ARTICLE 4

Addressing Skills Gaps: Enhancing Operational Efficiency and Mitigating Risks

The growing skills gap in renewables has a range of implications.

KEY TAKEAWAYS

- The renewables sector faces a potentially costly skills gap.
- From an insurance industry perspective, the skills gap is a potential source of claims.

By 2030, it's estimated there will be a global shortage of 7 million skilled workers needed for climate and energy projects.

The skills gap in renewables

At the 2023 United Nations Conference of the Parties (COP28), governments pledged to triple renewable energy output by 2030.[11] Achieving these ambitious targets rests partly on the availability of substantial numbers of people with the appropriate skills.

"The transition to renewable technologies requires experienced professionals and the right understanding," says Ian Picton, Executive Partner, Energy Retail Worldwide, Gallagher Specialty.

Many industries are struggling to find the talent they need. In Europe, the construction industry workforce, for instance, hasn't recovered from the impacts of shocks such as the global financial crisis and global pandemic. Demographic factors are at play, with greater numbers of workers retiring than entering the industry.

This issue will become even more pronounced as demand for skilled workers grows. Construction is at the heart of achieving the EU's European Green Deal, with the need to fill an estimated 4.2 million job openings by 2035, according to the European Centre for the Development of Vocational Training (Cedefop).[12]

Investments in energy transition, transport decarbonization, and the circular economy (where resources are reused and recycled) are just some of the areas competing for talent as the race to zero gathers pace.

One of the biggest current skills gaps is in the renewable energy sector, which is primed to undergo substantial growth over the next decade. Tackling the growing skills shortages through training initiatives is a crucial element in de-risking the journey to net zero.

As economies transform, investments in today's workforce are likely to pay off by improving operational efficiency as new projects come online and by fostering social cohesion and prosperity within the communities that are at the heart of the transition.

Currently, the largest employer within the renewable sector globally is solar photovoltaics, accounting for four million jobs. Electric vehicles (EVs) and batteries are the fastest growing, according to the International Energy Agency (IEA), adding over one million jobs since 2019.

While green hiring consistently outpaces overall hiring for all other jobs,[13] it still isn't at the pace needed to meet surging levels of demand. By 2030, it's estimated there will be a global shortage of seven million skilled workers needed for climate and energy projects, including installing solar panels, heat pumps, EV charging stations, and wind farms.[14]

Carbon capture and storage (CCS), for example, is expected to play a key role in global decarbonization efforts. There were approximately 395 projects in the CCS facilities pipeline worldwide in 2024, with North America accounting for half of all commercial facilities globally.

The level of policy support from governments for CCS facilities reached a historic high in 2023, with the project pipeline growing more rapidly than ever before.[15] Providing staff for the burgeoning industry is becoming increasingly imperative.

The wide-ranging cost of a skills gap

Failing to find solutions to tackle competence levels within the sector will hinder progress, create uncertainty around investment, and add to operational expenses, including the cost of insurance.

Ultimately, governments' efforts to stay on track as economies decarbonize hinge on the ability to secure talent at scale.

"While digital technologies can be easily scaled up at low cost, the energy transition requires significant changes to physical infrastructure," says Lorcán Hall of the SDG Academy of the Sustainable Development Solutions Network of the United Nations' Hall.

Global business leaders are emphasizing the need for government policies that support both the infrastructure and the jobs needed in areas affected by the energy transition. While some jobs may be lost due to automation, there will also be new opportunities for employment in clean energy projects.

The impact of a skills gap on the insurance industry

From an insurance industry perspective, a skills gap is a potential source of claims.

For insurance underwriters, the link between a lack of competency in the workforce and the frequency and severity of claims directly impacts how much capacity they're willing to deploy and the total cost of that capacity.

A lack of skills can lead to operational inefficiencies, as workers may lack the expertise to operate and maintain advanced machinery and technology.

This can result in increased downtime, production delays, and greater expenses.

Safety and wellbeing are another key concern. A lack of workers with advanced skills and experience increases the chance of machinery being used incorrectly and procedures not being followed, causing more accidents at work.[16]

How to futureproof the workforce

Targeting the skills gap as part of the energy transition is key to reducing some operational risks.

"There is a drive towards achieving net zero in terms of power generation and infrastructure," says Carl Gurney, Account Director, Renewable Energy, Gallagher. "Upskilling the workforce to adapt to these changes is crucial, as it will play a vital role, not only in the deployment of renewable energy solutions but also in the effective maintenance and operation of the plants and infrastructure. This is true up and down the supply chain."

"There is currently a skills gap within renewables that needs to be addressed. The concern is that a lack of skilled staff at a time when new technologies are coming on line, will cause the operational risk management burden to go up. Efforts are underway to tackle this issue, but there is still work to be done."

As companies forge ahead with investments in new technologies and ambitious construction and infrastructure projects, ensuring the right skills are in place will remain a key aspect to achieving targets and de-risking the transition. For the insurance industry, a commitment to futureproofing the workforce will reduce the risk of claims and ensure coverage remains affordable.

> **The transition to renewable technologies requires experienced professionals and the right understanding.**

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