



Skills to deliver Scotland's future

November 2025

Executive summary



- Power, water and waste management industries contribute more than **£10 billion** Gross Value Added (GVA) each year to the Scottish economy and support more than 90,000 jobs across the nation.
- The energy and utility industries consistently deliver one of the highest GVA per employee figures in the United Kingdom: £178,000 per worker per year.
- The clean energy transition represents the greatest economic transformation since industrialisation. Scotland's workforce will determine its success: to deliver both the transition and ambitions around essential services and critical infrastructure, Scotland will require **at least 58,900 new entrants by 2030** across the energy, water and waste industries.
- Research consistently shows that growth and opportunity must be shared with citizens. It is therefore essential that policies connect macroeconomic ambition with the everyday lives of individuals, families and communities.
- A refreshed industrial strategy for Scotland would address the fundamental and persistent mismatch between the existing skills offer and the needs of industry.
- This document sets out **six clear, evidence-based and practical policy recommendations** for the next Scottish Government.
- These recommendations can be implemented immediately, developed following the first budget and sustained through the second half of the next Parliament to secure the workforce Scotland needs to deliver its clean energy and infrastructure ambitions. These priorities have been identified to address key Scottish priorities while complementing work underway across the other devolved nations to secure clean energy and infrastructure skills.
- The recommended manifesto positions have been shared with all parties expected to contest the 2026 Scottish Election. For further information or to discuss any of the positions, please contact collaborate@euskills.co.uk.

Introduction



Scotland's future prosperity, resilience and energy security will be shaped by the skills and confidence of its people. The clean energy transition and the scale of planned investment in essential services and critical infrastructure together represent the single largest national opportunity in a generation. Scotland will need at least 58,900 new entrants by 2030 to meet demand. Of these, 50,400 are required for energy, 4,900 for water and 3,600 for waste and recycling.

Research consistently shows that growth and opportunity must be shared with citizens. Meeting this challenge and realising opportunity demands immediate action, deliberate investment, and enduring partnership between government, industry and citizens. A refreshed industrial strategy for Scotland would ensure that the national skills offer meets the regionally specific needs of industry while widening opportunity for people across the country, supporting globally competitive industries and creating an economic environment that enables growth.

The six policy recommendations set out in this document form a practical and deliverable plan that connects national ambition with local opportunity, ensuring that growth, inclusion and productivity are felt by citizens in every community. The recommendations are rooted in our sector expertise and are consistent with the Energy & Utility Skills Partnership [2025-30 Skills Strategy](#).

From day one, a new Scottish Government can act to convert ambition into delivery: immediate priorities include funding sector-entry opportunities that enable Scottish citizens to access clean energy and infrastructure jobs, and establishing an innovative 'proven workers' pilot programme to expand access and stimulate social mobility. These actions provide a fast, inclusive and low-cost start to addressing the skills gap while reducing welfare costs and improving national productivity.

Following the first budget, the focus should move to building long-term capacity. A new Scottish Government should introduce targeted schemes that promote worker mobility across and between sectors, increase funding for the apprenticeships that industry urgently needs, and reform apprenticeship funding to improve access for small and medium-sized employers.

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Smaller businesses are central to the delivery of national infrastructure, forming the backbone of the supply chains that support every major asset owner across energy, water and waste. Their ability to recruit, train and retain skilled people determines the pace, safety and productivity of national delivery. Ensuring that these employers have equitable access to funding and flexibility within the apprenticeship system will strengthen the entire skills ecosystem and secure the resilience of Scotland's asset base.

During the second half of the next parliament, government and industry must work together to strengthen delivery capacity. This should include expanding assessor and trainer capability so that Scotland's skills system can meet the volume and quality demands of a modern, growing energy and utilities economy. This is a complex and long-term area of work that connects to retirement age, the balance between physical work, safety and productivity, and the need to inspire the next generation while enabling experienced professionals to give back. It also links to pension reform and evolution, and to ensuring that

both the United Kingdom and Scotland have the trainer capacity required to sustain competence, safety and excellence across the national infrastructure workforce. Given this complexity, the work should be initiated in 2026 with the ambition of achieving cross-UK and cross-party consensus by 2028 at the latest.

Taken together, these six priorities form a credible and deliverable plan to equip Scotland with the skilled, inclusive and resilient workforce needed to achieve its clean energy and infrastructure ambitions. They show how immediate delivery, sustained investment and long-term alignment can turn ambition into national advantage.



Recommended Manifesto Position 1/6

Implementation	Day one of a new Scottish Government.
Position	Fund sector-entry opportunities for Scottish citizens to access clean energy and infrastructure jobs.
Challenge	Scotland must attract a minimum of 58,900 new people by 2030. Within this, 9,100 roles at SCQF 4 are true sector-entry positions that are short-cycle, safety-critical jobs essential to keeping Scotland's infrastructure operating safely and reliably. Current pathways are fragmented and too few citizens understand or can access these regulated routes into work.
Recommendation	Establish a Scottish Sector Entry Fund within the first 100 days to finance a fast, portable training bundle aligned to SCQF 4. The bundle provides accredited safety training and interview readiness. The model is in a pilot phase in England with employers committed to a 100% interview rate for every citizen who completes the training, and a 75% job offer key performance indicator.
Cost	Indicative cost £1,260 excluding VAT per participant. Training 1,500 citizens a year to meet Scotland's SCQF 4 demand would require around £1.9 million annually. The model is fully scalable using current DWP and Skills Development Scotland infrastructure.
Impact	Creates a simple, scalable and high-tempo model linking citizens, employers, the DWP and Skills Development Scotland, and directly delivers the SCQF 4 roles required by 2030. Provides an inclusive entry route for people currently inactive or under-employed, and supports regional growth by connecting local citizens to high-value infrastructure jobs that underpin Scotland's clean energy transition. Each successful placement converts welfare dependency into productive employment, generating £178,000 in GVA per worker per year and reducing long-term benefit expenditure.

Recommended Manifesto Position 2/6

Implementation	Day one of a new Scottish Government.
Position	Fund a 'proven workers' pilot to expand access and stimulate social mobility.
Challenge	<p>Many young Scots have proven they are good workers in entry level roles, but lack opportunities to progress into skilled careers, often held back by qualification requirements rather than capability or motivation.</p> <p>Having worked in a variety of sectors such as customer service, warehousing and logistics, and the leisure industry, these workers develop reliability, customer focus and teamwork skills that are directly transferable to the energy, water and waste industries and could drive Scotland's economic future. For example, Scotland's hospitality and retail sectors alone employ around 216,000 people, with a third aged 16 to 24.</p> <p>IPPR Scotland's Delivering a Fair Work Recovery report found that many young people in these sectors face limited opportunities for advancement, often held back by qualification requirements. Skills Development Scotland data show that entry to higher level apprenticeships and degree programmes often requires multiple National 5 or Higher passes, excluding capable workers whose potential has not been captured through academic attainment alone.</p> <p>Creating alternative routes into critical infrastructure careers would boost social mobility, retain motivated talent, and channel ambition into clean energy and infrastructure roles that will shape Scotland's economic future.</p>
Recommendation	<p>Establish a Proven Workers Pilot within the first 100 days of a new Scottish Government to create alternative pathways for workers with a proven record of employment to enter the energy and utilities sector. The pilot should fund an additional</p> <p>£10,000 for each participant, paid directly to universities and training providers supplementing core apprenticeship funding, to enable targeted academic support such as enhanced mathematics or technical modules.</p> <p>The policy should prioritise candidates aged up to 25 who are currently employed in entry level roles and wish to transition into energy and infrastructure careers. Universities and employers would co-design the content to ensure alignment with SCQF levels and national occupational standards.</p>

Recommended Manifesto Position 2/6

Cost	Pilot funding of £10,000 for each participant. A Year One pilot of 100 participants would require £1 million, rising to £5 million for a larger 500-participant scale, which we recommend starts in Year Two of the new government.
Impact	<p>Creates a new social mobility route for young adults who are proven in the workplace but blocked by academic barriers.</p> <p>Enables universities to attract and support non-traditional learners, improves participation and diversity in technical disciplines, and helps fill priority vacancies in energy, water and waste.</p> <p>Delivers an annual GVA per worker increase. For example from £33,000 per worker in hospitality, to £178,000 per worker in the energy and utility industries, therefore increasing the annual economic impact by more than £140,000 for each worker.</p> <p>Each successful participant strengthens the national skills base, releases capacity in entry level roles, and stimulates movement in the wider jobs market. The pilot converts under-utilised potential into skilled employment, directly contributing to Scotland's clean energy transition and delivery of the planned investment in essential services and critical infrastructure.</p>

Recommended Manifesto Position 3/6

Implementation	Following the first budget.
Position	Introduce a Career Transition Pathway scheme to increase worker mobility across, and between, sectors.
Challenge	Scotland's clean energy transition and planned infrastructure investment require a workforce that can adapt quickly to new technologies and sectors. Many skilled workers, particularly those from offshore oil and gas, possess strong transferable skills but lack targeted retraining opportunities. The oil and gas workforce alone is expected to fall by up to 58,000 jobs by the early 2030s, creating an urgent need to retain and redeploy this expertise. Without a structured, well-funded transition route, Scotland risks losing experienced professionals at the very time their skills are needed most.
Recommendation	<p>The Scottish Government, working with industry, universities, colleges and national skills bodies, should establish a Career Transition Pathway Programme to fund modular short courses and micro-credentials that support mid-career reskilling into clean energy and infrastructure roles.</p> <p>The programme should build on work already underway through the Micro-Credentials Network and the Medr-funded Special Interest Group, and set clear national targets for the number of modular courses delivered online and in person. Priority should be given to reskilling oil and gas engineers, data and digital specialists, and other technical professionals whose skills can be rapidly redeployed into energy, water, and waste roles. Research suggests that from 2027, up to 40,000 people could participate in 60 priority short courses delivered over four years.</p>
Cost	At a development cost of approximately £30,000 for a short course, an initial budget of £1.8 million would enable the creation and delivery of 60 modular short courses. This investment complements the existing £900,000 provided through the Oil and Gas Transition Fund.
Impact	Action would support economic growth, social mobility and inclusion. It would create a clear and accessible pathway for individuals seeking to switch careers, including those currently employed in oil and gas, to find stable and fulfilling roles within the green economy. The research indicates that almost two thirds of the 58,000 Scottish workers expected to leave the offshore oil and gas industry by the early 2030s could have their skills converted and repurposed for clean energy and infrastructure roles. This would strengthen Scotland's workforce resilience, protect livelihoods, accelerate the clean energy transition and deliver the planned infrastructure investment.

Recommended Manifesto Position 4/6

Implementation	Following the first budget.
Position	Increase funding in Scotland for the apprenticeships that industry urgently needs.
Challenge	There is an urgent need to achieve funding parity across the UK to ensure fair access to skills investment for both asset owners and the supply chain. Scotland's employers contribute significantly to the UK Apprenticeship Levy but receive a smaller proportional return, reducing opportunity for Scottish learners and exacerbating skills shortages in critical sectors such as energy and utilities. A funding increase will open up new ways of working, such as arrangements that see more apprentices trained by asset owners that can be deployed by supply chain partners.
Recommendation	<p>The Scottish Government should press the UK Government to provide greater transparency on the redistribution of Apprenticeship Levy funds, with a view to increasing Scotland's apprenticeship funding by £40 million annually and achieving parity for Scottish employers.</p> <p>To reflect the strategic importance of energy, utilities and associated infrastructure, 20% of this additional funding (£8 million) should be prioritised for these sectors and directed to SCQF Levels 4–6, where the greatest future role demand and opportunities for social mobility exist. This would ensure that apprenticeship investment reflects the essential role these industries play in delivering growth, safety, and wellbeing across society.</p>
Cost	Cost neutral to the Scottish Government. The proposed £40 million increase represents part of the £171 million shortfall identified between 2020 and 2024, based on a minimum of £875 million raised from Scottish employers' contributions to the Apprenticeship Levy.
Impact	Based on a sector share of £8m, this could enable a further 1,000 apprentices to be employed, generating around £225m of GVA across this Parliament. The energy, water, and waste sectors collectively employ more than 1,600 apprentices, adding around £72 million to the Scottish economy annually. It will create greater opportunity for Scottish learners and help to address skills gaps.

Recommended Manifesto Position 5/6

Implementation	Following the first budget.
Position	Initiate a time-limited national consultation on how to reform the apprenticeship and skills funding system to improve access for small and medium-sized employers.
Challenge	SMEs are critical to Scotland's economy but often face barriers when navigating the current apprenticeship and wider skills system. Joint analysis by Skills Development Scotland and the Office for National Statistics highlighted that micro and small businesses face greater difficulty sustaining apprenticeship delivery and experience structural disadvantages in accessing funding and support, particularly in specialised sectors such as energy and utilities. The withdrawal of the Flexible Workforce Development Fund has further reduced options for non-apprenticeship training, while complex funding rules and limited flexibility in eligible provision make it harder for SMEs to invest in workforce development. There is consensus across industry that the national college base is critical to regional inclusion and access to opportunity, particularly in more remote areas where SMEs often account for a greater proportion of employers. Meanwhile colleges serving these rural areas often face significant financial challenges.
Recommendation	The Scottish Government should launch a time-limited national consultation to co-design a reformed apprenticeship and skills funding system that works for smaller employers. The consultation should focus on identifying and removing the barriers that prevent SMEs from accessing financial support to upskill and reskill their workforces. Areas for reform could include revising funding caps to reflect actual training costs, introducing top-up grants or funding bands for high-cost sectors, piloting shared apprenticeship models, expanding access to blended and online learning where appropriate, and simplifying compliance and application processes. Restoring initiatives such as the National Transition Training Fund (NTTF), alongside reintroduction of the Scottish Government's Flexible Workforce Development Fund (FWDF), could better support college and business collaboration locally and regionally.
Cost	Cost neutral to the Scottish Government, excluding civil service resource.
Impact	A more inclusive and transparent funding system would enable SMEs to play a fuller role in workforce development. It would create more apprenticeship opportunities, support small business growth and enhance regional equity in access to training. Research by Skills Development Scotland and the Office for National Statistics found that a 1% increase in apprenticeship employment intensity was associated with a 0.07% rise in real GVA per worker, demonstrating the productivity benefit of broader SME participation. Streamlined funding and improved access would strengthen Scotland's economic resilience and accelerate the growth of a skilled, competitive workforce.

Recommended Manifesto Position 6/6

Implementation	Initiate in 2026 and sustain through the second half of the next Parliament.
Position	Support the creation of a UK-wide Task and Finish Group to strengthen assessor and trainer capacity across the energy, water, and waste industries.
Challenge	<p>Scotland's clean energy transition and delivery of the planned investment in essential services and critical infrastructure depends on a skilled and accredited training workforce. Based on workforce data for ageing and national assessor and trainer profiles, it is estimated that around one third of current assessors and technical trainers may retire or reduce their hours before 2030. Without renewal, national delivery capacity will restrict workforce expansion and compromise the pace and safety of planned delivery and growth.</p> <p>At present, the Migration Advisory Committee lists a range of higher-level engineering and technical roles as shortage occupations, and employers in the energy and utilities sector have used this route to supplement limited domestic training capacity. However, current political direction suggests that access to overseas recruitment at these levels may reduce or close, increasing the urgency of building sustainable home-grown trainer and assessor capability.</p> <p>This issue is complex and long term, linking to later working lives, pension evolution and the need to capture the knowledge of experienced professionals before it leaves the sector. It also requires coordination across all four nations to ensure consistent occupational standards and mutual recognition of competence.</p>
Recommendation	<p>Develop new approaches to retain experienced talent who can pass on their expertise to upskill tomorrow's workforce. Following early workforce entry reforms, this longer-term initiative will secure future capacity. From 2026, government, industry, and wider stakeholders should form a cross-UK Task and Finish Group to develop policy recommendations and pilot innovative models that retain experienced professionals for longer and expand the pool of qualified trainers and assessors.</p> <p>Initiatives could include flexible or part-time training roles for those reducing hours or recently retired, targeted incentives to encourage longer participation, and the use of digital tools to extend reach and efficiency. The work should be initiated in 2026 with the ambition of achieving cross-UK and cross-party consensus by 2028 at the latest on how to build a sustainable national trainer and assessor capacity programme.</p>

Recommended Manifesto Position 6/6

Cost	Through the training and certification of skilled workers each active technical trainer or assessor enables between £3 million and £5 million of UK infrastructure investment to be delivered safely each year. Any investment recommended by the Task and Finish Group would therefore be expected to deliver a net saving.
Impact	<p>With more than 106,000 experienced workers due to retire by 2030 and 33,000 already beyond retirement age, expanding and retaining trainer and assessor capacity will be critical to maintaining the pace and safety of national infrastructure delivery. Strengthening this workforce will secure the capacity needed to train and qualify the 312,000 new entrants required by 2030 across the UK's energy, water and waste industries, ensuring that new workers meet consistent, accredited standards even as experienced staff retire. This investment will sustain productivity, prevent project delays, protect consumers, and keep the clean energy transition on schedule.</p> <p>Beyond its economic and safety value, the initiative will promote inclusion and inter-generational collaboration by enabling experienced professionals to remain active in the labour market, share knowledge, and mentor new talent. It will capture expertise that might otherwise be lost, reduce the risk of safety incidents associated with inexperienced teams, and strengthen public confidence in the quality and reliability of the UK's critical infrastructure.</p>

About the Energy & Utility Skills Group

The Energy and Utility Skills Group membership represents **70 leading employers across Scotland and the UK**. Members collectively employ more than 200,000 people directly, support many more through extensive supply chains and **generate more than £120 billion in annual turnover**.

[Find out more](#) about our organisation, read about [our work across the devolved administrations](#), and learn about [our collaboration with the UK Government](#).



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