



**ENERGY &  
UTILITY SKILLS**

Skills for a greener world

# **UK population projections to 2047 and their implications for the workforce planning**

August 2025

**This paper provides a summary of the latest national and sub-national population projections and considers the implications for the energy and utilities sector's future workforce planning.**

## 1. UK headlines

1.1.2 Over the 25 years between 2022 and 2047, the population of the UK is projected to increase by 8.9 million (+13.2%) from an estimated 67.6 million to 76.6 million<sup>1</sup>.

1.1.3 These population projections are based on the following long-term assumptions:

- Net international migration of 340,000 per year from 2028 onwards<sup>2</sup>
- Average number of children per woman being 1.45
- Life expectancy for males being 82.0
- Life expectancy for females being 85.6

1.1.4 Net migration is projected to be the only source of population growth in the UK over the next 25 years.

- Net migration is projected to total 10.0 million
- There will be 1.1 million more deaths than births

1.1.5 Population growth over the next 25 years is projected to be lower than during the previous 25 years.

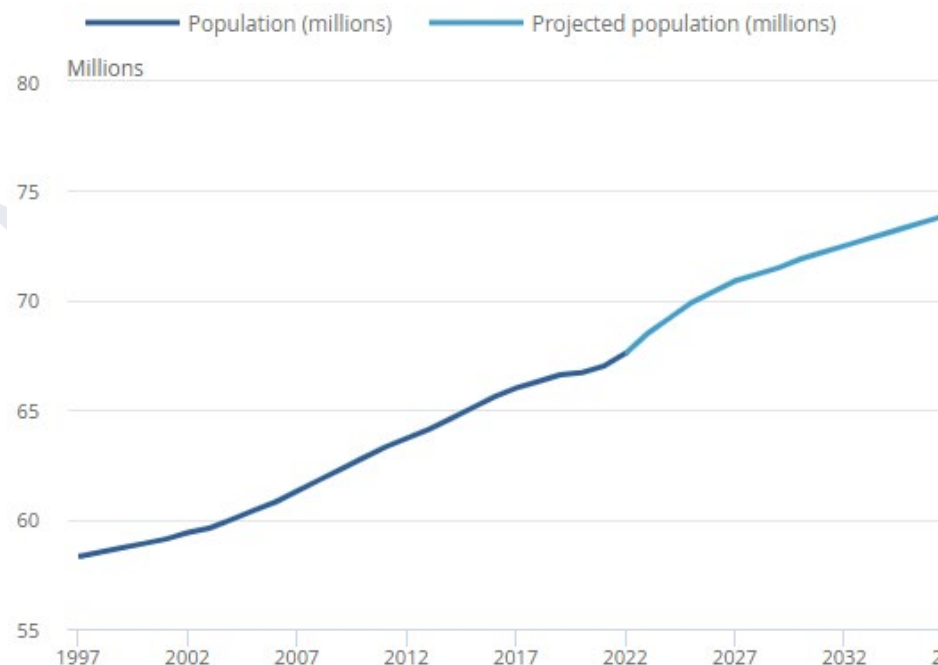
- Population growth over the last 25 years (between 1997 to 2022), was estimated to be 9.3 million (+15.9%)
- Population growth over the next 25 years (between 2022 and 2047), is projected to be 8.9 million (+13.2%)

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<sup>1</sup> Office for National Statistics (ONS), released 28 January 2025, ONS website, statistical bulletin, [National population projections: 2022-based](#).

<sup>2</sup> It should be noted that national population projections are not forecasts and do not attempt to predict potential changes in international migration. Migration assumptions do not directly account for recent and future policy or economic changes. Demographic assumptions for future fertility, mortality and migration are based on observed demographic trends.

Figure 1: UK population estimates, 1997 to 2022, and projections to 2047



1.1.6 The population of the UK is projected to pass 70.0 million by 2026 and 75.0 million by 2041.

1.1.7 By 2047, it is projected that there will be:

- 800,000 fewer people of school age (a fall of 6%)
- 4.9 million more people of working age (an increase of 12%)
- 4.9 million more people aged 65 and over (an increase of 38%)

Figure 2: UK's total population change by age group (2022 to 2047)

Age Group	Total Population		2022 to 2047 Change	
	2022	2047	Number	%
Age 0 to 15	12,397,632	11,595,425	-802,207	-6%
Age 16-64	42,468,848	47,356,980	4,888,132	12%
Age 65+	12,736,267	17,598,119	4,861,852	38%
All Ages	67,602,761	76,550,535	8,947,774	13%

1.1.8 The drop in the number of young people is caused by lower birth rates around the turn of the millennium.

1.1.9 The increase in people aged 65+ is largely driven by population spikes at age 75 years (reflecting the baby boom after World War 2) and 57 (reflecting the baby boom of the 1960s).

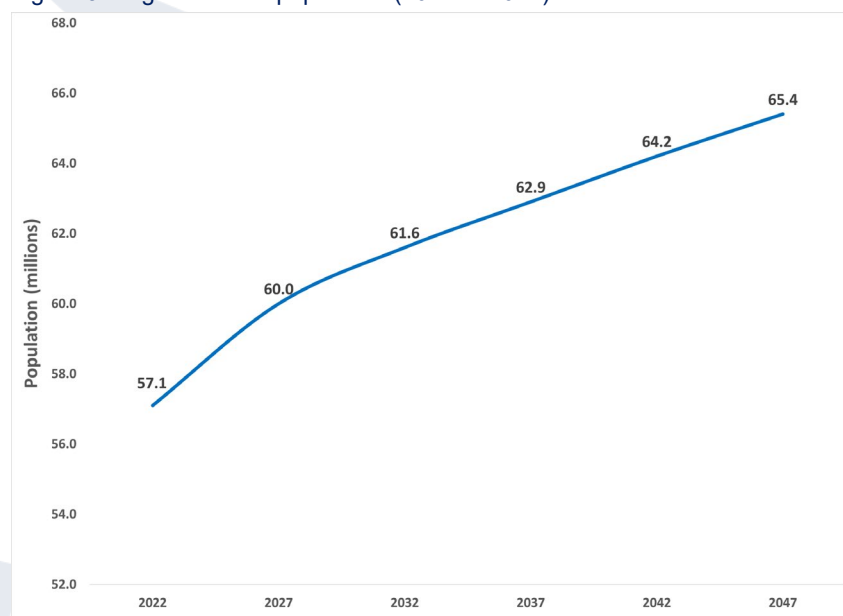
1.1.10 Between 2024 and 2028, it is projected that births will outnumber deaths. However, from 2029, it is projected that there will be more deaths than births, increasing each year. By 2047, there are projected to be 107,000 more deaths than births.

## 2. England

### 2.1 Nation-wide

2.1.1 England's population is projected to grow by nearly 8.3 million between 2022 and 2047. This 14% increase is higher than any other UK nation<sup>3</sup>.

Figure 3: England's total population (2022 to 2047)



<sup>3</sup> Office for National Statistics (ONS), released 24 June 2025, ONS website, statistical bulletin, [Subnational population projections for England: 2022-based](#).

2.1.2 By 2047, it is projected that there will be:

- 563,100 fewer people of school age (a fall of 5%)
- 4.7 million more people of working age (an increase of 13%)
- 4.1 million more people aged 65 and over (an increase of 39%)

Figure 4: England's total population change by age group (2022 to 2047)

Age Group	Total Population		2022 to 2047 Change	
	2022	2047	Number	%
Age 0 to 15	10,567,600	10,004,500	-563,100	-5%
Age 16-64	35,915,200	40,614,200	4,699,000	13%
Age 65+	10,629,700	14,761,600	4,131,900	39%
All Ages	57,112,500	65,380,400	8,267,900	14%

## 2.2 English regional projections

2.2.1 Total population growth does vary between the nine English regions.

2.2.2 As the table below shows, while most regions are broadly in line with English average growth rate of 14% by 2047. However, the North East region is projected to grow by just 8% over the same period.

Figure 5: English regional total population change by age group (2022 to 2047)

Age Group	Total Population		2022 to 2047 Change	
	2022	2047	Number	%
East of England	6,401,500	7,313,100	911,600	14%
East Midlands	4,934,800	5,577,500	642,700	13%
London	8,869,000	9,974,700	1,105,700	12%
North East	2,682,100	2,909,100	227,000	8%
North West	7,515,700	8,499,900	984,200	13%
South East	9,387,300	10,636,000	1,248,700	13%
South West	5,766,900	6,659,600	892,700	15%
West Midlands	6,017,000	6,724,900	707,900	12%
Yorkshire and the Humber	5,538,200	6,094,100	555,900	10%

2.2.3 As the table below shows, all English regions are projected to experience a fall in the number of young people in their populations.

2.2.4 The North East projected to experience the largest fall (-13%).

Figure 6: English regional total population change, 0 to 15 (2022 to 2047)

Age Group	Total Population		2022 to 2047 Change	
	2022	2047	Number	%
East of England	1,125,900	1,067,000	-58,900	-5%
East Midlands	834,200	759,500	-74,700	-9%
London	1,589,800	1,512,900	-76,900	-5%
North East	440,700	382,200	-58,500	-13%
North West	1,317,000	1,240,200	-76,800	-6%
South East	1,632,900	1,513,700	-119,200	-7%
South West	908,000	840,700	-67,300	-7%
West Midlands	1,087,100	1,008,000	-79,100	-7%
Yorkshire and the Humber	961,000	857,800	-103,200	-11%

2.2.5 All English regions are projected to see their working age population increase.

2.2.6 The North West region is projected to see the largest increase (+13%), with the North East projected to see the smallest increase (+7%).

Figure 7: English regional total population change, 16 to 64 (2022 to 2047)

Age Group	Total Population		2022 to 2047 Change	
	2022	2047	Number	%
East of England	4,004,700	4,471,100	466,400	12%
East Midlands	3,128,300	3,468,400	340,100	11%
London	6,208,800	6,834,600	625,800	10%
North East	1,687,300	1,804,500	117,200	7%
North West	4,784,300	5,398,500	614,200	13%
South East	5,907,400	6,491,700	584,300	10%
South West	3,557,900	3,977,000	419,100	12%
West Midlands	3,792,400	4,211,300	418,900	11%
Yorkshire and the Humber	3,515,100	3,821,000	305,900	9%

2.2.7 All English regions are projected to see significant increase in their 65+ population.

2.2.8 London is projected to see the largest increase in their 65+ population (+52%), with the North East projected to see the smallest increase (+30%).

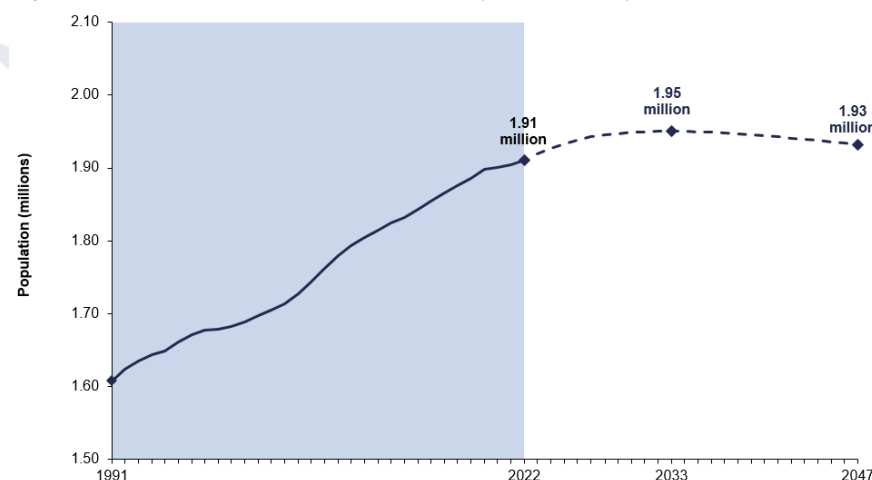
Figure 8: English regional total population change, 65+ (2022 to 2047)

Age Group	Total Population		2022 to 2047 Change	
	2022	2047	Number	%
East of England	1,270,800	1,775,000	504,200	40%
East Midlands	972,300	1,349,500	377,200	39%
London	1,070,500	1,627,200	556,700	52%
North East	554,100	722,400	168,300	30%
North West	1,414,400	1,861,200	446,800	32%
South East	1,847,000	2,630,700	783,700	42%
South West	1,301,100	1,841,900	540,800	42%
West Midlands	1,137,500	1,505,600	368,100	32%
Yorkshire and the Humber	1,062,100	1,415,300	353,200	33%

### 3. Northern Ireland

3.1.1 Northern Ireland's population is projected to grow by slightly more than 21,000 between 2022 and 2047 – a 1% increase<sup>4</sup>.

Figure 9: Northern Ireland's total population (1991 to 2047)



3.1.2 By 2047, it is projected that there will be:

- Nearly 90,000 fewer people of school age (a fall of 23%)
- 55,000 fewer people of working age (a fall of 5%)
- More than 166,000 more people aged 65 and over (an increase of 50%)

<sup>4</sup> 2022-based Population Projections for Northern Ireland, NISRA, 28 January 2025.

Figure 10: Northern Ireland's total population change by age group (2022 to 2047)

Age Group	Total Population		2022 to 2047 Change	
	2022	2047	Number	%
Age 0 to 15	389,400	299,500	-89,900	-23%
Age 16-64	1,185,700	1,130,700	-55,000	-5%
Age 65+	335,400	501,700	166,300	50%
All Ages	1,910,500	1,931,900	21,400	1%

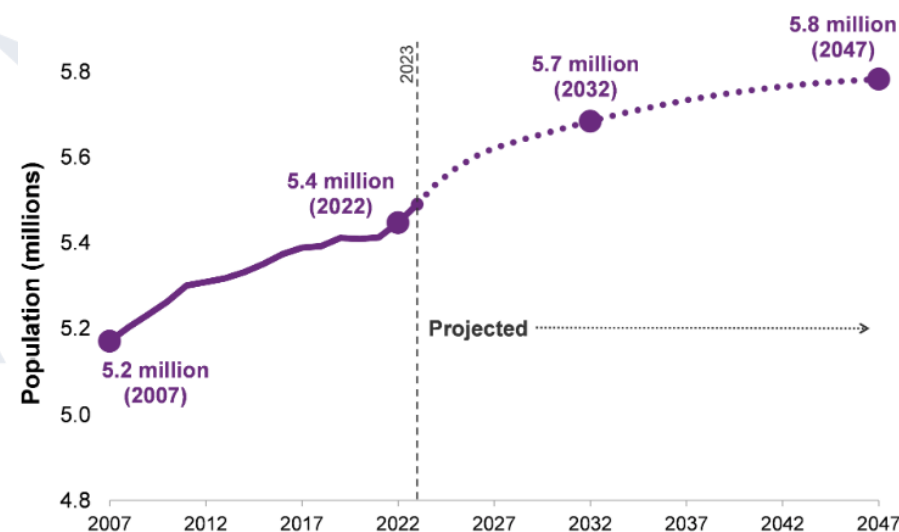
3.1.3 Northern Ireland is the only country in the UK where the number of people in the working age population is expected to fall.

3.1.4 It also has the highest projected percentage increase in the number of people aged 65 and over of any nation in the UK.

## 4. Scotland

4.1.1 Scotland's population is projected to grow by nearly 336,000 between 2022 and 2047 – a 6% increase<sup>5</sup>.

Figure 11: Scotland's total population (2007 to 2047)



4.1.2 By 2047, it is projected that there will be:

- Nearly 80,000 fewer people of school age (a fall of 9%)
- 66,500 more people of working age (an increase of 2%)
- Nearly 350,000 more people aged 65 and over (an increase of 32%)

Figure 12: Scotland's total population change by age group (2022 to 2047)

Age Group	Total Population		2022 to 2047 Change	
	2022	2047	Number	%
Age 0 to 15	891,800	812,000	-79,800	-9%
Age 16-64	3,457,800	3,524,300	66,500	2%
Age 65+	1,097,400	1,446,400	349,000	32%
All Ages	5,447,000	5,782,683	335,683	6%

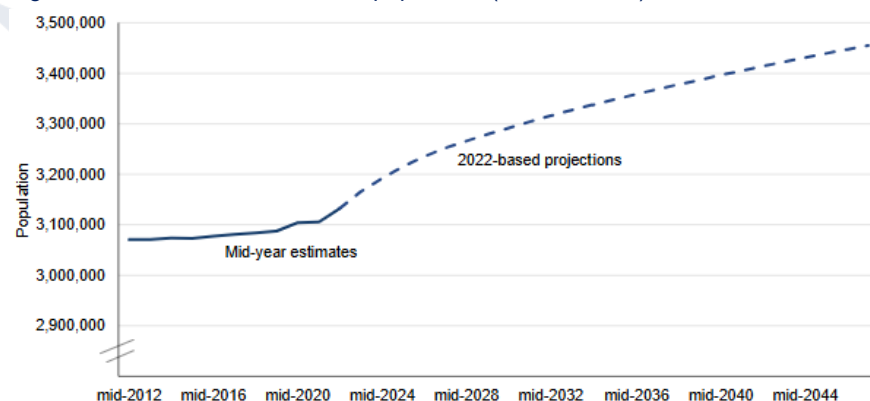
<sup>5</sup> Projected Population of Scotland: 2022-based, National Records of Scotland, 28<sup>th</sup> January 2025.



## 5. Wales

5.1.1 Wales's population is projected to grow by nearly 323,000 between 2022 and 2047 – a 10% increase<sup>6</sup>.

Figure 13: Northern Ireland's total population (2012 to 2047)



5.1.2 By 2047, it is projected that there will be:

- Nearly 70,000 fewer people of school age (a fall of 13%)
- More than 177,000 more people of working age (an increase of 9%)
- Nearly 215,000 more people aged 65 and over (an increase of 32%)

<sup>6</sup> National population projections: 2022-based, Welsh Government, 28<sup>th</sup> January 2025.

Figure 14: Wales's total population change by age group (2022 to 2047)

Age Group	Total Population		2022 to 2047 Change	
	2022	2047	Number	%
Age 0 to 15	548,732	479,386	-69,346	-13%
Age 16-64	1,910,269	2,087,776	177,507	9%
Age 65+	673,675	888,323	214,648	32%
All Ages	3,132,676	3,455,485	322,809	10%

## 6. Implications for the energy and utilities future workforce planning

- 6.1.1 Over the next 25 years, the UK's population is projected to grow in volume (by 8.9 million people) and increase in age – with 800,000 fewer school-age people and 4.9 million more people aged 65 and older.
- 6.1.1 The number of people in the working age population (16 to 64 in this analysis) is also projected to grow – by 4.9 million people.
- 6.1.2 This population growth will be driven exclusively by migration.
- 6.1.3 The impact that these changes could have on the energy and utilities workforce are likely to fall into the following categories:

### Increased demand for its services

- 6.1.4 A larger population will require expanded capacity across the energy and utilities sector – electricity, gas, waste & recycling and water. This applies not just across the residential population, but also to support growing commercial and industrial demands, particularly for greener electricity and gas.
- 6.1.5 This will apply across all four nations of the UK, but to varying degrees. While England's population is projected to grow the most (14%) by 2047, Wales will grow by 10%, Scotland 6% and Northern Ireland 1%.

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<sup>7</sup> Young people not in education, employment or training (NEET), UK: May 2025, ONS.

### Increased demand for people

- 6.1.6 This will mean that demand for workers of all skill levels will persist and likely intensify through to 2047 and beyond – as the UK works towards its 2050 net zero ambitions.
- 6.1.7 As reported in our 2024 to 2030 [workforce demand estimates](#), the sector will need more workers across all skills level and across a range of different functions, including operative, technical, engineering, scientific, digital, and customer service roles, reflecting both technological advances and the complexity of modern utilities.

### Fewer young people and more of working age

- 6.1.8 The drop in young people will increase competition for the best of this talent over the coming years; this is likely to exacerbate the struggles that the sector historically has in recruiting young people. However, there will be opportunities – including maximising the talents on offer in those that are not in education, employment, or training following their compulsory education (currently standing at 923,000 16-24-year-olds; 12.5% of that age group<sup>7</sup>).
- 6.1.9 The projected increase in the working age population affords opportunities to attract talent from other industries, including oil and gas and manufacturing.

### **Greater diversity**

6.1.10 The growth in the population will be driven exclusively by migration, meaning that the population is going to become increasingly diverse in terms of ethnicity, race, culture, etc.

6.1.11 As a result, employers in the energy and utilities sector will need to consider how it can make itself the sector of choice across all sections of the community, thus being able to recruit more people from diverse backgrounds.

### **The need for greater collaboration amongst sector employers**

6.1.12 The projected population growth to 2047 will place substantial demands on the UK energy and utilities workforce, requiring significant recruitment, upskilling, and adaptation to new technologies and changing demographics.

6.1.13 Meeting these challenges will require coordinated action between employers, government, and education providers to address skills gaps and workforce planning.

6.1.14 **Collaborative planning:** Peer companies, supply chain partners, and regulators working together to enable coordinated recruitment and training strategies, minimizing the competition for talent from within the sector.

6.1.15 **Inclusive recruitment:** Broaden recruitment strategies to attract more younger people, those from diverse backgrounds, and at different skill levels - reflecting greater levels of diversity across the nine protected characteristics<sup>8</sup>.

6.1.16 **Retention initiatives:** Develop better retention strategies, such as improved exit interviews and clear career progression pathways, especially for women, ethnic minorities, and younger employees (who often show higher turnover rates).

6.1.17 **Flexible work models:** Adapt to changing workforce expectations by offering flexible working arrangements and modern benefits.

6.1.18 **Up- and re-skilling:** Invest in continuous training and upskilling, including in areas such as digitalisation and new technologies.

6.1.19 **Leadership development:** Create structured pathways to leadership for underrepresented groups, ensuring diversity at all levels of the organization.

6.1.20 By adopting these strategies, the energy and utilities sector can build a resilient, skilled, and diverse workforce, ensuring reliable and equitable service delivery as the UK's population grows and changes.

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<sup>8</sup> <https://www.gov.uk/discrimination-your-rights>