirements rise steadily from 3,200 to 4,600, meaning workforce replacement becomes an increasingly important part of annual demand.

Figure 2: Core requirement for people by year and cause



Note: Figures may not sum to the grand total due to rounding.

2.2 Develop: Potential impact of artificial intelligence and automation on 'At Risk of Reduction' occupations

2.2.1 Section 3 below systematically assesses how artificial intelligence, automation and associated technologies might affect workforce demand across individual occupations. It applies low, medium and high adoption scenarios across seven dimensions of technological adoption and classifies each occupation according to whether workforce demand is *At Risk of Reduction, Significantly Impacted, Augmented* or subject to *Limited Impact*.

2.2.2 The following occupations are *At Risk of Reduction* in their core workforce requirements as a result of these new technologies:

- 71 - Sales Occupations
- 72 - Customer Service Occupations
- 41 - Administrative Occupations
- 42 - Secretarial and Related Occupations
- 92 - Elementary Administration and Service Occupations
- 34 - Culture, Media and Sports Occupations
- 62 - Leisure, Travel and Related Personal Service Occupations

2.2.3 Together, these occupations have a core requirement of 17,800 people by 2032, equivalent to 15% of the overall core requirement. This identifies the part of the forecast most exposed to potential workforce demand reduction; it does not imply that the core requirement for people by 2032 could be reduced by 17,800.

2.2.4 Our analysis indicates that the potential impact of AI and automation on the *At Risk of Reduction* occupations (listed in paragraph 2.2.2 above) could be:

- 360 people under the low adoption scenario (equivalent to a reduction of up to 2%)
- Between 530–1,420 under the medium adoption scenario (equivalent to a reduction of between 3% to 8%)
- Between 1,600–3,200 under the high adoption scenario (equivalent to a reduction of between 9% to 18%)

2.2.5 These are illustrative sensitivity assumptions rather than forecasts of job losses.

2.2.6 Section 3 presents the detailed occupation-level assessment under each adoption scenario, with the full analytical framework set out in Annex A2.4.

2.3 Retain: Replacement demand sensitivity

2.3.1 In addition to the core requirement for people based on new job creation and retirements, we must consider the extent to which people might leave the workforce in order to take up employment in other sectors of the economy (or move overseas).

2.3.2 For this analysis we have not included any vacancies that may be created by one person leaving their job in the Domestic Low Carbon Technologies industry and taking up another position within the same industry.

2.3.3 As detailed in Annex 2.2, we have assumed a proportion of the workforce will leave each year for reasons other than retirement – these annual proportions range from 2% to 5% depending on the occupation.

2.3.4 In total, in addition to the core requirement for 116,800 people by 2032, an additional 33,800 people may be needed to fill vacancies by those who leave the workforce for other reasons

Figure 3: Potential additional vacancies (over-and-above the core requirement)

Sub-Industry	Number	*% of current workforce*
Community/district heating	2,800	*77%*
Gas Utilisation	26,100	*20%*
Heat Pumps	2,400	*54%*
Smart meters	1,100	*17%*
Solar & Battery	1,000	*20%*
EV Chargepoints	400	*25%*
Domestic Low Carbon Technologies	**33,800**	***22%***

Note: Figures may not sum to the grand total due to rounding.

2.3.5 The challenge for the industry will be to minimise these additional vacancies, while recognising that some level of staff turnover is generally considered positive in terms of bringing in a diversity of people, experiences and ideas. Commitment 3: Retain experience and widen access to opportunity in the Call to Action below provides further information on how the sector might achieve improvements in workforce retention.

2.4 Research: Maintaining the credibility of these forecasts

2.4.1 Workforce demand estimates for the energy and utilities sector were first published in 2024 and will be updated every two years. However, this is the first time we have produced forecasts for the Domestic Low Carbon Technologies industry.

2.4.2 In our next update, in 2028, we will assess how those forecasts compare to those in this report, as we have done in other industry reports. Our aim, wherever possible, is to improve the accuracy of these workforce demand estimates with each update.

2.5 Potential for a reduced core requirement for people based on multiple competencies in the workforce

2.5.1 The forecasts presented above and throughout this report have been derived for each sub-industry independently of each other. No account is taken of the potential for a worker to become competent in multiple sub-industries – e.g. in the installation of gas heating systems (gas utilisation) and heat pumps. As such, these sub-industry forecasts stand-alone and the industry aggregate reflects this.

2.5.2 However, we do recognise that in the real world some installers do become competent in the installation of multiple technologies. Our research suggests that this is likely to affect:

- Gas utilisation engineers and heat pump installers (this is assumed to be the strongest overlap)
- Solar/battery and EV chargepoint installers (high potential overlap, but limited at the moment)
- Heat pumps and solar/battery installers (some overlap, usually through multi-trade businesses)

2.5.3 In order to estimate the potential reduction in the number of people needed across these sub-industries due to workers obtaining multiple competencies and effectively working in more than one sub-industry, we took the gas utilisation workforce as the starting point and estimated the potential overlap with heat pumps, solar/battery and EV chargepoints. We have assumed there is no overlap in competencies between these technologies and community/district heating and smart meter installers.

2.5.4 Based on our analysis, we forecast that the core requirement for people across these sub-industries could be reduced by up to 11,100 (10%) people – from 116,800 to 105,300 as a result of installer becoming competent in multiple technologies.

Figure 4: Estimated impact of people obtaining multiple competencies on the core requirement for people

Sub-Industry	Core requirement for people	Assumed overlap rate with Gas utilisation	Duplicate positions removed	Revised core requirement for people
Community/district heating	22,400	0%	0	22,400
Gas Utilisation	69,000	N/A	N/A	69,000
Heat Pumps	19,100	50%	9,600	9,100
Smart meters	1,400	0%	0	1,400
Solar & Battery	2,900	15%	400	2,500
EV Chargepoints	2,000	55%	1,100	900
Total	**116,800**	--	**11,100**	**105,300**

Note: Figures may not sum to the grand total due to rounding.

2.6 Nations and regions

2.6.1 England accounts for the majority of workforce demand, requiring 96,400 of the 116,800 people needed by 2032.

2.6.2 Northern Ireland faces the greatest relative workforce pressure, with a core requirement of 4,000 people, equivalent to 91% of its current workforce. This compares with 81% in Scotland, 77% in England and 65% in Wales.

2.6.3 London has the largest regional workforce requirement at 20,700 people, followed by the South East (17,100) and North West (12,100).

Figure 5: Current workforce estimates and forecast number of new jobs created, retirements and the total core requirement for people by 2032 by nation and region

Nation & Region	Total employment		New jobs created		Retirements		Core requirement for people		
	2025 baseline	2032	Number	*% Growth*	Number	*% of current workforce*	Total	*% of current workforce*	Average per year
England	124,900	198,600	73,700	*59%*	22,600	*18%*	96,400	*77%*	13,800
Northern Ireland	4,400	7,600	3,200	*72%*	900	*19%*	4,000	*91%*	600
Scotland	14,100	22,900	8,800	*62%*	2,600	*18%*	11,400	*81%*	1,600
Wales	7,600	11,300	3,600	*48%*	1,300	*17%*	5,000	*65%*	700
United Kingdom	**151,000**	**240,400**	**89,300**	***59%***	**27,400**	***18%***	**116,800**	***77%***	**16,700**
English regions									
East of England	13,000	19,900	6,900	*53%*	2,300	*18%*	9,200	*71%*	1,300
East Midlands	8,900	12,900	4,000	*45%*	1,500	*17%*	5,500	*62%*	800
London	15,900	33,100	17,200	*108%*	3,500	*22%*	20,700	*130%*	3,000
North East	7,600	11,200	3,500	*46%*	1,300	*17%*	4,800	*63%*	700
North West	18,800	27,700	8,900	*47%*	3,200	*17%*	12,100	*64%*	1,700
South East	22,600	35,600	13,000	*58%*	4,100	*18%*	17,100	*76%*	2,400
South West	15,500	23,300	7,900	*51%*	2,700	*18%*	10,600	*68%*	1,500
West Midlands	9,500	14,600	5,100	*54%*	1,700	*18%*	6,800	*72%*	1,000
Yorkshire & The Humber	13,100	20,300	7,200	*55%*	2,300	*18%*	9,600	*73%*	1,400

Note: Figures may not sum to the grand total due to rounding.

2.7 Skills and occupations

Skill levels

2.7.2 RQF 3 occupations have by far the largest core workforce requirement, requiring 70,400 people by 2032.

2.7.3 RQF 6 and RQF 7–8 occupations have the next-largest requirements, at 13,200 and 12,700 people respectively. Together with RQF 3, these levels account for 96,300 people, around 82% of the core requirement.

2.7.4 RQF 2 occupations face the greatest pressure relative to their current workforce, with a core requirement for 3,900 people, equivalent to 132% of the existing workforce. RQF 1 also faces substantial pressure at 111%, followed by RQF 4–5 at 91%.

Figure 6: Current workforce estimates and forecast number of new jobs created, retirements and the total core requirement for people by 2032 by skill level

RQF/SCQF Level	Total employment		New jobs created		Retirements		Core requirement for people		
	2025 baseline	2032	Number	*% Growth*	Number	*% of current workforce*	Total	*% of current workforce*	Average per year
RQF 7-8 SCQF 11-12	14,800	24,300	9,400	*64%*	3,300	*22%*	12,700	*86%*	1,800
RQF 6 SCQF 9-10	17,100	28,100	11,000	*64%*	2,200	*13%*	13,200	*77%*	1,900
RQF 4-5 SCQF 7-8	9,400	16,500	7,200	*76%*	1,300	*14%*	8,500	*91%*	1,200
RQF 3 SCQF 6	99,500	151,600	52,100	*52%*	18,300	*18%*	70,400	*71%*	10,100
RQF 2 SCQF 5	2,900	6,300	3,300	*115%*	500	*17%*	3,900	*132%*	600
RQF 1 SCQF 4	7,300	13,600	6,300	*865*	1,800	*25%*	8,100	*111%*	1,200
Domestic Low Carbon Technologies	**151,000**	**240,400**	**89,300**	*59%*	**27,400**	*18%*	**116,800**	*77%*	**16,700**

Note: Figures may not sum to the grand total due to rounding.

2.7.5 The next figure breaks these annual numbers down by skill level.

Figure 7: Core requirement for people by skill level and year



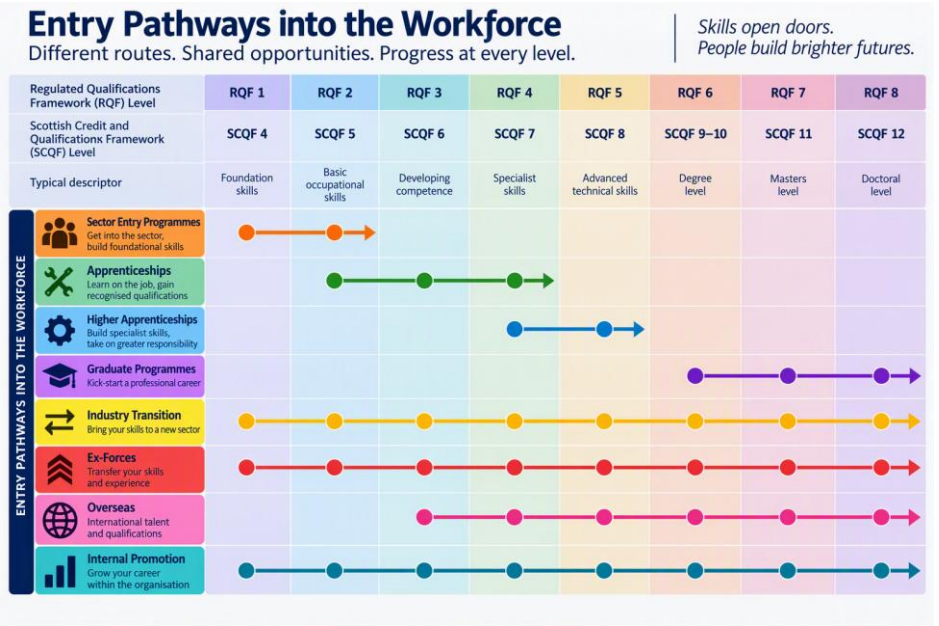
Note: Figures may not sum to the grand total due to rounding.

2.7.6 The entry pathways into the workforce will vary depending upon the skill level of the occupation. Each entry pathway will have its unique characteristics in terms of lead-time to competency and entry point into the workforce.

2.7.7 At skill levels 1 and 2 (4-5 in Scotland), sector entry-type programmes could provide an immediate solution. At skill levels 3-5 (6-8 in Scotland), a number of entry pathways may be appropriate, but lead-times to competency will determine the extent to which they are able to satisfy immediate demands (e.g. with training lead-times of 3 years+ for an apprentice (and the associated need for trainers, assessors and mentors), increasing the volume in the pipeline now will not produce positive outcomes until the turn of the decade).

2.7.8 Transitioning in experienced workers from other sectors will be a priority, as will developing the existing workforce and enabling career progression via internal promotions. However, this process cannot be rushed to point where people are promoted prematurely.

Figure 8: Potential entry pathways into the workforce



2.7.9 Industry will make use of range of different recruitment and training pathways, providing a balanced approach to meeting both short-term and longer-term demands for people.

Occupations

2.7.10 This analysis is based on UK's Standard Occupational Classification system at the two-digit – sub-major group – level.

2.7.11 All our estimates and forecasts have been broken down by 26 occupations – based on the two-digit Standard Occupational Classification taxonomy. Furthermore, these have been grouped into five occupational groups (more information can be found in Annex 1 below):

- **Managerial**: Directors and functional managers
- **Technical Professional**: Typically, science and engineering professional engineers
- **Business Support**: Typically, roles including media, marketing, site security, and specialist roles such as quantity surveyor, estimator and procurement
- **Front Line Technical**: Typically, operative and craft level workers such as installers, electricians, plant operatives, etc.
- **Other**: In the main, these occupations are generally not directly relevant to the core activities of the industry, but data collection processes may result in a small number of people being reported (e.g. nurses/first aiders, community development specialists, etc.).

2.7.12 Front Line Technical occupations have by far the largest core workforce requirement, requiring 64,200 people by 2032.

2.7.13 Business Support has the second-largest requirement at 28,100 people, followed by Managerial occupations at 12,800 and Technical Professional occupations at 11,400. Front Line Technical and Business Support together account for 92,300 people, around 79% of the core requirement.

2.7.14 Figure 10 below breaks down these broad occupational groups into 26 two-digit SOC.

Figure 9: Current workforce estimates and forecast number of new jobs created, retirements and the total core requirement for people by 2032 by broad occupational group

Broad Occupational Group	Total employment		New jobs created		Retirements		Core requirement for people		
	2025 baseline	2032	Number	*% Growth*	Number	*% of current workforce*	Total	*% of current workforce*	Average per year
Managerial	14,800	24,300	9,500	*64%*	3,300	*22%*	12,800	*86%*	1,800
Technical Professional	15,300	24,900	9,600	*63%*	1,800	*12%*	11,400	*75%*	1,600
Business Support	31,900	54,100	22,200	*70%*	5,800	*18%*	28,100	*88%*	4,000
Front Line Technical	88,600	136,400	47,800	*54%*	16,400	*19%*	64,200	*72%*	9,200
Other	400	700	200	*55%*	100	*19%*	300	*74%*	<100
Domestic Low Carbon Technologies	**151,000**	**240,400**	**89,300**	***59%***	**27,400**	***18%***	**116,800**	***77%***	**16,700**

Note: Figures may not sum to the grand total due to rounding.

Figure 10: Current workforce estimates and forecast number of new jobs created, replacement demand and new people required by occupation

Skill level	Standard Occupation Classification (Sub-Major Group)	Total employment		New jobs created		Retirements		Core requirement for people		
		2025 baseline	2032	Number	% Growth	Number	% of current workforce	Total	% of current workforce	Average per year
RQF 7-8 SCQF 11-12	11 - Corporate Managers and Directors	13,400	21,800	8,300	62%	2,900	22%	11,300	84%	1,600
	12 - Other Managers and Proprietors	1,400	2,600	1,200	82%	300	24%	1,500	105%	200
RQF 6 SCQF 9-10	21 - Science, Research, Engineering and Technology Professionals	12,500	19,800	7,400	59%	1,400	11%	8,800	70%	1,300
	22 - Health Professionals	0	0	0	--	0	--	0	--	0
	23 - Teaching and Other Educational Professionals	0	0	0	--	0	--	0	--	0
	24 - Business, Media and Public Service Professionals	4,600	8,300	3,600	79%	800	16%	4,400	95%	600
RQF 4-5 SCQF 7-8	31 - Science, Engineering and Technology Associate Professionals	2,800	5,100	2,200	79%	400	15%	2,700	95%	400
	32 - Health and Social Care Associate Professionals	<100	<100	<100	123%	<100	25%	<100	147%	<100
	33 - Protective Service Occupations	100	100	100	123%	<100	12%	100	135%	<100
	34 - Culture, Media and Sports Occupations	100	100	<100	123%	<100	15%	<100	138%	<100
	35 - Business and Public Service Associate Professionals	6,500	11,300	4,800	74%	900	14%	5,700	88%	800
RQF 3 SCQF 6	41 - Administrative Occupations	13,600	21,400	7,800	57%	2,700	20%	10,400	77%	1,500
	42 - Secretarial and Related Occupations	2,000	3,100	1,200	59%	600	28%	1,700	87%	200
	51 - Skilled Agricultural and Related Trades	<100	200	100	561%	<100	111%	200	672%	<100
	52 - Skilled Metal, Electrical and Electronic Trades	22,800	39,600	16,800	74%	4,400	19%	21,200	93%	3,000
	53 - Skilled Construction and Building Trades	60,900	87,000	26,100	43%	10,600	17%	36,700	60%	5,200
	54 - Textiles, Printing and Other Skilled Trades	100	200	100	47%	<100	17%	100	64%	<100
	61 - Caring Personal Service Occupations	300	400	200	55%	100	19%	200	75%	<100
	62 - Leisure, Travel and Related Personal Service Occupations	0	0	0	--	0	--	0	--	0
	63 - Community and Civil Enforcement Occupations	0	0	0	--	0	--	0	--	0
RQF 2 SCQF 5	71 - Sales Occupations	700	1,400	600	89%	100	19%	800	108%	100
	72 - Customer Service Occupations	1,900	4,500	2,600	133%	300	16%	2,900	149%	400
RQF 1 SCQF 4	81 - Process, Plant and Machine Operatives	1,400	3,300	1,900	141%	400	31%	2,300	171%	300
	82 - Transport and Mobile Machine Drivers and Operatives	1,500	3,100	1,600	110%	600	38%	2,200	148%	300
	91 - Elementary Trades and Related Occupations	2,000	3,200	1,200	58%	400	21%	1,600	79%	200
	92 - Elementary Administration and Service Occupations	2,400	3,900	1,500	63%	500	19%	2,000	82%	300
Domestic Low Carbon Technologies		**151,000**	**240,400**	**89,300**	**59%**	**27,400**	**18%**	**116,800**	**77%**	**16,700**

2.7.15 The figure below ranks each of the above occupations in terms of their level of priority through to 2032 based on a range of ten criteria (including taking in account each occupation's importance to delivery and level of shortage in the UK) – those ranked as low priority are not shown.

2.7.16 Three occupations are ranked as critical:

- 52: Skilled metal, electrical and electronic trades
- 53: Skilled construction and building trades
- 21: Science, research, engineering and technology professionals

2.7.17 These occupations are likely to be major constraints on infrastructure delivery by 2032 because they combine high delivery criticality, existing shortages, long training lead times, regulatory importance and limited scalability. It is likely that immediate intervention is required, including targeted workforce strategies, apprenticeships, retraining programmes, recruitment campaigns and supply-chain action.

2.7.18 By 2032, these three critical occupations will employ an additional 34,000 people and need to attract 66,700 new people to enter their workforces.

2.7.19 Four occupations are ranked as high priority:

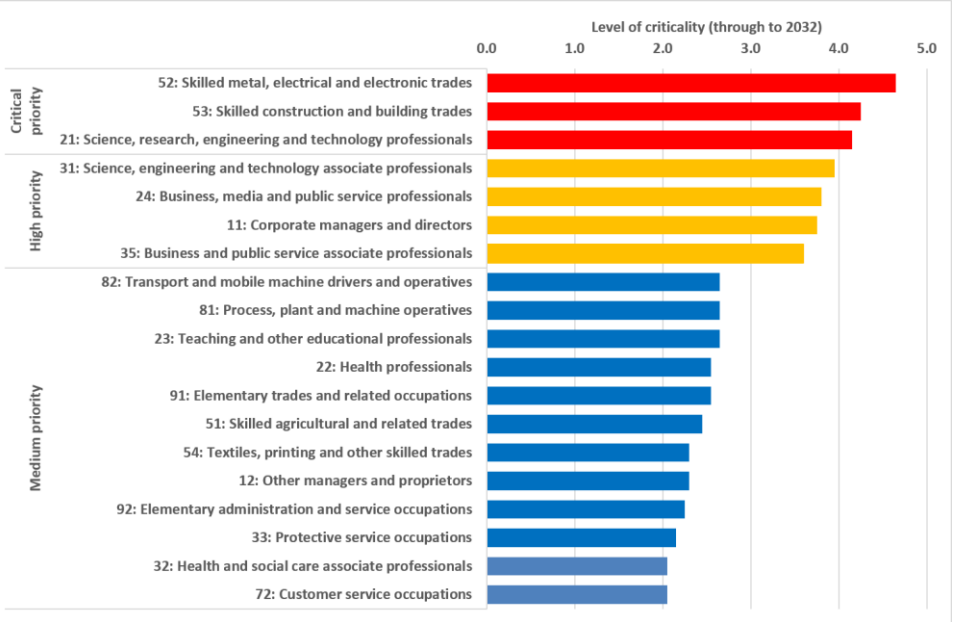
- 31: Science, engineering and technology associate professionals
- 24: Business, media and public service professionals
- 11: Corporate managers and directors
- 35: Business and public service associate professionals

2.7.20 These occupations present a significant workforce risk and are likely to experience recruitment pressure but are not expected to be a critical bottleneck across the industry. Active monitoring and targeted interventions is required.

2.7.21 By 2032, these five high priority occupations will employ an additional 18,900 people and need to recruit 24,100 new people into enter their workforces.

2.7.22 In total, some 52,900 new jobs will be created in occupations that are either critical or high priority occupations; requiring more than 90,800 new people to enter their workforces.

Figure 11: Forecasted level of occupational criticality through to 2032



2.7.23 Furthermore, we have applied this same methodology to a more detailed taxonomy of occupations – the four-digit Unit Group of occupations.

2.7.24 Six detailed occupations have been identified as being a critical priority for the industry over the next seven years. These are listed in Figure 12 below, along with estimates of the current and future workforce, new job creation and the core requirement for new people.

Figure 12: Current workforce estimates and forecast number of new jobs created, retirements and the total core requirement for people by 2032 in critical priority occupations (four-digit Unit Group)

Skill level	Standard Occupation Classification (Unit Group)	Total employment		New jobs created		Replacement demand		Total demand for people		
		2025 baseline	2032	Number	% Growth	Number	% of current workforce	Total	% of current workforce	Average per year
RQF 3 SCQF 6	5315 – Plumbers and heating and ventilating installers and repairers	20,400	29,200	8,800	*43%*	3,600	*18%*	12,400	*61%*	1,800
RQF 3 SCQF 6	5241 – Electricians and electrical fitters	10,000	17,400	7,400	*74%*	1,900	*19%*	9,300	*93%*	1,300
RQF 3 SCQF 6	5330 – Construction and building trades supervisors	7,800	11,200	3,400	*44%*	1,400	*18%*	4,800	*62%*	700
RQF 4-5 SCQF 7-8	3113 – Engineering technicians	1,300	2,400	1,100	*85%*	200	*15%*	1,300	*100%*	200
RQF 6 SCQF 9-10	2127 – Engineering project managers and project engineers	900	1,400	500	*56%*	100	*11%*	600	*67%*	100
RQF 4-5 SCQF 7-8	3112 – Electrical and electronics technicians	400	700	300	*75%*	100	*25%*	400	*100%*	100
Domestic Low Carbon Technologies – Critical priority detailed occupations		**40,800**	**62,300**	**21,500**	***53%***	**7,300**	***18%***	**28,800**	***71%***	**4,100**

Note: Figures may not sum to the grand total due to rounding.

2.7.25 These critical detailed occupations are forecast to grow by 21,500 jobs and need 28,800 new people by 2032.

2.7.26 Plumbers and heating and ventilating installers and repairers will require the most new people to enter their workforce – 12,400 (or 1,800 per year). Electricians and electrical fitters follow closely, requiring 9,300 new people (1,300 per year).

3 Impact of artificial intelligence and automation on workforce demands

3.1.1 The deployment of domestic low-carbon technologies is increasingly being supported by digital technologies, smart controls and data-driven energy management. Smart meters, connected heat pumps, solar PV systems, battery storage and EV chargepoints generate operational data that can be used to optimise energy consumption, improve system performance and support a more flexible electricity system.

3.1.2 Smart meters are a key enabler of the Government's Clean Power 2030 Mission. According to DESNZ, smart meters support flexible tariffs, demand-side response and the integration of low-carbon technologies including heat pumps, batteries, solar PV systems and electric vehicles.[2]

3.1.3 Analysis by Energy Systems Catapult highlights how heat pumps, EVs, solar PV and battery systems are changing household electricity-demand patterns. This is increasing the importance of smart controls, flexibility services and digital technologies capable of coordinating energy generation, storage and consumption.[3]

3.1.4 The Warm Homes Plan places significant emphasis on expanding the deployment of low-carbon technologies, including heat pumps, solar PV, battery storage and technologies that support more efficient, flexible and lower-carbon domestic energy use. The Government aims to increase annual heat-pump installations to more than 450,000 by 2030 while supporting wider adoption of low-carbon heating, energy-generation and flexible energy technologies.[4]

3.1.5 Domestic heating systems are also becoming increasingly connected and data-driven. Smart thermostats, connected boilers, hybrid heating systems and digital energy-management platforms are enabling households to monitor and optimise heating performance, improve energy efficiency and participate in demand-side flexibility schemes. These technologies are increasing the use of remote diagnostics, automated control and performance monitoring across domestic heating systems.

3.1.6 Community and district heating networks are becoming increasingly data-driven through the use of sensors, monitoring systems and optimisation tools that improve operational efficiency and maintenance planning. DESNZ guidance highlights the growing importance of system optimisation and operational performance management within heat-network operations.[5]

[2] Enhancing the smart meter installation journey towards Clean Power 2030, DESNZ, August 2025

[3] Grid impacts of heat pumps, EVs and solar revealed, Catapult, August 2025

[4] Warm Homes Plan, DESNZ, March 2026

[5] Heat networks optimisation guide, DESNZ, February 2026

3.1.7 The impact of AI and automation is expected to vary across technologies. The strongest effects are likely to be associated with smart meters, connected heating systems and digital energy-management platforms, where data, automation and system optimisation are integral to the technology. By contrast, technologies such as heat pumps, solar PV, battery storage and EV chargepoints are expected to experience more limited direct impacts because workforce demand continues to be driven primarily by installation, commissioning and maintenance activities.

3.1.8 As a result, demand for skills is increasingly shifting towards:

- digital systems installation and commissioning;
- energy-management systems;
- remote monitoring and diagnostics;
- data and analytics;
- smart controls, connectivity and heating-system optimisation;
- demand-side flexibility and energy optimisation.

3.1.9 Despite increasing use of AI and automation, large-scale workforce substitution is unlikely. Most low-carbon technologies require physical installation, commissioning, maintenance and customer engagement activities that continue to depend heavily on skilled workers. Moreover, Government policy is expected to drive substantial growth in the deployment of heat pumps, solar PV, battery storage, smart meters and EV chargepoints over the coming decade. Consequently, AI and automation are more likely to augment productivity and reshape skill requirements than significantly reduce workforce demand.

3.1.10 There are, however, roles which are relatively more exposed to automation and AI-enabled task redesign. These include:

- **Smart Meter Installer** – Remote diagnostics, automated commissioning and digital support tools can reduce administrative activity and improve installation productivity.
- **Heat Pump Service Technician** – Remote monitoring, connected diagnostics and digital support tools can increasingly identify faults and performance issues before site visits are required.
- **Heating Engineer** – Connected boilers, hybrid heating systems, smart controls and remote diagnostics can increasingly automate elements of fault identification, system monitoring and routine diagnostic activity.
- **EV Chargepoint Installer** – Digital commissioning platforms, automated testing systems and smart-network integration tools can automate parts of planning, configuration and diagnostics.
- **Solar PV and Battery Storage Technician** – Remote monitoring platforms, automated performance analytics and predictive diagnostics can increasingly identify faults and optimise system performance.
- **Energy Data Analyst** – AI-enabled analytics can automate elements of consumption analysis, flexibility forecasting and energy-performance reporting.
- **Energy Management Specialist** – Smart-control systems, flexibility platforms and AI-enabled optimisation tools can increasingly automate routine monitoring, energy-management and system-optimisation activities, shifting roles towards oversight and performance improvement.

3.1.11 The following assessment considers how workforce demand may be affected under different levels of AI and automation adoption within the Domestic Low Carbon Technologies industry. Occupational groups have been classified according to their likely workforce-demand response to AI and automation adoption:

- **At Risk of Reduction** – Fewer workers may be required because AI and automation increase productivity and automate routine tasks.
- **Significantly Impacted** – Workforce demand remains broadly stable, but roles undergo substantial redesign as tasks, skills, responsibilities and workflows change significantly.
- **Augmented** – AI and automation improve productivity, decision-making and performance, but primarily enhance rather than redesign core roles, and demand for workers remains strong.
- **Limited Impact** – Little expected effect on workforce demand because activities continue to depend heavily on physical intervention, human interaction or site-based work.

3.1.12 Both *Significantly Impacted* and *Augmented* occupations are expected to experience widespread adoption of AI and automation. The key difference is that significantly impacted occupations are expected to undergo substantial job redesign, while augmented occupations primarily experience productivity and performance improvements with limited changes to the core nature of the role.

3.1.13 Low, medium and high adoption scenarios have been developed using a seven-dimension framework covering:

- investment and pace of adoption;
- technology maturity and autonomy;
- breadth of deployment;
- depth of workflow integration;
- task automation and augmentation;
- job redesign and skills transformation;
- productivity ambition.

3.1.14 These adoption scenarios describe the extent to which AI and automation are deployed within the industry. The occupational assessment then considers how different occupations may be affected under each adoption scenario.

3.1.15 The scenarios are intended to illustrate a range of plausible outcomes through to 2032 rather than predict a single future state:

- **Low Adoption** — AI and automation adoption remains relatively limited and focused on specific use cases. Organisations deploy individual tools for activities such as information retrieval, reporting, scheduling, basic analytics or administrative support, but these technologies are not extensively integrated into operational workflows. Most work continues to be undertaken using existing processes and workforce-demand impacts are limited.
- **Medium adoption** — AI and automation become mainstream across many organisations and functions. Proven technologies are integrated into business processes and support activities such as planning, monitoring, customer engagement, decision support and predictive maintenance. Roles and skill requirements begin to evolve, productivity improves and organisations increasingly use technology to redesign workflows and operating practices.

- **High adoption** — AI and automation are extensively embedded across organisational processes, operational activities and decision-making. Technologies are integrated with core systems, data and workflows, enabling significant automation, augmentation and workflow redesign. Organisations achieve substantial productivity gains and workforce demand is affected according to the exposure of the occupation group, with impacts ranging from workforce reduction in some roles to significant augmentation in others.

3.1.16 Potential workforce effects are assessed separately through the occupational risk categories and scenario analysis.

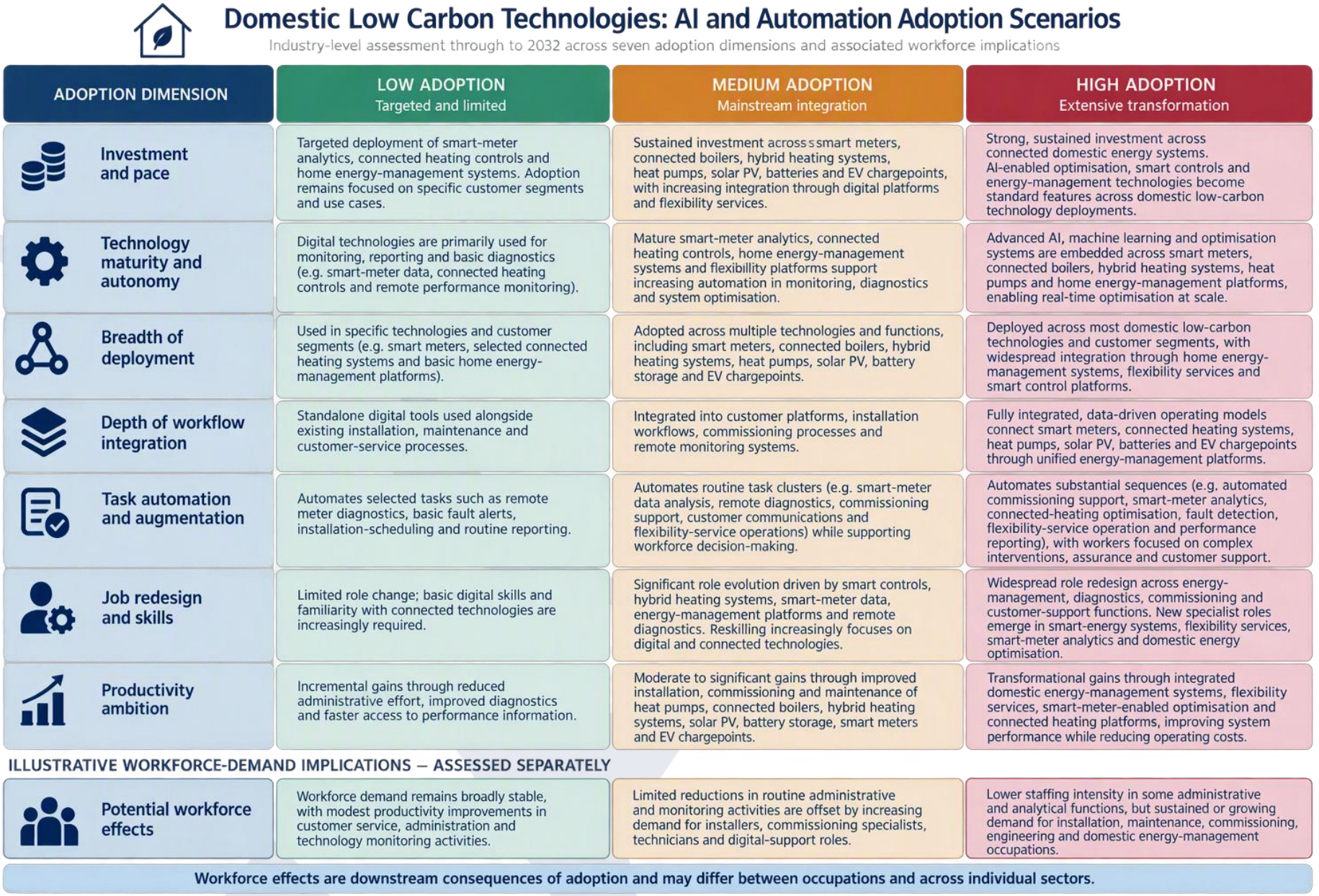
3.1.17 It is important to note that higher levels of AI and automation adoption do not automatically result in workforce reductions; impacts vary according to the characteristics of individual occupations and the extent to which tasks can be automated. Actual workforce outcomes will also depend on wider drivers including investment levels, regulatory requirements, infrastructure programmes, technological maturity and future demand for domestic low carbon technologies services.

Figure 13: Assessment of AI and automation risk by occupation

Risk category	Standard Occupation Classification	Occupational Group	Adoption Scenarios		
			Low Adoption	Medium Adoption	High Adoption
At Risk of Reduction	71 - Sales Occupations 72 - Customer Service Occupations 41 - Administrative Occupations 42 - Secretarial and Related Occupations 92 - Elementary Administration and Service Occupations 34 - Culture, Media and Sports Occupations	Business Support	AI is used mainly for document management, reporting, scheduling and customer-service support. Most administrative activities remain human-led and workforce demand remains broadly stable.	AI is routinely used for customer enquiries, installation scheduling, compliance documentation, reporting and workforce administration. Productivity improves while recruitment demand slows as routine tasks are increasingly automated.	AI is deeply integrated across customer service, installation administration, compliance reporting and workflow management. Automated processes, virtual assistants and AI-generated reporting significantly reduce routine support activities and lower staffing intensity.
	62 - Leisure, Travel and Related Personal Service Occupations	Other	AI supports content creation, communications and stakeholder-engagement activities. Human oversight remains central to most work.	Generative AI becomes widely used for communications, customer-engagement materials, scheduling and content production. Routine support activities become increasingly automated.	AI undertakes significant portions of energy-performance analysis, flexibility forecasting, deployment reporting and programme-management support across smart-meter, heat-pump and domestic energy-efficiency programmes. Roles are redesigned around oversight, governance and decision-making.
Significantly Impacted	24 - Business, Media and Public Service Professionals 35 - Business and Public Service Associate Professionals	Business Support	AI supports deployment reporting, programme administration, energy-performance analysis and operational planning. Most professional judgement remains unchanged.	AI becomes embedded within smart-meter data analysis, domestic energy-performance assessment, flexibility-service operations and low-carbon technology deployment planning. Roles increasingly focus on interpretation, validation and customer-outcomes analysis.	AI undertakes significant portions of energy-performance analysis, demand forecasting, reporting and programme-management support. Roles are redesigned around oversight, governance and decision-making, requiring substantial reskilling.
	54 - Textiles, Printing and Other Skilled Trades	Other	AI-assisted design, documentation and workflow-management tools support existing processes, with limited changes to role requirements.	Intelligent design and documentation systems automate routine technical-production activities, increasing demand for digital and systems-management skills.	AI is integrated throughout production and documentation workflows. Workers increasingly manage, verify and quality-assure machine-generated outputs rather than producing them manually.
	31 - Science, Engineering and Technology Associate Professionals	Technical Professional	AI supports system commissioning, remote diagnostics, technical reporting and connected-device monitoring. Existing technician roles remain broadly unchanged.	Remote diagnostics, automated performance monitoring and smart-control platforms become increasingly common across heat pumps, hybrid heating systems, connected boilers and domestic energy-management systems. Technicians increasingly use AI-generated insights to identify issues and optimise system performance.	AI is deeply integrated into diagnostics, performance monitoring and optimisation across heat pumps, hybrid heating systems, smart-meter-enabled technologies and connected domestic energy systems. Roles increasingly focus on interpreting data, validating system performance and managing complex connected technologies.

Risk category	Standard Occupation Classification	Occupational Group	Adoption Scenarios		
			Low Adoption	Medium Adoption	High Adoption
Augmented	11 - Corporate Managers and Directors 12 - Other Managers and Proprietors	Managerial	Managers use AI for reporting, programme monitoring and operational information retrieval. Decision-making remains largely unchanged.	AI supports workforce allocation, installation planning, deployment monitoring and performance management, enabling more data-driven management.	AI is embedded across programme delivery, resource allocation, performance management and reporting. Managers achieve significant productivity gains while retaining accountability for operational and customer outcomes.
	21 - Science, Research, Engineering and Technology Professionals	Technical Professional	AI supports engineering analysis, system design reviews and performance assessments across domestic energy technologies.	AI-enabled modelling, advanced analytics and digital design tools improve integration of heat pumps, solar PV, batteries, EV chargepoints and smart-energy systems within domestic properties.	AI is deeply embedded in system design, energy modelling, flexibility analysis and optimisation of integrated domestic energy systems. Productivity improves significantly while demand for engineering professionals remains strong.
	22 - Health Professionals 23 - Teaching and Other Educational Professionals 32 - Health and Social Care Associate Professionals	Other	AI supports training preparation, information management and administrative activities, with limited impact on workforce demand.	AI enhances workforce training, knowledge management and professional support activities, increasing demand for digital skills.	AI supports learning, skills analysis and workforce planning, making training and occupational-health activities more data-driven while workforce demand remains stable.
	33 - Protective Service Occupations	Business Support	AI supports site-security monitoring, surveillance and risk-detection activities, with limited changes to working practices.	Intelligent monitoring systems improve incident detection, threat identification and site-security management.	AI significantly improves surveillance, threat detection and incident-response coordination. Human judgement remains essential for safety-critical activities.
	51 - Skilled Agricultural and Related Trades 52 - Skilled Metal, Electrical and Electronic Trades 81 - Process, Plant and Machine Operatives 82 - Transport and Mobile Machine Drivers and Operatives	Front Line Technical	AI supports installation planning, commissioning support, equipment monitoring and basic diagnostics across heat pumps, solar PV, battery storage, EV chargepoints and smart meters. Most physical installation and maintenance activities remain unchanged.	Smart commissioning tools, connected-device monitoring, remote diagnostics and digital work-management systems become increasingly common across heat pumps, solar PV, batteries, EV chargepoints and smart-meter installations. Workers increasingly use digital decision-support tools to improve installation quality and productivity.	AI enhances diagnostics, commissioning, optimisation and maintenance planning across connected domestic energy systems. Workers increasingly use AI-generated insights, automated reporting and remote monitoring systems, but physical installation, maintenance and customer engagement remain essential.
Limited Impact	53 - Skilled Construction and Building Trades 91 - Elementary Trades and Related Occupations	Front Line Technical	AI is limited to digital work instructions, scheduling tools and basic planning support, with little change to core physical work.	AI supports project planning, safety management and site coordination, but construction, retrofit and site-based activities remain labour-intensive.	Physical retrofit activity, construction work, property adaptations and site-based installation support remain essential. AI improves productivity and safety but has limited impact on workforce demand.
	61 - Caring Personal Service Occupations 63 - Community and Civil Enforcement Occupations	Other	AI provides limited administrative support but has little influence on core activities.	Digital tools improve coordination and access to information, although work remains heavily dependent on human interaction and judgement.	Technology supports planning and information management but does not significantly alter workforce demand due to the inherently interpersonal nature of the work.

Figure 14: Domestic low carbon technologies AI and automation adoption scenarios



4 Sub-industry forecasts

4.1 Community/District Heating

Figure 15: Current workforce estimates and forecast number of new jobs created, retirements and the total core requirement for people by 2032 by sub-industry

Sub-Industry	Total employment		New jobs created		Retirements		Core requirement for people		
	2025 baseline	2032	Number	*% Growth*	Number	*% of current workforce*	Total	*% of current workforce*	Average per year
Community/district heating	3,600	23,900	20,300	*561%*	2,100	*56%*	22,400	*617%*	3,200

Note: Figures may not sum to the grand total due to rounding.

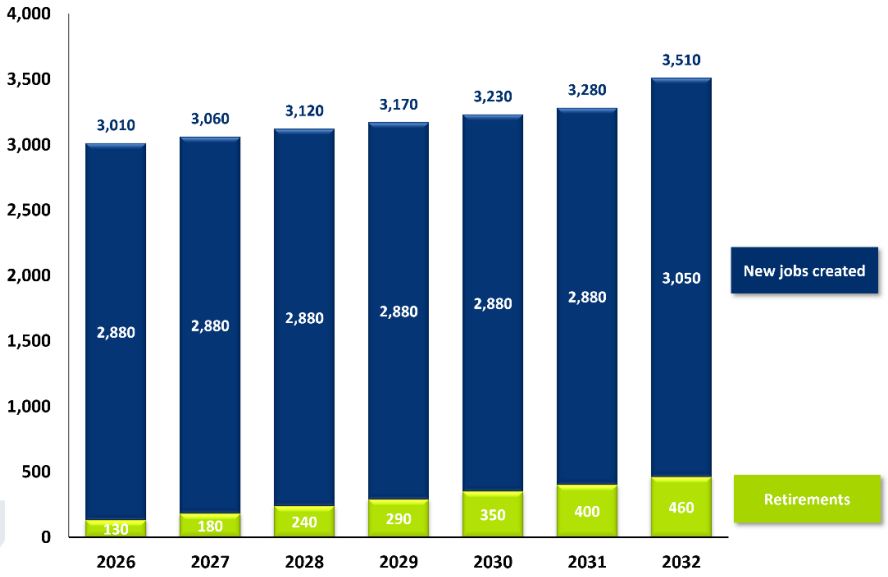
4.1.1 Current workforce estimates and future forecasts were produced by Energy & Utility Skills using the DESNZ Heat Network Database[6]. Only projects classified as domestic or mixed building types were included in the analysis.

4.1.2 Community and District Heating employment is projected to increase from 3,600 in 2025 to 23,900 by 2032, creating 20,300 new jobs, equivalent to 561% growth. Including 2,100 retirements, the sub-industry has a core requirement for 22,400 people.

4.1.3 Annual workforce demand rises steadily from 3,010 people in 2026 to 3,280 in 2031, before increasing more sharply to 3,510 in 2032. This indicates a consistently high recruitment requirement throughout the forecast period, with the greatest annual pressure occurring in 2032.

4.1.4 New job creation is overwhelmingly the main driver of demand, remaining at 2,880 people per year between 2026 and 2031 before rising to 3,050 in 2032.

Figure 16: Core requirement for people by year and cause



Note: Figures may not sum to the grand total due to rounding.

[6] DESNZ: Heat Networks Planning Database - National Data Library

4.1.5 England accounts for the majority of workforce demand, requiring 19,300 of the 22,400 people needed by 2032.

4.1.6 Scotland has the next-largest requirement at 2,800 people, while requirements in Wales and Northern Ireland are much smaller.

4.1.7 Demand within England is heavily concentrated in London, which requires 11,600 people by 2032, around 60% of England's total requirement. The South East has the next-largest requirement at 3,200 people, followed by Yorkshire & The Humber at 1,400 and the South West at 1,100.

Figure 17: Current workforce estimates and forecast number of new jobs created, retirements and the total core requirement for people by 2032 by nation and region

Nation & Region	Total employment		New jobs created		Retirements		Core requirement for people		
	2025 baseline	2032	Number	*% Growth*	Number	*% of current workforce*	Total	*% of current workforce*	Average per year
England	3,100	20,600	17,500	*561%*	1,800	*56%*	19,300	*617%*	2,800
Northern Ireland	<100	100	100	*561%*	<100	*56%*	100	*617%*	<100
Scotland	500	3,000	2,500	*561%*	300	*56%*	2,800	*617%*	400
Wales	<100	200	200	*561%*	<100	*56%*	200	*617%*	<100
United Kingdom	**3,600**	**23,900**	**20,300**	***561%***	**2,100**	***56%***	**22,400**	***617%***	**3,200**
English regions									
East of England	100	900	800	*561%*	100	*56%*	900	*617%*	100
East Midlands	<100	100	100	*561%*	<100	*56%*	100	*617%*	<100
London	1,900	12,400	10,500	*561%*	1,100	*56%*	11,600	*617%*	1,700
North East	<100	100	100	*561%*	<100	*56%*	100	*617%*	<100
North West	100	400	400	*561%*	<100	*56%*	400	*617%*	100
South East	500	3,500	2,900	*561%*	300	*56%*	3,200	*617%*	500
South West	500	1,200	1,000	*561%*	100	*56%*	1,100	*617%*	200
West Midlands	100	500	400	*561%*	100	*56%*	500	*617%*	100
Yorkshire & The Humber	200	1,500	1,300	*561%*	100	*56%*	1,400	*617%*	200

Note: Figures may not sum to the grand total due to rounding.

4.1.8 Business Support occupations have the largest core requirement of 8,600 people by 2032, closely followed by Front Line Technicals with 8,200.

4.1.9 Managerial and Front Line Technicals have the highest proportional demand to the current workforce. Both are 628%.

Figure 18: Current workforce estimates and forecast number of new jobs created, retirements and the total core requirement for people by 2032 by broad occupational group

Broad Occupational Group	Total employment		New jobs created		Retirements		Core requirement for people		
	2025 baseline	2032	Number	*% Growth*	Number	*% of current workforce*	Total	*% of current workforce*	Average per year
Managerial	500	3,200	2,700	*561%*	300	*67%*	3,000	*628%*	400
Technical Professional	400	2,700	2,300	*561%*	200	*38%*	2,500	*599%*	400
Business Support	1,400	9,300	7,900	*561%*	700	*49%*	8,600	*610%*	1,200
Front Line Technical	1,300	8,700	7,400	*561%*	900	*67%*	8,200	*628%*	1,200
Other	<100	<100	<100	*561%*	<100	*62%*	100	*622%*	<100
Domestic Low Carbon Technologies – Community/District Heating	**3,600**	**23,900**	**20,300**	***561%***	**2,100**	***56%***	**22,400**	***617%***	**3,200**

Note: Figures may not sum to the grand total due to rounding.

4.1.10 Figure 19 below shows demand is concentrated in a small number of occupations:

- Skilled Construction and Building Trades — 4,300 people
- Corporate Managers and Directors — 2,400 people
- Business and Public Service Associate Professionals — 2,200 people
- Customer Service Occupations — 2,000 people

Figure 19: Current workforce estimates and forecast number of new jobs created, retirements and the total core requirement for people by 2032 by occupation

Skill level	Standard Occupation Classification	Total employment		New jobs created		Retirements		Core requirement for people		
		2025 baseline	2032	Number	% *Growth*	Number	*% of current workforce*	Total	*% of current workforce*	Average per year
RQF 7-8 SCQF 11-12	11 - Corporate Managers and Directors	400	2,500	2,100	*561%*	300	*67%*	2,400	*628%*	300
	12 - Other Managers and Proprietors	100	600	600	*561%*	100	*67%*	600	*628%*	100
RQF 6 SCQF 9-10	21 - Science, Research, Engineering and Technology Professionals	300	1,700	1,500	*561%*	100	*35%*	1,600	*596%*	200
	22 - Health Professionals	0	0	0	--	0	--	0	--	0
	23 - Teaching and Other Educational Professionals	0	0	0	--	0	--	0	--	0
	24 - Business, Media and Public Service Professionals	200	1,500	1,300	*561%*	100	*47%*	1,400	*608%*	200
RQF 4-5 SCQF 7-8	31 - Science, Engineering and Technology Associate Professionals	100	1,000	900	*561%*	100	*44%*	900	*605%*	100
	32 - Health and Social Care Associate Professionals	0	0	0	--	0	--	0	--	0
	33 - Protective Service Occupations	0	0	0	--	0	--	0	--	0
	34 - Culture, Media and Sports Occupations	0	0	0	--	0	--	0	--	0
	35 - Business and Public Service Associate Professionals	400	2,400	2,000	*561%*	100	*41%*	2,200	*602%*	300
RQF 3 SCQF 6	41 - Administrative Occupations	300	2,000	1,700	*561%*	200	*62%*	1,900	*622%*	300
	42 - Secretarial and Related Occupations	<100	300	200	*561%*	<100	*88%*	300	*649%*	<100
	51 - Skilled Agricultural and Related Trades	<100	200	100	*561%*	<100	*111%*	200	*672%*	<100
	52 - Skilled Metal, Electrical and Electronic Trades	200	1,300	1,100	*561%*	100	*56%*	1,200	*617%*	200
	53 - Skilled Construction and Building Trades	700	4,500	3,900	*561%*	400	*59%*	4,300	*620%*	600
	54 - Textiles, Printing and Other Skilled Trades	0	0	0	--	0	--	0	--	0
	61 - Caring Personal Service Occupations	<100	<100	<100	*561%*	<100	*62%*	<100	*622%*	<100
	62 - Leisure, Travel and Related Personal Service Occupations	0	0	0	--	0	--	0	--	0
	63 - Community and Civil Enforcement Occupations	0	0	0	--	0	--	0	--	0
RQF 2 SCQF 5	71 - Sales Occupations	100	500	400	*561%*	<100	*53%*	400	*614%*	100
	72 - Customer Service Occupations	300	2,200	1,800	*561%*	100	*38%*	2,000	*599%*	300
RQF 1 SCQF 4	81 - Process, Plant and Machine Operatives	200	1,400	1,200	*561%*	200	*70%*	1,300	*631%*	200
	82 - Transport and Mobile Machine Drivers and Operatives	200	1,200	1,100	*561%*	200	*97%*	1,200	*658%*	200
	91 - Elementary Trades and Related Occupations	<100	100	<100	*561%*	<100	*64%*	<100	*625%*	<100
	92 - Elementary Administration and Service Occupations	100	500	400	*561%*	100	*59%*	500	*620%*	100
Domestic Low Carbon Technologies – Community/District Heating		**3,600**	**23,900**	**20,300**	***561%***	**2,100**	***56%***	**22,400**	***617%***	**3,200**

Note: Figures may not sum to the grand total due to rounding.

4.2 Gas Utilisation

Figure 20: Current workforce estimates and forecast number of new jobs created, retirements and the total core requirement for people by 2032 by sub-industry

Sub-Industry	Total employment		New jobs created		Retirements		Core requirement for people		
	2025 baseline	2032	Number	% Growth	Number	% of current workforce	Total	% of current workforce	Average per year
Gas utilisation	130,000	177,600	47,600	*37%*	21,300	*16%*	69,000	*53%*	9,900

Note: Figures may not sum to the grand total due to rounding.

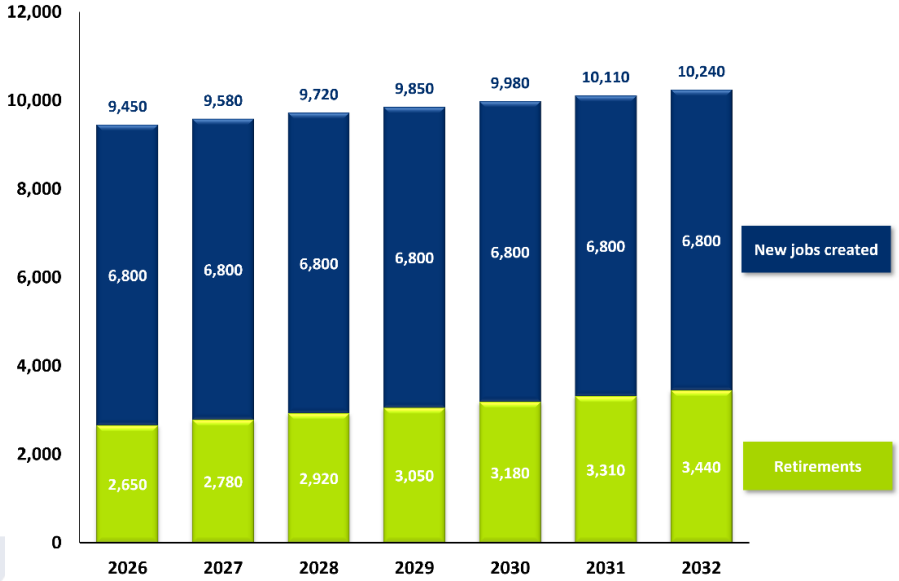
4.2.1 Current workforce estimates and future forecasts were produced by Energy & Utility Skills using the Gas Safe Register and applying an assumption relating to the proportion of these that actually work on domestic gas heating systems.

4.2.2 Gas Utilisation has a core requirement for 69,000 people by 2032, equivalent to 53% of the current workforce. Employment is projected to increase from 130,000 to 177,600, creating 47,600 new jobs (37% growth), alongside 21,300 retirements.

4.2.3 Annual workforce demand rises steadily from 9,450 people in 2026 to 10,240 in 2032. This indicates a consistently high recruitment requirement throughout the forecast period, rather than demand being concentrated in years.

4.2.4 New job creation is the largest driver of demand, remaining constant at 6,800 people per year. Retirements increase from 2,650 in 2026 to 3,440 in 2032, accounting for the full increase in annual workforce demand over the period.

Figure 21: Core requirement for people by year and cause



Note: Figures may not sum to the grand total due to rounding.

4.2.5 England accounts for the majority of Gas Utilisation workforce demand, requiring 56,900 of the 69,000 people needed by 2032.

4.2.6 Scotland requires 6,400 people, Wales 3,500 and Northern Ireland 2,200.

4.2.7 Within England, the South East has the largest workforce requirement at 10,400 people, followed by the North West (8,900), South West (7,100) and London (6,400). The North East has the smallest requirement at 3,700 people.

Figure 22: Current workforce estimates and forecast number of new jobs created, retirements and the total core requirement for people by 2032 by nation and region

Nation & Region	Total employment		New jobs created		Retirements		Core requirement for people		
	2025 baseline	2032	Number	*% Growth*	Number	*% of current workforce*	Total	% of current workforce	Average per year
England	107,200	146,500	39,300	*37%*	17,600	*16%*	56,900	*53%*	8,100
Northern Ireland	4,200	5,700	1,500	*37%*	700	*16%*	2,200	*53%*	300
Scotland	12,000	16,400	4,400	*37%*	1,900	*16%*	6,400	*53%*	900
Wales	6,600	9,000	2,400	*37%*	1,100	*16%*	3,500	*53%*	500
United Kingdom	**130,000**	**177,600**	**47,600**	***37%***	**21,300**	***16%***	**69,000**	***53%***	**9,900**
English regions									
East of England	11,200	15,300	4,100	*37%*	1,800	*16%*	5,900	*53%*	800
East Midlands	7,800	10,700	2,900	*37%*	1,300	*16%*	4,100	*53%*	600
London	12,100	16,500	4,400	*37%*	2,000	*16%*	6,400	*53%*	900
North East	7,000	9,500	2,500	*37%*	1,100	*16%*	3,700	*53%*	500
North West	16,800	23,000	6,200	*37%*	2,800	*16%*	8,900	*53%*	1,300
South East	19,500	26,700	7,200	*37%*	3,200	*16%*	10,400	*53%*	1,500
South West	13,400	18,300	4,900	*37%*	2,200	*16%*	7,100	*53%*	1,000
West Midlands	8,000	10,900	2,900	*37%*	1,300	*16%*	4,200	*53%*	600
Yorkshire & The Humber	11,400	15,600	4,200	*37%*	1,900	*16%*	6,000	*53%*	900

Note: Figures may not sum to the grand total due to rounding.

4.2.8 Front Line Technical occupations have by far the largest core workforce requirement for Heat Pumps, requiring 10,800 people by 2032.

4.2.9 Business Support has the second-largest requirement at 4,000 people, followed by Technical Professional occupations at 2,200 and Managerial occupations at 2,000. Front Line Technical and Business Support together account for around 77% of the core requirement.

Figure 23: Current workforce estimates and forecast number of new jobs created, retirements and the total core requirement for people by 2032 by broad occupational group

Broad Occupational Group	Total employment		New jobs created		Retirements		Core requirement for people		
	2025 baseline	2032	Number	*% Growth*	Number	*% of current workforce*	Total	*% of current workforce*	Average per year
Managerial	12,600	17,200	4,600	*37%*	2,400	*19%*	7,100	*56%*	1,000
Technical Professional	12,700	17,400	4,700	*37%*	1,300	*11%*	6,000	*47%*	900
Business Support	26,800	36,600	9,800	*37%*	4,300	*16%*	14,100	*53%*	2,000
Front Line Technical	77,500	105,900	28,400	*37%*	13,200	*17%*	41,600	*54%*	5,900
Other	400	500	100	*37%*	100	*17%*	200	*54%*	<100
Domestic Low Carbon Technologies – Gas Utilisation	**130,000**	**177,600**	**47,600**	*37%*	**21,300**	*16%*	**69,000**	*53%*	**9,900**

Note: Figures may not sum to the grand total due to rounding.

4.2.10 Figure 24 shows demand is concentrated in a small number of occupations:

- Skilled Construction and Building Trades — 32,200 people
- Skilled Metal, Electrical and Electronic Trades — 7,300 people
- Administrative Occupations — 6,500 people
- Corporate Managers and Directors — 6,400 people

Figure 24: Current workforce estimates and forecast number of new jobs created, retirements and the total core requirement for people by 2032 by occupation

Skill level	Standard Occupation Classification	Total employment		New jobs created		Retirements		Core requirement for people		
		2025 baseline	2032	Number	% Growth	Number	% of current workforce	Total	% of current workforce	Average per year
RQF 7-8 SCQF 11-12	11 - Corporate Managers and Directors	11,400	15,600	4,200	37%	2,200	19%	6,400	56%	900
	12 - Other Managers and Proprietors	1,200	1,600	400	37%	200	19%	700	56%	100
RQF 6 SCQF 9-10	21 - Science, Research, Engineering and Technology Professionals	10,500	14,400	3,900	37%	1,100	10%	4,900	47%	700
	22 - Health Professionals	0	0	0	--	0	--	0	--	0
	23 - Teaching and Other Educational Professionals	0	0	0	--	0	--	0	--	0
	24 - Business, Media and Public Service Professionals	3,500	4,800	1,300	37%	500	14%	1,800	50%	300
RQF 4-5 SCQF 7-8	31 - Science, Engineering and Technology Associate Professionals	2,200	3,000	800	37%	300	13%	1,100	49%	200
	32 - Health and Social Care Associate Professionals	0	0	0	--	0	--	0	--	0
	33 - Protective Service Occupations	0	0	0	--	0	--	0	--	0
	34 - Culture, Media and Sports Occupations	0	0	0	--	0	--	0	--	0
	35 - Business and Public Service Associate Professionals	5,500	7,500	2,000	37%	600	12%	2,600	48%	400
RQF 3 SCQF 6	41 - Administrative Occupations	12,000	16,300	4,400	37%	2,100	18%	6,500	54%	900
	42 - Secretarial and Related Occupations	1,700	2,300	600	37%	400	25%	1,100	62%	100
	51 - Skilled Agricultural and Related Trades	0	0	0	--	0	--	0	--	0
	52 - Skilled Metal, Electrical and Electronic Trades	13,900	19,000	5,100	37%	2,200	16%	7,300	53%	1,000
	53 - Skilled Construction and Building Trades	60,100	82,100	22,000	37%	10,200	17%	32,200	54%	4,600
	54 - Textiles, Printing and Other Skilled Trades	100	200	<100	37%	<100	16%	100	53%	<100
	61 - Caring Personal Service Occupations	200	400	100	37%	<100	18%	100	54%	<100
	62 - Leisure, Travel and Related Personal Service Occupations	0	0	0	--	0	--	0	--	0
	63 - Community and Civil Enforcement Occupations	0	0	0	--	0	--	0	--	0
RQF 2 SCQF 5	71 - Sales Occupations	600	900	200	37%	100	15%	300	52%	<100
	72 - Customer Service Occupations	1,400	1,900	500	37%	200	11%	700	48%	100
RQF 1 SCQF 4	81 - Process, Plant and Machine Operatives	800	1,100	300	37%	200	20%	400	57%	100
	82 - Transport and Mobile Machine Drivers and Operatives	1,200	1,600	400	37%	300	28%	800	65%	100
	91 - Elementary Trades and Related Occupations	1,600	2,100	600	37%	300	19%	900	55%	100
	92 - Elementary Administration and Service Occupations	2,100	2,800	800	37%	400	17%	1,100	54%	200
Domestic Low Carbon Technologies – Gas Utilisation		**130,000**	**177,600**	**47,600**	**37%**	**21,300**	**16%**	**69,000**	**53%**	**9,900**

Note: Figures may not sum to the grand total due to rounding.

4.3 Heat Pumps

Figure 25: Current workforce estimates and forecast number of new jobs created, retirements and the total core requirement for people by 2032 by sub-industry

Sub-Industry	Total employment		New jobs created		Retirements		Core requirement for people		
	2025 baseline	2032	Number	*% Growth*	Number	*% of current workforce*	Total	*% of current workforce*	Average per year
Heat pumps	4,500	21,700	17,100	*378%*	2,000	*44%*	19,100	*422%*	2,700

Note: Figures may not sum to the grand total due to rounding.

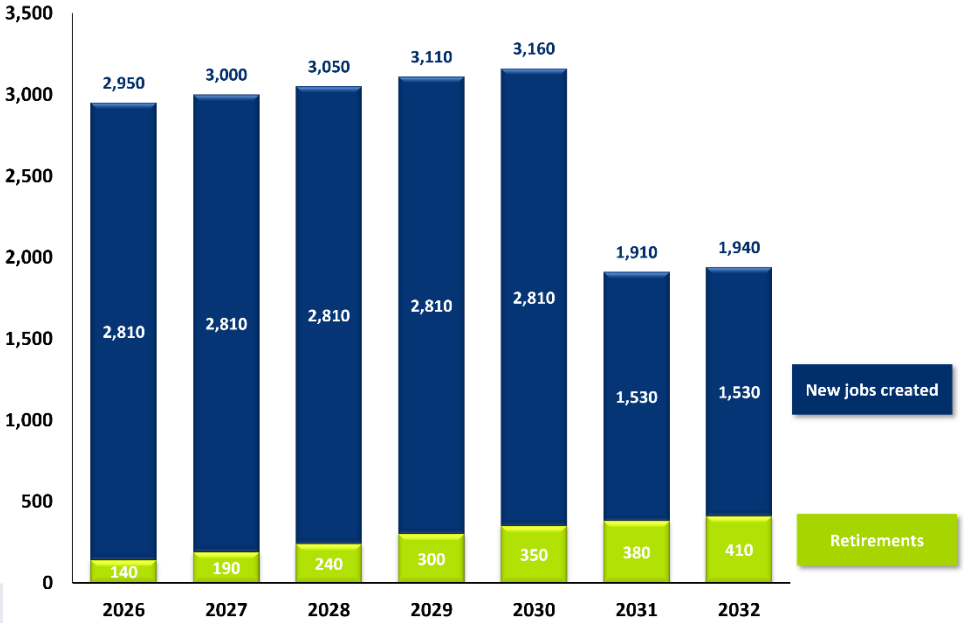
4.3.1 Current workforce estimates were taken from the Heat Pump Association 2024 report[7], and future forecasts were taken from Energy UK's Clean Heat report[8]. Current workforce figures are from 2023 as this is the most up-to-date data available.

4.3.2 Heat Pumps faces a significant growth-led workforce challenge, with employment increasing from 4,500 in 2025 to 21,700 by 2032. This creates 17,100 new jobs (378% growth) and, alongside 2,000 retirements, results in a core requirement for 19,100 people, equivalent to 422% of the current workforce.

4.3.3 Annual workforce demand rises from 2,950 people in 2026 to a peak of 3,160 in 2030, before falling sharply to 1,910 in 2031 and 1,940 in 2032.

4.3.4 New job creation is the dominant source of demand, remaining at 2,810 people per year through to 2030 before falling to 1,530 in 2031 and 2032. In contrast, retirements rise steadily from 140 people in 2026 to 410 in 2032, becoming an increasingly important part of annual recruitment demand.

Figure 26: Core requirement for people by year and cause



Note: Figures may not sum to the grand total due to rounding.

[7] Projecting the future domestic heat pump workforce, HPA, November 2024

[8] Clean heat jobs and skills for the future, Energy UK, June 2026

4.3.5 England accounts for the majority of Heat Pumps workforce demand, requiring 15,500 of the 19,100 people needed by 2032.

4.3.6 Scotland requires 1,700 people, Northern Ireland 1,000 and Wales 900.

4.3.7 Northern Ireland faces by far the greatest relative workforce pressure, with a core requirement equivalent to 3,490% of its current workforce. This reflects the particularly small existing workforce of fewer than 100 people.

Figure 27: Current workforce estimates and forecast number of new jobs created, retirements and the total core requirement for people by 2032 by nation and region

Nation & Region	Total employment		New jobs created		Retirements		Core requirement for people		
	2025 baseline	2032	Number	*% Growth*	Number	*% of current workforce*	Total	*% of current workforce*	Average per year
England	3,900	17,700	13,800	*359%*	1,700	*43%*	15,500	*402%*	2,200
Northern Ireland	<100	1,000	1,000	*3,233%*	100	*256%*	1,000	*3,490%*	100
Scotland	400	2,000	1,500	*359%*	200	*43%*	1,700	*402%*	200
Wales	200	1,000	800	*359%*	100	*43%*	900	*402%*	100
United Kingdom	**4,500**	**21,700**	**17,100**	***378%***	**2,000**	***44%***	**19,100**	***422%***	**2,700**
English regions									
East of England	500	2,100	1,600	*359%*	200	*43%*	1,800	*402%*	300
East Midlands	200	1,000	800	*359%*	100	*43%*	900	*402%*	100
London	600	2,600	2,000	*359%*	200	*43%*	2,300	*402%*	300
North East	200	900	700	*359%*	100	*43%*	800	*402%*	100
North West	500	2,500	1,900	*359%*	200	*43%*	2,200	*402%*	300
South East	700	3,000	2,300	*359%*	300	*43%*	2,600	*402%*	400
South West	400	1,900	1,500	*359%*	200	*43%*	1,700	*402%*	200
West Midlands	400	1,900	1,500	*359%*	200	*43%*	1,600	*402%*	200
Yorkshire & The Humber	400	1,800	1,500	*359%*	200	*43%*	1,600	*402%*	200

Note: Figures may not sum to the grand total due to rounding.

4.3.8 Front Line Technical occupations have by far the largest core workforce requirement for Heat Pumps, requiring 10,800 people by 2032.

4.3.9 Business Support has the second-largest requirement at 4,000 people, followed by Technical Professional occupations at 2,200 and Managerial occupations at 2,000. Front Line Technical and Business Support together account for around 77% of the core requirement.

Figure 28: Current workforce estimates and forecast number of new jobs created, retirements and the total core requirement for people by 2032 by broad occupational group

Broad Occupational Group	Total employment		New jobs created		Retirements		Core requirement for people		
	2025 baseline	2032	Number	*% Growth*	Number	*% of current workforce*	Total	*% of current workforce*	Average per year
Managerial	500	2,200	1,700	*378%*	200	*54%*	2,000	*432%*	300
Technical Professional	500	2,600	2,100	*378%*	200	*30%*	2,200	*408%*	300
Business Support	1,000	4,600	3,600	*378%*	400	*43%*	4,000	*422%*	600
Front Line Technical	2,500	12,200	9,700	*378%*	1,200	*46%*	10,800	*424%*	1,500
Other	<100	100	<100	*378%*	<100	*47%*	100	*425%*	<100
Domestic Low Carbon Technologies – Heat Pumps	**4,500**	**21,700**	**17,100**	*378%*	**2,000**	*44%*	**19,100**	*422%*	**2,700**

Note: Figures may not sum to the grand total due to rounding.

4.3.10 Figure 29 shows demand is concentrated in a small number of occupations:

- Skilled Metal, Electrical and Electronic Trades 9,500 people
- Corporate Managers and Directors — 1,800 people
- Science, Research, Engineering and Technology Professionals — 1,700 people
- Administrative Occupations — 1,500 people

Figure 29: Current workforce estimates and forecast number of new jobs created, retirements and the total core requirement for people by 2032 by occupation

Skill level	Standard Occupation Classification	Total employment		New jobs created		Retirements		Core requirement for people		
		2025 baseline	2032	Number	% Growth	Number	% of current workforce	Total	% of current workforce	Average per year
RQF 7-8 SCQF 11-12	11 - Corporate Managers and Directors	400	2,000	1,600	378%	200	54%	1,800	432%	300
	12 - Other Managers and Proprietors	<100	200	100	378%	<100	54%	200	432%	<100
RQF 6 SCQF 9-10	21 - Science, Research, Engineering and Technology Professionals	400	2,100	1,600	378%	100	28%	1,700	406%	200
	22 - Health Professionals	0	0	0	--	0	--	0	--	0
	23 - Teaching and Other Educational Professionals	0	0	0	--	0	--	0	--	0
	24 - Business, Media and Public Service Professionals	200	1,100	900	378%	100	38%	1,000	416%	100
RQF 4-5 SCQF 7-8	31 - Science, Engineering and Technology Associate Professionals	100	600	400	378%	<100	35%	500	414%	100
	32 - Health and Social Care Associate Professionals	<100	<100	<100	378%	<100	47%	<100	425%	<100
	33 - Protective Service Occupations	<100	100	100	378%	<100	24%	100	402%	<100
	34 - Culture, Media and Sports Occupations	<100	100	<100	378%	<100	28%	<100	406%	<100
	35 - Business and Public Service Associate Professionals	200	800	600	378%	100	33%	700	411%	100
RQF 3 SCQF 6	41 - Administrative Occupations	400	1,700	1,400	378%	200	49%	1,500	428%	200
	42 - Secretarial and Related Occupations	100	300	200	378%	100	71%	300	449%	<100
	51 - Skilled Agricultural and Related Trades	0	0	0	--	0	--	0	--	0
	52 - Skilled Metal, Electrical and Electronic Trades	2,300	10,800	8,500	378%	1,000	45%	9,500	423%	1,400
	53 - Skilled Construction and Building Trades	100	200	200	378%	<100	47%	200	425%	<100
	54 - Textiles, Printing and Other Skilled Trades	<100	<100	<100	378%	<100	45%	<100	423%	<100
	61 - Caring Personal Service Occupations	<100	<100	<100	378%	<100	49%	<100	428%	<100
	62 - Leisure, Travel and Related Personal Service Occupations	0	0	0	--	0	--	0	--	0
	63 - Community and Civil Enforcement Occupations	0	0	0	--	0	--	0	--	0
RQF 2 SCQF 5	71 - Sales Occupations	0	0	0	--	0	--	0	--	0
	72 - Customer Service Occupations	<100	200	200	378%	<100	31%	200	409%	<100
RQF 1 SCQF 4	81 - Process, Plant and Machine Operatives	100	500	400	378%	100	57%	400	435%	100
	82 - Transport and Mobile Machine Drivers and Operatives	<100	100	100	378%	<100	78%	100	456%	<100
	91 - Elementary Trades and Related Occupations	100	600	500	378%	100	52%	500	430%	100
	92 - Elementary Administration and Service Occupations	100	300	300	378%	<100	47%	300	425%	<100
Domestic Low Carbon Technologies – Heat Pumps		**4,500**	**21,700**	**17,100**	**378%**	**2,000**	**44%**	**19,100**	**422%**	**2,700**

Note: Figures may not sum to the grand total due to rounding.

4.4 Smart Meters

Figure 30: Current workforce estimates and forecast number of new jobs created, retirements and the total core requirement for people by 2032 by sub-industry

Sub-Industry	Total employment		New jobs created		Retirements		Core requirement for people		
	2025 baseline	2032	Number	*% Growth*	Number	*% of current workforce*	Total	*% of current workforce*	Average per year
Smart meters	6,300	6,900	600	*9%*	900	*14%*	1,400	*23%*	200

Note: Figures may not sum to the grand total due to rounding.

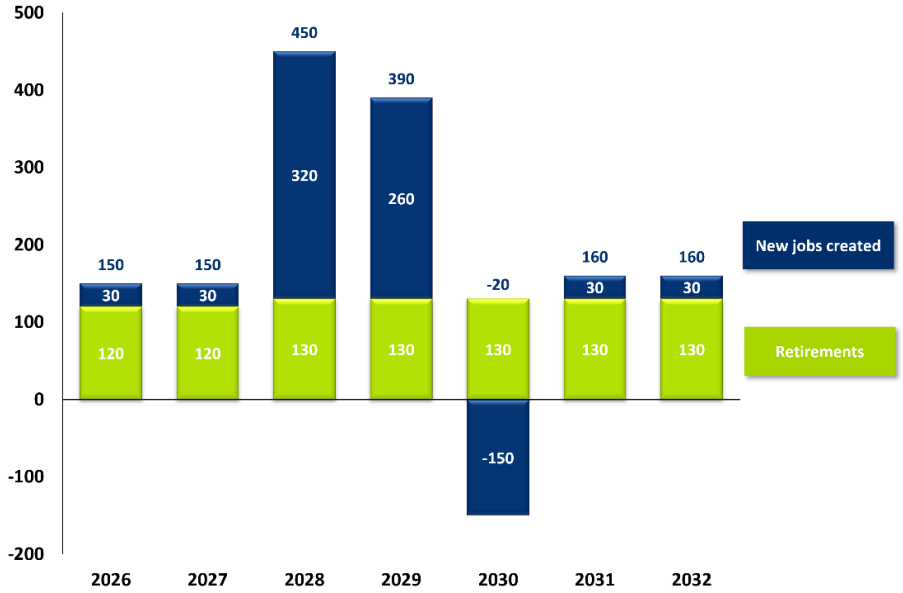
4.4.1 Current workforce estimates and future forecasts were derived by Energy & Utility Skills on the basis of assumed productivity levels of installers to deliver the 80,000-85,000 meter installations per week in 2023.

4.4.2 Smart Meters has a core requirement for 1,400 people by 2032, equivalent to 23% of the current workforce. Employment increases relatively modestly from 6,300 to 6,900, creating 600 new jobs, while around 900 retirements are expected.

4.4.3 Annual workforce demand fluctuates considerably, rising from 150 people in 2026 and 2027 to a peak of 450 in 2028, before falling to -20 in 2030 and recovering to 160 in 2031 and 2032. This indicates that recruitment requirements are concentrated particularly in 2028 and 2029.

4.4.4 The variation is driven by changes in new job creation, while retirements remain comparatively stable. New jobs rise to 320 in 2028 and 260 in 2029, before falling to -150 in 2030. Retirements remain at around 120 to 130 people per year, resulting in a small net workforce reduction in 2030.

Figure 31: Core requirement for people by year and cause



Note: Figures may not sum to the grand total due to rounding.

4.4.5 The geographical distribution of the smart meter workforce was estimated using the distribution of the 7.3 million households without a smart meter as a proxy for future installation activity.

4.4.6 Northern Ireland's smart meter installation programme is set to begin in 2028 and be completed within three years. The assumption of around 530 additional workers at peak installation is reflected in the regional data.

4.4.7 England accounts for the majority of Smart Meter workforce demand, requiring around 900 of the 1,400 people needed by 2032. Scotland and Wales each require around 100 people, while Northern Ireland has a requirement of around 400 people despite having no recorded baseline workforce.

4.4.8 London has the largest workforce requirement among the English regions at around 200 people by 2032. Requirements in most other regions are around 100 or fewer, reflecting the relatively modest overall recruitment requirement for Smart Meters.

Figure 32: Current workforce estimates and forecast number of new jobs created, retirements and the total core requirement for people by 2032 by nation and region

Nation & Region	Total employment		New jobs created		Retirements		Core requirement for people		
	2025 baseline	2032	Number	*% Growth*	Number	*% of current workforce*	Total	*% of current workforce*	Average per year
England	5,300	5,500	200	*3%*	700	*13%*	900	*17%*	100
Northern Ireland	0	400	400	*N/A*	<100	*N/A*	400	*N/A*	100
Scotland	700	700	<100	*3%*	100	*13%*	100	*17%*	<100
Wales	300	300	<100	*3%*	100	*13%*	100	*17%*	<100
United Kingdom	**6,300**	**6,900**	**600**	***9%***	**900**	***14%***	**1,400**	***23%***	**200**
English regions									
East of England	500	600	<100	*3%*	100	*13%*	100	*16%*	<100
East Midlands	400	400	<100	*3%*	<100	*13%*	100	*17%*	<100
London	1,100	1,100	<100	*3%*	100	*13%*	200	*17%*	<100
North East	200	200	<100	*3%*	<100	*13%*	<100	*17%*	<100
North West	700	800	<100	*3%*	100	*13%*	100	*17%*	<100
South East	800	800	<100	*3%*	100	*13%*	100	*17%*	<100
South West	600	600	<100	*3%*	100	*13%*	100	*17%*	<100
West Midlands	500	500	<100	*3%*	100	*13%*	100	*17%*	<100
Yorkshire & The Humber	500	500	<100	*3%*	100	*13%*	100	*17%*	<100

Note: Figures may not sum to the grand total due to rounding.

4.4.9 Front Line Technical occupations have the largest core workforce requirement, requiring 800 people by 2032.

4.4.10 Business Support has the second-largest requirement at 300 people, followed by Managerial occupations at 200. Technical Professional occupations require around 100 people.

Figure 33: Current workforce estimates and forecast number of new jobs created, retirements and the total core requirement for people by 2032 by broad occupational group

Broad Occupational Group	Total employment		New jobs created		Retirements		Core requirement for people		
	2025 baseline	2032	Number	*% Growth*	Number	*% of current workforce*	Total	*% of current workforce*	Average per year
Managerial	600	700	100	*9%*	100	*17%*	200	*26%*	<100
Technical Professional	800	800	100	*9%*	100	*9%*	100	*18%*	<100
Business Support	1,300	1,500	100	*9%*	200	*14%*	300	*22%*	<100
Front Line Technical	3,600	3,900	300	*9%*	500	*14%*	800	*23%*	100
Other	<100	<100	<100	*9%*	<100	*15%*	<100	*24%*	<100
Domestic Low Carbon Technologies – Smart Meters	**6,300**	**6,900**	**600**	*9%*	**900**	*14%*	**1,400**	*23%*	**200**

Note: Figures may not sum to the grand total due to rounding.

4.4.11 Figure 34 shows demand is concentrated in a small number of occupations:

- Skilled Metal, Electrical and Electronic Trades – 700 people
- Corporate Managers and Directors – 200 people

Figure 34: Current workforce estimates and forecast number of new jobs created, retirements and the total core requirement for people by 2032 by occupation

Skill level	Standard Occupation Classification	Total employment		New jobs created		Retirements		Core requirement for people		
		2025 baseline	2032	Number	% Growth	Number	% of current workforce	Total	% of current workforce	Average per year
RQF 7-8 SCQF 11-12	11 - Corporate Managers and Directors	600	600	100	9%	100	17%	200	26%	<100
	12 - Other Managers and Proprietors	100	100	<100	9%	<100	17%	<100	26%	<100
RQF 6 SCQF 9-10	21 - Science, Research, Engineering and Technology Professionals	600	700	100	9%	100	9%	100	18%	<100
	22 - Health Professionals	0	0	0	--	0	--	0	--	0
	23 - Teaching and Other Educational Professionals	0	0	0	--	0	--	0	--	0
	24 - Business, Media and Public Service Professionals	300	300	<100	9%	<100	12%	100	21%	<100
RQF 4-5 SCQF 7-8	31 - Science, Engineering and Technology Associate Professionals	200	200	<100	9%	<100	11%	<100	20%	<100
	32 - Health and Social Care Associate Professionals	<100	<100	<100	9%	<100	15%	<100	24%	<100
	33 - Protective Service Occupations	<100	<100	<100	9%	<100	7%	<100	16%	<100
	34 - Culture, Media and Sports Occupations	<100	<100	<100	9%	<100	9%	<100	18%	<100
	35 - Business and Public Service Associate Professionals	200	300	<100	9%	<100	10%	100	19%	<100
RQF 3 SCQF 6	41 - Administrative Occupations	500	500	<100	9%	100	16%	100	24%	<100
	42 - Secretarial and Related Occupations	100	100	100	9%	<100	22%	<100	31%	<100
	51 - Skilled Agricultural and Related Trades	0	0	0	--	0	--	0	--	0
	52 - Skilled Metal, Electrical and Electronic Trades	3,100	3,400	300	9%	400	14%	700	23%	100
	53 - Skilled Construction and Building Trades	100	100	<100	9%	<100	15%	<100	24%	<100
	54 - Textiles, Printing and Other Skilled Trades	<100	<100	<100	9%	<100	14%	<100	23%	<100
	61 - Caring Personal Service Occupations	<100	<100	<100	9%	<100	16%	<100	24%	<100
	62 - Leisure, Travel and Related Personal Service Occupations	0	0	0	--	0	--	0	--	0
	63 - Community and Civil Enforcement Occupations	0	0	0	--	0	--	0	--	0
RQF 2 SCQF 5	71 - Sales Occupations	0	0	0	--	0	--	0	--	0
	72 - Customer Service Occupations	100	100	<100	9%	<100	10%	<100	18%	<100
RQF 1 SCQF 4	81 - Process, Plant and Machine Operatives	100	200	<100	9%	<100	18%	<100	27%	<100
	82 - Transport and Mobile Machine Drivers and Operatives	<100	<100	<100	9%	<100	25%	<100	33%	<100
	91 - Elementary Trades and Related Occupations	200	200	<100	9%	<100	16%	100	25%	<100
	92 - Elementary Administration and Service Occupations	100	100	<100	9%	<100	14%	<100	23%	<100
Domestic Low Carbon Technologies – Smart Meters		**6,300**	**6,900**	**600**	**9%**	**900**	**14%**	**1,400**	**23%**	**200**

Note: Figures may not sum to the grand total due to rounding.

4.5 Solar PV & Battery Storage

Figure 35: Current workforce estimates and forecast number of new jobs created, retirements and the total core requirement for people by 2032 by sub-industry

Sub-Industry	Total employment		New jobs created		Retirements		Core requirement for people		
	2025 baseline	2032	Number	% Growth	Number	% of current workforce	Total	% of current workforce	Average per year
Solar PV & battery storage	5,000	7,100	2,100	*43%*	800	*16%*	2,900	*59%*	400

Note: Figures may not sum to the grand total due to rounding.

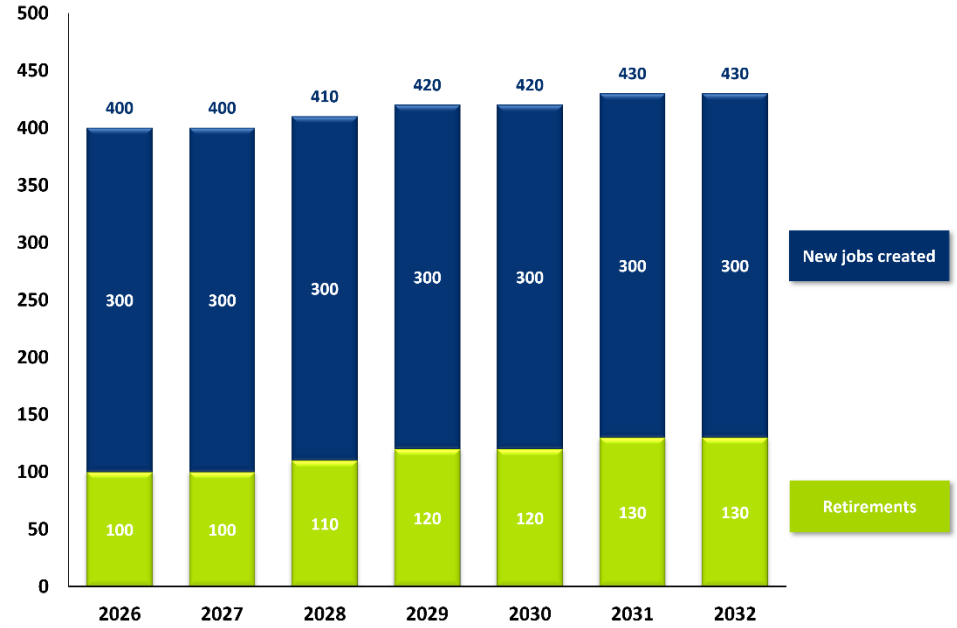
4.5.1 Current workforce estimates and future forecasts were taken from Solar Energy UK – The Economic Impact of Solar and Battery Storage report [9]. The report covers the activities required to deploy, build, install, operate and maintain residential solar and battery storage assets.

4.5.2 Solar PV & Battery Storage has a core requirement for 2,900 people by 2032, equivalent to 59% of the current workforce. Employment increases from 5,000 to 7,100, creating 2,100 new jobs (43% growth), alongside around 800 retirements.

4.5.3 Annual workforce demand remains relatively stable, increasing gradually from 400 people in 2026 to 430 in 2031 and 2032. This indicates a sustained recruitment requirement rather than significant peaks or troughs.

4.5.4 New job creation is the main driver of annual demand, remaining constant at 300 people per year. Retirements rise gradually from 100 people in 2026 to 130 from 2031, accounting for the small increase in total annual demand.

Figure 36: Core requirement for people by year and cause



Note: Figures may not sum to the grand total due to rounding.

[9] The Economic Impact of Solar and Battery Storage – Solar Energy UK, April 2025

4.5.5 England accounts for the majority of workforce demand, requiring 2,400 of the 2,900 people needed by 2032.

4.5.6 Scotland requires around 300 people, Wales 200 and Northern Ireland fewer than 100.

4.5.7 Within England, the South East has the largest core workforce requirement at 500 people, followed by the South West at 400. The East of England, East Midlands and North West each require around 300 people, while requirements are lower across the remaining regions.

Figure 37: Current workforce estimates and forecast number of new jobs created, retirements and the total core requirement for people by 2032 by nation and region

Nation & Region	Total employment		New jobs created		Retirements		Core requirement for people		
	2025 baseline	2032	Number	*% Growth*	Number	*% of current workforce*	Total	*% of current workforce*	Average per year
England	4,100	5,900	1,700	*43%*	700	*16%*	2,400	*59%*	300
Northern Ireland	100	100	<100	*43%*	<100	*16%*	<100	*59%*	<100
Scotland	400	600	200	*43%*	100	*16%*	300	*59%*	<100
Wales	400	500	200	*43%*	<100	*16%*	200	*59%*	<100
United Kingdom	**5,000**	**7,100**	**2,100**	***43%***	**800**	***16%***	**2,900**	***59%***	**400**
English regions									
East of England	500	800	200	*43%*	100	*16%*	300	*59%*	<100
East Midlands	400	600	200	*43%*	100	*16%*	300	*59%*	<100
London	200	300	100	*43%*	<100	*16%*	100	*59%*	<100
North East	200	200	100	*43%*	<100	*16%*	100	*59%*	<100
North West	500	700	200	*43%*	100	*16%*	300	*59%*	<100
South East	800	1,200	300	*43%*	100	*16%*	500	*59%*	100
South West	700	1,000	300	*43%*	100	*16%*	400	*59%*	100
West Midlands	400	500	100	*43%*	100	*16%*	200	*59%*	<100
Yorkshire & The Humber	400	600	200	*43%*	100	*16%*	200	*59%*	<100

Note: Figures may not sum to the grand total due to rounding.

4.5.8 Front Line Technical occupations have the largest core workforce requirement for EV Chargepoints, requiring 1,100 people by 2032.

4.5.9 Business Support has the second-largest requirement at 400 people, while Managerial and Technical Professional occupations each require around 200 people. This shows that demand is heavily concentrated in front-line delivery roles.

Figure 38: Current workforce estimates and forecast number of new jobs created, retirements and the total core requirement for people by 2032 by broad occupational group

Broad Occupational Group	Total employment		New jobs created		Retirements		Core requirement for people		
	2025 baseline	2032	Number	*% Growth*	Number	*% of current workforce*	Total	*% of current workforce*	Average per year
Managerial	500	700	200	*43%*	100	*20%*	300	*63%*	<100
Technical Professional	600	900	300	*43%*	<100	*11%*	300	*54%*	<100
Business Support	1,100	1,500	400	*43%*	200	*16%*	600	*59%*	100
Front Line Technical	2,800	4,000	1,200	*43%*	500	*17%*	1,700	*60%*	200
Other	<100	<100	<100	*43%*	<100	*17%*	<100	*60%*	<100
Domestic Low Carbon Technologies – Solar PV & Battery Storage	**5,000**	**7,100**	**2,100**	***43%***	**800**	***16%***	**2,900**	***59%***	**400**

Note: Figures may not sum to the grand total due to rounding.

4.5.10 Figure 39 shows demand is concentrated in a small number of occupations:

- Skilled Metal, Electrical and Electronic Trades 1,500 people
- Corporate Managers and Directors — 300 people
- Administrative Occupations — 200 people
- Science, Research, Engineering and Technology Professionals — 200 people

Figure 39: Current workforce estimates and forecast number of new jobs created, retirements and the total core requirement for people by 2032 by occupation

Skill level	Standard Occupation Classification	Total employment		New jobs created		Retirements		Core requirement for people		
		2025 baseline	2032	Number	% Growth	Number	% of current workforce	Total	% of current workforce	Average per year
RQF 7-8 SCQF 11-12	11 - Corporate Managers and Directors	500	600	200	43%	100	20%	300	63%	<100
	12 - Other Managers and Proprietors	<100	<100	<100	43%	<100	20%	<100	63%	<100
RQF 6 SCQF 9-10	21 - Science, Research, Engineering and Technology Professionals	500	700	200	43%	100	10%	300	53%	<100
	22 - Health Professionals	0	0	0	--	0	--	0	--	0
	23 - Teaching and Other Educational Professionals	0	0	0	--	0	--	0	--	0
	24 - Business, Media and Public Service Professionals	300	400	100	43%	100	14%	100	56%	<100
RQF 4-5 SCQF 7-8	31 - Science, Engineering and Technology Associate Professionals	100	200	100	43%	<100	13%	100	56%	<100
	32 - Health and Social Care Associate Professionals	<100	<100	<100	43%	<100	17%	<100	60%	<100
	33 - Protective Service Occupations	<100	<100	<100	43%	<100	9%	<100	51%	<100
	34 - Culture, Media and Sports Occupations	<100	<100	<100	43%	<100	10%	<100	53%	<100
	35 - Business and Public Service Associate Professionals	200	300	100	43%	<100	12%	100	55%	<100
RQF 3 SCQF 6	41 - Administrative Occupations	400	600	200	43%	100	18%	300	61%	<100
	42 - Secretarial and Related Occupations	100	100	<100	43%	<100	26%	<100	69%	<100
	51 - Skilled Agricultural and Related Trades	0	0	0	--	0	--	0	--	0
	52 - Skilled Metal, Electrical and Electronic Trades	2,500	3,500	1,000	43%	400	17%	1,500	59%	200
	53 - Skilled Construction and Building Trades	100	100	<100	43%	<100	17%	<100	60%	<100
	54 - Textiles, Printing and Other Skilled Trades	<100	<100	<100	43%	<100	17%	<100	59%	<100
	61 - Caring Personal Service Occupations	<100	<100	<100	43%	<100	18%	<100	61%	<100
	62 - Leisure, Travel and Related Personal Service Occupations	0	0	0	--	0	--	0	--	0
	63 - Community and Civil Enforcement Occupations	0	0	0	--	0	--	0	--	0
RQF 2 SCQF 5	71 - Sales Occupations	0	0	0	--	0	--	0	--	0
	72 - Customer Service Occupations	<100	100	<100	43%	<100	11%	<100	54%	<100
RQF 1 SCQF 4	81 - Process, Plant and Machine Operatives	100	200	100	43%	<100	21%	100	63%	<100
	82 - Transport and Mobile Machine Drivers and Operatives	<100	<100	<100	43%	<100	29%	<100	71%	<100
	91 - Elementary Trades and Related Occupations	100	200	100	43%	<100	19%	100	62%	<100
	92 - Elementary Administration and Service Occupations	100	100	<100	43%	<100	17%	<100	60%	<100
Domestic Low Carbon Technologies – Solar PV & Battery Storage		**5,000**	**7,100**	**2,100**	**43%**	**800**	**16%**	**2,900**	**59%**	**400**

Note: Figures may not sum to the grand total due to rounding.

4.6 EV Chargepoints

Figure 40: Current workforce estimates and forecast number of new jobs created, retirements and the total core requirement for people by 2032 by sub-industry

Sub-Industry	Total employment		New jobs created		Retirements		Core requirement for people		
	2025 baseline	2032	Number	% Growth	Number	% of current workforce	Total	% of current workforce	Average per year
EV chargepoints	1,600	3,300	1,600	*98%*	300	*21%*	2,000	*119%*	300

Note: Figures may not sum to the grand total due to rounding.

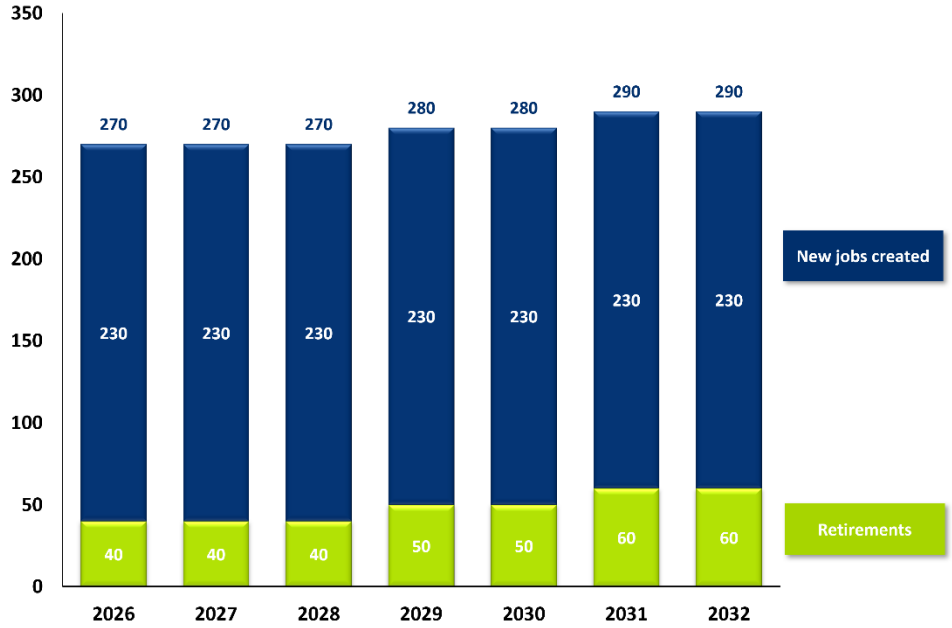
4.6.1 Current workforce estimates and future forecasts were derived by Energy & Utility Skills. The methodology is based on projected domestic charger installation activity driven by EV adoption and government policy commitments.

4.6.2 EV Chargepoints has a core requirement for 2,000 people by 2032, equivalent to 119% of the current workforce. Employment is projected to almost double from 1,600 to 3,300, creating 1,600 new jobs (98% growth), alongside around 300 retirements.

4.6.3 Annual workforce demand remains relatively stable, increasing gradually from 270 people in 2026 to 290 in 2031 and 2032. This indicates a sustained recruitment requirement rather than demand being concentrated in particular years.

4.6.4 New job creation is the dominant driver of demand, remaining constant at around 230 people per year. Retirements increase gradually from 40 people per year in 2026–2028 to 60 in 2031–2032, becoming a slightly larger component of demand over time.

Figure 41: Core requirement for people by year and cause



Note: Figures may not sum to the grand total due to rounding.

4.6.5 England accounts for the majority of EV Chargepoints workforce demand, requiring 1,500 of the 2,000 people needed by 2032.

4.6.6 Northern Ireland and Scotland each require around 200 people, while Wales requires around 100.

4.6.7 Within England, workforce demand is relatively dispersed, with no region requiring more than around 200 people by 2032. The East of England, North West, South East, South West, West Midlands and Yorkshire & The Humber each have requirements of around 200 people, while demand is around 100 in the remaining regions.

Figure 42: Current workforce estimates and forecast number of new jobs created, retirements and the total core requirement for people by 2032 by nation and region

Nation & Region	Total employment		New jobs created		Retirements		Core requirement for people		
	2025 baseline	2032	Number	*% Growth*	Number	*% of current workforce*	Total	*% of current workforce*	Average per year
England	1,300	2,500	1,200	*95%*	300	*20%*	1,500	*115%*	200
Northern Ireland	100	300	200	*132%*	<100	*20%*	200	*155%*	<100
Scotland	100	300	100	*95%*	<100	*20%*	200	*115%*	<100
Wales	100	200	100	*95%*	<100	*20%*	100	*115%*	<100
United Kingdom	**1,600**	**3,300**	**1,600**	***98%***	**300**	***21%***	**2,000**	***119%***	**300**
English regions									
East of England	200	300	200	*95%*	<100	*20%*	200	*115%*	<100
East Midlands	100	200	100	*95%*	<100	*20%*	100	*115%*	<100
London	100	200	100	*95%*	<100	*20%*	100	*115%*	<100
North East	100	100	100	*95%*	<100	*20%*	100	*115%*	<100
North West	200	400	200	*95%*	<100	*20%*	200	*115%*	<100
South East	200	400	200	*95%*	<100	*20%*	200	*115%*	<100
South West	100	300	100	*95%*	<100	*20%*	200	*115%*	<100
West Midlands	200	300	100	*95%*	<100	*20%*	200	*115%*	<100
Yorkshire & The Humber	100	300	100	*95%*	<100	*20%*	200	*115%*	<100

Note: Figures may not sum to the grand total due to rounding.

4.6.8 Front Line Technical occupations have the largest core workforce requirement for EV Chargepoints, requiring 1,100 people by 2032.

4.6.9 Business Support has the second-largest requirement at 400 people, while Managerial and Technical Professional occupations each require around 200 people. This shows that demand is heavily concentrated in front-line delivery roles.

Figure 43: Current workforce estimates and forecast number of new jobs created, retirements and the total core requirement for people by 2032 by broad occupational group

Broad Occupational Group	Total employment		New jobs created		Retirements		Core requirement for people		
	2025 baseline	2032	Number	*% Growth*	Number	*% of current workforce*	Total	*% of current workforce*	Average per year
Managerial	200	300	200	*98%*	<100	*25%*	200	*123%*	<100
Technical Professional	200	400	200	*98%*	<100	*14%*	200	*112%*	<100
Business Support	300	700	300	*98%*	100	*20%*	400	*118%*	100
Front Line Technical	900	1,900	900	*98%*	200	*21%*	1,100	*120%*	200
Other	<100	<100	<100	*98%*	<100	*22%*	<100	*120%*	<100
Domestic Low Carbon Technologies – EV Chargepoints	**1,600**	**3,300**	**1,600**	***98%***	**300**	***21%***	**2,000**	***119%***	**300**

Note: Figures may not sum to the grand total due to rounding.

4.6.10 Figure 44 shows demand is concentrated in a small number of occupations:

- Skilled Metal, Electrical and Electronic Trades – 1,000 people
- Administrative Occupations – 200 people
- Corporate Managers and Directors – 200 people
- Science, Research, Engineering and Technology Professionals – 200 people

Figure 44: Current workforce estimates and forecast number of new jobs created, retirements and the total core requirement for people by 2032 by occupation

Skill level	Standard Occupation Classification	Total employment		New jobs created		Retirements		Core requirement for people		
		2025 baseline	2032	Number	% Growth	Number	% of current workforce	Total	% of current workforce	Average per year
RQF 7-8 SCQF 11-12	11 - Corporate Managers and Directors	200	300	100	98%	100	25%	200	123%	<100
	12 - Other Managers and Proprietors	<100	<100	<100	98%	<100	25%	<100	123%	<100
RQF 6 SCQF 9-10	21 - Science, Research, Engineering and Technology Professionals	200	300	200	98%	<100	13%	200	111%	<100
	22 - Health Professionals	0	0	0	--	0	--	0	--	0
	23 - Teaching and Other Educational Professionals	0	0	0	--	0	--	0	--	0
	24 - Business, Media and Public Service Professionals	100	200	100	98%	<100	17%	100	116%	<100
RQF 4-5 SCQF 7-8	31 - Science, Engineering and Technology Associate Professionals	<100	100	100	98%	<100	16%	<100	115%	<100
	32 - Health and Social Care Associate Professionals	<100	<100	<100	98%	<100	22%	<100	120%	<100
	33 - Protective Service Occupations	<100	<100	<100	98%	<100	11%	<100	109%	<100
	34 - Culture, Media and Sports Occupations	<100	<100	<100	98%	<100	13%	<100	111%	<100
	35 - Business and Public Service Associate Professionals	100	100	100	98%	<100	15%	100	114%	<100
RQF 3 SCQF 6	41 - Administrative Occupations	100	300	100	98%	<100	23%	200	121%	<100
	42 - Secretarial and Related Occupations	<100	100	<100	98%	<100	33%	<100	131%	<100
	51 - Skilled Agricultural and Related Trades	0	0	0	--	0	--	0	--	0
	52 - Skilled Metal, Electrical and Electronic Trades	800	1,600	800	98%	200	21%	1,000	119%	100
	53 - Skilled Construction and Building Trades	<100	<100	<100	98%	<100	22%	<100	120%	<100
	54 - Textiles, Printing and Other Skilled Trades	<100	<100	<100	98%	<100	21%	<100	119%	<100
	61 - Caring Personal Service Occupations	<100	<100	<100	98%	<100	23%	<100	121%	<100
	62 - Leisure, Travel and Related Personal Service Occupations	0	0	0	--	0	--	0	--	0
	63 - Community and Civil Enforcement Occupations	0	0	0	--	0	--	0	--	0
RQF 2 SCQF 5	71 - Sales Occupations	0	0	0	--	0	--	0	--	0
	72 - Customer Service Occupations	<100	<100	<100	98%	<100	14%	<100	112%	<100
RQF 1 SCQF 4	81 - Process, Plant and Machine Operatives	<100	100	<100	98%	<100	26%	<100	125%	<100
	82 - Transport and Mobile Machine Drivers and Operatives	<100	<100	<100	98%	<100	36%	<100	134%	<100
	91 - Elementary Trades and Related Occupations	100	100	100	98%	<100	24%	100	122%	<100
	92 - Elementary Administration and Service Occupations	<100	100	<100	98%	<100	22%	<100	120%	<100
Domestic Low Carbon Technologies – EV Chargepoints		**1,600**	**3,300**	**1,600**	**98%**	**300**	**21%**	**2,000**	**119%**	**300**

Note: Figures may not sum to the grand total due to rounding.

5 Future labour supply

5.1 The UK population

5.1.1 These population projections are based on assumptions about fertility, mortality and migration. They are not forecasts of future government policy, economic conditions or global events. The principal long-term assumptions are:

- annual net international migration of 230,000 from mid-2027 onwards;
- long-term fertility of 1.42 children per woman;
- continuing improvements in mortality.

5.1.2 The 2024-based projections indicate that the UK population is projected to remain broadly stable through to 2040. However, this stability masks two labour supply pressures:

- declining birth rates, resulting in fewer young people entering the workforce;
- continued reliance on migration to sustain population growth and the working-age population.

5.1.3 These pressures become increasingly apparent after 2030, particularly in sectors with ageing workforces and long training lead times.

5.2 Falling birth rates and the domestic entrant pipeline

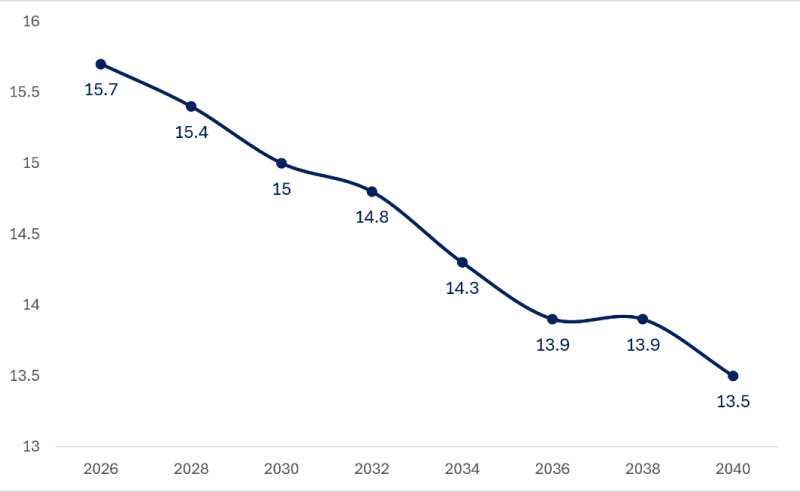
5.2.1 Birth rates in England and Wales have fallen steadily since the early 2010s. The total fertility rate declined from 1.94 children per woman in 2012 to 1.39 in 2025, including a fall from 1.41 in 2024.[10]

5.2.2 These lower birth rates will directly affect workforce entrants during the period covered by this analysis:

- people entering employment at age 18 in 2032 were born in 2014;
- those entering at age 18 in 2040 were born in 2022;
- young people entering apprenticeships at age 16 between 2032 and 2040 were born approximately between 2016 and 2024.

5.2.3 Reflecting these demographic trends, the number of people aged under 20 is projected to fall from 15.7 million in 2026 to 13.5 million by 2040.

Figure 45: Population projections for people aged 0-19 from 2026 to 2040 in millions[11]



[10] Births in England and Wales: 2025, ONS, September 2026

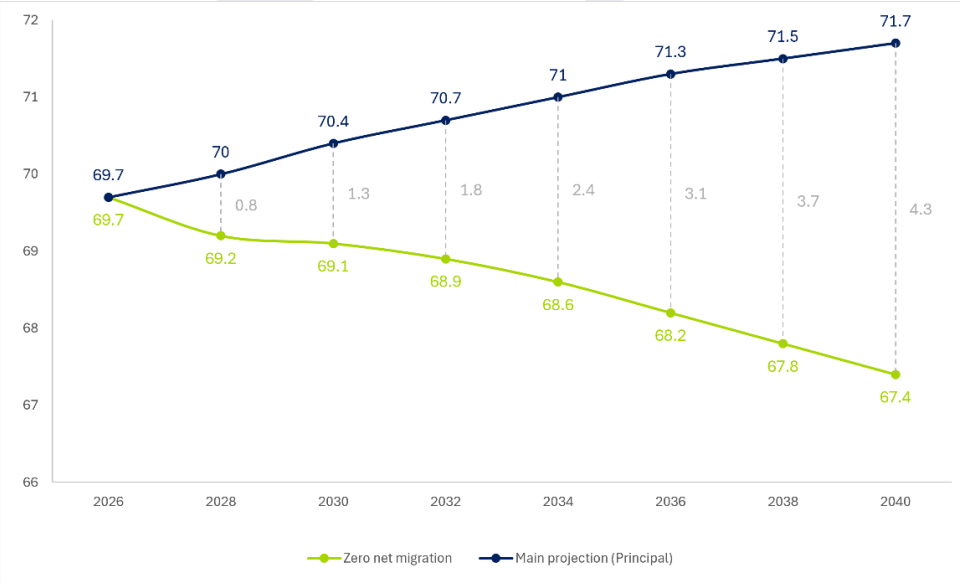
[11] UK Population Projection Explorer, ONS, April 2026

5.2.4 This decline indicates that fewer young people will be available to enter employment and training during the 2030s, resulting in a tighter domestic talent pipeline. As a result, workforce demand will increasingly need to be met through higher retention, retraining, productivity improvements and, where appropriate, migration.

5.3 Migration and sustaining the working-age population

5.3.1 Under the principal projection, migration is the sole source of long-term population growth. The UK population is projected to increase from around 69.7 million in mid-2026 to 71.6 million by 2040.

Figure 46: UK population projections under principal and zero net migration scenarios from 2026 to 2040 with the widening population gap shown in millions[12]



5.3.2 Under the zero net migration variant, the population begins to decline as deaths exceed births, falling towards 67 million by 2040. This illustrates the extent to which future population growth is dependent on migration.

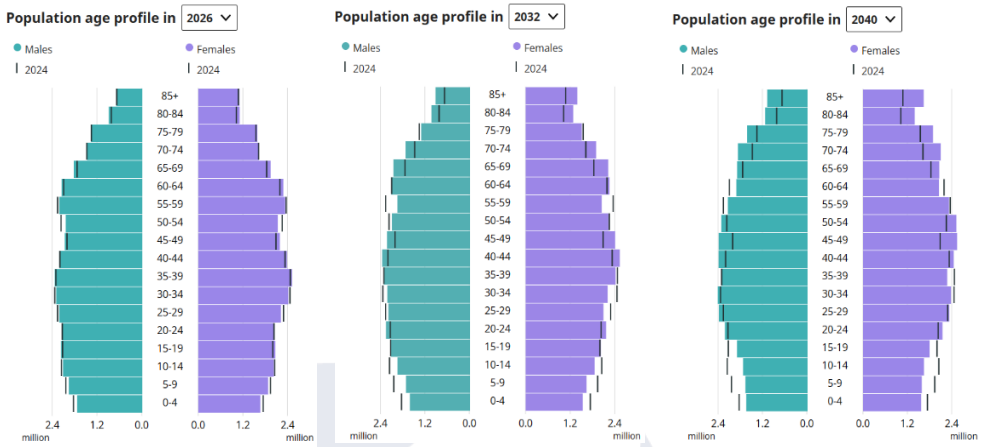
5.3.3 In 2025, there was an estimated net migration of 204,000.[13] This was two-thirds lower than a year earlier (649,000). Net migration remains an important contributor to population and workforce growth, but the decline from 649,000 to 204,000 within a year demonstrates that migration flows can change rapidly in response to policy, economic and international factors. This introduces uncertainty for sectors that rely heavily on migration to meet workforce requirements.

5.3.4 **Error! Reference source not found.** 47 illustrates how the UK's age structure is projected to change between 2026 and 2040. The base of the population pyramid narrows over time, reflecting lower birth rates and a reduced flow of future labour market entrants. At the same time, older age groups become larger as life expectancy improves and larger cohorts move into later life. The working-age population remains substantial throughout the projection period, but its age profile shifts upwards. This suggests that workforce pressures are likely to arise less from an overall shortage of people and more from increasing replacement demand as larger cohorts approach retirement while fewer younger workers enter the labour market.

[12] UK Population Projection Explorer, ONS, April 2026

[13] Long-term international migration, provisional: year ending June 2025, ONS, May 2026

Figure 47: UK population age profile, 2026, 2032 and 2040[14]



5.4 Implications for the sector

5.4.1 Future labour supply will be shaped by a narrowing domestic entrant pipeline and continued reliance on migration.

5.4.2 As the youth population declines, energy and utilities employers will face growing competition for engineering and technical talent from construction, advanced manufacturing, transport, defence, digital and wider infrastructure sectors.

5.4.3 Migration can also provide targeted labour supply in occupations facing shortages. The Migration Advisory Committee found that sponsored engineering workers are concentrated in younger age groups, particularly between ages 26 and 35, while the domestic engineering workforce is more evenly distributed across the working-age population.[15]

5.4.4 Migration can also help where training lead times are long, skills are internationally transferable and recruitment supports time-limited infrastructure delivery. However, it is should not be considered a substitute for sustained domestic workforce development.

5.4.5 The principal workforce challenge from 2032 onwards is therefore not overall population decline, but the interaction of four factors:

- a smaller domestic entrant pipeline;
- high replacement demand from an ageing workforce;
- increasing competition for technical skills;
- continued dependence on migration to sustain labour supply.

[14] UK Population Projection Explorer, ONS, April 2026

[15] Professionals in IT and engineering, Migration Advisory Committee, May 2025

6 Potential economic and social benefits

6.1.1 Attracting and recruiting the required 150,600 people could cost the industry an estimated £271 million just in recruitment costs alone[16] (excluding any additional training or other costs incurred once new recruits are on-boarded).

6.1.2 However, the economic benefits to the industry and to UK PLC are significantly higher.

6.1.3 Assuming that each of the 89,300 additional people in the workforce earns the median salary for their occupation, this could create an estimated £3.6 billion of additional earnings entering the economy by 2032. Approximately 8% of this - c£285 million - would be paid out to the 9,500 new recruits in entry-level occupations.

Figure 48: Estimated additional salaries paid out to new recruits by 2032

Skill level	Standard Occupation Classification	Additional jobs by 2032	Median Salary	Total recruitment cost
RQF 7-8 SCQF 11-12	11 - Corporate Managers and Directors	8,300	£63,350	£526,685,725
	12 - Other Managers and Proprietors	1,100	£40,799	£46,843,602
RQF 6 SCQF 9-10	21 - Science, Research, Engineering and Technology Professionals	7,400	£52,297	£384,550,179
	22 - Health Professionals	0	£46,131	£0
	23 - Teaching and Other Educational Professionals	0	£47,479	£0
	24 - Business, Media and Public Service Professionals	3,600	£49,513	£180,056,209
RQF 4-5 SCQF 7-8	31 - Science, Engineering and Technology Associate Professionals	2,200	£35,945	£80,493,404
	32 - Health and Social Care Associate Professionals	<100	£29,652	£634,674
	33 - Protective Service Occupations	100	£42,806	£2,748,694
	34 - Culture, Media and Sports Occupations	<100	£36,510	£1,562,926
	35 - Business and Public Service Associate Professionals	4,800	£41,404	£198,848,341
RQF 3 SCQF 6	41 - Administrative Occupations	7,800	£30,787	£239,470,596
	42 - Secretarial and Related Occupations	1,200	£28,388	£33,000,458
	51 - Skilled Agricultural and Related Trades	100	£28,980	£4,119,478
	52 - Skilled Metal, Electrical and Electronic Trades	16,800	£39,942	£672,283,186
	53 - Skilled Construction and Building Trades	26,100	£35,764	£933,332,639
	54 - Textiles, Printing and Other Skilled Trades	100	£29,208	£2,016,231
	61 - Caring Personal Service Occupations	200	£26,859	£4,224,117
	62 - Leisure, Travel and Related Personal Service Occupations	0	£27,911	£0
	63 - Community and Civil Enforcement Occupations	0	£32,945	£0
RQF 2 SCQF 5	71 - Sales Occupations	600	£26,121	£16,828,977
	72 - Customer Service Occupations	2,600	£28,485	£73,079,886

[16] Based on recruitment costs of: Managerial = £9,000; Technical Professional = £6,000; Front Line Technical = £3,500; Business Support = £2,100; Other = £2,000.

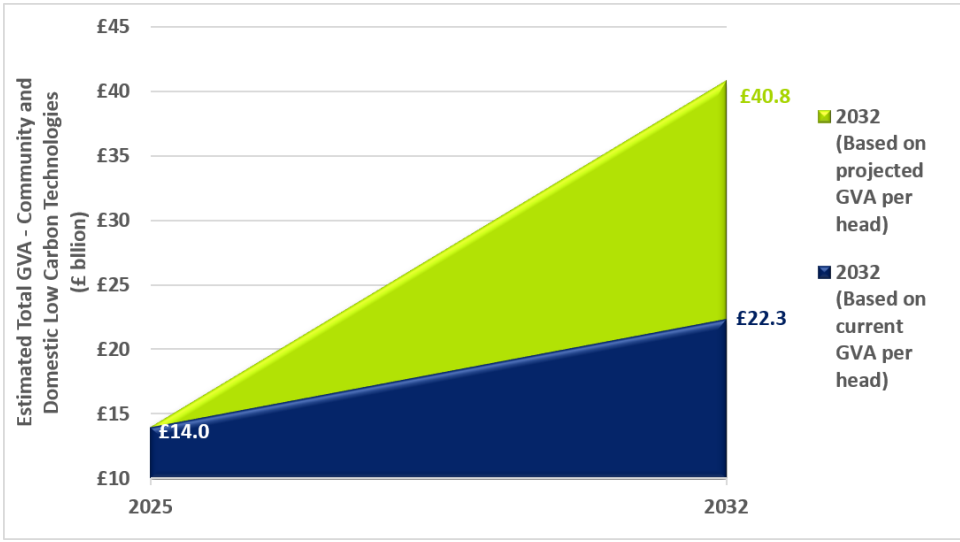
Skill level	Standard Occupation Classification	Additional jobs by 2032	Median Salary	Total recruitment cost
RQF 1 SCQF 4	81 - Process, Plant and Machine Operatives	1,900	£31,158	£60,273,649
	82 - Transport and Mobile Machine Drivers and Operatives	1,600	£36,869	£59,470,526
	91 - Elementary Trades and Related Occupations	1,200	£28,259	£33,629,233
	92 - Elementary Administration and Service Occupations	1,500	£27,486	£42,048,941
Domestic Low Carbon Technologies		**89,300**	**--**	**£3,596,201,668**

Note: Figures may not sum to the grand total due to rounding.

6.1.4 An approximate estimate that the total GVA of the community and domestic low carbon technologies industry in 2025 is £14 billion (based on output per worker in the construction industry multiplied by the total workforce).

6.1.5 By 2032, total GVA could reach between £22 billion (based on 2025 output per worker) and £41 billion (based on annual growth of 9% in output per worker – continuing the growth trajectory seen over the past five years)[17].

Figure 49: Estimated total GVA created by the industry (£ billions)



[17] Energy & Utility Skills' estimate of GVA per head in the Domestic Low Carbon Technologies industry is based on Output per job, UK, ONS, 18th August 2026 and headcount estimates produced for this analysis.

7 Conclusions

7.1.1 The Domestic Low Carbon Technologies industry faces a substantial workforce challenge over the period to 2032. The workforce is projected to grow from 151,000 to 240,400, creating 89,300 additional jobs. Combined with around 27,400 retirements, the industry has a core requirement for 116,800 people over the forecast period, equivalent to 77% of the current workforce and an average of around 16,700 people per year

7.1.2 Annual workforce demand remains consistently high, rising from 16,300 people in 2026 to a peak of 17,200 in 2029, before falling to 16,200 in 2031 and recovering slightly to 16,500 in 2032. New job creation remains the main driver of the core requirement throughout the period, although retirements become increasingly important. In addition, staff turnover could create a further 33,800 vacancies by 2032 if people leave the industry for employment elsewhere or overseas, emphasising the importance of retention alongside attraction.

7.1.3 The scale and nature of workforce demand varies considerably between technologies. Gas Utilisation has the largest core requirement, requiring 69,000 people by 2032, followed by Community and District Heating at 22,400 and Heat Pumps at 19,100. Community and District Heating faces the greatest relative challenge, with its core requirement equivalent to 617% of its current workforce, while Heat Pumps requires the equivalent of 422%. Smart Meters has the smallest core requirement, at 1,400 people.

7.1.4 These estimates treat each technology independently. In practice, some installers may become competent across multiple technologies, particularly gas utilisation and heat pumps, and Solar PV and Battery Storage and EV Chargepoints. The analysis indicates that multi-competency working could reduce the core requirement by up to 11,100 people, or 10%, from 116,800 to 105,300.

7.1.5 Demand is distributed across the UK but varies considerably across nations and regions. England accounts for 96,400 of the 116,800 people in the core requirement, while Northern Ireland faces the greatest relative pressure, with demand equivalent to 91% of its current workforce. Within England, London has the largest core requirement at 20,700 people and also faces the greatest relative pressure, with demand equivalent to 130% of its current workforce.

7.1.6 Workforce demand is heavily concentrated at RQF Level 3 / SCQF Level 6, where 70,400 people are required by 2032. RQF Level 6 and RQF Levels 7–8 have the next-largest requirements at 13,200 and 12,700 respectively. However, RQF Level 2 faces the greatest pressure relative to its current workforce, with a core requirement equivalent to 132% of the existing workforce.

7.1.7 Front Line Technical occupations account for the largest workforce requirement, with 64,200 people needed by 2032, followed by Business Support occupations at 28,100. Together, these occupational groups account for around 79% of the industry's core requirement, reflecting the scale of installation and technical capacity required alongside the customer, administrative and programme support needed to enable increased deployment.

7.1.8 Three occupations are ranked as critical:

- 52: Skilled metal, electrical and electronic trades

- 53: Skilled construction and building trades
- 21: Science, research, engineering and technology professionals

7.1.9 These critical occupational groups are forecast to create 34,000 additional jobs and have a core requirement for 66,700 people by 2032. A further four occupational groups are assessed as high priority. Together, critical and high-priority occupational groups account for around 52,900 additional jobs and require more than 90,800 people to enter their workforces, demonstrating the concentration of workforce pressure in occupations central to installation, engineering and delivery.

7.1.10 At a more detailed level, six occupations are assessed as critical priorities. Together, they are forecast to create 21,500 additional jobs and have a core requirement for 28,800 people by 2032. Plumbers and heating and ventilating installers and repairers have the largest requirement, at 12,400 people, followed by electricians and electrical fitters at 9,300.

7.1.11 Future labour supply is likely to become more constrained as the domestic entrant pipeline narrows. The number of people aged under 20 is projected to fall from 15.7 million in 2026 to 13.5 million by 2040, while the industry will continue to compete with other sectors for engineering and technical talent. Migration can help address occupation-specific shortages, particularly where training lead times are long, but is unlikely to substitute for sustained domestic workforce development.

7.1.12 AI and automation are expected to change how work is undertaken more than overall employment levels. Seven occupational groups, with a combined core requirement for 17,800 people, are identified as at risk of workforce-demand reduction. Under the high-adoption scenario, this could reduce the requirement by up to approximately 3,200 people. However, much of the industry's demand is driven by physical installation, commissioning, maintenance and repair, meaning technology is more likely to augment frontline workers and reshape skill requirements than substantially reduce overall workforce demand.

7.1.13 No single recruitment or training route can deliver the number and mix of people required. Industry will need to use a range of entry pathways, including sector-entry programmes, apprenticeships, graduate programmes, industry transitions, experienced-hire recruitment and internal progression. Lead times to competence mean that expanding some pipelines will not meet immediate demand, making the transition of experienced workers, development of the existing workforce and opportunities to build competence across complementary technologies particularly important.

7.1.14 Meeting this workforce requirement would also bring substantial economic benefits. Attracting and recruiting the 150,600 people represented by the core requirement and potential additional turnover vacancies is estimated to cost around £271 million before training and onboarding costs. The 89,300 additional jobs are estimated to generate approximately £3.6 billion in additional earnings, while the industry's total GVA could increase from approximately £14 billion in 2025 to between £22 billion and £41 billion by 2032.

7.1.15 The workforce requirement is therefore both a significant delivery challenge and an important economic opportunity. Meeting it will require coordinated action to attract new people, expand safe routes to competence, retain experience and critical knowledge, enable workers to develop transferable competencies across technologies, and use technology responsibly to increase delivery capacity. Workforce investment will need to be planned alongside technology deployment if the industry is to secure the people required to expand the installation and ongoing support of domestic low-carbon technologies across the UK.

8 Call to action

8.1 Ambition, growth and opportunity

8.1.1 The UK's domestic low-carbon technologies industry is entering a period of substantial workforce growth and technology deployment. Employers must expand the capacity to install, commission, maintain and support a growing range of domestic low-carbon and energy technologies while maintaining safety, quality and customer confidence.

8.1.2 The industry is expected to support substantial growth in the deployment, installation and ongoing maintenance of domestic energy technologies, including heat pumps, solar PV and battery storage, EV chargepoints, smart meters, gas heating systems and community and district heating. At the same time, employers must ensure that increased deployment is supported by sufficient installation capacity, technical competence, effective customer service and ongoing maintenance and support.

8.1.3 Delivering this ambition will require a skilled, productive and adaptable workforce. The challenge is not simply one of replacing retiring workers or filling vacancies. It is about ensuring that the industry has the capability, capacity and competence required to design, install, commission, maintain, repair and optimise an increasingly diverse range of domestic low-carbon and energy technologies.

8.1.4 The opportunity extends across every nation and region of the UK. It includes engineering, installation and commissioning, environmental management, operations, construction, project delivery, digital and data professions, skilled technical trades and a wide range of supporting occupations. It creates opportunities for young people entering the labour market, experienced workers progressing within the sector, people transitioning from related industries and those who have traditionally faced barriers to employment.

8.1.5 Workforce investment must be treated as a critical enabler of industry outcomes rather than a consequence of them. Technology deployment and workforce investment must be planned together. Employers, governments, regulators, education and skills providers, professional bodies and supply-chain partners all have a role to play in ensuring that workforce capability grows at the pace required.

8.1.6 The commitments that follow bring together three interconnected themes:

- **Ambition**: delivering safe, high-quality deployment and ongoing support of domestic low-carbon and energy technologies while meeting environmental, regulatory and economic objectives.
- **Growth**: ensuring the industry has the workforce capacity and capability required to deliver future technology deployment and operational requirements.
- **Opportunity**: creating pathways that enable people and communities across the UK to access rewarding, long-term careers in the domestic low-carbon technologies industry.

8.1.7 This approach reflects the four interconnected pillars of the Skills Strategy 2025–2030:

- **Research:** developing the insight, evidence and intelligence needed to understand workforce demand, identify emerging challenges and support informed decision-making
- **Attract:** raising awareness of sector careers, broadening access to opportunities and attracting the diverse talent needed to meet future workforce requirements
- **Develop:** supporting the continuous development of a safe, skilled and productive workforce through learning, progression and skills development
- **Retain:** creating the conditions for people to build long-term careers within the sector by supporting inclusion, progression, wellbeing and workforce resilience

8.1.8 Equality, Diversity and Inclusion, AI and Technology, and Productivity provide cross-cutting themes through which activity under the four pillars should be considered.

8.2 Safety is the foundation of delivery

8.2.1 Safety and occupational competence must remain the foundation of workforce growth. They are not barriers to expansion, new entry routes, productivity improvement or technological change. They are the conditions that enable these changes to be delivered responsibly and sustainably.

8.2.2 Skilled electrical and engineering trades, skilled construction and building trades, and engineering and technology professionals are among the occupations most critical to delivery. Across the three broad occupational groups identified as critical, substantial numbers of new people will be required to enter their workforces by 2032. Many of these roles demand specialist expertise, recognised competence and substantial periods of training and workplace development.

8.2.3 Expanding the workforce must not dilute occupational standards, reduce the quality of training or lead to people being deployed before they are competent. Employers must also avoid placing unsustainable pressure on the trainers, assessors, mentors and supervisors responsible for supporting new entrants and developing the existing workforce.

8.2.4 The same principle applies to artificial intelligence, automation and other digital technologies. Technology should be adopted where it can improve safety, quality, productivity or service. However, safety-critical and regulatory decisions must remain subject to clear human accountability. Data, models and automated outputs must be appropriately validated and assured, and affected workers must be supported to develop the capabilities required by redesigned roles.

8.3 Five commitments for delivery

8.3.1 The scale and timing of demand mean that no single organisation can close the workforce gap independently. Employers must lead, supported by coordinated action from supply-chain organisations, governments, regulators, education and skills providers, trade unions, professional and standards bodies, and the Energy & Utility Skills Partnership.

Commitment 1: Plan and invest against evidenced workforce demand

8.3.2 The workforce requirement is immediate, significant and unevenly distributed. Demand varies by occupation, sub-industry, region and year.

8.3.3 Employers and supply-chain organisations should convert the forecasts into practical, funded and regularly updated workforce plans covering:

- Critical occupations and job roles
- Annual and regional demand
- Recruitment, retention and progression
- Routes to occupational competence
- Training, supervision, mentoring and assessment capacity
- Dependencies on suppliers, contractors and other infrastructure sectors

8.3.4 Plans should be reviewed as investment profiles, delivery schedules and labour-market conditions change. Policy, regulation, funding, procurement and contracting arrangements should give employers and their supply chains sufficient visibility and certainty to invest ahead of demand.

8.3.5 Primary ownership sits with:

- **Employers and supply-chain organisations** should produce, fund and deliver workforce plans
- **Governments and regulators** should align policy, regulation, investment and contracting arrangements with credible workforce delivery
- **The Energy & Utility Skills Partnership** should maintain the shared evidence base and provide a consistent framework for workforce planning

8.3.6 Alignment with the 2025-2030 Skills Strategy and EUSP CEO Council 2026/27 priorities:

- This commitment principally supports the **Research** pillar. It also supports the **Develop** and **Retain** pillars because effective workforce plans must address competence, progression and retention
- It directly aligns with the priorities to:
  - Update workforce demand estimates so that industry and government plan using one set of workforce-planning assumptions (**G2**)
  - Champion workforce and skills decisions based on nationally recognised, employer-informed evidence (**P1**)
  - Use industry evidence to inform regulation, price controls and contracting periods for long-term workforce planning (**UK1**)
- It also supports the wider priorities to maintain a current research programme (**G3**) and strengthen evidence-led workforce planning through partnership (**P2**)

Commitment 2: Expand safe routes to competence

8.3.7 Demand is concentrated particularly in technical and vocational occupations, with RQF Level 3 / SCQF Level 6 accounting for the largest workforce requirement. Apprenticeship and graduate routes cannot meet the earliest demand on their own because some pathways take three years or more to produce an occupationally competent worker.

8.3.8 Employers, education and skills providers, governments and standards bodies should jointly increase the capacity and range of routes into competent employment by:

- Increasing apprenticeship and graduate provision in critical occupations
- Expanding trainer, assessor, mentor, supervisor, facility and placement capacity
- Scaling sector-entry programmes linked to genuine vacancies and progression opportunities
- Developing funded modular provision aligned with sector-specific occupational requirements
- Enabling workers to develop competencies across complementary technologies where this can safely increase workforce flexibility and deployment capacity
- Creating progression routes for experienced workers whose capability is not fully represented by prior academic attainment
- Supporting career transitions from sectors with transferable skills
- Using targeted migration where urgent shortages cannot be filled domestically within the required timeframe

8.3.9 Every pathway must lead towards clearly defined occupational competence. Faster entry must not mean weaker standards or premature deployment into safety-critical work.

8.3.10 Primary ownership sits with:

- **Employers** should provide vacancies, placements, mentors, assessors and progression opportunities
- **Education and skills providers** should expand responsive provision and demonstrate how learning leads to recognised competence
- **Governments** should improve the flexibility, accessibility and consistency of skills funding across the UK
- **Regulators, professional bodies and standards organisations** should protect competence and quality while enabling proportionate innovation in delivery
- **The Energy & Utility Skills Partnership** should coordinate occupational profiles, standards, pathway design and cross-sector transferability

8.3.11 Alignment with the 2025-2030 Skills Strategy and EUSP CEO Council 2026/27 priorities:

- This commitment principally supports the **Develop** pillar. It also supports **Attract**, by creating credible entry routes, and **Retain**, by enabling progression and continued development.
- It directly aligns with the priorities covering:
  - Occupational profiles and occupational mapping (**G6**)
  - Standards and workforce competence (**G7**)
  - Expansion of Sector Entry provision and learner places (**P6**)
  - Flexible routes towards RQF Level 3 competence through apprenticeship units (**P7**)
  - Protection of safety and competence during apprenticeship reform (**UK2**)
  - Alternative progression routes for experienced workers into RQF Level 4 and above (**UK5**)
  - Simpler and more consistent apprenticeship funding, administration and delivery (UK6)
  - Removal of disincentives for frontline workers to become trainers and assessors (**UK7**)
- It also supports:
  - Development of a Youth Guarantee model (**G8**)

- Effective use of skills investment and the levy (**P8**)
- Sustainable routes from economic inactivity and unemployment into the sector (**UK3**)
- Place-based adult skills investment (**UK4**)
- Pathways for skilled workers moving from other industries (**P10**)

Commitment 3: Retain experience and widen access to opportunity

8.3.12 Employers should treat retention, succession and knowledge transfer as essential infrastructure-delivery activities by:

- Identifying retirement and turnover exposure in critical roles
- Strengthening career development and internal progression
- Protecting time for experienced workers to train and mentor others
- Improving job quality, inclusion, wellbeing and workforce experience
- Retaining unsuccessful applicants and displaced workers within the wider sector talent pool
- Opening routes for people who are unemployed, economically inactive, under-represented or moving from other industries

8.3.13 UK-wide action should be combined with place-based delivery so that people can access genuine vacancies, appropriate support and clear progression from entry-level roles into skilled employment.

8.3.14 Primary ownership sits with:

- **Employers** should improve retention, succession, progression and knowledge transfer
- **Governments and public employment services** should connect employment, welfare, careers and skills policy to evidenced sector demand
- **Education and skills providers** should create accessible entry and progression pathways that reflect regional labour markets
- **The Energy & Utility Skills Partnership** should coordinate talent referral, inclusion, attraction and cross-sector transition activity

8.3.15 Alignment with the 2025-2030 Skills Strategy and EUSP CEO Council 2026/27 priorities:

- This commitment principally supports the **Retain** and **Attract** pillars. It also supports **Develop** through mentoring, knowledge transfer and career progression.
- It directly aligns with the priorities to:
  - Retain skilled people and unsuccessful candidates within the sector and its supply chains (**G9**)
  - Launch the evaluated Inclusion Measurement Framework, supported by best practice and recommendations (**P9**)
  - Create pathways for skilled workers moving from industries undergoing programme-driven transitions (**P10**)
  - Reduce economic inactivity and unemployment while strengthening progression from entry-level roles into apprenticeships and skilled occupations (**UK3**)
- It also supports:
  - Development of the Youth Guarantee model (**G8**)
  - Access to careers, routes, tools and insight through the sector platform (**P4**)

- Inclusive attraction and recruitment activity through Destination Energy (**P5**)
- Progression by experienced workers into higher-level opportunities (**UK5**)
- The use of experienced workers as trainers and assessors (**UK7**)

Commitment 4: Adopt technology responsibly to increase safe delivery capacity

8.3.16 Digital technologies, automation, artificial intelligence, smart controls, connected technologies, remote diagnostics and energy-management systems are expected to change tasks, skills and working practices across the domestic low-carbon technologies industry. Many technologies have the potential to improve installation quality, commissioning, system performance, customer outcomes and workforce productivity. However, technology should augment workforce capability rather than be viewed solely as a substitute for labour.

8.3.17 Employers should adopt AI, automation and digital technologies where they can demonstrably improve delivery. Implementation should be governed by:

- Task-level assessment of safety, competence and operational risk
- Workforce involvement in workflow and job redesign
- Clear human accountability for safety-critical and regulatory decisions
- Validation and assurance of data, models and automated outputs
- Structured reskilling and redeployment
- Measurement of productivity, quality, safety and service outcomes.

8.3.18 Where technology releases capacity, employers should seek to redirect it towards higher-value, safety-critical or shortage-constrained work. Adoption should respond to clearly defined operational needs rather than an assumption that technology automatically substitutes for labour.

8.3.19 Primary ownership sits with:

- **Employers** should select appropriate use cases, manage risk, redesign work and reskill affected workers
- **Regulators** should establish clear and proportionate expectations for assurance, accountability and evidence
- **Education and skills providers** should embed relevant digital and AI capabilities within technical and professional learning
- **The Energy & Utility Skills Partnership** should gather evidence, share effective practice and identify common implications for occupations, standards and workforce planning

8.3.20 Alignment with the 2025-2030 Skills Strategy and EUSP CEO Council 2026/27 priorities:

- This commitment principally supports the **Develop** pillar because it addresses new capabilities, occupational competence, reskilling and the redesign of work.

  It also supports **Research**, through evidence and workforce intelligence, and **Retain**, where reskilling and redeployment allow people to continue contributing within the sector.
- The commitment also advances the Skills Strategy's cross-cutting themes of **AI and Technology** and **Productivity**. These are cross-cutting themes rather than additional strategic pillars.
- No single 2026/27 priority corresponds directly and comprehensively to responsible AI and automation adoption. The commitment nevertheless supports the priorities covering:

- Research and evidence needed to identify emerging workforce challenges (**G3**)
- Occupational profiles and occupational mapping (**G6**)
- Continuous improvement in standards and workforce competence (**G7**)
- Workforce and skills decisions based on employer-informed evidence (**P1**)
- Investment in skills and improved productivity (**P8**)
- Protection of competence and safety as skills provision changes (**UK2**)

- This supporting alignment should not be interpreted as making any one of these priorities a standalone AI or automation priority

Commitment 5: Champion the people delivering the UK's future

8.3.21 Workforce growth will depend not only on creating opportunities but also on making those opportunities visible, credible and attractive. The industry and its partners should champion, amplify and celebrate the people and teams who design, install, commission, maintain and support the technologies enabling the transition to lower-carbon homes and communities across the UK.

8.3.22 This should include:

- Creating a shared, evidence-led account of the contribution made by the domestic low-carbon technologies workforce
- Using authentic stories from employees, apprentices, career changers, trainers, mentors and supply-chain teams
- Showcasing the breadth of installation, technical, professional, operational, customer and support careers available across the UK
- Recognising employers and partnerships that widen access, uphold competence and improve workforce experience
- Connecting communications to genuine jobs, training, work experience and progression opportunities
- Making careers information accessible to young people, educators, careers advisers, jobseekers and workers in transition
- Measuring whether activity improves awareness, engagement and entry into the industry, rather than reporting communications reach alone.

8.3.23 This is more than a communications commitment. It supports attraction by showing people where opportunities exist, development by making pathways and competence requirements clear, and retention by recognising the contribution of the existing workforce and demonstrating that the industry offers meaningful, long-term careers.

8.3.24 Primary ownership sits with:

- **Employers and supply-chain organisations** should provide authentic workforce stories, career information and examples of effective practice
- **Trade unions, employee networks and workforce representatives** should help ensure that communications accurately reflect the work and the workforce experience
- **Education, careers and employment partners** should bring these messages to schools, colleges, universities, jobseekers and local communities
- **The Energy & Utility Skills Partnership** and sector communications networks should coordinate and amplify a consistent industry narrative

8.3.25 Alignment with the 2025-2030 Skills Strategy and EUSP CEO Council 2026/27 priorities:

- This commitment principally supports the **Attract** pillar

  It also supports **Retain**, through recognition and an authentic employee proposition, and **Develop**, by explaining career pathways, progression and competence requirements
- It directly aligns with the priorities to:
  - Align communications and marketing with the agreed CEO Council priorities (**G10**)
  - Deliver coordinated sector attraction and recruitment activity through Destination Energy (**P5**)
- It also supports the priorities to:
  - Deepen partnerships and clarify engagement routes (**G4**)
  - Support worker transitions through the North Sea Worker service (**G5**)
  - Use occupational profiles to make careers and pathways clearer (**G6**)
  - Retain candidates and skilled people within the sector talent pool (**G9**)
  - Provide access to careers, routes, tools and insight through the sector platform (**P4**)
  - Promote inclusive workforce practice and recommendations (**P9**)
  - Make transition pathways visible to workers in adjacent industries (**P10**)
  - Strengthen entry routes and progression from economic inactivity or unemployment into skilled work (**UK3**)

Summary of strategic alignment

8.3.26 The following table distinguishes between:

- **Direct alignment:** the commitment would materially contribute to delivery of the priority
- **Supporting alignment:** the commitment contributes to the priority but would not deliver it by itself

Commitment	2025-2030 Skills Strategy alignment	EUSP CEO Council 2026/27 priority alignment (Direct)	EUSP CEO Council 2026/27 priority alignment (Supporting)
1. Plan and invest against evidenced workforce demand	**Primary:** Research. **Supporting:** Develop and Retain.	G2, P1, UK1	G3, P2
2. Expand safe routes to competence	**Primary:** Develop. **Supporting:** Attract and Retain.	G6, G7, P6, P7, UK2, UK5, UK6, UK7	G8, P8, UK3, UK4, P10
3. Retain experience and widen access to opportunity	**Primary:** Retain and Attract. **Supporting:** Develop.	G9, P9, P10, UK3	G8, P4, P5, UK5, UK7
4. Adopt technology responsibly to increase safe delivery capacity	**Primary:** Develop. **Supporting:** Research and Retain. **Cross-cutting:** AI and Technology; Productivity.	No single priority directly covers the full commitment	G3, G6, G7, P1, P8, UK2
5. Champion the people delivering the UK's future	**Primary:** Attract. **Supporting:** Retain and Develop.	G10, P5	G4, G5, G6, G9, P4, P9, P10, UK3

8.3.27 The mapping identifies the priorities to which each commitment makes the clearest direct or supporting contribution. It does not imply that a commitment is solely responsible for delivering those priorities. The four pillars are interconnected, and action under one commitment may contribute to outcomes across more than one pillar.

8.4 The immediate commitment

8.4.1 The workforce requirement is not a distant 2032 issue. There are significant, immediate workforce requirements while many technical, vocational and professional pathways can take years to produce an occupationally competent worker.

8.4.2 The industry and its partners should therefore commit now to:

1. **Produce funded workforce and supply-chain plans** for critical occupations, regions and delivery programmes
2. **Expand training, supervision, mentoring and assessment capacity** ahead of demand
3. **Scale entry, progression and transition routes** without weakening competence or safety standards
4. **Retain experienced workers and protect critical knowledge** through succession planning, progression and mentoring
5. **Adopt AI, automation and digital technologies responsibly**, with clear human accountability
6. **Champion the people and opportunities behind the deployment of domestic low-carbon technologies**, connecting communications to genuine jobs, training and careers
7. **Report progress collectively**, using shared workforce outcomes and escalating barriers that individual organisations cannot resolve

8.4.3 By their next workforce-planning cycle, major employers and participating supply-chain organisations should be able to demonstrate how their plans:

- Respond to evidenced occupational demand
- Increase routes to competence
- Protect safety
- Expand delivery capacity
- Support retention

8.4.4 The deployment of domestic low-carbon technologies will move only as quickly as the workforce behind it. Investment in people must therefore be planned, funded and governed with the same urgency as investment in technology deployment itself.

Annex 1 – Occupations and example job titles

Skill Level	Standard Occupation Classification	Occupational Group	Example job titles
RQF 7-8 SCQF 11-12	**11 - Corporate Managers and Directors**	Managerial	Managing Director; Operations Director; Engineering Director; Heat Networks Director; Director of EV Charging Infrastructure
	12 - Other Managers and Proprietors	Managerial	Logistics Manager; Warehouse Manager; Depot Manager
RQF 6 SCQF 9-10	**21 - Science, Research, Engineering and Technology Professionals**	Technical Professional	Electrical Engineer; Mechanical/Building Services Engineer; Heat Network Design Engineer; Solar PV and Battery Storage Design Engineer; EV Charging Infrastructure Engineer; Software/Data Engineer
	22 - Health Professionals	Other	Occupational Health Adviser; Site Paramedic
	23 - Teaching and Other Educational Professionals	Other	Apprenticeship Trainer/Lecturer; Education Manager
	24 - Business, Media and Public Service Professionals	Business Support	Construction Project Manager; Quantity Surveyor; Commercial Manager; Regulatory/Quality Assurance Professional; Energy or Building Surveyor; Retrofit Coordinator; Programme Manager
RQF 4-5 SCQF 7-8	**31 - Science, Engineering and Technology Associate Professionals**	Technical Professional	Electrical/Electronics Technician; Engineering Technician; CAD/BIM Technician; Commissioning Technician; Solar PV Design Technician; BEMS/Controls Technician; IT Operations Technician
	32 - Health and Social Care Associate Professionals	Other	Occupational Health Technician; Workplace Health Trainer; Employee Assistance Programme Counsellor; Vulnerable Customer Outreach Worker; Community Development Officer; Health & Safety Officer
	33 - Protective Service Occupations	Business Support	Critical Infrastructure Security Manager; Fraud Analyst; Fire Safety Officer
	34 - Culture, Media and Sports Occupations	Business Support	Technical Author; Copywriter; Translator; Corporate Videographer; Aerial/Drone Photographer; Technical Illustrator
	35 - Business and Public Service Associate Professionals	Business Support	Estimator; Project Support Officer/Planner; Buyer or Procurement Officer; Data Analyst; Business Development Manager
RQF 3 SCQF 6	**41 - Administrative Occupations**	Business Support	Project Administrator; Installation Scheduler/Coordinator; Sales Administrator; Stock-Control Clerk; Logistics Coordinator; Finance Officer; Customer Service Manager
	42 - Secretarial and Related Occupations	Business Support	Executive Assistant; Personal Assistant; Legal Secretary; Receptionist
	51 - Skilled Agricultural and Related Trades	Front Line Technical	Utility Arborist; Arboricultural Consultant; Countryside Ranger; Grounds Maintenance
	52 - Skilled Metal, Electrical and Electronic Trades	Front Line Technical	Electrician; Solar PV and Battery Storage Installer; EV Chargepoint Installer; Dual-Fuel Smart Meter Installer/Engineer; Electrical Maintenance Technician; Heat-Network Pipefitter; Coded Welder
	53 - Skilled Construction and Building Trades	Front Line Technical	Plumber/Heating Engineer; Low-Carbon Heating Technician; Heat Pump Installer; District Heat Network Maintenance Technician; Heating and Ventilation Installer; Construction/Site Supervisor
	54 - Textiles, Printing and Other Skilled Trades	Other	Digital Printer; Depot Canteen Chef
	61 - Caring Personal Service Occupations	Other	Pest Control Officer; Vulnerable Customer Care Worker
	62 - Leisure, Travel and Related Personal Service Occupations	Other	Business Travel Adviser; Reservations Agent; Project-Accommodation Housekeeper; Depot/Office Caretaker; Facilities Caretaker
	63 - Community and Civil Enforcement Occupations	Other	Not applicable

Skill Level	Standard Occupation Classification	Occupational Group	Example job titles
RQF 2 SCQF 5	**71 - Sales Occupations**	Business Support	Renewable Energy Sales Adviser; Solar/Heat-Pump Sales Consultant; Telesales Adviser; Field Sales Representative; Energy Showroom Assistant; Sales Supervisor
	72 - Customer Service Occupations	Business Support	Customer Service Adviser; Smart Meter Appointment Adviser; Heat-Pump Aftercare Adviser; EV Charging Helpline Adviser; Complaints Adviser; Vulnerable Customer Adviser; Contact-Centre Dispatcher; Customer Service Supervisor
RQF 1 SCQF 4	**81 - Process, Plant and Machine Operatives**	Front Line Technical	Heat Network Energy Centre Operator; Control-Room Operator; Electrical/Electronic Product Assembly Operative; Battery or Inverter Assembly Operative; Routine Electrical Tester; Cable Layer/Construction Operative; Production/Assembly Supervisor
	82 - Transport and Mobile Machine Drivers and Operatives	Front Line Technical	HGV Driver; Delivery Driver/Courier; Fork-Lift Truck Driver; Excavator/Digger Operator; Mobile Crane Operator; Low-Loader Driver
	91 - Elementary Trades and Related Occupations	Front Line Technical	Groundworker; Electrician's Mate; Solar Installer's Mate; Pipe-Layer's Mate; Fitter's Mate; Trench Digger; Cable-Pulling Operative; Construction Labourer
	92 - Elementary Administration and Service Occupations	Business Support	Security Guard; Gatehouse Security Officer; Warehouse Operative; Stores Assistant; Delivery Operative; Canteen Assistant; Mailroom Assistant

Annex 2 – Methodology

A2.1 Current workforce estimates and future employment forecasts

A2.1.1 The estimates and forecasts contained in this report are based on research and employment data from a range of credible sources – all of which are based on what is known at the time of being published (such as known government policies/ strategies and industry investment plans). Where published workforce forecasts were unavailable, Energy & Utility Skills has developed forecasts using industry investment plans, workforce data and employer evidence.

A2.1.2 The sources used to generate our forecasts for each sub-industry are stated at the beginning of each sub-industry's chapter of this report. The workforce data used in this analysis are drawn from the most recently available published sources for each sub-industry. As publication dates vary across sub-industries, the current workforce estimates are not all from the same year, with some of the latest available sources dating to 2024. Where relevant, the source year is noted, and the baseline year presented in the tables reflects the publication date of the underlying workforce estimate.

A2.1.3 Estimates are rounded to the nearest 100. As a result, the sum of sub-industries and tables may not equal published totals. Users should exercise caution when interpreting small differences between estimates and forecasts or changes over time, as these may reflect the effects of rounding rather than underlying variation.

A2.1.4 This analysis includes forecast workforce growth in the 2026 calendar year, through to the end of 2032 – seven full years.

A2.2 Retirement and staff turnover assumptions

A2.2.1 Retirement forecasts have been calculated on the assumption that the proportion of the current workforce in each occupation who are aged 55+ will retire over the next ten years – therefore, we have taken one-tenth of that percentage as the annual retirement rate (see the table opposite).

A2.2.2 Staff turnover, although not an element of the core requirement for people, is based on the assumption that a small proportion of the workforce will leave the industry each year to take up employment in other sectors. Leavers through staff turnover that remain in the energy & utilities sector are not reported in this analysis (as they do not need to be replaced).

Standard Occupation Classification	Annual Retirement Rate	Annual Staff Turnover Rate
11 - Corporate Managers and Directors	2.3%	2%
12 - Other Managers and Proprietors	2.3%	2%
21 - Science, Research, Engineering and Technology Professionals	1.2%	2%
22 - Health Professionals	1.8%	2%
23 - Teaching and Other Educational Professionals	1.7%	2%
24 - Business, Media and Public Service Professionals	1.6%	2%
31 - Science, Engineering and Technology Associate Professionals	1.5%	2%
32 - Health and Social Care Associate Professionals	2.0%	2%
33 - Protective Service Occupations	1.0%	2%
34 - Culture, Media and Sports Occupations	1.2%	2%
35 - Business and Public Service Associate Professionals	1.4%	2%
41 - Administrative Occupations	2.1%	5%
42 - Secretarial and Related Occupations	3.0%	5%
51 - Skilled Agricultural and Related Trades	3.8%	2%

Standard Occupation Classification	Annual Retirement Rate	Annual Staff Turnover Rate
52 - Skilled Metal, Electrical and Electronic Trades	1.9%	2%
53 - Skilled Construction and Building Trades	2.0%	2%
54 - Textiles, Printing and Other Skilled Trades	1.9%	2%
61 - Caring Personal Service Occupations	2.1%	5%
62 - Leisure, Travel and Related Personal Service Occupations	2.1%	5%
63 - Community and Civil Enforcement Occupations	1.9%	5%
71 - Sales Occupations	1.8%	5%
72 - Customer Service Occupations	1.3%	5%
81 - Process, Plant and Machine Operatives	2.4%	2%
82 - Transport and Mobile Machine Drivers and Operatives	3.3%	2%
91 - Elementary Trades and Related Occupations	2.2%	2%
92 - Elementary Administration and Service Occupations	2.0%	2%

A2.3 Estimating occupational criticality

A2.3.1 Our approach to assessing the absolute and relative criticality of each occupational group (2-digit SOCs) and detailed occupation (4-digit SOCs) is based on the weighted average of each occupations scores against the following ten criteria:

Criterion	Description
Infrastructure delivery criticality	Importance of occupation to infrastructure delivery
Workforce shortage severity	Current or forecast workforce shortage level
Training lead time	Time required to reach competency
Replacement demand risk	Exposure to retirement and attrition
Regional concentration risk	Geographic availability constraints
Supply chain dependency	Reliance on contractors/subcontractors
Scalability of workforce	Ability to rapidly increase workforce numbers
Technology substitution potential	Potential for AI, robotics or automation to reduce workforce requirement
Regulatory / safety criticality	Importance to safety-critical or regulated activities
Future system relevance	Importance to future digital, DSO and whole-system requirements

A2.4 AI and automation adoption framework

A2.4.1 Our approach to assessing the impact of AI and automation on the future workforce is based on three adoption scenarios (low, medium and high adoption) assessed across seven dimensions of AI and automation adoption, as set out in the table below.

Dimension	Low Adoption	Medium Adoption	High Adoption
1. Investment and pace	Selective, cautious and uneven; scaling remains slow	Sustained investment in proven cases; adoption accelerates	Strong strategic investment; rapid scaling is prioritised
2. Technology maturity and autonomy	Established, low-risk tools; mainly assistive or rule-based	Mature predictive, generative and workflow tools; bounded autonomy	Agentic AI, machine vision, robotics and autonomous systems expand
3. Breadth of deployment	Selected teams, support functions and isolated operational uses	Multiple core and support functions; adoption still varies by organisation	Most feasible functions, supply-chain areas and lifecycle stages
4. Depth and operating-model integration	Tools sit alongside existing processes; pilots and local solutions dominate	Tools enter business-as-usual workflows, data platforms and governance	Processes are designed around AI; systems coordinate across workflows
5. Task automation and augmentation	Assists workers, removes discrete routine tasks and improves information access	Automates task clusters while augmenting judgement and decisions	Automates substantial sequences or selected end-to-end processes
6. Job redesign and skills	Local working-practice changes and basic AI literacy; little formal redesign	Material role redesign, structured upskilling and some redeployment	Widespread redesign, substantial reskilling and new oversight roles
7. Productivity ambition	Incremental gains in efficiency, quality, safety or service	Material productivity and capacity gains pursued across functions	Transformational gains; higher output, faster delivery or lower labour intensity

A2.4.2 Potential workforce effects are assessed separately and are not a defining characteristic of AI and automation adoption. Workforce impacts may vary between occupations operating under the same adoption scenario.

A2.4.3 The distinction between Significantly Impacted and Augmented occupations is important. Occupations classified as Significantly Impacted are expected to experience substantial changes to role content, responsibilities, skills and workflows, resulting in meaningful job redesign. Occupations classified as Augmented may also experience significant AI and automation adoption, but technology primarily enhances productivity, decision-making and performance while the core nature of the role remains broadly unchanged.

Risk Category	Definition
At Risk of Reduction	Fewer workers may be required because AI and automation increase productivity and automate routine tasks.
Significantly Impacted	Workforce demand remains broadly stable, but roles undergo substantial redesign as tasks, skills, responsibilities and workflows change significantly.
Augmented	AI and automation significantly improve productivity, decision-making and performance, but primarily enhance rather than redesign core roles, and demand for workers remains strong.
Limited Impact	Little expected effect on workforce demand because activities continue to depend heavily on physical intervention, human interaction or site-based work.

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