

Existing skills offer and the future Energy labour market

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A Summary
EDDIE Consortium

The energy sector is going through a period of profound change in the model of energy production, distribution and consumption in order to achieve greater sustainability for society as a whole. The main pillars of this change are the electrification of the system supported by renewable energies and digitalisation, leading to the need for a workforce that can adapt to change with certain skills. At present, it has been detected that the development of these necessary skills is not being achieved in the European education system and/or in companies in the sector.

The fight against climate change is one of the most important challenges facing society as a whole in the 21st century. A reduction of net greenhouse gas emissions by 2050, accompanied by a transformation of the global energy system, is necessary for the success of this fight and to meet the objectives of the Paris Agreement.

In the decarbonisation of the energy system, the electrification of the economy through the massive integration of renewable energies and technological innovation plays a key role.

This change in the energy system brings with it environmental and social benefits:

- Reduction of CO2 emissions.
- Reduction of the greenhouse effect and global warming.
- Use of renewable, inexhaustible and clean energy.
- Improvement of air quality.
- Preservation of biodiversity and natural resources.
- Development of more renewable energy projects.
- Improvement of people's health and well-being.
- Increased environmental awareness.
- Boosting energy efficiency.
- Mitigation of conflicts over scarce resources.
- energy democratisation and social equity
- Proliferation of green jobs.

This energy transition towards a more sustainable model opens up new employment opportunities for the whole of society, which is a great challenge since it is necessary to provide the population with the necessary skills to be able to successfully face all the changes in the energy labour market.

Therefore, the year 2023 has been chosen by the European Union to be the European Year of Skills to help companies, in particular small and medium enterprises, to address skills shortages in the EU. It will promote a mindset of reskilling and upskilling, helping people to get the right skills for quality jobs.

Some interesting data from the EU are as follows:

- 77% of EU businesses report difficulties in finding workers with the necessary skills.
- 20 million ICT specialists should be employed in the EU by 2030.
- 60% of adults should participate in training activities every year by 20230.

The EDDIE Project has conducted several analyses that have found mismatches between current and future skills demand for multiple fields of work, while digitalisation and technological changes are transforming the way we live and work. The necessary skills required by industry have been found to be misaligned with education and training providers, as the transformation of the energy sector requires rapid transitions from the current level of skills to a more contemporary one, and from one occupation to another, forcing people to continuously update and re-qualify their skills.

Regarding the necessary qualifications to adapt to this changing framework, a most favoured candidate brings experience and the ability to easily learn new technical innovations, combined with logical thinking and the ability to quickly analyse data. Although technical skills are especially important, they are also unlikely to be sufficient. In this perspective digital skills, green skills, transversal skills like resilience and adaptability techniques need to find a place in the curricula of the education institutions and on the agenda of the training providers.

The main challenge is to align the needs of the future labour market in the energy sector with current and future European educational programmes and training providers, as well as to have a high capacity for continuous lifelong learning of the population throughout their working lives.