

Electricity Transmission Industry Workforce Planning

Workforce requirements of GB's electricity transmission network operators and Supply Chain

Executive Summary

4th December 2025

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1 Introduction

- 1.1.1 This workforce planning analysis has been produced as part of the Electricity Transmission Industry Skills and Workforce Planning exercise which was convened in November 2024.
- 1.1.2 This exercise brings together Great Britain's electricity transmission companies and their supply chain partners to investigate and seek to address some of the most pressing challenges facing the electricity transmission workforce over the coming years, as it begins to implement the country's largest ever investment in electricity transmission infrastructure.
- 1.1.3 The aims of this working group was to:
- To produce an analysis of the current state of the ET workforce, benchmarked against relevant industry and geographical data
 - To produce an analysis of the people requirements of the ET industry over the coming 10-15 years
 - To develop a set of conclusions and recommendations both for this working group and other groups in the wider ET project
- 1.1.4 This report is based on current workforce data and applied assumptions provided by Great Britain's three electricity transmission companies and 20 supply chain partner companies. Full details on any assumptions that have been applied are contained in the relevant sections of this report.

2 The current workforce

2.1.1 The aggregated workforce dataset contains details of 25,053 people currently employed within the in-scope occupations of electricity transmission:

- Transmission Operators = 7,495 employees
- Supply Chain = 17,558 employees

2.1.2 This workforce is made up of:

Figure 1: Total workforce by occupation type

| Occupation Type | Transmission Operators | Supply Chain | Total workforce |
|------------------------|------------------------|---------------|-----------------|
| Front Line/Technical | 3,828 | 10,569 | 14,397 |
| Business Support | 2,182 | 5,556 | 7,738 |
| Managerial | 911 | 832 | 1,743 |
| Trainee | 574 | 601 | 1,175 |
| Total workforce | 7,495 | 17,558 | 25,053 |

2.1.3 Excluding current trainees, the proportion of the workforce that operate at or below Skill Level 3 (SCQF 6) is:

- Transmission Operators = 21% (1,477)
- Supply Chain = 23% (3,842)

2.1.4 Trainees (including Apprentices, Graduate Trainee programmes, etc.) account for 8% of the current Transmission Operator's workforce; while just 3% of the current Supply Chain workforce are trainees.

2.1.5 The proportion of the current workforce (including all trainees) that are aged 16-24-years-old is:

- Transmission Operators = 8%
- Supply Chain = 7%
- UK economy workforce = 11%

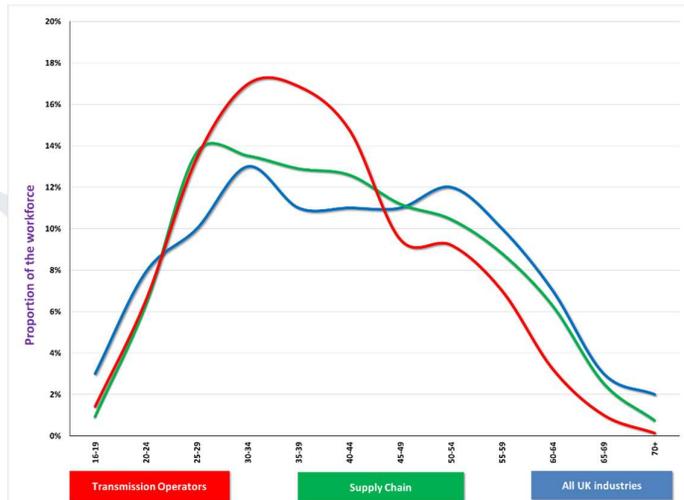
2.1.6 Nearly two-thirds (62%) of trainees in the Supply Chain workforce are young people; as are half (49%) of the trainees in the Transmission Operator workforce.

Figure 2: Age profile of the electricity transmission workforce by occupation type

| Skill Level & Occupation | Young people (aged 16-24 years) | | Older people (aged 60+ years) | |
|--------------------------|---------------------------------|--------------|-------------------------------|--------------|
| | TO | Supply Chain | TO | Supply Chain |
| Front Line/Technical | 7% | 6% | 6% | 11% |
| Business Support | 2% | 4% | 3% | 8% |
| Managerial | 0% | 2% | 4% | 14% |
| Trainee | 49% | 62% | 0% | 0% |
| Total workforce | 8% | 7% | 4% | 10% |

2.1.7 Older people are more prevalent in the Supply Chain's managerial (14%) and front line/technical (11%) workforces.

Figure 3: Age profile of the electricity transmission workforce



2.1.8 The proportion of the current workforce (including all trainees) that are female is:

- Transmission Operators = 20%
- Supply Chain = 20%
- UK economy workforce = 48%¹

¹ Annual Population Survey, ONS, 2024.

² Annual Population Survey, ONS, 2024.

2.1.9 The proportion of the current workforce (including all trainees) that are from an ethnic minority background is:

- Transmission Operators = 21%
- Supply Chain = 21%
- UK 16+ population = 15%²

2.1.10 Of the 3,281 people where their disability status is known, 8% had some form of physical or learning disability – significantly below the national average for working age people (26%).

2.1.11 The proportion of the current workforce (including all trainees) that are non-UK nationals is:

- Transmission Operators = 5%
 - 1% from EU nations; 4% from outside of the EU
 - 2% are reported as holding some form of work visa – 57% at skill levels 6 and 7; 25% on graduate visas
- Supply Chain = 18%
 - 9% from EU nations; 9% from outside of the EU
 - 2% are reported as holding some form of work visa – fairly evenly spread across skill level 1 to 7
- 14% of the UK 16-64 population are non-UK nationals³

³ Annual Population Survey, ONS, 2024.

Figure 4: Proportion of the workforce that are non-UK nationals by occupation type

| Occupation Type | Transmission Operators | Supply Chain |
|------------------------|------------------------|--------------|
| Front Line/Technical | 6% | 21% |
| Business Support | 6% | 14% |
| Managerial | 3% | 29% |
| Trainee | 4% | 7% |
| Total workforce | 5% | 18% |

2.1.12 The average current length of service of the workforce is:

- Transmission Operators = 6.1 years
- Supply Chain = 6.5 years

2.1.13 The proportion of the current workforce that have been with their employer for five years or fewer is:

- Transmission Operators = 69%
- Supply Chain = 62%

2.1.14 Within the Transmission Operator workforce, the average current length of service does generally increase as one goes up the skill levels – although there are some notable exceptions where length of service actually decreases: between levels 1 and 2; levels 3 and 4; level 5 and 6. This suggests that demand for people at skill levels 2, 4 and 6 is greater than can be met by current rates of progression out of skill levels 1, 3 and 5.

2.1.15 Within the Supply Chain workforce, the average current length of service does not generally increase as one goes up the skill levels – the lowest average current length of service is at Skill Level 6 (SCQF 9-10) at just 4.7 years. This suggests that experience/length of service does not necessarily lead to progression up through the skill levels – this reflects, or is caused by, the much higher rate of staff turnover in the Supply Chain workforce compared to the Transmission Operator workforce

3 Estimating future vacancies

3.1.1 It is estimated that approximately 2,681 people will retire from the electricity transmission workforce by the end of T3. This is equivalent to 11% of the current workforce.

- Transmission Operators = 514; 7% of the current workforce
 - This includes 158 people who are already aged over their anticipated retirement age
- Supply Chain = 2,167; 13% of the current workforce
 - This includes 918 people who are already aged over their anticipated retirement age

3.1.2 Based on the current average length of service of those aged 63+ in the workforce, these retirees could take with them:

- 8,100 years of experience from the Transmission Operator workforce
- 26,200 years of experience from the Supply Chain workforce

Figure 5: Estimated number of retirements per year from the Transmission Operator workforce

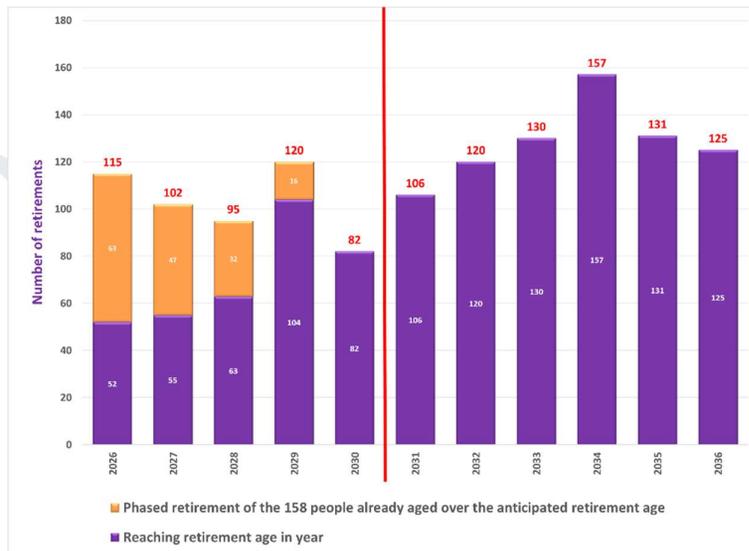


Figure 6: Estimated number of retirements per year from the Supply Chain workforce

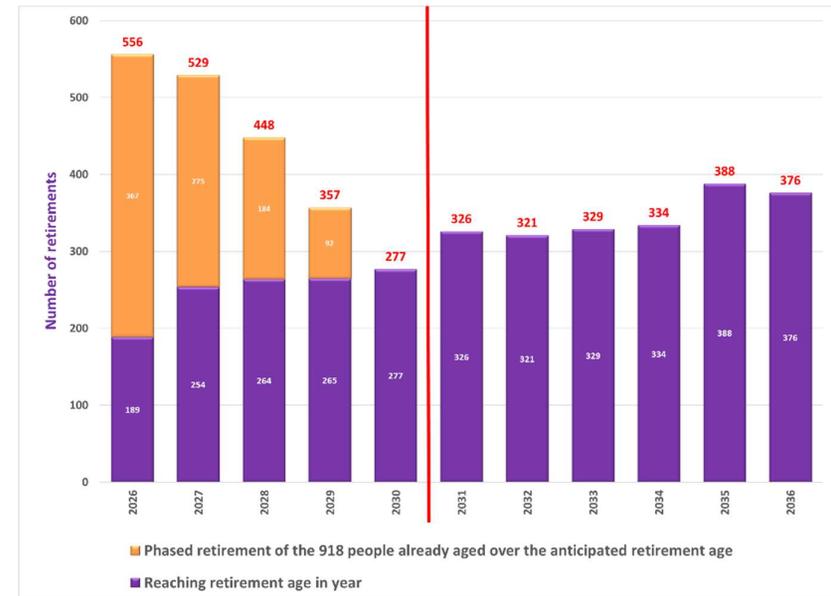


Figure 7: Estimated number of retirements by during T3 and T4

| Workforce | T3 – 2026 to 2030 | | T4 – 2031 to 2035 | |
|------------------------|-------------------|----------------|-------------------|----------------|
| | Number | % of workforce | Number | % of workforce |
| Transmission Operators | 514 | 7% | 644 | 9% |
| Supply Chain | 2,167 | 13% | 1,698 | 10% |
| Total workforce | 2,681 | 11% | 2,342 | 9% |

3.1.3 While the number of estimated retirements from the Supply Chain workforce is expected to fall in T4 compared to T3, in the Transmission Operator workforce the number of estimated retirements is expected to increase in T4 compared to T3.

3.1.4 The following rates of annual voluntary staff turnover have been applied to the data model:

- Transmission Operators = 5% across all occupations
- Supply Chain = 10% across all occupations

3.1.5 Based on these assumptions, 10,125 vacancies are estimated to be created through staff turnover during T3.

- Transmission Operators = 1,775; 25% of the current workforce
- Supply Chain = 8,350; 50% of the current workforce

3.1.6 The average cost of staff turnover per employee (earning £25,000) is estimated to be £30,614 per employee⁴. If this estimate is accurate, staff turnover could cost the electricity transmission industry around £310 million by the end of T3.

3.1.7 It is estimated that the number of additional people required by the Transmission Operators to deliver T3 investments is approximately 4,500. However, discussions with the Transmission Operators reveal that a significant proportion of these people have already been recruited in preparation for the start of T3. Therefore, we estimate that 2,140 people will be recruited by the Transmission Operators from 2026 and into the T3 regulatory period.

3.1.8 In the Supply Chain, the required additional people is estimated to be in the region of 20,000 in the central scenario (+/- 10,000 in the low and high scenarios).

3.1.9 Taking into account the estimates of retirement, staff turnover and the additional people required during T3, the total number of people required by the electricity transmission industry during the T3 period is expected to be in the order of 35,000 (with a range of +/- 10,000 depending on a low or high scenario).

- Transmission Operators = 4,429
- Supply Chain = 30,517

⁴ <https://www.brightthr.com/articles/culture-and-performance/staff-turnover/employee-turnover-costs/>

Figure 8: Total number of estimated vacancies in the electricity transmission workforce during T3 – Central scenario

| Workforce | 2026 | 2027 | 2028 | 2029 | 2030 | T3 Total |
|-------------------------------|---------------|--------------|--------------|--------------|--------------|---------------|
| Transmission Operators | 1,736 | 962 | 704 | 539 | 488 | 4,429 |
| Replacement Demand | 470 | 457 | 450 | 475 | 437 | 2,289 |
| Additional Headcount | 1,266 | 505 | 254 | 64 | 51 | 2,140 |
| Supply Chain – Central | 14,226 | 7,199 | 4,118 | 3,027 | 1,947 | 30,517 |
| Replacement Demand | 2,226 | 2,199 | 2,118 | 2,027 | 1,947 | 10,517 |
| Additional Headcount | 12,000 | 5,000 | 2,000 | 1,000 | 0 | 20,000 |
| Total vacancies | 15,962 | 8,161 | 4,822 | 3,566 | 2,435 | 34,946 |

4 Occupational heat map

4.1.1 Using the data from this analysis and an estimate of the perceived level of difficulty in acquiring relevant skills from the external labour market, an occupational heat map has been developed.

4.1.2 Based on this analysis, the priority occupations in terms of the volume required and difficulty to recruit during T3 are:

Figure 9: Priority occupations for industry to take action on

| Transmission Operators | Supply Chain |
|-------------------------------|----------------------|
| Skill Level 2 (SCQF 5) | |
| | Cable Joiner |
| Electrical Fitter | Electrical Fitter |
| Overhead Linesperson | Overhead Linesperson |

| Transmission Operators | Supply Chain |
|------------------------------------------------------------|------------------------------------------------------------|
| Skill Level 3 (SCQF 6) | |
| | Cable Joiner |
| Overhead Linesperson | Overhead Linesperson |
| Multi Skilled Craftsperson | Multi Skilled Craftsperson |
| Skill Level 5 (SCQF 8) | |
| Site Manager | Site Manager |
| Skill Level 6 (SCQF 9-10) | |
| Electrical Design Engineer | Electrical Design Engineer |
| Control Engineer | Control Engineer |
| HVDC Engineer | HVDC Engineer |
| Other Engineer | Other Engineer |
| Quantity Surveyor | Quantity Surveyor |
| Project Manager | Project Manager |
| Business IT/Software/Cyber Lead/Manager | Business IT/Software/Cyber Lead/Manager |
| Operational Technology (OT) IT/Software/Cyber Lead/Manager | Operational Technology (OT) IT/Software/Cyber Lead/Manager |
| Skill Level 7 (SCQF 11) | |
| Senior Electrical Design Engineer | Senior Electrical Design Engineer |
| Senior Mechanical Design Engineer | Senior Mechanical Design Engineer |
| Senior Civil Engineer | Senior Civil Engineer |
| Commissioning Engineer | Commissioning Engineer |
| Other Senior Engineer | Other Senior Engineer |
| Business/Data Manager | Business/Data Manager |
| Senior Project Manager | Senior Project Manager |
| | Managerial |
| Skill Level 8 (SCQF 12) | |
| Principal Electrical Design Engineer | Principal Electrical Design Engineer |
| | Principal Mechanical Design Engineer |
| Principal Civil Engineer | Principal Civil Engineer |
| Other Principal Engineer | Other Principal Engineer |
| Managerial | Managerial |
| Senior Authorised Person | Senior Authorised Person |

5 The available pool of labour and sub-national labour market conditions

5.1.1 There are various pools of labour that are potentially useful sources of new recruits into the electricity transmission workforce:

- **Young people not in education, employment or training (NEETs):** 948,000 (1-in-7) young people are NEET, and with an estimated 6,000 vacancies predicted at skill level 1 (SCQF 4) and 2 (SCQF 5), this is potentially a valuable pool of labour given the right level of support and development to begin their early careers
- **Apprenticeships:** Although the ability of DNOs to substantially increase their apprenticeship in-take is limited by a number of factors, not least cost, training capacity and the capacity to absorb a higher proportion of trainees into the workforce while giving them the mentoring/supervision they require
- **Higher education:** of the 53,500 STEM graduates in 2021/22, just 20 entered employment in the electricity transmission industry – despite the greater likelihood that they will enter the workforce at a higher level and with a higher salary than the average graduate entering employment

- **Service leavers:** 14,830 people left the armed forces in 2024, and with nearly 15,000 estimated vacancies predicted between skill level 3 (SCQF 6) and 7 (SCQF 11), this is potentially a valuable pool of labour given the right level of support, retraining/upskilling to continue their careers in this industry
- **Those currently unemployed:** Although some 55,000 unemployed people possibly had some experience of working in the wider energy and utilities or construction industries, very few people who are currently claiming Jobseekers' Allowance report that their usual or sought-after occupation relates to any occupation that might be relevant to the electricity industry (e.g. operatives, skilled trades, engineering associate professionals or professionals).

5.1.2 In the table opposite, those nations and regions towards the top of the table are less likely to experience difficulty in delivering the skilled people required by the electricity transmission industry (notwithstanding demand from other infrastructure-related sectors in this region may be great).

5.1.3 Conversely, those nations and regions towards the bottom, are more likely to experience difficulty in delivering the skilled people required by the electricity transmission industry.

5.1.4 Overall, the North East region appears to be the region of the UK which performs the poorest in terms of labour market and educational performance; while the South East performs the best.

Figure 10: Ranking of regional performance against a range of economic, education and deprivation measures

| Rank | Nation/ Region | Average overall ranking | Average ranking of economic status | Average ranking of education attainment & progression | Average ranking of deprivation score |
|------|--------------------------|-------------------------|------------------------------------|-------------------------------------------------------|--------------------------------------|
| 1 | South East | 3.1 | 4.4 | 3.8 | 1 |
| 2 | South West | 3.2 | 2.9 | 3.8 | 3 |
| 3 | Scotland | 4.4 | 5.1 | 3.6 | N/A |
| 4 | East | 4.5 | 5.3 | 6.2 | 2 |
| 5 | London | 5.3 | 5.7 | 4.2 | 6 |
| 6 | East Midlands | 5.4 | 6.3 | 5.8 | 4 |
| 7 | West Midlands | 6.6 | 7.9 | 7.0 | 5 |
| 8 | Yorkshire and The Humber | 6.9 | 5.6 | 8.2 | 7 |
| 9 | Wales | 7.2 | 7.1 | 7.2 | N/A |
| 10 | Northern Ireland | 7.9 | 6.3 | 9.4 | N/A |
| 11 | North West | 8.5 | 8.4 | 9.2 | 8 |
| 12 | North East | 9.5 | 11.0 | 8.6 | 9 |

6 Conclusions and recommendations



6.1 Develop a more sustainable workforce talent recruitment strategy

| Ref | Conclusion | Recommendation |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | An estimated 2,700 people are expected to retire from the electricity transmission workforce over the next five years, equivalent to 11% of the current workforce. | <p>Successfully managing the retirement and knowledge transfer process, and undertaking succession planning, could pay dividends, particularly for the Supply Chain, in a range of occupations (these are listed on page 31 of the full report).</p> <p>Energy & Utility Skills to work with its members and industry to identify new approaches to retaining experienced talent to train and upskill the workers of tomorrow.</p> <p>See also recommendation 8.</p> |

| Ref | Conclusion | Recommendation |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2 | <p>It is estimated that the electricity transmission industry could require as many as 35,000 people in order to deliver its T3 priorities – 16,000 of these in 2026 alone.</p> <p>The nature and extent of how the various entry routes utilised by industry may vary depending upon regional and local variances in the supply and demand of skills and the state of their labour markets.</p> | <p>Industry should consider how to maximise the impact of all available entry routes in order to attract, recruit and retain the quantity and quality of people needed – both in the short-term (to deliver T3) and in the longer-term, including (but not limited to):</p> <ul style="list-style-type: none"> ■ Apprenticeships and other forms of structured training ■ Graduate entry programmes ■ Service leavers ■ The “pooling” of unsuccessful job applicant details in the sector to offer them alternative opportunities in other employers who are recruiting similar skills/occupations ■ Continue to explore/develop the concept of “skills passports” to facilitate the movement of people around the sector, and into the sector from adjacent sectors, and reduce the duplication of training against industry-agreed standards <p>Industry to engage in developing and delivering a Sector Attraction Strategy, building on new research being undertaken by Energy & Utility Skills into the perceptions of key target groups of their career aspirations in the sector.</p> <p>Industry to engage in improving key target groups perception of the sector a sector of choice, and to design and deliver an awareness campaign to improve those perceptions.</p> <p>Those occupations which should be considered as priorities for specific action are listed on page 42 of the full report. These have been identified as being in relatively high in demand and also difficult to recruit from the external labour market.</p> <p>See also recommendations 4, 7 and 8.</p> |

| Ref | Conclusion | Recommendation |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3 | <p>In the short-term, international migration might have to play an important role in delivering the workforce talent required to deliver T3 investments, particularly in the supply chain where investing in longer-term skills pipelines can prove challenging due to contracting arrangements.</p> | <p>Industry to engage with government and its agencies (particularly the Migration Advisory Committee) and Energy & Utility Skills to ensure current entry routes for international talent are fit for purpose (e.g. Skilled Worker Visa, Immigration Salary List, Temporary Shortage List, etc.).</p> <p>Furthermore, industry should review those occupations listed on pages 20 and 21 of the full report and consider what actions might be taken to reduce the potential over-reliance on non-UK nationals over the medium and longer-term.</p> <p>All the recommendations contained in this chapter will help to build a long-term, sustainable pipeline of talent.</p> |

6.2 Entry routes for young people

| Ref | Conclusion | Recommendation |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4 | The proportion of young people (aged below 25 years) is low compared to the UK average (8% in TOs, 7% in the Supply Chain - UK average is 11%). | <p>In entry-level occupations, industry to consider how a more skills-based recruitment approach might help mitigate risk through utilising an accelerated programme of sector-specific skills development and fast-track into employment that expedites time to competency. These should focus on:</p> <ul style="list-style-type: none"> ■ Those with low levels of academic achievement ■ Those who are not currently in education, employment or training (NEET) <p>See also recommendation 2.</p> |

6.3 Attracting and retaining more females into the workforce

| Ref | Conclusion | Recommendation |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5 | <p>The proportion of females in the workforce is relatively low (20% across both the Transmission Operator and Supply Chain workforces) when compared to the national average (48%) – this particularly affects the front line/technical workforce.</p> <p>Maximising the use and inclusivity of the various entry routes available to the industry will help develop a strong UK-based workforce.</p> | <p>Industry should continue to develop their approaches to attracting females into the workforce, and retaining them, particularly in front line/technical occupations.</p> <p>This may require employers to review and update its policies and practices in terms of advertising, recruiting, flexible working conditions, pastoral care/mentoring, and their approach to collecting exit interview data (to better understand why women leave the workforce).</p> <p>Industry to engage with the Inclusion Measurement Framework to provide data on the progress being made in social inclusion and identify areas of good practice.</p> <p>See also recommendation 2 and 4.</p> |

6.4 Reflect the ethnic diversity of local communities

| Ref | Conclusion | Recommendation |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6 | <p>Although the level of ethnic diversity in the industry's workforce is higher than the UK average, this hides to important factors that need addressing:</p> <ul style="list-style-type: none"> ■ There are some occupations where levels of ethnic diversity is low ■ Levels of ethnic diversity varies significantly at a regional and local level ■ In the population as a whole, younger age groups are far more ethnically diverse than older ones <p>Maximising the use and inclusivity of the various entry routes available to the industry will help develop a strong UK-based workforce.</p> | <p>Individual employers should seek to better reflect the ethnic diversity of the communities in which they recruit.</p> <p>This may require employers to review and update its policies and practices in terms of advertising, recruiting, flexible working conditions, pastoral care/mentoring, and their approach to collecting exit interview data (to better understand why people from ethnic minority backgrounds leave the workforce).</p> <p>Industry to engage with the Inclusion Measurement Framework to provide data on the progress being made in social inclusion and identify areas of good practice.</p> <p>Industry should also engage with relevant organisations/charities that specialist in this area of community engagement.</p> <p>See also recommendations 2 and 4.</p> |

6.5 Trainee pathways for all ages

| Ref | Conclusion | Recommendation |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7 | <p>Just 3% of the Supply Chain workforce are trainees (including Apprentices, Graduate Trainee programmes, etc.), with contract timing and certainty being cited as inhibitors to long-term investment in skills.</p> <p>To achieve the industry-standard benchmark of 5% of the workforce being trainees, the Supply Chain would have to increase their current numbers by 44% (from 600 to 900).</p> <p>Trainee programmes in the Supply Chain are also heavily biased towards young people (62% are aged under 24 years; compared to 51% in the Transmission Operator workforce).</p> | <p>Transmission Operators and Ofgem to take action to provide contract certainty and improved contract timing to enable longer-term investment in the talent pipeline by the Supply Chain.</p> <p>Develop and utilise industry-agree occupational standards to expedite the route to competence, recognising prior learning from adjacent industries and previous employment.</p> <p>Industry should innovate to create additional assessor and trainer capacity to support an increase in the use of trainee-based entry routes.</p> <p>Supply chain should consider how their trainee-based entry routes might be utilised across a wider age/experience range – not just focussing on young people.</p> <p>See also recommendation 4.</p> |

6.6 Support career progression

| Ref | Conclusion | Recommendation |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8 | <p>Around two-thirds of the electricity transmission workforce were recruited five or fewer years ago.</p> <p>Progression up the skill levels, with age/experience, does not appear to come easy in the Supply Chain workforce – the average current length of service varies little by skill level.</p> <p>There are also cold-spots of progression within the Transmission Operator workforce (at skill levels 2, 4 and 6).</p> | <p>Industry should consider how career progression is managed and supported for the existing workforce, particularly in the Supply Chain.</p> <p>Industry to support the development of Occupational Profiles and Occupational Mapping to facilitate career progression and the retention of people in the industry's workforce.</p> <p>Industry to engage on the development and implementation of a Candidate Care Charter</p> |

6.7 Timescale for refreshing this analysis

| Ref | Conclusion | Recommendation |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9 | <p>There is a need to keep this analysis update to date and as accurate as possible – to reflect changing priorities and the latest thinking as the industry moves through one price control period towards the next, and reflect the changing skills landscape and nature of skills supply</p> | <p>Industry, including their respective supply chain partners, should move towards a cycle of two-year updates of this analysis.</p> <ul style="list-style-type: none"> ■ 2026 = This update will use the 2025 workforce dataset (updated workforce data will be accepted if a Transmission Operator feels that their workforce has changed substantially since 2025), with updates being applied relating to T3 headcount requirements. Conclusions and recommendations will be updated accordingly. ■ 2027 = This will involve a full update of workforce data across the Transmission Operators and Supply Chain. Updates of future headcount requirements will also be applied and the conclusions and recommendations updated accordingly. <p>The industry will then settle into a two-year cycle (with 2028 mirroring the 2026 approach, and so on).</p> |

Annex 1 – List of participating companies

A1.1.1 The following electricity Transmission Operators provided workforce data in support of this exercise:

- National Grid Electricity Transmission
- SP Energy Networks
- Scottish and Southern Electricity Networks

A1.1.2 The following electricity transmission Supply Chain partners provided workforce data in support of this exercise:

- AECOM
- AtkinsRéalis
- Aureos
- Balfour Beatty Utility Solutions
- BAM
- Burns & McDonnell
- Farrans
- George Leslie
- Hitachi Energy
- Jacobs
- Laing O'Rourke
- Linxon UK

- Morgan Sindall
- Mott MacDonald
- Murphy
- NKT
- Siemens
- Siemens Energy
- Wood Group
- WSP

Annex 2 – List of skill levels and occupations

| Skill Level | Occupation | Example job titles | Occupational Group | Best-fit Standard Occupational Classification |
|------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|--------------------------------------------------------------------------------------------------|
| 1 (4 in Scotland) <i>Basic education + on-the-job training</i> <i>Equivalent to GCSE grades D-G</i> | General Technical Support | <ul style="list-style-type: none"> • Tree Cutter • Craft Attendant/Mate • Mechanic's Mate • Street Works Assistant • Excavator Operator • General Operative | Front Line/Technical | No direct match 9139 Elementary process plant occupations n.e.c. |
| | Mechanical Fitter | <ul style="list-style-type: none"> • Mechanical Fitter's Mate | Front Line/Technical | No direct match 9139 Elementary process plant occupations n.e.c. |
| 2 (5 in Scotland) <i>Minimum competence + formal training</i> <i>Equivalent to GCSE grades A*-C</i> | Cable Jointer | <ul style="list-style-type: none"> • Cable Jointers Mate • Jointer's Mate | Front Line/Technical | 5242 Telecoms and related network installers and repairers |
| | Electrical Fitter | <ul style="list-style-type: none"> • Electrical Fitter's Mate • Craftsperson (Fitter) | Front Line/Technical | 5241 Electricians and electrical fitters |
| | General Technical Support | <ul style="list-style-type: none"> • Arborist/ Tree Cutter Surveyor • Construction Assistant • Land Assistant • Project Assistant • Crane Operator • Driver | Front Line/Technical | No direct match 813 Plant and Machine Operatives 822 Mobile Machine Drivers and Operatives |
| | Mechanical Fitter | <ul style="list-style-type: none"> • Mechanical Fitter | Front Line/Technical | 5223 Metal working production and maintenance fitters |
| | Overhead Linesperson | <ul style="list-style-type: none"> • Overhead Lines Worker – LE3 or LE2 | Front Line/Technical | 5249 Electrical and electronic trades n.e.c. |
| | Telecoms Operative | <ul style="list-style-type: none"> • Telecoms fitter | Front Line/Technical | 5242 Telecoms and related network installers and repairers |

| Skill Level | Occupation | Example job titles | Occupational Group | Best-fit Standard Occupational Classification |
|-----------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|------------------------------------------------------------|
| 3 <i>(6 in Scotland)</i> <i>Substantial work-based training (e.g. an apprenticeship)</i> <i>Equivalent to A Level</i> | Advanced Electrical Fitter | <ul style="list-style-type: none"> Electrician Protection Fitter | Front Line/Technical | 5241 Electricians and electrical fitters |
| | Advanced Mechanical Fitter | <ul style="list-style-type: none"> Chargehand Primary Supervisor | Front Line/Technical | 5223 Metal working production and maintenance fitters |
| | Cable Jointer | <ul style="list-style-type: none"> Cable Jointer Craftperson (Jointing) Supervising / Enhanced Jointer | Front Line/Technical | 5242 Telecoms and related network installers and repairers |
| | Gas Technician | | Front Line/Technical | 8113 Chemical and related process operatives |
| | Multi-skilled Craftsperson | <ul style="list-style-type: none"> Civil Operative Multi-Utility Craftsperson (Fitter/Jointing) Enhanced Fitter Multi-skilled Craftsperson | Front Line/Technical | 5249 Electrical and electronic trades n.e.c. |
| | Operational Technology (OT) IT/Cyber Technician | | Specialist Support | 3131 IT operations technicians |
| | Other Technical | <ul style="list-style-type: none"> CAD Operator/Technician Dispatcher/Scheduler | Front Line/Technical | 3120 CAD, drawing and architectural technicians |
| | Overhead Linesperson | <ul style="list-style-type: none"> Craftsperson (Lines) Overhead Linesperson – LE1, Chargehand or Foreman | Front Line/Technical | 5249 Electrical and electronic trades n.e.c. |
| Telecoms Technician | <ul style="list-style-type: none"> Radio Technician Telecoms Craftsperson Telemetry Technician | Front Line/Technical | 5242 Telecoms and related network installers and repairers | |

| Skill Level | Occupation | Example job titles | Occupational Group | Best-fit Standard Occupational Classification |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|--------------------------------------------------------------------|
| 4 (7 in Scotland) <i>Higher-level vocational qualification + substantial training</i> <i>Equivalent to HNC, BTEC Advanced Diploma L4</i> | Data Analyst | | Specialist Support | 3544 Data analysts |
| | Insulation Engineer | <ul style="list-style-type: none"> • GIS/AIS Engineer • Gas Engineer | Front Line/Technical | 5315 Plumbers and heating and ventilating installers and repairers |
| | Junior Engineer | <ul style="list-style-type: none"> • Junior Engineer • Project Engineer • Telemetry Engineer | Front Line/Technical | 311 Science, Engineering and Production Technicians |
| | Team Leader | <ul style="list-style-type: none"> • Gang/Team Leader | Front Line/Technical | No direct match |
| 5 (8 in Scotland) <i>Higher-level vocational qualification + substantial training</i> <i>Equivalent to HND, Foundation Degree, BTEC Advanced Diploma L5</i> | Business IT/Software/Cyber Engineer | <ul style="list-style-type: none"> • IT Specialist Support • IT Infrastructure Architect • Software Engineer • Developer • Data/Database Engineer | Specialist Support | 3131 IT operations technicians |
| | Operational Technology (OT) IT/Software/Cyber Engineer | | Specialist Support | 3131 IT operations technicians |
| | Site Manager | <ul style="list-style-type: none"> • Junior/Deputy Construction Manager | Front Line/Technical | 1123 Production managers and directors in mining and energy |

| Skill Level | Occupation | Example job titles | Occupational Group | Best-fit Standard Occupational Classification |
|---------------------------------------------------------------------------------|-------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6 <i>(9-10 in Scotland)</i> <i>Equivalent to Bachelor's Degree</i> | Business IT/Software/Cyber Lead/Manager | <ul style="list-style-type: none"> • Lead/Senior Architect • Software Engineer/ Developer | Specialist Support | 2132 IT managers |
| | Civil Engineer | <ul style="list-style-type: none"> • Structural Engineer • Geotechnical Engineer | Front Line/Technical | 2121 Civil engineers |
| | Control Engineer | <ul style="list-style-type: none"> • Control Engineer • Control Systems Specialist | Front Line/Technical | 2129 Engineering professionals n.e.c. |
| | Electrical Design Engineer | <ul style="list-style-type: none"> • Protection Control Engineer | Front Line/Technical | 2123 Electrical engineers |
| | HVDC Engineer | <ul style="list-style-type: none"> • HVDC Systems/Controls Engineer • HVDC Commissioning Manager • HVDC Protection Engineer • HVDC Cable Engineer | Front Line/Technical | 2129 Engineering professionals n.e.c. |
| | Mechanical Design Engineer | | Front Line/Technical | 2122 Mechanical engineers |
| | Operational Technology (OT) IT/Software/Cyber Lead/Manager | | Specialist Support | 2132 IT managers |
| | Other Engineer | <ul style="list-style-type: none"> • SCADA Engineer | Front Line/Technical | 2129 Engineering professionals n.e.c. |
| | Project Manager | <ul style="list-style-type: none"> • Planner • Project Manager • Contract Manager | Specialist Support | 2127 Engineering project managers and project engineers |
| | QHSE Specialist | <ul style="list-style-type: none"> • Environmental Engineer/Manager • Quality Managers • Consenting/permitting roles • Environmental Planner • Wayleaves Specialist • Health & Safety Manager | Specialist Support | No direct match 2152 Environment professionals 2482 Quality assurance and regulatory professionals 3582 Health and safety managers and officers |
| | Quantity Surveyor | <ul style="list-style-type: none"> • Quantity Surveyor • Buyer | Specialist Support | 2453 Quantity surveyors |
| | Senior Data Analyst | <ul style="list-style-type: none"> • Data Scientist | Specialist Support | 3544 Data analysts |

| Skill Level | Occupation | Example job titles | Occupational Group | Best-fit Standard Occupational Classification |
|------------------------------------------------------------|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| 7 (11 in Scotland) Equivalent to Master's Degree | Business/Data Manager | <ul style="list-style-type: none"> Data function manager | Specialist Support | 2431 Management consultants and business analysts |
| | Commissioning Engineer | <ul style="list-style-type: none"> TP141 accredited or equivalent | Front Line/Technical | 3113 Engineering technicians |
| | Managerial | <ul style="list-style-type: none"> Functional Manager Bid Manager Commercial Manager Construction Manager Engineering Manager | Managerial | 1123 Production managers and directors in mining and energy |
| | Other Senior Engineer | <ul style="list-style-type: none"> Senior Project Engineer Senior SCADA Engineer | Front Line/Technical | 2129 Engineering professionals n.e.c. |
| | Senior Civil Engineer | | Front Line/Technical | 2121 Civil engineers |
| | Senior Electrical Design Engineer | <ul style="list-style-type: none"> Lead Engineer | Front Line/Technical | 2123 Electrical engineers |
| | Senior Mechanical Design Engineer | | Front Line/Technical | 2122 Mechanical engineers |
| | Senior Project Manager | <ul style="list-style-type: none"> Deputy Project Director | Specialist Support | 2127 Engineering project managers and project engineers No direct match |
| | Senior QHSE | | Specialist Support | 2152 Environment professionals 2482 Quality assurance and regulatory professionals 3582 Health and safety managers and officers |

| Skill Level | Occupation | Example job titles | Occupational Group | Best-fit Standard Occupational Classification |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|------------------------------------------------------------------------------------------------|----------------------|-------------------------------------------------------------|
| 8 (12 in Scotland) <i>Postgraduate qualification + extensive experience</i> <i>Equivalent to Doctorate</i> | Managerial | <ul style="list-style-type: none"> • Head of..... • Technical Director | Managerial | 1123 Production managers and directors in mining and energy |
| | Other Principal Engineer | | Front Line/Technical | 2129 Engineering professionals n.e.c. |
| | Principal Civil Engineer | | Front Line/Technical | 2121 Civil engineers |
| | Principal Electrical Design Engineer | | Front Line/Technical | 2123 Electrical engineers |
| | Principal Mechanical Design Engineer | | Front Line/Technical | 2122 Mechanical engineers |
| | Senior Authorised Person | | Front Line/Technical | 2123 Electrical engineers |

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