

# Gender Balance in the R&I Field to Improve the Role of Women in the Energy Transition

**Country Briefs** 



# Gender Balance in the R&I Field to Improve the Role of Women in the Energy Transition – Country Briefs

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# Gender Balance in the R&I Field to Improve the Role of Women in the Energy Transition

**Country Briefs** 

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# **Table of Contents**

1.	Overview: Europe	4
2.	Austria	7
3.	Belgium	.10
4.	Bulgaria	.12
5.	Croatia	.14
6.	Cyprus	.17
7.	Czech Republic	20
8.	Denmark	23
9.	Estonia	26
10.	Finland	.29
11.	France	.32
12.	Germany	35
13.	Greece	.38
14.	Hungary	41
15.	Ireland	44
16.	Italy	47
17.	Latvia	50
18.	Lithuania	52
19.	Luxembourg	55
20.	Malta	57
21.	The Netherlands	59
22.	Poland	62
23.	Portugal	65
24.	Romania	68
25.	Slovakia	71
26.	Slovenia	74
27.	Spain	.77
28.	Sweden	80
29.	Iceland	83
30.	Norway	86
31.	Switzerland	89
32.	Turkey	92

33.	United Kingdom	95
34.	Australia	98
35.	Canada	101
36.	USA	104
37.	Explanation of the data	107

# 1. Overview: Europe

### Key figures for the EU27 and comparison to USA/Canada/Australia

Total energy sector employment	Share of women in energy sector workforce	Share of women in R&I workforce in the energy sector (estimate)
1,847,000	24%	25%
Share of women among senior managers in the energy sector	Gender wage gap (conditional on skills) in the non-energy sector	Gender wage gap (conditional on skills) in the energy sector
18%	-15%	-11%
Share of women among bachelor's graduates in engineering (2020)	Annual growth in female bachelor's graduates in engineering (2010-2020)	Share of women among master's graduates in engineering (2020)
20%	3.1%	26%

Note: The colour coding reflects the relative position of the EU27 in comparison to the three countries USA, Australia, and Canada: Green signifies a better performance than for the average of these three countries; yellow a similar performance; and red a worse performance. Sources see "Explanation of the data".

### Current status of gender balance in the EU27 energy sector

Of the roughly 1.85 million individuals employed in the energy sector in the EU27, 24.5% are women, which is slightly more than the US figure of 22.7% (no data available for Australia and Canada) but much lower than for most other economic sectors in Europea. Based on our own survey, we estimate a share of women in the energy sector's R&I workforce (business sector only) of 25% in the EU, roughly the same figure as the average for Australia, Canada and the USA (26%). Within Europe there are marked disparities in women's representation in the energy sector's R&I workforce, with low values in the countries of Continental Europe (Germany, France, BeNeLux, Austria) and high values for the Baltic and Southern European countries, as well as parts of Central-Eastern Europe and Ireland. The International Energy Agency (IEA) provides data for the gender wage gap by economic sector (note, however, that the latest data is for 2018). We consider a gender wage gap adjusted for skills, accounting for differences in required skill levels between genders. The gender wage gap for the EU27's energy sector is -11%, which is better than in all non-energy sectors combined (-15%), and also significantly better than in the USA (-23%) and in Canada (-22%).

### **Business sector**

According to data published by the IEA, the share of women among senior managers in the EU27 energy sector stands at 18%, higher than in the USA and Australia (15% each) and in Canada (13%). Within Europe, there is some variation, with comparatively strong female representation in senior management in the Nordic countries, some countries of Southern Europe (Portugal, Italy), as well as Belgium, Austria and France. Several initiatives from within the industry have been vital in putting gender equality in the energy sector on the agenda. Examples include the Nordic Energy Equality Network (NEEN), which acts as an umbrella organisation for cross-border coordination of activities for gender equality. Its

membership comprises of government ministries, NGOs, community-based organizations, schools, private sectors, and media partners. NEEN runs a range of activities to make the energy sector increasingly visible to women and highlighting role models in order to attract more women to this sector. Women in Green Hydrogen is an example of a sectoral initiative. Since 2021 it has run a highly successful international mentoring program to support and empower young professionals in the green hydrogen sector in the early stages of their careers. The program is designed to strengthen connections and build networks in the field of green hydrogen to discuss benefits and concerns that are of more relevance to women (e.g., how to proceed in a male-dominated sector, working hours, family planning, etc.). See also the description of the Global Women's Network for the Energy Transition (GWNET) in the box below.

### **Higher education sector**

In the EU27, the representation of women among engineering graduates is 20% on average at the bachelor's level and 26% at the master's level, which compares to an average of 22% and 26%, respectively, across the USA, Canada and Australia. Progress in recent years has been moderate, evidenced by a gradual 3.1% annual increase in female engineering students (bachelor's graduates) over the past decade, much less than in the USA, Canada and Australia combined, for which the figure is 8.3% p.a. Against this background, Europe's universities have stepped up efforts to attract women to STEM studies and to roll out study programs that are designed to appeal to students who do not seek a traditional career in engineering. The member institutes of CESAER, the association of leading engineering universities in Europe with 53 members from 26 countries, in 2019 adopted a declaration to increase female representation at all levels to 30% and adopt policies and actions for gender equality, diversity and inclusion. Since then, it has been very active in promoting interdisciplinary approaches to STEM education, with a view to break down barriers and misconceptions about STEM being isolated from other areas of interest and societal impact, potentially attracting a more diverse group of students, including women. The European University Association (EUA), the largest association of higher education institutions in Europe representing more than 800 universities and national rectors' conferences in 48 European countries, has also recommended adoption of interdisciplinary approaches to master and doctoral training that includes social, political, technological, and environmental components.

# **Insightful cases**

The **Equal by 30 Campaign** is part of the Equality in Energy Transitions Initiative. The twelve national members that have signed on include Austria, Finland, France, Germany, Italy, the Netherlands, Spain and Sweden from the EU27, as well as Australia, Canada and the USA. The Campaign was launched in 2018. It seeks accelerating gender equality and diversity in the clean energy transition and closing the gender gap by 2030. Equal by 30 represents a joint initiative of the Clean Energy Ministerial (CEM) and International Energy Agency (IEA) that addresses both public and private organisations. They work towards three key objectives: equal pay, equal leadership and equal opportunities for women in the clean energy sector.

More: Equal by 30 Campaign

Global Women's Network for the Energy Transition (GWNET) is an international non-profit organization with a global mission to empower women in sustainable energy. It has established a network that includes women from diverse backgrounds, career levels, and sectors, both public and private, around the world. GWNET runs a range of regional and global mentoring programs for women in the sector. Their primary objective is to promote the role of women as catalysts of change in society and to encourage the adoption of best practices within the sustainable energy industry. In 2019, GWNET published a comprehensive review of "Strategies to Foster Women's Talent for Transformational Change", which is a valuable source for anybody planning to implement company measures to boost women's role in the industry

More: **GWNET** 

### 2. Austria

### **National key figures for Austria**

Total energy sector employment	Share of women in energy sector workforce	Share of women in R&I workforce in the energy sector (estimate)
31,690	22%	14%
Share of women among senior managers in the energy sector	Gender wage gap (conditional on skills) in the non-energy sector	Gender wage gap (conditional on skills) in the energy sector
27%	n.a.	n.a.
EIGE Gender Equality Index 2023: Power	Share of women among senior ministers for European Green Deal (EGD) areas (2023)	Share of women among members of parliamentary committees dealing the EGD areas (2023)
55.4	20%	33%
Share of women among bachelor's graduates in engineering (2020)	Annual growth in female bachelor's graduates in engineering (2010-2020)	Share of women among master's graduates in engineering (2020)
16%	7.5%	19%

Note: The colour coding reflects a country's ranking among all EU member states: Green signifies the top third in performance; yellow represents the middle third; and red indicates the bottom third. Sources see "Explanation of the data".

# **Current status of gender balance in the Austrian energy sector**

Of the about 32,000 individuals employed by the energy sector in Austria, 21.9% are women, which is below the EU27 average of 24.5% and much lower than for most other economic sectors in the country. A 2023 study by the Austrian Institute of Technology (AIT) found a very similar number (24%). This source suggests that the share of women is highest in commercial-administrative jobs (61%) and lowest in technical-manual jobs (4%). Based on our own survey, we estimate a share of women in Austria's energy sector's R&I workforce (business sector only) of 14%, which would put the country in the lower third of all EU27.

### **Governmental sector**

General conditions for gender equality in Austria are similar as in the average across the EU27, as the country's performance on EIGE's Gender Equality Index indicates. It scores 55.5 out of 100 on the Index' domain "Power", which measures participation of women in decision-making in the political, economic, and social spheres. The average score in Europe is 59.1. EIGE also looked at women's share among senior ministers and parliamentary committee members in areas of major relevance for the European Green Deal (EGD), which includes energy transition. Merely 20% of senior ministers in these areas are women in Austria (EU average: 29%); the female share among members of parliamentary committees dealing the EGD areas is somewhat higher: 33%, which compares well with the EU27 average of 30%. As a member of the Equal by 30 Campaign, a global public commitment by public and private sector organisations to work towards equal pay, equal leadership and equal opportunities for women in the energy sector by 2030, Austria singed the Clean Energy

Ministerial Guiding Principles for ensuring gender diversity by 2030. Additionally, gender equality and non-discrimination is a main principle of the Austrian constitution, regulated in Art 7 of the Federal Constitutional Law. Numerous specific acts make this principle more concrete on Federal and State level. These include, for example, the Equal Treatment Act (1979), the main law regulating equal treatment of women and men in private enterprises at work. The provincial State Acts on Equal Treatment (1993) regulate conditions for all persons employed in the government sector. There are, however, no specific governmental acts or initiatives which focus mainly or exclusively on the energy sector. In April 2022, the Austrian Trade Union and the Austrian Chamber of Economics, together with the Ministry of Labour and the Ministry of Climate Protection, launched the Environment Foundation (Umweltstiftung). It promotes education and training in the field of green jobs and thus also in renewable energies, seeking to combat skills shortages by focusing on women, older people and the long-term unemployed.

### **Business sector**

According to data published by the IEA, the share of women among senior managers in Austria's energy sector stands at 27%, which puts the country in the top third of the EU ranking table; only Denmark and France have an even higher figure. According to a 2023 study from the Austrian Institute of Technology (AIT), however, women hold a mere 10% of top management positions. Among the numerous support schemes for women in technology and enterprise leadership in Austria, there are also a few in the energy business. The aim of #DIEzukunft, the program for equal opportunities at Salzburg AG for Energy, Transport & Telecommunications, is to promote women in technical professions and to create an attractive working environment for all employees. This includes family-friendly measures such as flexible home office and flexible switch between part- and full-time employment. Salzburg AG is the energy provider for the federal state of Salzburg. See also the "Powerfrauen" network initiative below in the insightful cases.

# **Higher education sector**

The share of women among bachelor's and master's graduates in engineering stands at 16% and 19% in Austria, respectively, which puts it in the bottom third among EU member states. Fortunately, the country is making good progress in boosting the number of female engineering students: Over the last decade, the number of female bachelor's graduates in engineering rose by 7.5% p.a. Many Austrian higher education and science institutions have indeed implemented initiatives to foster women's interest in science and technology. Some of these initiatives relate to energy. One of the most prominent examples is the <a href="Women in Environmental Engineering Award">Women in Environmental Engineering Award</a> (ÖGUT Umweltpreis – Frauen in der Umwelttechnik) for female experts in applied science and technology. ÖGUT has awarded this prize since 2001. Many winners received the prize due to engagement in energy-related issues. See also the initiative FEMtech Karriere in the insightful cases examples below. Some interdisciplinary degree programs at Austrian higher education institutions prepare students for professional jobs in the energy sector. The interdisciplinary nature of the programs may especially attract women. Most notable are "Energy and Environmental Management" and "Sustainable Energy Systems" at the University of Applied Sciences Burgenland.

### **Insightful cases**

**Powerfrauen** is a network initiative of Oesterreichs Energie, an association representing the interests of the Austrian energy industry. The network counts 140 members, which together employ 20,000 staff and generate 90% of Austria's electricity. Launched in 2023, Powerfrauen aims to address the low share of women in the industry by making the sector more attractive for female employees. It makes role models and career paths in the industry more visible. The initiative also supports women's careers through a mentoring scheme.

More: Oesterreichs Energie news on Powerfrauen

**FEMtech Karriere** is a national funding scheme that supports R&I institutes and enterprises in employing more women in science and engineering jobs. The program is run by the Austrian Research Promotion Agency (FFG) and funded by the Federal Ministry for Climate Protection, Environment, Energy, Mobility, Innovation and Technology. The programs makes funding available for a range of activities, including mentoring and coaching of qualified women to foster their career in energy or other engineering jobs.

More: FEMtech Karriere

# 3. Belgium

### **National key figures for Belgium**

Total energy sector employment	Share of women in energy sector workforce	Share of women in R&I workforce in the energy sector (estimate)
39,090	30%	5%
Share of women among senior managers in the energy sector	Gender wage gap (conditional on skills) in the non-energy sector	Gender wage gap (conditional on skills) in the energy sector
22%	-4%	-6%
EIGE Gender Equality Index 2023: Power	Share of women among senior ministers for European Green Deal (EGD) areas (2023)	Share of women among members of parliamentary committees dealing the EGD areas (2023)
71.6	38%	34%
Share of women among bachelor's graduates in engineering (2020)	Annual growth in female bachelor's graduates in engineering (2010-2020)	Share of women among master's graduates in engineering (2020)
14%	10.3%	15%

Note: The colour coding reflects a country's ranking among all EU member states: Green signifies the top third in performance; yellow represents the middle third; and red indicates the bottom third. Sources see "Explanation of the data".

# Current status of gender balance in the Belgian energy sector

In Belgium's energy sector, approximately 30% of the workforce, out of nearly 39,100 employees, are women, surpassing the EU27 average of 24.5%. However, our survey estimates that women constitute only 5% of the sector's R&I workforce, ranking Belgium in the lower third of all EU27 countries. The International Energy Agency (IEA) data for the gender wage gap, adjusted for skills, indicates a -6% gap in the Belgian energy sector, indicating slightly worse results than the non-energy sector's -4%. Despite this, it still stands as one of the better outcomes in Europe, demonstrating progress toward gender pay equality.

### **Governmental sector**

Belgium stands out in gender equality, ranking 7<sup>th</sup> in the EU for women's involvement in decision-making, encompassing political, economic, and social spheres, as per EIGE's Gender Equality Index (Domain: Power). Specifically, in areas crucial for the European Green Deal (EGD) and energy transition, Belgium excels, with 38% of senior ministers and 34% of parliamentary committee members being women, marking one of the highest representations in the EU27. The country actively promotes gender equality in the energy sector through a robust legal framework, including the Gender Mainstreaming Law and the Gender Act, addressing discrimination, and ensuring equal opportunities. Despite the absence of a federal gender equality action plan, Belgium emphasizes regional initiatives, enabling diverse strategies and reinforcing its dedication to advancing women's roles in sectors like energy.

### **Business sector**

The IEA's data reveals that women constitute a substantial 22% of senior managers in Belgium's energy sector, ranking among the highest figures in Europe. The Belgian business sector actively promotes women's participation in energy through initiatives like the Brussels Women Energy Club, uniting skilled advocates for European energy issues. Engie's "Fifty-fifty" program targets 50% female representation in managerial roles by 2030, fostering gender parity within the company. Additionally, Cummins Powers Women addresses gender disparities by offering education, promoting equality, and empowering women economically. This global initiative includes scholarships, vocational training, mentoring, and community outreach, creating positive change in both business operations and the wider community. These efforts highlight Belgium's dedication to enhancing women's roles in the energy industry.

### **Higher education initiatives**

In Belgium, the representation of women among engineering graduates is relatively low, standing at 14% for bachelor's degrees and 15% for master's degrees, ranking the country among the lower tier in the EU. However, there has been significant progress, marked by an impressive annual growth rate of 10.3% in female engineering students (bachelor's graduates) over the past decade. Belgian higher education institutions, including **KU Leuven** and **Ghent University**, actively tackle gender disparities in sectors like energy. KU Leuven focuses on diversity and equal opportunities without imposing coercive measures. Ghent University acknowledges the underrepresentation of women in STEM fields and establishes support networks, including a women's council, to integrate female students. Additionally, the university engages in the <a href="VirGo project">VirGo project</a>, collaborating with schools to prepare girls, particularly those from diverse backgrounds, for higher-level STEM education.

# **Insightful cases**

The **VirGo project** aims to address the low enrolment of girls with diverse backgrounds in STEM fields. It collaborates with schools, provides STEM workshops, mentorship, and support to empower these girls. The project's goal is to increase their participation in STEM education and promote gender equality and inclusion in engineering and architecture.

More: VirGo project

The **Fifty-Fifty programme** at ENGIE aims to achieve gender parity in managerial positions by 2030. It focuses on recruiting more women at all levels, fostering a culture of diversity and inclusion. The program includes initiatives such as the Fifty-Fifty Library, virtual training courses, policy revisions, and engagement of ambassadors. It strives to create an inclusive working environment and tap into the talent pool represented by women for driving innovation in the energy industry.

More: Fifty-Fifty programme

# 4. Bulgaria

### National key figures for Bulgaria

Total energy sector employment	Share of women in energy sector workforce	Share of women in R&I workforce in the energy sector (estimate)
50,950	21%	29%
Share of women among senior managers in the energy sector	Gender wage gap (conditional on skills) in the non-energy sector	Gender wage gap (conditional on skills) in the energy sector
n.a.	-18%	-10%
EIGE Gender Equality Index 2023: Power	Share of women among senior ministers for European Green Deal (EGD) areas (2023)	Share of women among members of parliamentary committees dealing the EGD areas (2023)
62.7	22%	26%
Share of women among bachelor's graduates in engineering (2020)	Annual growth in female bachelor's graduates in engineering (2010-2020)	Share of women among master's graduates in engineering (2020)
21%	-9%	22%

Note: The colour coding reflects a country's ranking among all EU member states: Green signifies the top third in performance; yellow represents the middle third; and red indicates the bottom third. Sources see "Explanation of the data".

# Current status of gender balance in the Bulgarian energy sector

In Bulgaria's energy sector, there are approximately 51,000 employees, with women making up 21% of the workforce, which falls below the EU27 average of 24.5%. However, our survey reveals a notable 29% representation of women in the sector's Research and Innovation (R&I) workforce, placing Bulgaria in the top third among EU27 countries in this aspect. While the International Energy Agency (IEA) provides data on the gender wage gap, the latest available information date back to 2018. To account for skill differences between genders, we consider a gender wage gap adjusted for skills. In this context, Bulgaria shows a -10% gender pay gap in the energy sector, surpassing the non-energy sectors' -18% gender pay gap.

### **Governmental sector**

Bulgaria ranks 11<sup>th</sup> out of 27 in women's participation across political, economic, and social spheres in the EU, as per the EIGE's Gender Equality Index in the Power domain. In key roles linked to the European Green Deal (EGD), Bulgaria boasts a 22% representation of women among senior ministers and 26% in parliamentary committees associated with EGD, placing the country mid-range within the EU27. The government's commitment to gender equality is evident through various initiatives, including the Centre for the Study of Democracy's energy citizenship promotion event and regional initiatives in Southeast Europe. Efforts to bridge the gender pay gap, enhance decision-making equality, and combat gender-based violence reflect their dedication. Moreover, the National Recovery and Resilience Plan emphasizes a low-carbon economy, grid-scale electricity storage, and

support for women's engagement in the energy sector, demonstrating Bulgaria's proactive approach to fostering gender balance in the industry.

### **Business sector**

A recent survey by the Boston Consulting Group found that 30% of board members in Bulgaria's energy sector are female, one of the highest rates in Central and Eastern Europe (CEE). This aligns with the findings of Feenstra's study, "Women as Change Agents of the Bulgarian Energy Transition," which suggests that the enduring impact of pre-1990 gender equality policies has led to a significant presence of women in high-level positions. This phenomenon is recognised as a legacy of the socialist regime, which encouraged women to excel in various fields, contributing to their representation in key roles today. It is notable, however, that despite these numbers, no specific business initiatives targeted at increasing women's participation in the Bulgarian energy sector were found during the research.

### **Higher education sector**

In Bulgaria, the proportion of women among engineering graduates stands at 21% for bachelor's and 22% for master's degrees, placing the country in the mid to lower third within the EU. Notably, there has been a significant decline, with a substantial annual decrease rate of 9% in female engineering students (bachelor's graduates) observed over the past decade. A noteworthy initiative addressing this issue is the <u>Bulgarian Centre for Women in Technology</u>, an NGO funded by membership fees and donations. This organization strives to inspire, motivate, and support girls and women in Bulgaria, promoting their participation in ICT (Information and Communication Technology), entrepreneurship, and science fields. The initiative aims to shift both women's and employers' mindsets and enhance the national environment to encourage women to choose ICT careers and foster their professional development in the sector.

# Insightful cases

The "Encouraging Energy Citizenship among Women in Bulgaria" initiative aims to empower women in the energy sector. Participants engaged in discussions about social acceptance of low-carbon technologies, energy community creation, and addressing energy poverty. The initiative highlighted the potential for women's participation in energy communities, offering opportunities for empowerment and fostering a more inclusive, sustainable economy. This project received funding from the European Union's Horizon 2020 program, emphasizing the importance of gender equality in the energy industry.

More: Encouraging Energy Citizenship among Women in Bulgaria

The Bulgarian Centre of Women in Technology (BCWT) aims to promote women's participation in the digital industry by fostering a supportive environment and collaboration between businesses, government, academia, and NGOs. Their goals include encouraging women to pursue digital careers, supporting entrepreneurship, and creating a secure space for professional exchange. BCWT organizes networking events, diverse industry showcases, skill-building workshops, and research initiatives. By partnering with regional and international projects, BCWT strives to enhance women's roles in technology, contributing to the competitiveness of both Bulgarian and European economies.

More: Bulgarian Centre of Women in Technology

### 5. Croatia

### **National key figures for Croatia**

Total energy sector employment	Share of women in energy sector workforce	Share of women in R&I workforce in the energy sector (estimate)
20,750	(19%)	30%
Share of women among senior managers in the energy sector	Gender wage gap (conditional on skills) in the non-energy sector	Gender wage gap (conditional on skills) in the energy sector
(0%)	-19%	-12%
EIGE Gender Equality Index 2023: Power	Share of women among senior ministers for European Green Deal (EGD) areas (2023)	Share of women among members of parliamentary committees dealing the EGD areas (2023)
49.5	29%	31%
Share of women among bachelor's graduates in engineering (2020)	Annual growth in female bachelor's graduates in engineering (2010-2020)	Share of women among master's graduates in engineering (2020)
24%	13.2%	27%

Note: The colour coding reflects a country's ranking among all EU member states: Green signifies the top third in performance; yellow represents the middle third; and red indicates the bottom third. Sources see "Explanation of the data".

# **Current status of gender balance in the Croatian energy sector**

In Croatia's energy sector, there are approximately 20,750 employees, with women making up 19% of the workforce, which falls below the EU27 average of 24.5%. However, our survey reveals a notable 30% representation of women in the sector's Research and Innovation (R&I) workforce, placing Croatia in the top third among EU27 countries in this aspect. While the International Energy Agency (IEA) provides data on the gender wage gap, the latest available information dates back to 2018. To account for skill differences between genders, we consider a gender wage gap adjusted for skills. In this context, Croatia shows a -12% gender pay gap in the energy sector, surpassing the non-energy sectors' -19% gender pay gap.

### **Governmental sector**

Croatia's position in gender equality, as reflected in the EIGE's Gender Equality Index in the Power domain, falls within the middle range among EU member states, with a 16th rank in women's participation across political, economic, and social spheres. Within key roles linked to the European Green Deal (EGD), Croatia shows a 29% representation of women among senior ministers, while in parliamentary committees associated with EGD, women constitute 31% of the members, placing the country in the mid-range among EU27 nations. The Croatian government has actively pursued gender equality initiatives, including the fourth National Policy for Gender Equality (2011-2015) and the translation of the Council of Europe's Gender Equality Strategy (2018-2023). Efforts also include the Ministry of Science, Education, and Sport's Action Plan on Science and Society (2012) promoting gender equality in research, and the establishment of the Gender Equality Committee in the Croatian

Parliament, enhancing political participation for women. Despite the absence of specific initiatives in the energy industry, these multifaceted efforts indirectly contribute to cultivating a more inclusive and diverse workforce in the sector.

### **Business sector**

Recent data reveals a complete absence of women in senior management positions within Croatia's energy sector, corroborated by a survey by the Boston Consulting Group indicating a decline to 0% in the proportion of female board members compared to 2018. Despite this disparity, efforts within the Croatian energy industry, led by companies like HEP Group and INA - Industrija nafte, are actively promoting gender equality and female representation. HEP Group adheres to government guidelines and the Gender Equality Act, formulating periodic Action Plans focusing on gender equality. They have implemented the <a href="Mamforce Company Standard">Mamforce Company Standard</a>, fostering a family-friendly environment and equal opportunities for male and female employees, alongside signing the <a href="Diversity Charter">Diversity Charter</a>, emphasizing diversity, non-discrimination, and inclusion. Similarly, INA - Industrija nafte has pioneered initiatives such as the Mamforce and a comprehensive well-being program, ensuring transparent monitoring of women's participation at all management levels.

### **Higher education sector**

Croatia has made significant progress in promoting gender diversity within technology-related studies, particularly in fields qualifying for careers in the energy industry. Currently, 24% of engineering graduates at the bachelor's level and 27% at the master's level in Croatia are women, positioning the country among the top and middle tiers in the EU, respectively. Noteworthy is the substantial growth, with a remarkable annual increase of 13.2% in female engineering students (bachelor's graduates) over the past decade. This advancement can be attributed to higher education initiatives led by prominent institutions like the **University of Zagreb**, **University of Split**, **University of Osijek**, and **University of Rijeka**. These universities have actively encouraged and supported women's participation in STEM fields through targeted programs and scholarships. Collaborative efforts with organizations like MOL Group, such as the <u>Growww Female Engineers Scholarship Program</u>, have played a pivotal role. These initiatives not only offer financial assistance but also create a nurturing environment where aspiring female engineers can excel, gain confidence, and make meaningful contributions to the energy industry.

# **Insightful cases**

The **Diversity Charter of Croatia**, led by the Croatian Business Council for Sustainable Development (HR PSOR), promotes workplace diversity and inclusivity. This voluntary initiative encourages companies to publicly commit to fostering supportive environments irrespective of race, age, gender, religion, disability, or sexual orientation. Signatories demonstrate their dedication to these values, gaining access to resources, training, and best practices provided by the European Platform for Diversity Charters. With over 7100 signatories from 16 EU countries, the Diversity Charter empowers organizations, benefiting more than 14 million employees by creating inclusive workspaces.

More: Diversity Charter of Croatia

The **Mamforce Company Standard** aims to transform workplaces by promoting equal opportunities and professional growth, particularly for women. By challenging stereotypes and fostering diverse, inclusive, and equitable environments, the initiative provides tailored strategies based on comprehensive data analysis. It values diversity, recognizing its positive impact on organisational culture and effectiveness. The approach emphasizes continuous progress and aims for a lasting impact, triggering positive changes in employee well-being and societal attitudes, ultimately changing cultural norms and embedded stereotypes within organizations and society as a whole.

More: Mamforce Company Standard

# 6. Cyprus

# **National key figures for Cyprus**

Total energy sector employment	Share of women in energy sector workforce	Share of women in R&I workforce in the energy sector (estimate)
3,220	(20%)	22%
Share of women among senior managers in the energy sector	Gender wage gap (conditional on skills) in the non-energy sector	Gender wage gap (conditional on skills) in the energy sector
n.a.	-9%	-22%
EIGE Gender Equality Index 2023: Power	Share of women among senior ministers for European Green Deal (EGD) areas (2023)	Share of women among members of parliamentary committees dealing the EGD areas (2023)
29.2	25%	13%
Share of women among bachelor's graduates in engineering (2020)	Annual growth in female bachelor's graduates in engineering (2010-2020)	Share of women among master's graduates in engineering (2020)
10%	0.4%	39%

Note: The colour coding reflects a country's ranking among all EU member states: Green signifies the top third in performance; yellow represents the middle third; and red indicates the bottom third. Sources see "Explanation of the data".

# **Current status of gender balance in the Cypriot energy sector**

Of the roughly 3,200 individuals employed by the energy sector in Cyprus, 20% are women, which is below the EU27 average of 24.5% and much lower than most other economic sectors in the country. Based on our survey, we estimate a share of women in the energy sector's R&I workforce (business sector only) of merely 22%, which would put Cyprus in the middle third of all EU27. The gender wage gap in the energy sector of Cyprus is -22%, which is worse than in Cyprus' non-energy sectors and most other EU member states. The gender wage gap is calculated based on the skill level required for job positions held by women and men. A figure of 0% would indicate equal pay for both genders at the same skill level, while a -100% gap would imply no pay for women at all.

### **Governmental sector**

Gender equality in Cyprus faces several challenges as its performance on EIGE's Gender Equality Index (Domain: Power) suggests. Cyprus ranks as the second last country among EU member states regarding the participation of women in decision-making in the political, economic, and social spheres. EIGE's report on women's share among senior ministers and parliamentary committee members in areas related to the European Green Deal (EGD), which includes energy transition, reveals that only 25% of senior ministers in these areas are women. Furthermore, the female share among members of parliamentary committees dealing with the EGD areas (13%) is one of the lowest in the EU. Despite the lack of specific policies directly addressing gender balance in the energy sector, Cyprus has implemented several initiatives to ensure equal opportunities for women. These initiatives include

increasing women's representation in decision-making positions, integrating gender considerations into budgetary processes, promoting female role models through public recognition, evaluating research programs for gender equality compliance, and empowering women professionally while supporting work-family balance. Additionally, Cyprus has taken steps to eliminate gender stereotypes and prejudices through educational programs aimed at broadening students' career perspectives, including those within the energy sector. While these policies are not sector-specific, they seek to lay the foundation for fostering gender diversity and equality within Cyprus' energy industry.

### **Business sector**

In Cyprus, the business sector has taken proactive steps to promote gender equality within the energy industry through a series of impactful initiatives. TotalEnergies, a leading energy company, has established the <a href="TWICE network">TWICE network</a>, focusing on mentoring activities and development workshops to empower women in their career growth, particularly in managerial roles. Similarly, the Cyprus subsidiary of <a href="Eni">Eni</a>, a global energy company, serves as a role model for young girls through campaigns such as #MyRoleModel, while also supporting female entrepreneurship through corporate acceleration programs emphasizing innovation, multiculturalism, and gender equality. The <a href="Electricity Authority of Cyprus (EAC)">Electricity Authority of Cyprus (EAC)</a> stands out for its commitment, having achieved the status of an Equality Employer. The EAC's comprehensive approach includes training programs, Equality Committees, employee surveys, and addressing harassment issues, all aimed at eliminating stereotypes, promoting women in traditionally male-dominated professions, enhancing work-life balance, and implementing robust monitoring mechanisms.

### **Higher education sector**

Cyprus has low rates of women graduating with a bachelor's degree in engineering (10%) but high rates for master's degrees (39%). Progress has been slow at over the last decade with only a 0.4% annual increase in female engineering students graduating with a bachelor's degree. Higher education institutions in Cyprus are taking initiatives to promote gender equality and increase women's participation in the energy sector. The <a href="Women Empowerment Centre (CIU-WEC)">Women Empowerment Centre (CIU-WEC)</a> at the Cyprus International University offers STEM scholarships to bridge gender gaps. The <a href="Gender-SMART project">Gender-SMART project</a> at the Cyprus University of Technology integrates gender equality into research and teaching. The <a href="Women in Engineering Committee"/"Women in Engineering Committee"/>"Women in Engineering Committee"/>"At the University of Cyprus promotes fair conditions and challenges stereotypes. Frederick University's <a href="campaign">Campaign</a> aims to empower female students and promote gender equality.

# **Insightful cases**

The **Women Empowerment Centre (CIU-WEC)** stands out for its focus on providing STEM scholarships to underprivileged young women, addressing gender gaps in science and technology. By fostering a supportive academic environment and encouraging women to pursue studies in STEM fields, CIU-WEC seeks to contribute directly to bridging gender disparities, especially in the energy sector.

More: The Women Empowerment Centre

The **Electricity Authority of Cyprus (EAC)** has a certification as an equality employer, promoting gender equality through training, committees, and addressing harassment. The authority is committed to challenging stereotypes and promoting women in male-dominated professions, thereby creating a more inclusive energy industry in Cyprus.

More: The Electricity Authority of Cyprus certification as an equality employer

# 7. Czech Republic

### **National key figures for the Czech Republic**

Total energy sector employment	Share of women in energy sector workforce	Share of women in R&I workforce in the energy sector (estimate)
75,460	18%	8%
Share of women among senior managers in the energy sector	Gender wage gap (conditional on skills) in the non-energy sector	Gender wage gap (conditional on skills) in the energy sector
11%	-19%	-10%
EIGE Gender Equality Index 2023: Power	Share of women among senior ministers for European Green Deal (EGD) areas (2023)	Share of women among members of parliamentary committees dealing the EGD areas (2023)
30.2	14%	22%
Share of women among bachelor's graduates in engineering (2020)	Annual growth in female bachelor's graduates in engineering (2010-2020)	Share of women among master's graduates in engineering (2020)
20%	1.0%	24%

Note: The colour coding reflects a country's ranking among all EU member states: Green signifies the top third in performance; yellow represents the middle third; and red indicates the bottom third. Sources see "Explanation of the data".

# **Current status of gender balance in the Czech energy sector**

Of the nearly 75,500 individuals employed by the energy sector in the Czech Republic, 18% are women, which is below the EU27 average of 24.5% and much lower than most other economic sectors in the country. Based on our survey, we estimate a share of women in the energy sector's R&I workforce (business sector only) of merely 8%, which would put the Czech Republic in the bottom third of all EU27 countries. The International Energy Agency (IEA) provides data for the gender wage gap by economic sector (note, however, that the latest data is for 2018). We are considering the gender wage gap based on skills, which reflects the varying skill levels required for job positions held by men and women. If the wage gap were 0%, it would mean that men and women with the same level of skills are paid equally. On the other hand, if the wage gap were -100%, it would imply that women are paid nothing. The gender pay gap in the Czech energy sector is -10%, which is an improvement compared to the non-energy sectors in the Czech Republic. However, it still falls short of the middle-third ranking among EU member states.

### **Governmental sector**

The Czech Republic faces significant gender equality challenges, ranking 25<sup>th</sup> out of 27 EU member states on the Gender Equality Index (Domain: Power) by the European Institute for Gender Equality (EIGE). In sectors vital for the European Green Deal and energy transition, only 14% of senior ministers and parliamentary committee members are women. Specifically, in 2023, women make up just 22% of members in parliamentary committees dealing with EGD areas. Despite these hurdles, the Czech government has taken proactive steps. Rooted

in the Czech Charter of Fundamental Rights and Basic Freedoms, their commitment to equality is reinforced by the Anti-Discrimination Act and sectoral laws. The Government Strategy for Equality of Women and Men 2021–2030 focuses on caregiving equality, job market parity, addressing the gender pay gap, and preventing women's poverty risks. The Strategy +1 Implementation Initiative mandates 40% gender representation in decision-making, promoting inclusivity through gender-neutral language and mentoring in energy companies. Additionally, the government participates in <a href="the Equality in Energy Transitions">the Equality in Energy Transitions Initiative</a>, emphasising data collection, inspiring the next generation through <a href="the Ambassadors Program">the Ambassadors Program</a>, and recognising achievements in the Awards Program. Moreover, the <a href="Gender Map project">Gender Map project</a> by Open Society Fund Prague and the Office of the Government of the Czech Republic plays a pivotal role. This initiative targets the underrepresentation of women in decision-making positions in politics and business, collecting and visualising data on women's representation in supervisory boards and boards of directors of public companies.

### **Business sector**

According to data published by the IEA, the share of women among senior managers in the Czech energy sector stands at 11%, below average in Europe. However, a recent survey by the Boston Consulting Group indicates a positive trend, showing an increase in female board members to 16%, a notable rise in the Central and Eastern Europe region. Key companies like the ČEZ Group have taken proactive measures, recognizing the crucial role diversity plays in driving innovation. To facilitate women's advancement in the energy sector, ČEZ Group has implemented initiatives like flexible working hours, company nurseries, and children's camps. They are also developing programs focused on enhancing the managerial skills of female employees. Moreover, collaborations between educational institutions and industry leaders, such as E.ON Czech Republic, have been established. These partnerships facilitate expert lectures, workshops, and provide financial support for equipment projects.

# **Higher education sector**

Czech Republic is positioned in the middle third of EU member states with 20% of women among engineering bachelor's graduates and 24% among master's graduates. Progess over the last decase has been slow, with an increase of 1% annually over the past decade (bachelor's graduates). Against this background, universities such as the Czech Technical University in Prague (CTU) and Brno University of Technology are implementing targeted programs to boost women's representation in technical fields. CTU's "Ta Technika" initiative provides psychological support, advocates for improved study conditions, and offers resources to create an inclusive environment for female students in engineering and technical education. Additionally, the ADWICE project collaborates with technical schools and universities, organizing events and surveys to dismantle stereotypes, offer motivation, and establish supportive networks.

# **Insightful cases**

The **Equality in Energy Transition Initiative** is a joint effort launched in 2010 by the Clean Energy Ministerial (CEM) and the International Energy Agency (IEA). The Initiative has twelve member countries, including Czech Republic. Its primary scope is promoting gender equality and inclusivity in the clean energy transformation by enhancing collaboration and encouraging the participation of women in the energy sector.

More: Equality Initiative

The **Gender Map project** addresses gender disparities in decision-making positions. It collects and visualizes data on women's representation in boards of public companies. Using a gender index, the project promotes transparency by offering clear insights into gender diversity, fostering awareness and informed discussions to advance gender equality in leadership roles.

More: Gender Map project

### 8. Denmark

### **National key figures for Denmark**

Total energy sector employment	Share of women in energy sector workforce	Share of women in R&I workforce in the energy sector (estimate)
20,020	26%	22%
Share of women among senior managers in the energy sector	Gender wage gap (conditional on skills) in the non-energy sector	Gender wage gap (conditional on skills) in the energy sector
27%	-15%	-14%
EIGE Gender Equality Index 2023: Power	Share of women among senior ministers for European Green Deal (EGD) areas (2023)	Share of women among members of parliamentary committees dealing the EGD areas (2023)
73.9	25%	40%
Share of women among bachelor's graduates in engineering (2020)	Annual growth in female bachelor's graduates in engineering (2010-2020)	Share of women among master's graduates in engineering (2020)
17%	6.6%	32%

Note: The colour coding reflects a country's ranking among all EU member states: Green signifies the top third in performance; yellow represents the middle third; and red indicates the bottom third. Sources see "Explanation of the data".

# **Current status of gender balance in the Danish energy sector**

In Denmark's energy sector, women comprise 26% of the workforce of a total of about 20,000 employees, surpassing the EU27 average of 24.5%. Based on our own survey we estimate that women account for 22% of the sector's R&I workforce, placing Denmark in the middle tier of EU27 countries. However, the International Energy Agency (IEA) data reveals a concerning -14% gender wage gap (conditional on skills) in the Danish energy sector, slightly better than the non-energy sector's -15% but significantly worse than the EU27 average.

### Governmental sector

Denmark demonstrates notable achievements in gender equality, ranking 4<sup>th</sup> in the EU for women's involvement in political, economic, and social spheres, as per EIGE's Gender Equality Index (Domain: Power). Particularly in areas crucial for the European Green Deal and energy transition, Denmark excels with 40% female representation in parliamentary committees and 25% in senior ministerial roles. The country employs a comprehensive approach to enhance gender balance across sectors, including energy. The Act on Gender Equality mandates yearly 'Perspective and Action Plans,' promoting equal opportunities in education, work, and family. These plans, although not energy-specific, foster gender equality by reducing labour market gender segregation, ensuring equal pay, and promoting women in management. Denmark integrates gender mainstreaming assessments into public management through the 'Equality Assessment Strategy in the Public Sector,' enhancing diversity and equality. Additionally, Denmark's broad legal framework, including laws on

equal pay, treatment, and parental leave, significantly contributes to gender equality, fostering inclusivity in the energy sector and society as a whole.

### **Business sector**

In Denmark, the energy sector showcases remarkable gender balance in positions in management, boasting a substantial 27% of senior managers who are women, a figure ranking among the highest in Europe. This confirms the findings of a study by Nordic Energy Research from 2021 which calculated a "women's leadership score", assigning different weights to the different levels of decision-making power. The study found that the score is about twice as high in the Nordic countries compared to the rest of Europe. The Danish business landscape is fervently dedicated to fostering gender diversity within the energy industry. Leading the charge are influential companies such as Ørsted and Vestas Wind Systems. Ørsted has set an ambitious target to achieve a 40:60 gender ratio (women:men) by 2030, specifically focusing on leadership positions. To realize this goal, Ørsted has launched advanced initiatives, including sponsorship programs, reserved seats for female talents, and the impactful 'Female Spotlight Initiative,' designed to groom women for senior leadership roles. Similarly, Vestas Wind Systems, a major player in the wind turbine manufacturing sector, is working diligently to increase the representation of women in leadership positions to 30% by 2030. Their comprehensive approach involves thorough reviews of recruitment processes, language use, and external pay equity, demonstrating a commitment to eradicating biases and fostering a more inclusive environment. Furthermore, Vestas prioritises employee education through anti-harassment and anti-discrimination training, ensuring that all staff members, encompassing 66% of the workforce, are wellversed in fostering a respectful workplace.

### **Higher education sector**

In Denmark, the representation of women in engineering graduates aligns with EU standards, with 17% at the bachelor's level, showing a moderate figure, and a significant 32% at the master's level, one of the better performances among EU countries, indicating higher female graduates at advanced stages. The annual growth rate for female bachelor's graduates in engineering was 6.6% over the last decade. Danish educational institutions, particularly the Technical University of Denmark (DTU) and the University of Southern Denmark (SDU), actively drive initiatives to increase female participation in the energy sector. DTU collaborates with <a href="Engineer The Future">Engineer The Future</a>, promoting engineering and science among youth through events like <a href="Girls">Girls</a> Day in Science, focusing on innovation, sustainability, and space-related challenges. SDU's Faculty of Engineering, supported by various grants, runs a <a href="Eias Awareness in Teaching project">Bias Awareness in Teaching project</a>, employing role models and addressing biases in education choices.

### **Insightful cases**

Ørsted Energy's 'Girls' Day in Science' initiative regualarly welcomes several dozen Danish upper secondary school girls from local schools in Esbjerg to Skærbæk Power Station. Aimed at addressing the gender gap in engineering, the events seek to provide insights into offshore wind turbines, power station technology, and environmental impact. Ørsted Energy, as a leading engineering company in Denmark, wants to inspire and engage young women, encouraging their interest in natural science and engineering studies. The events serve as a valuable opportunity to showcase the industry's possibilities and promote energy-related careers among female students.

More: Ørsted Energy's 'Girls' Day in Science'

**High5Girls**, an NGO founded by a seasoned Med Tech professional who as a young person found herself lacking role models as she was the only female in the class when studying electronic engineering. The initiative seeks to offer a platform where young women can find out whether a career in STEM. It acts as a "girls' community within science and technology". Key activities include camps, i.e., 2-day events where young women do handson experience with a technology and meet role models who work with it; Mother/Daughter evenings; and participation in events and public debates about women in STEM. The concept was evaluated independently in 2022 and found to be highly effective.

More: High5Girls

### 9. Estonia

### **National key figures for Estonia**

Total energy sector employment	Share of women in energy sector workforce	Share of women in R&I workforce in the energy sector (estimate)
7,970	(24%)	18%
Share of women among senior managers in the energy sector	Gender wage gap (conditional on skills) in the non-energy sector	Gender wage gap (conditional on skills) in the energy sector
(13%)	-24%	-13%
EIGE Gender Equality Index 2023: Power	Share of women among senior ministers for European Green Deal (EGD) areas (2023)	Share of women among members of parliamentary committees dealing the EGD areas (2023)
33	33%	19%
Share of women among bachelor's graduates in engineering (2020)	Annual growth in female bachelor's graduates in engineering (2010-2020)	Share of women among master's graduates in engineering (2020)
17%	-4.3%	28%

Note: The colour coding reflects a country's ranking among all EU member states: Green signifies the top third in performance; yellow represents the middle third; and red indicates the bottom third. Sources see "Explanation of the data".

# Current status of gender balance in the Estonian energy sector

In Estonia's energy sector, women represent 24% of the total workforce of approximately 8,000, the same value as of the EU27 average. Based on our own survey, we estimate that women constitute 18% of the sector's research and innovation (R&I) workforce, positioning Estonia in the middle range among EU27 nations. Data from the International Energy Agency (IEA) indicates a -13% gender wage gap (conditional on skills) in Estonia's energy sector, which is marginally better than the non-energy sector's -24% and places the country in the middle third of the EU ranking table.

### **Governmental sector**

Estonia faces general challenges in gender equality, evident from its 21<sup>st</sup> position among EU member states on EIGE's Gender Equality Index (Domain: Power). The participation of women in decision-making across political, economic, and social sectors is relatively low. Specifically, in areas crucial for the European Green Deal, including energy transition, Estonia's performance is mixed. While 33% of senior ministers in these fields are women, the representation drops to 19% among members of parliamentary committees related to the European Green Deal, ranking among the lowest in EU27 countries. To address these challenges, Estonia has implemented various policies and initiatives. The Gender Equality Act of 2004 ensures that employers prevent gender discrimination and actively promote equal treatment in the workplace. By aligning with the European Pillar of Social Rights and the EU Employment Guidelines, Estonia emphasises equal opportunities and career advancements for both genders, addressing gender pay gaps and facilitating work-life

balance. The country is also committed to the European Commission Gender Equality Strategy 2020-2025, striving to eliminate gender disparities in employment and promote equal participation in economic sectors, including energy. Estonia's 2035 Strategy emphasizes equal opportunities for all individuals and works to reduce wage gaps and gender segregation in education and the labour market. Additionally, the Welfare Development Plan 2023-2030 focuses on economic equality, supporting employers in identifying and narrowing wage gaps, enhancing work-family balance, and promoting gender balance in decision-making roles.

### **Business sector**

In Estonia's energy sector, IEA reports a 13% representation of women among senior managers, a medium figure in Europe. Against this background, the industry is proactively tackling challenges posed by the clean energy transition while promoting gender balance and equality. Key players like <a href="Energit Green">Energit Green</a>, <a href="Eesti Energia">Eesti Energia</a>, <a href="Alexela">Alexela</a>, <a href="VKG Viru Keemia Grupp</a>, and <a href="Utilitas">Utilitas</a> are investing significantly in workforce development, education, and diversity initiatives. These companies prioritise employee growth, offering comprehensive training programs, internal mobility opportunities, and attractive benefits to retain skilled professionals. Their commitment to gender balance is evident through initiatives addressing Gender-Based Violence and Harassment (GBVH) and fostering an inclusive work environment. Utilitas collaborates with educational institutions, providing scholarships and internships to nurture future energy professionals. Estonia's premier energy event, <a href="Positron">Positron</a>, annually bridges the gender gap in the sector, bringing together industry leaders, students, teachers, and attendees to provide insights into career opportunities, internships, and educational paths within the energy industry. Positron actively encourages women to participate, challenging traditional gender biases associated with energy-related professions.

# **Higher education sector**

In Estonia, the representation of women in engineering graduates closely mirrors the EU average, with 17% at the bachelor's level and 28% at the master's level, indicating a higher proportion of female graduates in advanced stages of education. However, the country faces a challenge with an annual decline of -4.3% for female bachelor's graduates in engineering over the last decade. Estonian Higher Education providers, including prominent institutions like the **University of Tartu** and **Tallin University of Technology (TalTech)**, actively promote gender equality and strive to engage girls and women in the energy sector. Through initiatives like the <u>Day of Women in Science</u> and TalTech's "Women in Engineering" program, these institutions challenge gender stereotypes, celebrate women's achievements in STEM fields, and offer outreach initiatives, mentorship opportunities, and workshops to inspire young girls, fostering their interest in technical careers. Estonia also collaborates with international initiatives such as the United Nations' International Day of Women and Girls in Science, underlining a global commitment to gender equality in science and technology education.

### **Insightful cases**

**Positron** is Estonia's premier energy event, held annually, that aims to bridge the gender gap and promote equality in the energy sector. It brings together industry leaders, students, teachers, and other attendees, offering insights into career opportunities, internships, and educational paths within the energy industry. Positron actively encourages women to participate, challenging traditional gender biases associated with energy-related professions.

More: Positron

"Women in Engineering", and initiative of the Tallin University of Technology (TalTech), showcases the achievements of women in the engineering field, with the goal of challenging the perception that engineering is solely a male domain. The initiative offers mentorship opportunities and is active in outreach initiatives, including workshops to inspire young girls, this way seeking to foster their interest in technical careers.

More: Women in Engineering

### 10. Finland

### **National key figures for Finland**

Total energy sector employment	Share of women in energy sector workforce	Share of women in R&I workforce in the energy sector (estimate)
20,650	28%	16%
Share of women among senior managers in the energy sector	Gender wage gap (conditional on skills) in the non-energy sector	Gender wage gap (conditional on skills) in the energy sector
23%	-21%	-14%
EIGE Gender Equality Index 2023: Power	Share of women among senior ministers for European Green Deal (EGD) areas (2023)	Share of women among members of parliamentary committees dealing the EGD areas (2023)
73.9	29%	38%
Share of women among bachelor's graduates in engineering (2020)	Annual growth in female bachelor's graduates in engineering (2010-2020)	Share of women among master's graduates in engineering (2020)
19%	0.3%	23%

Note: The colour coding reflects a country's ranking among all EU member states: Green signifies the top third in performance; yellow represents the middle third; and red indicates the bottom third. Sources see "Explanation of the data".

# Current status of gender balance in the Finnish energy sector

Of the nearly 21,000 individuals employed by the energy sector in Finland, 27.8% are women, which is above the EU27 average of 24.5% but much lower than for most other economic sectors in the country. Based on our own survey, we estimate a share of women in the energy sector's R&I workforce (business sector only) of merely 16%, which would put Finland in the middle third of all EU27. The International Energy Agency (IEA) provides data for the gender wage gap by economic sector (note, however, that the latest data is for 2018). We are here using the gender wag gap conditional on skills, which corrects for differences in the level of skills required for job positions taken by women and men. A figure of 0% would indicate no wage gap, i.e., equal pay for men and women at the same skills level, while a 100% gap would mean zero wage for women. The gender wage gap, thus defined, for Finland's energy sector is -14%, which is better than in Finland's non-energy sectors combined, but worse than in most remaining EU member states.

### **Governmental sector**

General conditions for gender equality in Finland are favourable, as its performance on EIGE's Gender Equality Index (Domain: Power) indicates. Among EU member states, Finland ranks 5<sup>th</sup> on participation of women in decision-making in the political, economic, and social spheres. EIGE also looked at women's share among senior ministers and parliamentary committee members in areas of major relevance for the European Green Deal (EGD), which includes energy transition. Only 29% of senior ministers in these areas are women, but the female share among members of parliamentary committees dealing the EGD

areas (38%) is the third highest in the EU27. Finland's policies reflect strong commitment to gender equality, also in the energy sector. As a member of the Equal by 30 Campaign, a global public commitment by public and private sector organisations to work towards equal pay, equal leadership and equal opportunities for women in the energy sector by 2030, Finland signed the Clean Energy Ministerial Guiding Principles for ensuring gender diversity by 2030. Finland's national government runs several other initiatives on gender balance and equality that affect the energy sector, including the Gender Equality Program 2020-2023, a policy strategy that promotes gender balance and equality across various sectors, including energy. State-owned companies are required to ensure gender diversity on their executive boards. An Equal Pay Program has been implemented to reduce the gender pay gap.

### **Business sector**

According to data published by the IEA, the share of women among senior managers in the Finnish energy sector stands at 23%, one of the highest values in Europe. This confirms the findings of a study by Nordic Energy Research from 2021 which calculated a "women's leadership score", assigning different weights to the different levels of decision-making power. The study found that the score is about twice as high in the Nordic countries compared to the rest of Europe. A range of business initiatives foster gender balance in the Finnish energy industry. The <a href="Fortum">Fortum</a> Corporation, a leading energy company in the country, participates in the Equality in Energy Transition initiative for equal pay, equal opportunity and equal leadership in the energy industry until 2030. <a href="Finnish Energy">Finnish Energy</a>, an industry association that represents approximately 260 companies, promotes gender equality in the energy sector through its participation in the Equal by 30 Campaign.

### **Higher education sector**

The share of women among bachelor's and master's graduates in engineering stands at 19% and 23%, respectively, which puts Finland in the middle to bottom third among EU member states. Moreover, progress is slow, as reflected in the small increase in female engineering students (bachelor's graduates) over the last decade (0.3% p.a.). Against this background, several Finnish higher education institutions are engaged to foster participation of women in technology-related studies, i.e., studies that also qualify for jobs in the energy industry. Aalto University, Helsinki, has several related initiatives: For example, scholarships from the Marja-Terttu Tanttinen Fund are awarded to projects that advance women's engineering studies or encourage women to engage in studies of engineering and technology. Women's Lunch is a series of events for peer-support, networking and discussing gender related issues on academic career. Lappeenranta-Lahti University of Technology organises the Shaking up Tech event, aimed at high school students, with the objective of encouraging women to pursue careers in technology. Tampere University of Applied Sciences ran the "Equal Career Paths for Women - NOW!" project that aimed to promote gender equality and reduce segregation in the Finnish labour market, particularly in technology, business, and security fields.

# **Insightful cases**

The **Equality in Energy Transition Initiative** is a joint effort launched in 2010 by the Clean Energy Ministerial (CEM) and the International Energy Agency (IEA). The Initiative has twelve member countries, including Finland. Its primary scope is promoting gender equality and inclusivity in the clean energy transformation by enhancing collaboration and encouraging the participation of women in the energy sector.

More: Equality Initiative

The **Equal by 30 Campaign** is part of the Equality in Energy Transitions Initiative. Finland is one of 12 national members. The campaign was launched in 2018 and seeks accelerating gender equality and diversity in the clean energy transition and closing the gender gap by 2030. The three key objectives are: equal pay, equal leadership and equal opportunities for women in the clean energy sector.

More: Equal by 30 Campaign

### 11. France

### **National key figures for France**

Total energy sector employment	Share of women in energy sector workforce	Share of women in R&I workforce in the energy sector (estimate)
193,500	32%	15%
Share of women among senior managers in the energy sector	Gender wage gap (conditional on skills) in the non-energy sector	Gender wage gap (conditional on skills) in the energy sector
35%	-16%	-7%
EIGE Gender Equality Index 2023: Power	Share of women among senior ministers for European Green Deal (EGD) areas (2023)	Share of women among members of parliamentary committees dealing the EGD areas (2023)
83.8	38%	30%
Share of women among bachelor's graduates in engineering (2020)	Annual growth in female bachelor's graduates in engineering (2010-2020)	Share of women among master's graduates in engineering (2020)
21%	1.8%	23%

Note: The colour coding reflects a country's ranking among all EU member states: Green signifies the top third in performance; yellow represents the middle third; and red indicates the bottom third. Sources see "Explanation of the data".

# **Current status of gender balance in the French energy sector**

Of the 193,500 individuals employed by the energy sector in France, 32% are women, which is significantly above the EU27 average of 24.5% but still much lower than for most other economic sectors in the country. Based on our own survey, we estimate a share of women in the energy sector's R&I workforce (business sector only) of merely 15%, which would put France in the middle third of all EU27. The International Energy Agency (IEA) provides data for the gender wage gap by economic sector (note, however, that the latest data is for 2018). We are here using the gender wage gap conditional on skills, which corrects for differences in the level of skills required for job positions taken by women and men. A figure of 0% would indicate no wage gap, i.e., equal pay for men and women at the same skill level, while a -100% gap would mean zero wage for women. The gender wage gap, thus defined, for France's energy sector, is -7%, which is better than in France's non-energy sectors combined and better than most remaining EU member states.

### **Governmental sector**

General conditions for gender equality in France are favourable, as its performance on EIGE's Gender Equality Index (Domain: Power) indicates. Among EU member states, France ranks 2<sup>nd</sup> on participation of women in decision-making in the political, economic, and social spheres. EIGE conducted a study on the representation of women in senior ministerial and parliamentary committee positions pertaining to the European Green Deal (EGD), including energy transition. The study found that 38% of senior ministers in these areas are women, which is one of the highest percentages in Europe. Additionally, the study showed

that women make up 30% of the members of parliamentary committees dealing with EGD areas, which is an average result compared to other European countries. France's policies reflect strong commitment to gender equality, also in the energy sector. As a member of the Equal by 30 Campaign, a global public commitment by public and private sector organisations to work towards equal pay, equal leadership and equal opportunities for women in the energy sector by 2030, France singed the Clean Energy Ministerial Guiding Principles for ensuring gender diversity by 2030. In addition, France has enacted the Rixain Law, effective from December 2021, which mandates companies with over 1,000 employees to address gender imbalances in their executive levels. These companies are required to annually disclose information on gender disparities, emphasizing transparency and accountability. Additionally, France implements the Index de l'égalité professionnelle, where companies with more than 50 employees must calculate and publish their Professional Equality Index annually. This index encompasses indicators such as the gender pay gap, disparities in individual pay rises, promotions, and parity among the top earners, ensuring a comprehensive approach to gender equality within the workplace.

### **Business sector**

According to data published by the IEA, the share of women among senior managers in the French energy sector stands at 35%, the highest value in Europe. Several business initiatives promote gender balance in the energy industry. Through regular agreements spanning 2019-2023, SGE des IEG (The Association of Employers in the Electric and Gas Industry) ensures professional equality between men and women, supported by sector surveys, guides addressing parental leave and sexual harassment, and initiatives like the "Prix des Femmes de la Transition Enérgetique" (Prize of Women of the Energy Transition). This accolade, organized by Andera Partners and GreenUnivers, recognises 20 women champions in renewable energy, spanning private sector, innovation, finance, associations, and the public sector. ENGIE, a leading energy company, acts as a forerunner, advocating gender diversity at all levels within its workforce and the broader energy sector, recognising diversity's crucial role in the success of the energy transition. Additionally, CIGRE Women In Energy France's annual event underscores the significance of women in energy professions, advocating for increased female representation in energy-related training programs and enhanced support for women within companies.

### **Higher education sector**

In France, the representation of women among engineering graduates stands at 21% for bachelor's and 23% for master's degrees, positioning the country in the lower to middle tier among EU member states. Progress has been slow, with an annual increase of merely 1.8% in female bachelor's graduates in engineering over the past decade. Stakeholders in the education system are aware the challenge. For example, the French association Elles bougent has established a robust network of female engineers, technicians, and scientists acting as mentors and role models to address the gender gap. This network collaborates with engineering schools, corporations, and government ministries to raise awareness and host events encouraging girls and young women to pursue STEM (Science, Technology, Engineering, and Mathematics) careers.

## **Insightful cases**

The **Rixain Law**, enacted on 24 December 2021, mandates that all companies with more than 1,000 employees, which includes all major energy companies in France, take measures to increase gender balance in their executive levels. From 2022 onwards, these companies must yearly submit information on gender imbalances in their executive levels, which will be made public by the Ministry of Labour.

More: Rixain Law

**Index de l'égalité professionnelle** (Professional Equality Index), implemented in France since 2019, mandates companies with 50+ employees to annually calculate and disclose their index scores on a scale from 0 to 100. This index evaluates gender equality based on indicators such as the gender pay gap, disparities in pay raises, promotions, and top earners' gender parity.

More: Index de l'égalité professionnelle

# 12. Germany

## **National key figures for Germany**

Total energy sector employment	Share of women in energy sector workforce	Share of women in R&I workforce in the energy sector (estimate)
392,000	27%	18%
Share of women among senior managers in the energy sector	Gender wage gap (conditional on skills) in the non-energy sector	Gender wage gap (conditional on skills) in the energy sector
14%	-17%	-9%
EIGE Gender Equality Index 2023: Power	Share of women among senior ministers for European Green Deal (EGD) areas (2023)	Share of women among members of parliamentary committees dealing the EGD areas (2023)
67.6	50%	37%
Share of women among bachelor's graduates in engineering (2020)	Annual growth in female bachelor's graduates in engineering (2010-2020)	Share of women among master's graduates in engineering (2020)
10%	3.2%	23%

Note: The colour coding reflects a country's ranking among all EU member states: Green signifies the top third in performance; yellow represents the middle third; and red indicates the bottom third. Sources see "Explanation of the data".

# **Current status of gender balance in the German energy sector**

Of the more than 390,000 individuals employed by the energy sector in Germany, 26.8% are women, which is above the EU27 average of 24.5% but much lower than for most other economic sectors in the country. Based on our own survey, we estimate a share of women in the energy sector's R&I workforce (business sector only) of 18%, which would put Germany in the middle third of all EU27. The International Energy Agency (IEA) provides data for the gender wage gap by economic sector (note, however, that the latest data is for 2018). We are here using the gender wag gap conditional on skills, which corrects for differences in the level of skills required for job positions taken by women and men. A figure of 0% would indicate no wage gap, i.e., equal pay for men and women at the same skills level, while a -100% gap would mean zero wage for women. The gender wage gap, thus defined, for Germany's energy sector is -9%, which is not only better than in all non-energy sectors combined (-17%), but among the better performances in the EU27.

### **Governmental sector**

General conditions for gender equality in Germany are quite favourable, as its performance on EIGE's Gender Equality Index (Domain: Power) indicates. Among the 27 EU member states, Germany is on the 8<sup>th</sup> rank for participation of women in decision-making in the political, economic, and social spheres. EIGE also looked at women's share among senior ministers and parliamentary committee members in areas of major relevance for the European Green Deal (EGD), which includes energy transition. One in two senior ministers in these areas is a woman in Germany (the second-best figure in the EU), and the female

share among members of parliamentary committees dealing the EGD areas is 37%, against an EU average of 30%. German constitutional law stresses the equality of men and women and expresses a federal commitment to an active and effective equality policy. Recent laws on gender equality in the labour market and public administration include the Federal Law on Pay Transparency (Entgelttransparenzgesetz), the Law to increase the share of women in leadership positions (Zweites Führungspositionen-Gesetz) and the Law to promote women in STEM professions. A major current policy initiative towards gender balance in energy is the "Women Energize Women" campaign (see box below). Moreover, since 2021, the Federal Ministry for Economic Affairs and Climate Action (BMWK) has been implementing the mentoring program Energizing Women to Advance the Energy Transition, in which more than 100 energy experts from numerous countries are taking part. Germany also participates in the Equal by 30 Campaign, a global public commitment by public and private sector organisations to work towards equal pay, equal leadership and equal opportunities for women in the clean energy sector by 2030. BMWK currently fills 40% of management positions with women and has committed itself to reach parity by 2025.

### **Business sector**

According to data published by the IEA, the share of women among senior managers in the German energy sector stands at 14%, which puts the country in the middle third of the EU ranking table. The energy industry in Germany acknowledges that skill shortages pose a potential obstacle to the clean energy transition and the expansion of renewables, and that attracting more women to the sector, including top management positions, is essential. A study conducted by the Competence Center for Securing Skilled Workers (Kofa) at the Institute for German Economics estimated that approximately 216,000 skilled workers are currently lacking for the solar and wind energy expansion. Notably, electricians are identified as a critical bottleneck for the energy transition, with a demand for around 17,000 professionals in this field. The same study emphasises that women represent an untapped resource for the energy transition. Germany's leading energy companies have women's network in place to working towards giving women a stronger say in the industry. Examples include women@E.ON and the Womens' Network of the RWE Group.

## **Higher education sector**

The share of women among bachelor's and master's graduates in engineering stands at 10% and 23% in Germany, respectively. The former figure is the worst among all EU member states. On a positive note, the country is making decent progress in boosting the number of female engineering students: Over the last decade, the number of female bachelor's graduates in engineering rose by 3.2% p.a. Germany's Higher Education Institutes and the country's powerful vocational education and training (VET) sector recognise the importance of boosting enrolment of girls and women in subjects that prepare them for careers in the energy sector. Some universities have rolled out study programs with a strong interdiscipliary focus to attract students who do not seek a traditional career in engineering. Examples include the University of Stuttgart's BSc in renewable energies. The Berlin University of Applied Sciences' BSc in Information Technology and Economics - women's program not only focuses on applicability, practice orientation and interdisciplinarity, but is also available exclusively to women. In this way, it seeks to overcome barriers to studying in a domain which is still heavily male-dominated.

## **Insightful cases**

**Women Energize Women** is a communication initiative of the German Federal Ministry for Economic Affairs and Climate Action (BMWK), implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), which is Germany's main international development agency, and the German Renewable Energy Federation (BEE). The initiative says that it has already reached more than 5.3 million people via social media. Women Energize Women takes place in the scope of BMWK's global project Bilateral Climate and Energy Partnerships and Dialogues.

More: Women Energize Women

Women in Green Hydrogen, an initiative funded by the German government, launched the WiGH Mentoring Program in mid-2021 to support and empower young professionals in the green hydrogen sector in the early stages of their careers. It pairs senior experts in green hydrogen with those in the early stages of their career to provide a space for women to share their experiences, challenges, and ambitions in the sector. Pairs are matched according to industry expertise and to facilitate a global exchange of knowledge. Participation has greatly increased since inception – in the last round, 350+ mentors and mentees took part.

More: WIGH Mentoring Program

### 13. Greece

### **National key figures for Greece**

Total energy sector employment	Share of women in energy sector workforce	Share of women in R&I workforce in the energy sector (estimate)
40,660	22%	36%
Share of women among senior managers in the energy sector	Gender wage gap (conditional on skills) in the non-energy sector	Gender wage gap (conditional on skills) in the energy sector
4%	-9%	-15%
EIGE Gender Equality Index 2023: Power	Share of women among senior ministers for European Green Deal (EGD) areas (2023)	Share of women among members of parliamentary committees dealing the EGD areas (2023)
30.4	0%	14%
Share of women among bachelor's graduates in engineering (2020)	Annual growth in female bachelor's graduates in engineering (2010-2020)	Share of women among master's graduates in engineering (2020)
26%	0.2%	32%

Note: The colour coding reflects a country's ranking among all EU member states: Green signifies the top third in performance; yellow represents the middle third; and red indicates the bottom third. Sources see "Explanation of the data".

# **Current status of gender balance in the Greek energy sector**

Of the nearly 40,700 individuals employed by the energy sector in Greece, 22% are women, which is below the EU27 average of 24.5% and much lower than most other economic sectors in the country. Based on our survey, we estimate a share of women in the energy sector's R&I workforce (business sector only) of 36%, which would put Greece in the top third of all EU. The International Energy Agency (IEA) provides data for the gender wage gap by economic sector (note, however, that the latest data is for 2018). We are here using the gender wage gap conditional on skills, which corrects for differences in the level of skills required for job positions taken by women and men. A figure of 0% would indicate no wage gap, i.e., equal pay for men and women at the same skill level, while a -100% gap would mean zero wage for women. The gender wage gap, thus defined, for Greece's energy sector is -15%, which is worse than in Greece's non-energy sectors combined as well as most remaining EU member states.

### **Governmental sector**

General conditions for gender equality in Greece are not very favourable, as its performance on EIGE's Gender Equality Index (Domain: Power) indicates. Among EU member states, Greece ranks 24<sup>th</sup> on participation of women in decision-making in the political, economic, and social spheres. EIGE also looked at women's share among senior ministers and parliamentary committee members in areas of major relevance for the European Green Deal (EGD), which includes energy transition. There are no women (0%) among senior ministers, while the female share among members of parliamentary committees dealing the EGD areas

is 14%, still one of the lowest in EU27. Despite these challenges, Greece demonstrates some commitment to gender equality within its energy sector. The National Action Plan for Gender Equality (NAPGE) 2021-2025 acts as a guiding framework, emphasising equal opportunities in various sectors, including energy. To foster women's engagement in science and technology, Greece advocates incentives and quotas for female researchers, mirroring efforts in STEM (Science, Technology, Engineering & Mathematics) education. The Ministry of Labour and Social Affairs champions initiatives such as the "Innovation Centre for Women - #GIL4W," designed to encourage girls' pursuit of STEM studies and bolster female participation in research-driven enterprises. Collaborative endeavours between the Ministry of Education and the Ministry of Labour target stereotypes in STEM careers, promoting inclusivity.

### **Business sector**

According to data published by the IEA, the share of women among senior managers in the Greek energy sector stands just at 4%, one of the lowest values in Europe. Against this background, the in Greek business sector has started to actively promote gender equality in the energy industry through various initiatives. For example, Public Power Corporation (PPC) has partnered with Corporate Sustainability & Responsibility School Hellas to participate in the CEASE (Companies in Europe Associated to End Gender-Based Violence) programme aimed at fighting violence against women and promoting a safer and more inclusive work environment. Mytilineos Holdings, a leading Greek industrial conglomerate with strong presence in the energy sector, is collaborating with Knowl, a social enterprise, in the context of the EU-wide FemStem program, which focuses on enhancing professional skills for women in STEM fields. Through work counselling, skills training, mentoring, and industry connections, the program seeks to proactively address the gender gap in STEM, promoting innovation and creativity. The Greek subsidiary of Enel Green Power, a renewables multinational, has made significant achievements in promoting diversity and gender equality in Greece. The company has become the first renewable energy firm in the country to sign the European Diversity Charter. Additionally, Enel Green Power is actively involved in the "Equal by 30" campaign, which aims to promote equal pay and opportunities for women working in the clean energy sector.

### **Higher education sector**

Greece is positioned in the top third of EU member states with 26% of women among engineering bachelor's graduates and 32% among master's graduates, an impressive performance. Recent years have seen little further growth, however, as reflected in 0.2% annual increase in bachelor's graduates in engineering over the past decade. While Greek universities have implemented gender equality policies in recent years, there are no major education sector initiatives specifically designed to encourage the participation of women in technology-related studies that qualify graduates for jobs in the energy industry.

## **Insightful cases**

**FemStem is** an EU-funded project that has developed a coaching program with the aim to bridge the soft skills gender gap in STEM, by providing women with tools and techniques to develop their confidence and soft skills through a combination of online training and peer-support in so-called "Coaching Circles". The program consists of 30 hours of work counselling, skills training, mentoring, and scientific tools. The Greek consortium partner is the University of Thessaly.

More: FemStem

The **Equal by 30 Campaign** is part of the Equality in Energy Transitions Initiative. Here public and private sector organizations work toward achieving equal pay, equal leadership, and equal opportunities for women in the clean energy sector by 2030. As part of its involvement in the campaign, the Greek subsidiary of the Enel Group actively promotes awareness among female high school students of the career potential offered by studying STEM subjects at college and university.

More: Equal by 30 Campaign

# 14. Hungary

# **National key figures for Hungary**

Total energy sector employment	Share of women in energy sector workforce	Share of women in R&I workforce in the energy sector (estimate)
44,120	26%	10%
Share of women among senior managers in the energy sector	Gender wage gap (conditional on skills) in the non-energy sector	Gender wage gap (conditional on skills) in the energy sector
(20%)	-16%	-6%
EIGE Gender Equality Index 2023: Power	Share of women among senior ministers for European Green Deal (EGD) areas (2023)	Share of women among members of parliamentary committees dealing the EGD areas (2023)
26.2	0%	8%
Share of women among bachelor's graduates in engineering (2020)	Annual growth in female bachelor's graduates in engineering (2010-2020)	Share of women among master's graduates in engineering (2020)
18%	7.4%	25%

Note: The colour coding reflects a country's ranking among all EU member states: Green signifies the top third in performance; yellow represents the middle third; and red indicates the bottom third. Sources see "Explanation of the data".

# Current status of gender balance in the Hungarian energy sector

Of the more than 44,000 individuals employed by the energy sector in Hungary, 26% are women, which is above the EU27 average of 24.5%. Based on our survey, we estimate a share of women in the energy sector's R&I workforce (business sector only) of merely 10%, which would put Hungary in the bottom third of all EU27. According to the International Energy Agency (IEA), the gender wage gap varies across different economic sectors. However, the data available is only up to 2018. In this context, we are considering the gender wage gap based on skills. This means that we are correcting for differences in the level of skills required for job positions occupied by both men and women. The gender wage gap for the Hungarian energy sector stands at -6%, which is a much better result when compared with all non-energy sectors in Hungary. It is one of the best figures in Europe.

#### **Governmental sector**

General conditions for gender equality in Hungary are not very favourable, as its performance on EIGE's Gender Equality Index (Domain: Power) indicates. Among EU member states, Hungary is in the last place in the participation of women in decision-making in the political, economic, and social spheres. EIGE also looked at women's share among senior ministers and parliamentary committee members in areas of major relevance for the European Green Deal (EGD), which includes energy transition. There are no women (0%) in senior ministers, nevertheless, the female share among members of parliamentary committees dealing with the EGD areas is 8% which is still the lowest in EU27. Despite this, Hungary's governmental sector is actively striving to boost gender diversity in the nation's energy sector through

several policies and initiatives. The National Strategy for the Promotion of Gender Equality and the 'Empowering Women in the Family and Society Action Plan 2021-2030' underscore the importance of promoting work-life balance, advancing women's participation in STEM (Science, Technology, Engineering, and Mathematics) careers, and ensuring equal social protection. Innovative programmes like <a href="GINOP">GINOP</a> (Economic Development and Innovation Operational Programme) are pioneering flexible employment strategies, seeking to empower businesses to adopt family-friendly practices.

#### **Business sector**

Data from the IEA indicates that women constitute 20% of senior managers in the Hungarian energy sector, marking one of the highest percentages in Europe. However, the latest survey from the Boston Consulting Group reveals a decrease in the share of female board members in Hungary, dropping to 10% compared to the 2018 figures. Several initiatives within the business sector in Hungary are actively working to increase the representation of women in the energy sector. ABB Hungary's "Sustainable Talent Program for Women in Engineering" attracts female technical students, offering mentoring experiences and insights into engineering careers. MOL's "Growww Female Engineers Scholarship Programme" empowers female STEM students, providing financial support, real-world challenges, and potential career pathways within the energy industry. MVM's various programs, such as the "Women's Career Mentoring Programme" and "Mutual listening Programme," support female colleagues' leadership aspirations and provide a platform for sharing experiences. CEZ implements programs like "Working Mum" and "Women Hub," offering support and networking opportunities for female employees. Innogy Hungary's "TechCsajok" event series encourages high school girls to pursue technical careers, bridging the gender gap in technical fields.

# **Higher education sector**

Hungary is positioned in the middle third of the EU member states with 18% of women among engineering bachelor's graduates and 25% among master's graduates. The past decade has seen an increase of 7.4% annually in bachelor's graduates. Hungarian higher education institutes and vocational schools recognise the imperative of encouraging more girls and women to pursue careers in the energy sector, where gender gaps persist. To address this disparity, several initiatives have been implemented to promote STEM fields among females in Hungary. The University of Szeged organised the event "You should be a STEM Star!" specifically targeting secondary school girls, aiming to boost interest in engineering and increase the number of girls studying engineering at the university. The Budapest University of Technology and Economics collaborated with the Association of Hungarian Women in Science (NaTE) to participate in the Girls' Day program, inviting high-school girls to explore the advantages of studying engineering. Furthermore, the University of Pécs, in partnership with NaTE, is organising events like "Women on Difficult Career Tracks" and the Women in Science conference, providing support for women scholars at various career stages and faculties.

## **Insightful cases**

The **Growww female engineers scholarship programme** by MOL Group supports female full-time students in STEM fields, offering financial aid and skills development opportunities. Dedicated to fostering diversity in the energy sector, the initiative empowers women pursuing degrees in areas like Geoscience and Petroleum Engineering. It seeks to inspire future female leaders, breaking stereotypes and encouraging careers in STEM, emphasising gender diversity.

More: The Growww female engineers scholarship programme

The **Women in Energy (WONY) mentoring program** is the initiative organised by the Women in Energy Association. It seeks to challenge gender stereotypes and promote opportunities for young female professionals and university graduates in the energy sector. The program is open to any woman who has completed at least two semesters studying engineering, law, economics, communication, international relations or any related field, and who is interested in energy and climate issues. Mentors are recruited from the members of the WONY network of women working in energy.

More: WONY mentoring programme

### 15. Ireland

# National key figures for Ireland

Total energy sector employment	Share of women in energy sector workforce	Share of women in R&I workforce in the energy sector (estimate)
16,980	(28%)	38%
Share of women among senior managers in the energy sector	Gender wage gap (conditional on skills) in the non-energy sector	Gender wage gap (conditional on skills) in the energy sector
10%	n.a.	n.a.
EIGE Gender Equality Index 2023: Power	Share of women among senior ministers for European Green Deal (EGD) areas (2023)	Share of women among members of parliamentary committees dealing the EGD areas (2023)
64.7	14%	23%
Share of women among bachelor's graduates in engineering (2020)	Annual growth in female bachelor's graduates in engineering (2010-2020)	Share of women among master's graduates in engineering (2020)
13%	22.7%	31%

Note: The colour coding reflects a country's ranking among all EU member states: Green signifies the top third in performance; yellow represents the middle third; and red indicates the bottom third. Sources see "Explanation of the data".

# Current status of gender balance in the Irish energy sector

In Ireland's energy sector, out of 16,980 individuals employed, 28% are women, surpassing the EU27 average of 24.5%. Based on our survey, we estimate that women constitute 38% of the sector's R&I workforce (business sector only), ranking among the best in the EU27. Unfortunately, the International Energy Agency (IEA) does not provide gender pay gap data about Ireland. Major energy companies in Ireland, however, have released gender-disaggregated figures: <u>EriGrid's</u> mean gender pay gap is 12.4%, <u>ESB's</u> is 10.9%, <u>Gas Networks Ireland's is 5.7%</u>, Bord Gáis Energy's is 6.4%, and SSE's is 23%.

### **Governmental sector**

Ireland exhibits favourable conditions for gender equality, ranking 9th among EU member states in women's participation in decision-making according to EIGE's Gender Equality Index (Domain: Power). However, in areas crucial for the European Green Deal (EGD) like energy transition, female representation is low, with only 14% of senior ministers and 23% of parliamentary committee members being women. Despite this, the Irish government is shows strong commitment to gender equality in the energy sector. Policies like the National Strategy for Women and Girls, focusing on the 2030 Agenda, prioritise gender balance. Efforts to boost female participation in STEM (Science, Technology, Engineering, and Mathematics) fields are evident through initiatives like the STEM Education Policy Statement and the STEM Education Implementation Plan to 2026. Additionally, the National Energy and Climate Plan and Sustainable Energy Authority of Ireland (SEAI's) Interim Gender Equality Plan

emphasise gender-disaggregated data analysis, reflecting a comprehensive approach to gender inclusivity and diversity, despite existing challenges.

### **Business sector**

Data from the IEA reveals that women constitute only 10% of senior managers in Ireland's energy sector, indicating one of the lowest rates in Europe. Against this background, key industry players, including ESB, EirGrid, Bord Gais Energy, Energia Group, and SSE, have launched targeted initiatives to enhance diversity and inclusivity. <a href="ESB">ESB</a> focuses on attracting more women to apprenticeships, graduate programmes, and STEM roles through educational initiatives. <a href="EirGrid">EirGrid</a> adopts a holistic approach, encompassing awareness programmes, diverse talent nurturing, and an inclusive employer brand strategy. <a href="Bord GaisEnergy">Bord GaisEnergy's Sustainability Strategy</a> prioritises diversity, aiming to increase female representation and promote STEM education. <a href="Energia Group">Energia Group</a> fosters diversity through its Women's Network and initiatives supporting women's careers. <a href="SSE">SSE</a> actively promotes inclusive recruitment, addresses internal barriers, and sets supplier expectations for diversity. Professional associations like <a href="Engineers Ireland">Engineers Ireland</a> and initiatives such as <a href="the 40%">the 30%</a> Club Ireland are dedicated to advancing gender balance and equality in the engineering and energy sectors.

## **Higher education sector**

The share of women in engineering graduates in Ireland lags behind other EU states as far as bachelor's graduates are concerned: Only 13% of engineering bachelor's graduates in Ireland are women, against an EU average of 20%. For master's graduates, however, the picture looks different: Here, Ireland's figure of 31% women representation is significantly above the EU average. Recent years have shown rapid progress as well, evidenced by a 22.7% annual increase in female engineering bachelor's graduates. Higher education institutions, such as University College Dublin's <a href="Women@Stem">Women@Stem</a> and its precursor, Women in the Sciences (WITS), play a vital role in driving this change. Women@Stem challenges societal norms and biases, advocating for equality in STEM fields. Their initiatives provide crucial support, ranging from undergraduate to leadership levels, fostering networking opportunities through events and workshops. Moreover, scholarships like those offered by Trinity College Dublin, the <a href="Three Ireland Connect to STEM Scholarships">Three Ireland Connect to STEM Scholarships</a>, exclusively benefit female STEM students. These efforts not only seek to enhance accessibility to technology-related programmes but also to inspire women to pursue rewarding careers in the energy sector, narrowing the gender gap and making strides in this essential industry.

# **Insightful cases**

The **30% Club Ireland**, established in 2015, is a global initiative supported by CEOs and Board Chairs of medium and large organizations. With over 300 member organizations representing 650,000 employees, the club aims to achieve a minimum of 30% gender balance in leadership roles and decision-making tables in member companies. Its strategy focuses on activating senior leaders, influencing national diversity discussions, and enabling future women leaders through mentoring and scholarships.

More: 30% Club Ireland

The **Women in Engineering Group** is a dedicated community affiliated with Engineers Ireland, operating as a subset of the Inclusion and Diversity Society within the organization. As part of Engineers Ireland, the group works to promote gender diversity and support women in engineering, offering various programs, networking events, and mentorship initiatives to foster a more inclusive environment within the engineering profession. Through their affiliation with Engineers Ireland, the Women in Engineering Group seeks to play a pivotal role in advancing the cause of women in the engineering field.

More: Women in Engineering Group

# 16. Italy

# **National key figures for Italy**

Total energy sector employment	Share of women in energy sector workforce	Share of women in R&I workforce in the energy sector (estimate)
138,850	27%	25%
Share of women among senior managers in the energy sector	Gender wage gap (conditional on skills) in the non-energy sector	Gender wage gap (conditional on skills) in the energy sector
22%	-13%	-13%
EIGE Gender Equality Index 2023: Power	Share of women among senior ministers for European Green Deal (EGD) areas (2023)	Share of women among members of parliamentary committees dealing the EGD areas (2023)
62.7	14%	34%
Share of women among bachelor's graduates in engineering (2020)	Annual growth in female bachelor's graduates in engineering (2010-2020)	Share of women among master's graduates in engineering (2020)
25%	24.9%	26%

Note: The colour coding reflects a country's ranking among all EU member states: Green signifies the top third in performance; yellow represents the middle third; and red indicates the bottom third. Sources see "Explanation of the data".

# Current status of gender balance in the Italian energy sector

In Italy's energy sector, out of nearly 140,000 individuals employed, 27% are women, surpassing the EU27 average of 24.5%. Based on our own survey, we estimate that women constitute 25% of the sector's R&I workforce (business sector only), positioning Italy in the middle third of all EU27 countries. When considering the gender wage gap conditional on skills, which accounts for differences in required skill levels, Italy's energy sector demonstrates a -13% wage gap. This figure is consistent with the combined non-energy sectors in Italy and places the country in an average position among EU member states.

#### **Governmental sector**

Italy ranks 12<sup>th</sup> among EU member states in women's participation in decision-making, reflecting moderate gender equality. In sectors vital for the European Green Deal, like energy transition, only 14% of senior ministers are women. However, women make up 34% of parliamentary committee members in these areas, showing relatively higher representation as the average EU member state. Italy actively promotes gender equality in the energy sector through its National Strategy for Gender Equality, grounded in the Constitutional Principle of Equality. Supported by the National Code of Equal Opportunities, this strategy advocates gender mainstreaming, and equal opportunities across sectors. Initiatives like enrichment programs, thematic summer camps, and scholarships for female students challenge stereotypes and boost women's involvement in diverse fields, including energy. Mandatory educational visits and engagement with company representatives underline Italy's proactive approach, ensuring equal opportunities and empowering women in the energy sector.

Additionally, as a member of the <u>Equal by 30 Campaign</u>, a global public commitment by public and private sector organisations to work towards equal pay, equal leadership and equal opportunities for women in the energy sector by 2030, Italy singed the Clean Energy Ministerial Guiding Principles for ensuring gender diversity by 2030.

### **Business sector**

According to data published by the IEA, the share of women among senior managers in the Italian energy sector stands at 22%, one of the highest values in Europe. In Italy, the business sector within the energy industry is actively working to enhance the representation of women. Acknowledging the challenges posed by the clean energy transition, companies, government bodies, and educational institutions are collaboratively promoting training and education programmes. Efforts to improve gender balance include initiatives such as mentoring programmes, scholarships, and awareness campaigns. Initiatives in the renewable energy sector aim to challenge traditional gender norms, fostering inclusivity and diversity. Companies like Enel Group, an energy sector multinational, are leading the way, organising events like "Tech Talks", "Women in Tech" and shadowing experiences, encouraging young women to pursue STEM (Science, Technology, Engineering, and Mathematics) and promoting gender equality within the energy industry.

# **Higher education sector**

Italy is making significant strides in encouraging women to pursue engineering degrees, with 25% and 26% earning bachelor's and master's degrees respectively, placing the country in the top to middle third among EU member states. Noteworthy further progress is evident in the 24.9% annual increase in female engineering bachelor's graduates over the past decade. Italian higher education providers are proactively involved in promoting women's participation in technology-related studies, essential for careers in the energy industry. Initiatives encompass awareness campaigns, outreach programmes, and scholarships specifically tailored for girls and women, challenging stereotypes, and presenting successful female role models. Leading institutions like the Polytechnic Universities of Milan and Turin provide orientation, scholarships, mentoring, and tutoring, fostering women's engagement in technical subjects. Moreover, these institutions prioritise inclusive learning environments, incorporating gender-sensitive teaching practices and curricula. Projects like the Polytechnic University of Turin's "Donna: professione Ingegnere" (English for "Woman: profession of engineer") further bolster women's presence in engineering, ensuring equal opportunities and breaking barriers for those pursuing energy sector careers.

# **Insightful cases**

The "Woman: Profession of Engineer" project from the Polytechnic University of Turin aims to increase the presence of women in engineering degree courses and eliminate gender discrimination in the field. It offers scholarships, orientation, tutoring, mentoring, and awareness-raising activities. The initiative targets high school students, undergraduate engineering students, and graduates.

More: Woman: Profession of Engineer

The **Equal by 30 Campaign** is part of the Equality in Energy Transitions Initiative. Italy is one of 12 national governments among its members. The campaign was launched in 2018 and seeks accelerating gender equality and diversity in the clean energy transition and closing the gender gap by 2030. The three key objectives are: equal pay, equal leadership and equal opportunities for women in the clean energy sector.

More: Equal by 30 Campaign

### 17. Latvia

### **National key figures for Latvia**

Total energy sector employment	Share of women in energy sector workforce	Share of women in R&I workforce in the energy sector (estimate)
12,200	(28%)	(37%)
Share of women among senior managers in the energy sector	Gender wage gap (conditional on skills) in the non-energy sector	Gender wage gap (conditional on skills) in the energy sector
n.a.	-20%	-16%
EIGE Gender Equality Index 2023: Power	Share of women among senior ministers for European Green Deal (EGD) areas (2023)	Share of women among members of parliamentary committees dealing the EGD areas (2023)
49.1	33%	29%
Share of women among bachelor's graduates in engineering (2020)	Annual growth in female bachelor's graduates in engineering (2010-2020)	Share of women among master's graduates in engineering (2020)
16%	-5.5%	21%

Note: The colour coding reflects a country's ranking among all EU member states: Green signifies the top third in performance; yellow represents the middle third; and red indicates the bottom third. Sources see "Explanation of the data".

# Current status of gender balance in Latvia's energy sector

Of the nearly 12,200 individuals employed by the energy sector in Latvia, 28% are women, which above the EU average: 24.5%) but much lower than for most other economic sectors in the country. Based on our own survey, we estimate a share of women in the energy sector's R&I workforce (business sector only) of 37%, one of the highest values in the EU27 and a reflection of the country's traditionally high share of women among scientists and engineers (according to <a href="SheFigures 2021">SheFigures 2021</a>, Latvia is among the few countries in the EU where the majority of scientists and engineers were women). The International Energy Agency (IEA) provides data for the gender wage gap by economic sector (note, however, that the latest data is for 2018). We are here using the gender wag gap conditional on skills, which corrects for differences in the level of skills required for job positions taken by women and men. A figure of 0% would indicate no wage gap, i.e., equal pay for men and women at the same skills level, while a -100% gap would mean zero wage for women. The gender wage gap, thus defined, for Latvia's energy sector is -16%, less than for all non-energy sectors combined (-20%), but one of the largest gaps in Europe.

#### **Governmental sector**

General conditions for gender equality in Latvia are fair, as its performance on EIGE's Gender Equality Index (Domain: Power) indicates. Among the 27 EU member states, Latvia is ranked 17<sup>th</sup> on participation of women in decision-making in the political, economic, and social spheres. EIGE also looked at women's share among senior ministers and parliamentary committee members in areas of major relevance for the European Green Deal

(EGD), which includes energy transition. 33% of senior ministers in these areas are women in Latvia, slightly more than the EU27 average (29%). The percentage of female share among members of parliamentary committees dealing with the EGD areas is 29% in Latvia against an EU average of 30%. The OECD reports that Latvia is among the countries in the OECD-EU with the highest share of women in senior management positions, 55% compared to the OECD-EU average of 40.8%.

### **Business sector**

According to data published by the IEA, the share of women among senior managers in Latvia's energy sector in negligible. <u>Latvenergo</u>, the country's largest energy company, has a share of 30% female employees and declares commitment to comprehensive diversity management, "enabling employees to realise their potential regardless of possible limiting factors". <u>Conexus Baltic Grid</u>, a major player in the natural gas industry, has 19% women in the total workforce, 16% in management and supporting structural units employees, 20% among Board and Council members and 26% among specialists. Several initiatives seek to improve gender balance across the country's economy. The <u>Latvian Diversity Charter</u>, launched in 2019, has been successful in attracting a large number of signatories from across the business community, but not yet any energy sector company.

### **Higher education sector**

The share of women among bachelor's and master's graduates in engineering stands at 16% and 21% in Latvia, respectively, which puts it in the lower third among EU member states. What is more, the country is making no progress in boosting the number of female engineering students. Rather, over the last decade, the number of female bachelor's graduates in engineering decreased by -5.5% p.a. There is a risk that this development may, in the medium term, endanger the country's leading position in Europe regarding the share of women in science and engineering jobs.

### 18. Lithuania

### **National key figures for Lithuania**

Total energy sector employment	Share of women in energy sector workforce	Share of women in R&I workforce in the energy sector (estimate)
13,510	(24%)	23%
Share of women among senior managers in the energy sector	Gender wage gap (conditional on skills) in the non-energy sector	Gender wage gap (conditional on skills) in the energy sector
(<10%)	-18%	-7%
EIGE Gender Equality Index 2023: Power	Share of women among senior ministers for European Green Deal (EGD) areas (2023)	Share of women among members of parliamentary committees dealing the EGD areas (2023)
48.6	43%	29%
Share of women among bachelor's graduates in engineering (2020)	Annual growth in female bachelor's graduates in engineering (2010-2020)	Share of women among master's graduates in engineering (2020)
17%	-5.2%	26%

Note: The colour coding reflects a country's ranking among all EU member states: Green signifies the top third in performance; yellow represents the middle third; and red indicates the bottom third. Sources see "Explanation of the data".

# Current status of gender balance in the Lithuanian energy sector

Of the 13,500 individuals employed by the energy sector in Lithuania, 23.8% are women, which is close to the EU27 average of 24.5% and much lower than for most other economic sectors in the country. Based on our own survey, we estimate a share of women in the energy sector's R&I workforce (business sector only) of 23%, which would put Lithuania in the middle third of all EU27. The International Energy Agency (IEA) provides data for the gender wage gap by economic sector (note, however, that the latest data is for 2018). We are here using the gender wag gap conditional on skills, which corrects for differences in the level of skills required for job positions taken by women and men. A figure of 0% would indicate no wage gap, i.e., equal pay for men and women at the same skills level, while a -100% gap would mean zero wage for women. The gender wage gap, thus defined, for Lithuania's energy sector is -7%, which is better than in Lithuania's non-energy sectors combined (-18%) and also better than in most remaining EU member states.

### **Governmental sector**

General conditions for gender equality in Lithuania are slightly worse than in the average across the EU27, as the country's performance on EIGE's Gender Equality Index indicates. It scores 48.6 out of 100 on the Index' domain "Power", which measures participation of women in decision-making in the political, economic, and social spheres. The average score in Europe is 59.1. EIGE also looked at women's share among senior ministers and parliamentary committee members in areas of major relevance for the European Green Deal (EGD), which includes energy transition. 43% of senior ministers in these areas are women

in Lithuania (EU average: 29%); the female share among members of parliamentary committees dealing the EGD areas is roughly the same figures as the EU27 average (30%). In Lithuania, the fundamental laws regulating gender equality issues apply are the <a href="Law on Equal Opportunities for Women and Men">Law on Equal Opportunities for Women and Men</a> and the <a href="Law on Equal Opportunities for Women and Men">Labour Code</a> requiring organisations with more than 50 employees to have effective gender equality plans. Moreover, the government implemented a <a href="Women's and Men's Equal Opportunities Commission">Women's and Men's Equal Opportunities Commission</a>, a 2021-2023 <a href="Action Plan">Action Plan</a> for the Promotion of Non-discrimination and the 2023-2025 <a href="Action Plan">Action Plan</a> for the Promotion of Non-discrimination and the 2023-2025 <a href="Action Plan">Action Plan</a> for Equal Opportunities for Women and Men. For boosting gender balance in research organisations, the Lithuanian Ministry of Education and Science adopted the Strategy for Assurance of Equal Opportunities for Women and Man in Science and the Recommendations for Assurance of Equal Opportunities for Man and Women in the Lithuanian Science and Study Institutions.

### **Business sector**

According to data published by the IEA, the number of women among senior managers in Lithuania's energy sector stands is negligible, which puts the country in the bottom third of the EU ranking table. The ongoing energy transformation increases the need for energy specialists. According to consultancies Ignitis group and EPSO-G, Lithuania will need at least 2,500 additional energy specialists and skilled workers by 2030, of which 1,500 for marine energy. Against this demand, the next years will therefore see increasing competition for energy specialists. According to the head of EPSOG, cross-border competition for scarce talent is also on the rise. In this context, energy stakeholders understand the importance of making energy an attractive field of work also for women. Gender balance used to be a kind of formality for employers, but it has turned to be of strategic importance. Industry insiders comment that active communication that energy is not an exclusively "male" profession appears to be paying off.

# **Higher education sector**

The share of women among bachelor's and master's graduates in engineering stands at 17% and 26% in Lithuania, respectively, which puts it in the middle third among EU member states. Recent years have witnessed a decrease in the number of female first-year students choosing engineering: Over the last decade, the number of female bachelor's graduates in engineering fell by -5.2% p.a. A similar trend can be observed in other former Eastern Bloc countries which have a tradition of high female shares in technical and engineering jobs. Against this background, Lithuanian higher education institutes are working to increase the number of women who enrol in subjects that prepare them for energy jobs. For example, Kaunas University of Technology (KTU) runs a range of outreach activities to attract more young women to engineering programs (KTU portal; publications). The university also established a Children's University in collaboration with secondary schools to arouse interest for technology in girls and boys.

## **Insightful cases**

In 2022, following a first event in 2019, **Kaunas University of Technology (KTU)** showed a photographic exhibition "Women and Technology" in Kaunas city centre. The showcase introduced citizens to women from the university, seeking to break down gender stereotypes. The objective was to show that female scientists, researchers, and educators from KTU, including energy-related fields, are an integral part of the university community, and create prosperity for the city and the country: "the women working and studying at KTU are living proof that specialty has no gender".

More: KTU news

**#EnergySmartSTART** is a program to arouse interest for the topic of energy in pupils, students, and everybody else in Lithuania. In this program, launched in 2022, Lithuanian energy companies have combined their various initiatives into one. It offers excursions to energy enterprises and sites, meetings with experts, scholarships, and information about career opportunities. The program's website features leading women in the energy business, for example the Head of Environmental Protection and Laboratory at Vilnius Combined Heat and Power Plant.

More: #EnergySmartSTART

# 19. Luxembourg

## **National key figures for Luxembourg**

Total energy sector employment	Share of women in energy sector workforce	Share of women in R&I workforce in the energy sector (estimate)
2,100	11%	(4%)
Share of women among senior managers in the energy sector	Gender wage gap (conditional on skills) in the non-energy sector	Gender wage gap (conditional on skills) in the energy sector
12%	-6%	-7%
EIGE Gender Equality Index 2023: Power	Share of women among senior ministers for European Green Deal (EGD) areas (2023)	Share of women among members of parliamentary committees dealing the EGD areas (2023)
64.4	29%	36%
Share of women among bachelor's graduates in engineering (2020)	Annual growth in female bachelor's graduates in engineering (2010-2020)	Share of women among master's graduates in engineering (2020)
19%	25.9%	36%

Note: The colour coding reflects a country's ranking among all EU member states: Green signifies the top third in performance; yellow represents the middle third; and red indicates the bottom third. Sources see "Explanation of the data".

# Current status of gender balance in Luxembourg's energy sector

Of the nearly 2,100 individuals employed by the energy sector in Luxembourg, 11% are women, which is the lowest figure for the whole EU27 (EU average: 24.5%) and very much lower than for most other economic sectors in the country. Based on our own survey, we estimate a share of women in the energy sector's R&I workforce (business sector only) of merely 4%, again the lowest value among all EU members states. The International Energy Agency (IEA) provides data for the gender wage gap by economic sector (note, however, that the latest data is for 2018). We are here using the gender wag gap conditional on skills, which corrects for differences in the level of skills required for job positions taken by women and men. A figure of 0% would indicate no wage gap, i.e., equal pay for men and women at the same skills level, while a -100% gap would mean zero wage for women. The gender wage gap, thus defined, for Luxembourg's energy sector is -7%, roughly the same is all nonenergy sectors combined (-6%), and among the lowest in Europe.

### **Governmental sector**

General conditions for gender equality in Luxembourg are good, as its performance on EIGE's Gender Equality Index (Domain: Power) indicates. Among the 27 EU member states, Luxembourg is ranked 10<sup>th</sup> on participation of women in decision-making in the political, economic, and social spheres. EIGE also looked at women's share among senior ministers and parliamentary committee members in areas of major relevance for the European Green Deal (EGD), which includes energy transition. 29% of senior ministers in these areas are women in Luxembourg, the same as the EU27 average. The percentage of female share

among members of parliamentary committees dealing with the EGD areas is 36%, one of the best performances in the EU. Luxembourg's policies reflect strong commitment to gender equality, also in the energy sector. Since 2000, the country has a Ministry of Equality between Women and Men (MEGA) with responsibility for promoting gender equality and mainstreaming in Luxembourg. The Equality for Men and Women Act (2003) enshrined gender equality in the Constitution of Luxembourg and seeks the active promotion of elimination of impediments that may exist in matters of equality between women and men. In 2016, Luxembourg passed a law to enshrine equal pay for women and men in the Labour Code. Inequality has been elevated to the status of an offence, making perpetrators liable to fines.

### **Business sector**

According to data published by the IEA, the share of women among senior managers in Luxembourg's energy sector stands at 12%, which puts Luxembourg in the middle third of the EU ranking table. Several initiatives seek to improve gender balance across the country's economy, including its energy industry. The <a href="Diversity Charter L\u00e4tzebuerg">Diversity Charter L\u00e4tzebuerg</a> is a national pledge available for signature by any Luxembourg-based organization keen on advancing and managing diversity. This commitment involves implementing tangible actions that extend beyond mere compliance with legal requirements, demonstrating a proactive approach to promoting diversity. The Charter currently has more than 290 signatories from across the public, private and voluntary sectors, which together represent 15% of Luxembourg's payroll. Energy companies operating in the country include Enovos Luxembourg, which provides electricity and gas to residential and business customers, and Creos Luxembourg, which operates the country's electricity and gas distribution networks. The latter reports a share of 11% women among its 859 strong workforce. Creos signed the Diversity Charter L\u00e4tzebuerg in 2018.

# **Higher education sector**

The share of women among bachelor's and master's graduates in engineering stands at 28% and 32% in Luxembourg, respectively, which puts it in the middle and top third, respectively, among EU member states. The country is making excellent progress in boosting the number of female engineering students: Over the last decade, the number of female bachelor's graduates in engineering rose by 25.9% p.a. Public research stakeholders, including the University of Luxembourg, play a key role in Luxembourg's energy sector. The University of Luxembourg has a research group dedicated to energy and sustainable development, which focuses on energy efficiency, renewable energy, and energy storage. It also has an ambitious gender equality policy, one component of which is recently launched <u>ADVANCE mentoring program</u> targeting women working in a research institution in Luxembourg.

### 20. Malta

### **National key figures for Malta**

Total energy sector employment (2011)	Share of women in energy sector workforce	Share of women in R&I workforce in the energy sector (estimate)
1,700	(19%)	(9%)
Share of women among senior managers in the energy sector	Gender wage gap (conditional on skills) in the non-energy sector	Gender wage gap (conditional on skills) in the energy sector
n.a.	-12%	-13%
EIGE Gender Equality Index 2023: Power	Share of women among senior ministers for European Green Deal (EGD) areas (2023)	Share of women among members of parliamentary committees dealing the EGD areas (2023)
45.3	13%	13%
Share of women among bachelor's graduates in engineering (2020)	Annual growth in female bachelor's graduates in engineering (2010-2020)	Share of women among master's graduates in engineering (2020)
22%	0.4%	33%

Note: The colour coding reflects a country's ranking among all EU member states: Green signifies the top third in performance; yellow represents the middle third; and red indicates the bottom third. Sources see "Explanation of the data".

## Current status of gender balance in Malta's energy sector

Malta has less than 2,000 individuals employed by the energy sector. No official data is available for the share of women in this workforce. In the ten energy companies from Malta included in our own survey, the average share of women is 19%, which is below the EU27 average of 24.5%. Based on the same source, we can also estimate a share of women in the energy sector's R&I workforce (business sector only), which is 9% for Malta, one of lowest in the EU27. The International Energy Agency (IEA) provides data for the gender wage gap by economic sector (note, however, that the latest data is for 2018). We are here using the gender wag gap conditional on skills, which corrects for differences in the level of skills required for job positions taken by women and men. A figure of 0% would indicate no wage gap, i.e., equal pay for men and women at the same skills level, while a -100% gap would mean zero wage for women. The gender wage gap, thus defined, for Sweden's energy sector is -13%, about the same than in Malta's non-energy sectors combined (-12%) and roughly at the level of the EU average.

### **Governmental sector**

General conditions for gender equality in Malta are fair, as its performance on EIGE's Gender Equality Index (Domain: Power) indicates. Among EU member states, Malta is on rank 19 on participation of women in decision-making in the political, economic, and social spheres. EIGE also looked at women's share among senior ministers and parliamentary committee members in areas of major relevance for the European Green Deal (EGD), which includes energy transition. Merely 13% of senior ministers in these areas are women in Malta, the

same figure as the female share among members of parliamentary committees dealing the EGD areas (13%). Both are much below the EU average (29% and 30%, respectively). Since 2022, Malta has a Gender Equality and Mainstreaming Strategy & Action Plan, which acknowledges the importance of removing gender-based obstacles and promoting equal thriving opportunities for all individuals. The strategy aims to strengthen the integration of the gender perspective at all levels of policymaking to identify and address barriers to equality. The GEMSAP draws inspiration from the European Institute for Gender Equality (EIGE) approach, focusing on evidence-based challenges to equality and effective mitigation strategies. EIGE provided technical assistance in developing the Strategy and Action Plan.

### **Business sector**

No data is available for the share of women among senior managers in Malta's energy sector stands. Enemalta, the state-owned energy company in Malta, is striving to attract more female students to pursue careers in electrical engineering and technical work. The company aims to increase the number of women in these fields as there is currently a limited representation. In the context of a public campaign, female engineers at Enemalta highlighted their crucial roles and expressed satisfaction in their chosen careers.

## **Higher education sector**

The share of women among bachelor's and master's graduates in engineering stands at 22% and 33% in Malta, respectively, which puts it in the top third among EU member states. There is no time for complacency, though, as the number of female bachelor's graduates in engineering decreased by -0.4% p.a. over the last decade. Getting more women into STEM study programs is an explicit goal of the University of Malta. Since 1991, it has a Gender Equality and Sexual Diversity Committee, which strives to foster teaching and research that reflects the knowledge, experiences, and aspirations of both women and men. Since 2017, the Committee has taken on the role of coordinating initiatives aimed at promoting and developing the capacity for gender mainstreaming in curricula and research. These efforts have increased awareness and led to the integration of significant elements of gender equality into the "University of Malta Strategic Plan 2020-2025." The university is now actively implementing a specific equality plan, establishing organizational structures, and allocating resources to systematically support gender equality in research endeavours. The Malta College of Arts, Science MCAST in 2016 introduced several cross-curricular programs aimed at broadening student exposure to diverse study units. These programs were designed to encourage women to explore fields traditionally dominated by men and, conversely, to attract men to areas of study typically favoured by women students. Take-up of these programs has been very limited, though.

# 21. The Netherlands

## **National key figures for the Netherlands**

Total energy sector employment	Share of women in energy sector workforce	Share of women in R&I workforce in the energy sector (estimate)
50,750	24%	15%
Share of women among senior managers in the energy sector	Gender wage gap (conditional on skills) in the non-energy sector	Gender wage gap (conditional on skills) in the energy sector
18%	-10%	-14%
EIGE Gender Equality Index 2023: Power	Share of women among senior ministers for European Green Deal (EGD) areas (2023)	Share of women among members of parliamentary committees dealing the EGD areas (2023)
72.7	44%	36%
Share of women among bachelor's graduates in engineering (2020)	Annual growth in female bachelor's graduates in engineering (2010-2020)	Share of women among master's graduates in engineering (2020)
13%	9.9%	22%

Note: The colour coding reflects a country's ranking among all EU member states: Green signifies the top third in performance; yellow represents the middle third; and red indicates the bottom third. Sources see "Explanation of the data".

# **Current status of gender balance in the Dutch energy sector**

In the Netherlands, the energy sector employs 50,750 people, with 24% of them being women. While this percentage aligns with the EU27 average of 24.5%, it is notably lower than the female representation in most other economic sectors within the country. Based on our own survey we estimate that women constitute only 15% of the research and innovation (R&I) workforce in the energy sector's business sector, placing the Netherlands in the middle third among EU27 countries. To assess the gender wage gap in the energy sector, we considered factors such as skills level. A 0% gap signifies equal pay for men and women with the same skills, while a -100% gap would mean women receive no wages. In the Netherlands' energy sector, the gender wage gap, factoring in skills, stands at -14%. This figure is worse than the combined non-energy sectors in the Netherlands, which have a -10% gap, and worse than most other EU member states.

#### **Governmental sector**

The Netherlands demonstrates favourable conditions for gender equality, evident from its 6<sup>th</sup> rank in the EU on women's participation in decision-making across political, economic, and social spheres, as per EIGE's Gender Equality Index (Domain: Power). Within areas crucial for the European Green Deal (EGD), including energy transition, 44% of senior ministers and 36% of parliamentary committee members are women, ranking the Netherlands among the top performers in the EU27. The country exhibits a strong commitment to gender equality, endorsing global initiatives such as the Equal by 30 Campaign and signing the Clean Energy Ministerial Guiding Principles to ensure gender diversity in the energy sector by 2030. The

Dutch government has implemented measures, including the <u>Law on Entry Quota and Targets</u> (2022), mandating gender diversity in supervisory boards, and <u>Top Sector Energy</u>, the main industry policy initiative for the energy sector, which coordinates industry action to address the lack of women in the sector. The 2023 <u>Green and Digital Jobs Action Plan</u> promotes STEM (Science, Technology, Engineering, and Mathematics) education, encouraging more women to enter these fields; a pilot program will explore ways to enhance accessibility to full-time positions in sectors like energy, accommodating a broader range of workers, including women seeking part-time employment in the Netherlands.

#### **Business sector**

According to data published by the IEA, the share of women among senior managers in the Dutch energy sector stands at 18%, about average among EU member states. Major energy sector companies in the Netherlands like <a href="Eneco">Eneco</a> are setting ambitious targets, striving to increase the proportion of female leaders to 37% by 2023 as part of their One Planet strategy. <a href="Shell Global's">Shell Global's</a> enGAGE forum serves as a platform for crucial gender-focused discussions, fostering a supportive environment. Additionally, the <a href="Shell Foundation">Shell Foundation</a> plays an important role by supporting gender-inclusive businesses, particularly in energy and transport sectors. Entrepreneur Anouk van der Steen's venture, <a href="75inQ">75inQ</a>, seeks to combine energy transition and gender equality in a unique way, creating a robust network for women in renewable energy and sustainability. These efforts, in conjunction with initiatives such as <a href="PwC's">PwC's "Women in Energy">PwC's "Women in Energy' network</a> and <a href="KIVI's">KIVI's "Women in Energy: Shape the Future' symposium</a>, underscore the collective commitment of the Dutch business sector to amplify gender diversity, fostering inclusivity and equality in the dynamic realm of the energy industry.

## **Higher education sector**

While the share of women among engineering graduates in the Netherlands stands at 13% for bachelor's and 22% for master's degrees being below average results in Europe, recent years have seen substantial progress, as reflected in the significant increase of female engineering students (bachelor's graduates) at a rate of 9.9% per annum over the last decade (EU27 average: 3.1%). The Ministry of Education, Culture, and Science formulated the "National Action Plan for Greater Diversity and Inclusion in Higher Education and Research" in 2020, encouraging universities to implement gender policies and strategic plans. Various Dutch research bodies, including the Dutch Research Council, the Royal Netherlands Academy of Arts and Sciences, and the Association of Universities, endorsed this initiative. Moreover, universities like Radboud University are actively involved in EU-funded projects such as "Gender Equality Actions in Research Institutions to transform Gender ROLES" (GEARING-Roles), and institutions like Erasmus University Rotterdam participate in the Horizon 2020 consortium, EQUAL4EUROPE.

## **Insightful cases**

**75inQ Foundation** is a Dutch NGO that aims to accelerate the energy transition by focusing on gender equality and thus making a positive impact from the boardrooms to the living rooms. In their vision by 2030 stakeholders of clean and affordable energy systems are reflecting the diversity and offering equal opportunities for all. The organisation is active in consultancy to renewable companies keen to contribute to gender equality, services for professionals intending to switch to a career in renewables, and scientific research. **75inQ** also runs a network for experienced female professionals, currently actively shaping the energy transition

More: 75inQ

**Shell Global's enGAGE forum** is an initiative focused on promoting gender diversity and inclusion within all parts of the company worldwide. Short for "Shell Global Allies for Gender Equity", enGAGE was created in 2021 with the intention to provide a safe space for the exchange of experience between gender focused employee resource groups. The goal is to share and leverage ideas and act as a resource for members as well as senior leadership. It coordinates actions at global level to increase awareness of gender imbalance and provides development, mentoring, and networking opportunities to strengthen the company's talent pipeline.

More: Shell Global: Advancing towards Gender Equality

## 22. Poland

## **National key figures for Poland**

Total energy sector employment	Share of women in energy sector workforce	Share of women in R&I workforce in the energy sector (estimate)
333,790	18%	25%
Share of women among senior managers in the energy sector	Gender wage gap (conditional on skills) in the non-energy sector	Gender wage gap (conditional on skills) in the energy sector
11%	-18%	-17%
EIGE Gender Equality Index 2023: Power	Share of women among senior ministers for European Green Deal (EGD) areas (2023)	Share of women among members of parliamentary committees dealing the EGD areas (2023)
36.4	29%	27%
Share of women among bachelor's graduates in engineering (2020)	Annual growth in female bachelor's graduates in engineering (2010-2020)	Share of women among master's graduates in engineering (2020)
27%	0.7%	33%

Note: The colour coding reflects a country's ranking among all EU member states: Green signifies the top third in performance; yellow represents the middle third; and red indicates the bottom third. Sources see "Explanation of the data".

# Current status of gender balance in the Polish energy sector

Of the nearly 334,000 individuals employed by the energy sector in Poland, 18% are women, which is below the EU27 average of 24.5%. Based on our survey, we estimate a share of women in the energy sector's R&I workforce (business sector only) of 25%, which would put Poland in the middle third of all EU27. The International Energy Agency (IEA) provides data on the gender wage gap across sectors, but the latest data is from 2018. We use a gender wage gap that accounts for skills, which corrects for differences in required skill levels across genders. In Poland, the gender wage gap for the energy sector is -17%, which is almost the same as the combined non-energy sectors (-18%), and one of the weakest performances in Europe.

#### **Governmental sector**

According to the European Institute for Gender Equality (EIGE), Poland's general conditions for gender equality are not very favourable, as shown by its ranking on the Gender Equality Index in the Power domain. Poland ranks 20<sup>th</sup> among EU member states in terms of women's participation in decision-making in the political, economic, and social arenas. EIGE also examined the percentage of women in senior ministerial positions and parliamentary committee members in areas relevant to the European Green Deal (EGD), which includes energy transition. In these areas, 29% of senior ministers are women, while the female share among members of parliamentary committees dealing with EGD areas is 27%, which is an average result among EU27 countries. Despite challenges, Poland has introduced National Action Plans (NAPs) emphasizing gender mainstreaming. The latest NAP for Equal

Treatment 2022-2030 focuses on raising awareness, implementing anti-discrimination measures, and enhancing cooperation with social partners. While specific targets are not legally binding, these initiatives underscore Poland's efforts to bridge gender gaps, also within the energy sector.

### **Business sector**

The data published by the IEA reveals that the representation of women in senior management positions within the Polish energy sector is quite low, standing at 11%, a figure below the average among EU27 countries. This concerning trend aligns with findings from the Boston Consulting Group report, which indicates a decrease in the presence of female board members in energy companies across Central and Eastern European countries, including Poland. However, several companies in the Polish energy sector are actively working towards increasing the representation of women in the industry. For instance, Tauron Polska Energia S.A.'s "Mom Works" program offers telework options and flexible working hours to working mothers, encouraging their return to work after maternity leave. Siemens' Engineers 4.0 program provides workshops to young women aspiring to enhance their skills in Industry 4.0, promoting their entry into the fields of innovation, technology, and business. Additionally, Microsoft's "Women's Energy" award program creates a platform for dialogue, honouring women who drive energy sector transformation.

## **Higher education sector**

Poland stands among the top third of EU member states with 27% and 33% of women graduating in engineering at the bachelor's and master's levels, respectively. However, recent further progress has been minimal, reflected in a modest 0.7% annual increase in female engineering students (bachelor's graduates) over the past decade. To bridge the remaining gap, Poland's higher education institutions and non-governmental organizations have launched impactful initiatives. The "Girls as Engineers!" and "Girls go Science!" campaigns, endorsed by the Conference of Rectors of Polish Technical Universities, actively promote technical and engineering studies among high school girls. Efforts include the annual "National Open Day - For Girls". Additionally, the Perspektywy Education Foundation offers a comprehensive scholarship program for girls in STEM, providing financial support, online training courses, and opportunities to attend esteemed events such as the Women in Tech Camp and Perspektywy Women in Tech Summit. The Foundation recently published a report on "Women at technical universities 2022" based on survey research, which provides important data to build targeted intervention in technical universities on.

# **Insightful cases**

The "Engineers 4.0" program by Siemens Polska seeks to empower female students in technical universities, with the goal to encourage women to consider a career in engineering, with a focus on the company's core business areas in Poland, i.e., power generation, transmission, and distribution in both the conventional and renewable energy sector. In every edition of the programme, interested students are asked to submit an essay on "What does being an engineer mean to you?" 30 selected applicants are then invited to participate in the program consisting of workshops, industry expert meetings, and skill development sessions.

More: "Engineers 4.0" program

The **Women's Energy Award**, sponsored by Microsoft, each year since 2021 celebrates women's achievements in Poland's energy industry. Stakeholders in the country's energy sector are invited to nominate women for the Award as a means to recognise their contributions to positive changes in the sector, with a particular focus on management of the energy transition. More than a competition, the initiative seeks to network female leaders, foster collaboration, and drive transformative change. Winners are presented at the annual Energy Congress, which ensures wide press coverage, an essential factor to create public awareness.

More: Women's Energy Award

# 23. Portugal

# **National key figures for Portugal**

Total energy sector employment	Share of women in energy sector workforce	Share of women in R&I workforce in the energy sector (estimate)
21,400	(31%)	25%
Share of women among senior managers in the energy sector	Gender wage gap (conditional on skills) in the non-energy sector	Gender wage gap (conditional on skills) in the energy sector
23%	-19%	-14%
EIGE Gender Equality Index 2023: Power	Share of women among senior ministers for European Green Deal (EGD) areas (2023)	Share of women among members of parliamentary committees dealing the EGD areas (2023)
57.4	43%	34%
Share of women among bachelor's graduates in engineering (2020)	Annual growth in female bachelor's graduates in engineering (2010-2020)	Share of women among master's graduates in engineering (2020)
23%	3%	29%

Note: The colour coding reflects a country's ranking among all EU member states: Green signifies the top third in performance; yellow represents the middle third; and red indicates the bottom third. Sources see "Explanation of the data".

## Current status of gender balance in Portugal's energy sector

Of the 21,400 individuals employed by the energy sector in Portugal, 31% are women, which is above the EU27 average of 24.5% but much lower than for most other economic sectors in the country. Based on our own survey, we estimate a share of women in the energy sector's R&I workforce (business sector only) of 25%, which would put Portugal in the middle third of all EU27. The International Energy Agency (IEA) provides data for the gender wage gap by economic sector (note, however, that the latest data is for 2018). We are here using the gender wag gap conditional on skills, which corrects for differences in the level of skills required for job positions taken by women and men. A figure of 0% would indicate no wage gap, i.e., equal pay for men and women at the same skills level, while a -100% gap would mean zero wage for women. The gender wage gap, thus defined, for Portugal's energy sector is -14%, which is better than in Portugal's non-energy sectors combined, but worse than in most remaining EU member states.

### **Governmental sector**

Portugal's commitment to gender equality is reflected in its moderate yet steadily improving performance, as evidenced by the European Institute for Gender Equality's (EIGE) Gender Equality Index, specifically in the domain of power. Among European Union member states, Portugal stands at the 13<sup>th</sup> position in terms of women's participation in decision-making across political, economic, and social spheres. Notably, Portugal excels in areas vital to the European Green Deal (EGD), such as energy transition, with 43% of senior ministers and 57.4% of members in preliminary committees being women, ranking the country in the top

third among EU27 nations. Several proactive initiatives within the country further illustrate its dedication to gender equality. Visionary leaders like Maria da Graça Carvalho, currently a member of the European Parliament in the 2019-2024 term, who has a background in Mechanical Engineering, emphasize the pivotal role women play in the shift from traditional to green energy, also in corporate settings. A major instrument of the government are the Planos para a Igualdade (Plans for Equality), which large public and private sector organisations and publicly listed businesses need to create and implement since legislation was introduced in 2017. These plans need to be practical, actionable, and measurable and include an assessment of the current state of gender equality within the organization.

### **Business sector**

According to data published by the IEA, the share of women among senior managers in the Portuguese energy sector stands at 23%, one of the highest values in Europe. In Portugal, the energy industry is witnessing a transformative wave of inclusivity through strategic initiatives. APE, the Portuguese energy association, champions the <a href="FELPT program">FELPT program</a>, connecting aspiring professionals with global energy leaders and offering an exclusive platform, "Mulheres na energia" (Women in Energy), dedicated to women. APE's board, comprising seven influential Portuguese women, fosters networking and dialogue, addressing the challenges faced by women in the sector. Simultaneously, "Women in ESG" founded by dedicated women, provides a vital platform for female professionals operating in the Environmental, Social, and Corporate Governance (ESG) movement, a pressure group for value-based investment by companies. Additionally, industry leaders like <a href="EDP">EDP</a> and <a href="Cleanwatts">Cleanwatts</a> are dedicated to gender equality. EDP aims to increase its female workforce from 26.6% to 30% by 2025, implementing inclusive recruitment and pay equity measures. Cleanwatts invests in women's training and leadership opportunities, driving innovation in the energy sector.

# **Higher education sector**

In Portugal, the representation of women among engineering graduates is notable, with 23% at the bachelor's level and 29% at the master's level, positioning the country in the upper and middle tiers among EU member states, respectively. Further progress over the last decade has been moderate, evidenced by a gradual 3% annual increase in female engineering students (bachelor's graduates). Against this background, the country's higher education institutes have stepped up efforts to increase the output of female STEM talent. Initiatives like "Engenheiras por um dia" (Engineers for one day) have played a significant role. Supported by six government departments and organizations, this project actively fosters interest among young girls in engineering fields, encouraging a diverse future workforce.

# **Insightful cases**

**Mulheres na Energia (Women in Energy)** is a program initiated by the Portuguese Energy Association, addressing the stark gender disparity in the energy sector. This initiative strives to foster diversity and inclusion by connecting and empowering women working in Portugal's energy industry. Their mission includes bridging the gender gap, promoting discussions, empowering women, boosting self-confidence among younger generations, and ensuring equity at leadership levels. The program values inclusion, interaction, and commitment, emphasizing the importance of supporting women in energy-related careers.

More: Mulheres na Energia

Women in ESG Portugal is a pioneering initiative that seeks to foster gender balance and expertise in the area of Environmental, Social, and Corporate Governance (ESG). Aligned with EU policies, it connects, organizes, and promotes accomplished women in Portugal's ESG landscape. The network boasts 390 members including directors, technicians, and academics. Through events, knowledge-sharing platforms, and digital channels, the initiative intends to amplify women's voices, accelerating ESG practices and sustainability in the country's economy. The initiative emphasizes collaboration, knowledge flow, and climate change action.

More: Women in ESG

## 24. Romania

### **National key figures for Romania**

Total energy sector employment	Share of women in energy sector workforce	Share of women in R&I workforce in the energy sector (estimate)
131,600	18%	n.a.
Share of women among senior managers in the energy sector	Gender wage gap (conditional on skills) in the non-energy sector	Gender wage gap (conditional on skills) in the energy sector
13%	-11%	-10%
EIGE Gender Equality Index 2023: Power	Share of women among senior ministers for European Green Deal (EGD) areas (2023)	Share of women among members of parliamentary committees dealing the EGD areas (2023)
30.7	0%	14%
Share of women among bachelor's graduates in engineering (2020)	Annual growth in female bachelor's graduates in engineering (2010-2020)	Share of women among master's graduates in engineering (2020)
29%	-4%	38%

Note: The colour coding reflects a country's ranking among all EU member states: Green signifies the top third in performance; yellow represents the middle third; and red indicates the bottom third. Sources see "Explanation of the data".

# Current status of gender balance in the Romanian energy sector

Of the 131,600 individuals employed by the energy sector in Romania, 18% are women, which is below the EU27 average of 24.5%. The International Energy Agency (IEA) provides data on the gender wage gap across sectors, but the latest data is from 2018. We use a gender wage gap that accounts for skills, which corrects for differences in required skill levels across genders. In Romania, the gender pay gap thus defined in the energy sector is -10%, compared to -11% in all non-energy sectors combines. This places the country in the middle third of EU member states.

#### **Governmental sector**

Romania faces significant challenges in achieving gender equality, ranking 23<sup>rd</sup> among EU member states according to the Gender Equality Index 2023 (Domain: Power). In crucial sectors like energy transition under the European Green Deal, female representation is lacking, with no women in senior ministerial positions and only 14% in parliamentary committees, again falling below the EU average. Despite this, the Romanian government is actively working towards gender equality in the energy industry. The National Strategy on Equal Opportunities 2022-2027 focuses on combating stereotypes, encouraging girls in STEM (Science, Technology, Engineering, and Mathematics) fields, and promoting women's participation in decision-making roles. Additionally, the National Recovery and Resilience Plan (NRRP) addresses gender balance in corporate governance, aligning with EU directives. Despite budget constraints, efforts are being made to enhance vocational training, provide

professional guidance, and create an inclusive market, all aimed at attracting more women to the energy sector.

### **Business sector**

In Romania's energy sector, women hold 13% of senior management roles, aligning with the EU27 average, as per IEA data. Despite a decrease since 2018, a Boston Consulting Group survey highlights Romania's notable 26% representation of women on company boards, one of the best results in Central and Eastern European countries. The Romanian business sector, recognising the importance of gender diversity, drives initiatives such as the Future Energy Leaders (FEL) Initiative and the Diversity Charter. A significant achievement is the Women in Energy Conference (WIE), a prominent event amplifying women's voices on crucial policy matters. Major players in the country's energy industry are actively working on boosting gender equality. For instance, OMV Petrom is committed to gender balance in executive positions, ENEL has a range of activities that seek to address women's needs, and ENGIE has already achieved a share of 43% women in management, showcasing the some of the sector's dedication to inclusivity and gender equality.

## **Higher education sector**

Romania excels in including women in STEM education, exemplified by a 29% share of women among bachelor's graduates in engineering, ranking it first among EU countries. It also secures the second spot with a 38% share of women among master's graduates in engineering. However, a concerning trend emerges as Romania experienced a notable decline of -4.5% in the number of women among bachelor graduates over the last decade. Against this background, higher education institutions in Romania, particularly universities, are making strides in gender equality initiatives in the STEM field. Typically, this means efforts to comply with equal opportunity requirements; specific women-focused measures are limited. Universities like Babes-Bolyai University have been moving ahead in the implementation of gender equality policies, emphasizing the importance of change-makers in sustainable development. Initiatives like the Energy MBA at the Bucharest University of Economic Studies actively promote female participation, thereby addressing the gender gap in the energy sector.

# Insightful cases

The Energy MBA at the Bucharest University of Economic Studies is a two-year Master program aimed at equipping professionals with the competences necessary for decision-making on a constantly changing energy market with a business-oriented perspective. The program offers a set of courses covering market and energy-business fundamentals, energy policy, sustainability courses, but also competences on human resources, governance, and ethics in the sector. Study programs such as this can help attract students want to take a role in managing the energy transition but do not seek a typical career in the male-dominated field of engineering.

More: Energy MBA

The **Women in Energy Conference (WIE)** is as initiative of the Future Energy Leaders Program of the national office of the World Energy Council. This is a high visibility event organised once every year in cooperation with all major actors in the field of energy. Topics are related to the promotion of career opportunities for women in the sector and a higher visibility of women's voices on policy topics.

More: Women in Energy Conference

#### 25. Slovakia

### National key figures for the Slovak Republic

Total energy sector employment	Share of women in energy sector workforce	Share of women in R&I workforce in the energy sector (estimate)
33,110	26%	14%
Share of women among senior managers in the energy sector	Gender wage gap (conditional on skills) in the non-energy sector	Gender wage gap (conditional on skills) in the energy sector
n.a.	-22%	-14%
EIGE Gender Equality Index 2023: Power	Share of women among senior ministers for European Green Deal (EGD) areas (2023)	Share of women among members of parliamentary committees dealing the EGD areas (2023)
31.1	14%	14%
Share of women among bachelor's graduates in engineering (2020)	Annual growth in female bachelor's graduates in engineering (2010-2020)	Share of women among master's graduates in engineering (2020)
11%	-14.5%	15%

Note: The colour coding reflects a country's ranking among all EU member states: Green signifies the top third in performance; yellow represents the middle third; and red indicates the bottom third. Sources see "Explanation of the data".

# Current status of gender balance in the Slovak energy sector

Of the more than 33,000 individuals employed by the energy sector in the Slovak Republic, 26% are women, which is slightly above the EU27 average of 24.5%. Based on our survey, we estimate a share of women in the energy sector's R&I workforce (business sector only) of 14%, which would put the Slovak Republic in the bottom third of all EU27. The International Energy Agency (IEA) provides data on the gender wage gap across sectors, with the latest data from 2018. We use a gender wage gap that accounts for skills, which corrects for differences in required skill levels across genders. In the Slovak Republic, the gender pay gap in the energy sector is -14%, which is better than in all non-energy sectors combined (-22%) but still among the worse performances in the EU27.

#### **Governmental sector**

The Slovak Republic faces general challenges in achieving gender equality, as highlighted by the European Institute for Gender Equality (EIGE). In EIGE's Gender Equality Index, the Slovak Republic ranks 22<sup>nd</sup> among EU member states concerning women's participation in decision-making across political, economic, and social spheres. Specifically focusing on areas relevant to the European Green Deal (EGD), including energy transition, the country lags with only 14% representation of women in senior ministerial positions and parliamentary committees, below the EU average. While national policies prioritise encouraging women's engagement in STEM (Science, Technology, Engineering, and Mathematics) fields, particularly ICT and technical sectors, gender-specific initiatives within the energy domain are lacking. Existing environmental and renewable energy strategies, as well as the

Recovery and Resilience Plan, acknowledge the importance of equal opportunities and inclusion but lack direct gender-focused actions. One focus of the government is on measures to address energy poverty, which tends to affect women more than men.

#### **Business sector**

Unfortunately, the IEA does not provide data on the share of women in senior management positions in the Slovak Republic's energy sector. A recent study by the Boston Consulting Group highlighted an alarming trend, which reveals that only 5% of board members in the Slovak Republic's energy companies are female, and also found a decline in female board members over the last five years in the Slovak Republic. Despite these challenges, there are positive initiatives in the country fostering gender equality. Major energy companies such as SPP, Slovnaft, and Slovenské elektrárne have integrated gender equality clauses into their codes of conduct by signing the Diversity Charter, see box below. Additionally, partners from the Slovak Republic participate in the EU-funded W4RES project, focusing on women's involvement in promoting Renewable Heating and Cooling. Organizations like Women in Nuclear (WIN) Slovakia act as a network for female professionals working in the industry, highlighting the contributions of professional women in nuclear energy plants and promoting gender diversity in the sector.

### **Higher education sector**

The Slovak Republic faces a significant challenge in its education system, with only 11% of women graduating in engineering at the bachelor's level, increasing to just 15% for master's degrees. These are values that put the country, again, in the bottom third of the EU ranking table. The country's alarming trend of a 14.5% annual decrease in female engineering bachelor graduates over the last decade compounds this issue, making it a pressing concern. Furthermore, efforts to engage girls and women in energy-related study programs are lacking. While large energy companies like <a href="ZSE Group">ZSE Group</a> and Slovnaft offer dual education opportunities, there is a lack of targeted initiatives to attract female students.

# Insightful cases

The **W4RES** project focuses on Renewable Heating and Cooling (RHC) market uptake in Europe, with a specific emphasis on eight diverse markets. It produces RHC Market Uptake Reports highlighting barriers and recommendations, establishes an online hub and regional hubs to facilitate networking, supports 50 women-led RHC projects with tailored assistance, conducts national awareness campaigns, and organizes hackathons, training workshops, and a guide for policymakers to promote gender-responsive RHC policies and market support frameworks. Pedal Consulting, a Slovakian research and consultancy firm, is partner in the W4RES consortium and is organising workshops, hackathons, seminars and dissemination activities in the Slovak Republic.

More: W4RES project

The **Diversity Charter** is a voluntary initiative supported by the European Commission and coordinated through the EU Platform of Diversity Charters. It promotes diversity management principles and good practices across member states, emphasizing equal treatment, inclusivity, and combating discrimination, specifically addressing gender, among other factors. Signatories commit to fostering an inclusive workplace, respecting gender differences, and promoting gender equality. The Diversity Charter in Slovakia was initiated by DIVERSITY PRO in collaboration with member companies of Business Service Centers Forum of the American Chamber of Commerce. Since 2017, Business Leaders Forum has the role of the administrator.

More: Diversity Charter

#### 26. Slovenia

## **National key figures for Slovenia**

Total energy sector employment	Share of women in energy sector workforce	Share of women in R&I workforce in the energy sector (estimate)
10,290	(16%)	12%
Share of women among senior managers in the energy sector	Gender wage gap (conditional on skills) in the non-energy sector	Gender wage gap (conditional on skills) in the energy sector
(20%)	-19%	-5%
EIGE Gender Equality Index 2023: Power	Share of women among senior ministers for European Green Deal (EGD) areas (2023)	Share of women among members of parliamentary committees dealing the EGD areas (2023)
56.1	14%	24%
Share of women among bachelor's graduates in engineering (2020)	Annual growth in female bachelor's graduates in engineering (2010-2020)	Share of women among master's graduates in engineering (2020)
16%	17.3%	24%

Note: The colour coding reflects a country's ranking among all EU member states: Green signifies the top third in performance; yellow represents the middle third; and red indicates the bottom third. Sources see "Explanation of the data".

# Current status of gender balance in Slovenia's energy sector

In Slovenia's energy sector workforce of approximately 10,300 individuals, women constitute 16%, falling below the EU27 average of 24.5%. Our survey indicates a mere 12% representation of women in the energy sector's R&I workforce, again placing Slovenia in the lower third among EU27 countries. While the International Energy Agency (IEA) provides gender wage gap data, the latest available information is from 2018. We consider a gender wage gap adjusted for skills, accounting for differences in required skill levels between genders. Remarkably, Slovakia boasts a -5% gender pay gap in the energy sector, the best in Europe, compared to the non-energy sectors' -19%, ranking among the worst.

#### **Governmental sector**

Slovenia ranks 14<sup>th</sup> on the European Gender Equality Index 2023 (Domain: Power), indicating an average performance. However, critical sectors like energy transition under the European Green Deal lack female representation, with only 14% of senior ministerial positions and 24% of parliamentary committee positions held by women. While specific initiatives for women in the energy sector are lacking, Slovenia has integrated gender mainstreaming and equality policies since 2002. The Equal Opportunities for Women and Men Act mandates gender equality considerations in governmental policies, focusing on equal power, economic independence, education access, and personal development for both genders. Although no direct efforts in the energy sector were found, these policies indirectly support women, potentially fostering greater gender inclusivity in the industry.

#### **Business sector**

In Slovenia's energy sector, women occupy 20% of senior management positions, a significant achievement within the EU27, according to IEA data. However, a recent survey by the Boston Consulting Group shows a decline in the proportion of female board members compared to 2018, to 8% in 2022. Against this background, companies like ELES, Petrol Group, and GEN-I, actively promote gender diversity in the energy sector. ELES prioritizes employee education, satisfaction, and work-life balance, fostering a supportive workplace environment. Petrol Group, a signatory of the Diversity Charter, implements a comprehensive diversity policy focusing on gender diversity within its management and supervisory bodies. This policy emphasizes the importance of skills, experience, and gender diversity, setting targets for underrepresented gender representation. GEN-I maintains a balanced gender ratio and strives to minimize the pay gap, valuing diversity in recruitment and team formation. These efforts underscore the commitment of Slovenia's energy companies to enhancing women's participation and opportunities within the industry.

### **Higher education sector**

In Slovenia, the representation of women in engineering graduates is 16% for bachelor's and 24% for master's degrees, positioning the country in the lower to middle third among EU nations. There has been significant progress, however, evidenced by a notable annual growth rate of female engineering students (bachelor's graduates) at 17.3% over the past decade. Slovenian higher education institutions, including the University of Maribor and the University of Ljubljana, actively promote gender equality in STEM fields. They embrace initiatives such as the <a href="Athena Swan Charter">Athena Swan Charter</a>, focusing on equal opportunities, fostering a culture of equality, promoting inclusive language, preventing discrimination, ensuring respectful communication, addressing hierarchical relationships, enhancing transparency, and mainstreaming gender equality in education and research. Additionally, Slovenia addresses the lack of visibility of female engineers through the <a href="Engineer of the Year">"Engineer of the Year"</a> initiative, see box below.

# **Insightful cases**

The **Diversity Charter of Slovenia** promotes non-discrimination and human rights in the country's private and public sectors. Led by DOBROVITA, a social enterprise, and partnered with organizations from diverse sectors, the Charter emphasizes equal opportunities and sustainable human resource management (HRM). It is one of the outcomes of an EU-funded project (I.D.E.A.S.) in which the implementation of Diversity Charters was prepared for application in Slovenia, Croatia and Romania. The initiative has its roots in the EU Platform of Diversity Charters, created in 2010 under the initiative of and with funding from the European Commission.

More: Diversity Charter of Slovenia

The "Engineer of the Year" initiative aims to address the underrepresentation of female engineers in Slovenia by showcasing their achievements and contributions to society. Each year, 10 outstanding female engineers are selected based on their interesting work, storytelling, and impact on technology, society, or the economy. The initiative aims to inspire young people, especially girls, to pursue engineering studies or careers by providing role models. The project, titled "Engineers and engineers we will be!", has been running since 2012, focusing on inspiring young minds in the fields of engineering, technology, natural sciences, and innovation. The initiative emphasizes social promotion and recognition of exemplary female engineers, encouraging them to become inspirations for future generations.

More: "Engineer of the Year" initiative

# 27. Spain

## **National key figures for Spain**

Total energy sector employment	Share of women in energy sector workforce	Share of women in R&I workforce in the energy sector (estimate)
107,700	32%	33%
Share of women among senior managers in the energy sector	Gender wage gap (conditional on skills) in the non-energy sector	Gender wage gap (conditional on skills) in the energy sector
9%	-16%	-15%
EIGE Gender Equality Index 2023: Power	Share of women among senior ministers for European Green Deal (EGD) areas (2023)	Share of women among members of parliamentary committees dealing the EGD areas (2023)
81.1	88%	38%
Share of women among bachelor's graduates in engineering (2020)	Annual growth in female bachelor's graduates in engineering (2010-2020)	Share of women among master's graduates in engineering (2020)
25%	5.8%	28%

Note: The colour coding reflects a country's ranking among all EU member states: Green signifies the top third in performance; yellow represents the middle third; and red indicates the bottom third. Sources see "Explanation of the data".

## Current status of gender balance in the Spanish energy sector

Of the nearly 107,700 individuals employed by the energy sector in Spain, 32% are women, which is above the EU27 average of 24.5% but much lower than for most other economic sectors in the country. This is in line with the estimates published by the Spanish Association of Women in Energy (AEMENER), which found a share of women in the Spanish energy industry of 29% in 2020, against 24% in 2010. AEMENER reports that women hold 34% of technical and administrative positions, 33% in middle management, and 19% in operator jobs. Based on our own survey, we estimate a share of women in the energy sector's R&I workforce (business sector only) of 33%, which would put Spain in the top third of all EU27. The International Energy Agency (IEA) provides data for the gender wage gap by economic sector (note, however, that the latest data is for 2018). We use the gender wag gap conditional on skills, which corrects for differences in the level of skills required for job positions taken by women and men. A figure of 0% would indicate no wage gap, i.e., equal pay for men and women at the same skills level, while a -100% gap would mean zero wage for women. The gender wage gap, thus defined, for Spain's energy sector is -15%, about the same as in Spain's non-energy sectors combined, but worse than in most remaining EU member states. A 2021 study by Młodawska found that the gender wage gap in the energy sector has decreased significantly over the last 10-15 years.

#### Governmental sector

General conditions for gender equality in Spain are favourable, as its performance on EIGE's Gender Equality Index (Domain: Power) indicates. Among EU member states, Spain ranks

3rd on participation of women in decision-making in the political, economic, and social spheres. EIGE also looked at women's share among senior ministers and parliamentary committee members in areas of major relevance for the European Green Deal (EGD), which includes energy transition. A stunning 88% of senior ministers in these areas are women, while the female share among members of parliamentary committees dealing the EGD areas (38%) is also among the highest in the EU27. Spain's policies reflect strong commitment to gender equality, also in the energy sector. As a member of the Equal by 30 Campaign, a global public commitment by public and private sector organisations to work towards equal pay, equal leadership and equal opportunities for women in the energy sector by 2030, Spain singed the Clean Energy Ministerial Guiding Principles for ensuring gender diversity by 2030. The Spanish government has taken significant steps by introducing policies and initiatives aimed at encouraging women's participation in the industry. One notable initiative is the establishment of the Instituto para la Transición Justa (Institute for the Just Transition), which serves as a valuable instrument in ensuring equal opportunities for women in the ecological transition. Furthermore, the Royal-Decrees 901 and 902 from 2020 have played a crucial role in addressing gender-related aspects within companies and organisations. These decrees regulate the implementation and registration of equality plans, reinforcing and standardising these plans while specifically addressing gender pay gaps. By doing so, they seek to contribute to creating a more equitable and inclusive environment for women in the sector.

#### **Business sector**

According to data published by the IEA, the share of women among senior managers in the Spanish energy sector stands at 9%, one of the lowest values in Europe. Among the Spanish energy companies listed on the IBEX 35, the country's main stock market index, the situation looks more favourable: According to AEMENER, 28% of directors in these companies were women in 2020. The same source also reports of favourable working conditions for women in the energy industry, compared to other parts of the Spanish economy. There is a strong consensus among Spanish energy sector experts that the energy transition requires new skill sets and competencies, particularly in areas such as digitalisation and energy storage. They underscore the importance of retraining and upskilling the existing workforce to meet evolving demands. To address existing and future skill shortages, the Spanish energy industry is collaborating with public and private training providers as well as universities to develop and implement new training programs.

### **Higher education sector**

The share of women among bachelor's and master's graduates in engineering stands at 25% and 28%, respectively, which puts Spain in the top to middle third among EU member states. Moreover, progress is good, as reflected in the increase in female engineering students (bachelor's graduates) over the last decade (5.8% per annum). Several Spanish higher education institutions are engaged to foster participation of women in technology-related studies, i.e., studies that also qualify for jobs in the energy industry. Several Spanish universities, for example, have rolled out interdisciplinary study programs designed to appeal to students who do not seek a traditional career in engineering. Examples include the University of Cadiz' MSc in Renewable Energies and Energy Efficiency, which does not only teach STEM subjects (assessment of resources, knowledge about technologies) but also relevant legislation, energy control and management tools.

## **Insightful cases**

The **50:50 Sustainable Projects** initiative by **ACCIONA**, a multinational active in renewable energy, seeks to achieve equal representation of women in traditionally maledominated sectors where the company operates, such as infrastructure and energy. It emphasises reskilling women, recognising and advancing internal female talent, improving women's job prospects in vital economic sectors, and addressing gender biases. Key successes are equal female representation in a network code team and advancing women in leading roles in wind energy.

More: ACCIONA

The Spanish Association of Women in Energy (**AEMENER**) focuses on enhancing women's roles in the energy sector. Its initiatives include education to inspire female interest in STEM, particularly through the AEMENER STEM Careers Fair. The association conducts research on women's representation in energy and offers a mentoring program for career development. Additionally, it fosters international collaborations with various organizations and embassies to globally promote women in energy.

More: AEMENER

#### 28. Sweden

#### National key figures for Sweden

Total energy sector employment	Share of women in energy sector workforce	Share of women in R&I workforce in the energy sector (estimate)
35,080	28%	28%
Share of women among senior managers in the energy sector	Gender wage gap (conditional on skills) in the non-energy sector	Gender wage gap (conditional on skills) in the energy sector
18%	-14%	-6%
EIGE Gender Equality Index 2023: Power	Share of women among senior ministers for European Green Deal (EGD) areas (2023)	Share of women among members of parliamentary committees dealing the EGD areas (2023)
85.1	43%	44%
Share of women among bachelor's graduates in engineering (2020)	Annual growth in female bachelor's graduates in engineering (2010-2020)	Share of women among master's graduates in engineering (2020)
28%	7.2%	32%

Note: The colour coding reflects a country's ranking among all EU member states: Green signifies the top third in performance; yellow represents the middle third; and red indicates the bottom third. Sources see "Explanation of the data".

## Current status of gender balance in the Swedish energy sector

Of the 35,000 individuals employed by the energy sector in Sweden, 28.1% are women, which is above the EU27 average of 24.5% but much lower than for most other economic sectors in the country. Based on our own survey, we estimate a share of women in the energy sector's R&I workforce (business sector only) of 28% as well, which would put Sweden in the top third of all EU27. The International Energy Agency (IEA) provides data for the gender wage gap by economic sector (note, however, that the latest data is for 2018). We are here using the gender wag gap conditional on skills, which corrects for differences in the level of skills required for job positions taken by women and men. A figure of 0% would indicate no wage gap, i.e., equal pay for men and women at the same skills level, while a -100% gap would mean zero wage for women. The gender wage gap, thus defined, for Sweden's energy sector is -6%, which is not only better than in Sweden's non-energy sectors combined (-14%), but also the fourth best performance in the EU27 (excluding Ireland and Austria, for which no data is available).

#### **Governmental sector**

General conditions for gender equality in Sweden are very favourable, as its performance on EIGE's Gender Equality Index (Domain: Power) indicates. Among EU member states, Sweden is leading on participation of women in decision-making in the political, economic, and social spheres. EIGE also looked at women's share among senior ministers and parliamentary committee members in areas of major relevance for the European Green Deal (EGD), which includes energy transition. 43% of senior ministers in these areas are women

in Sweden, and the female share among members of parliamentary committees dealing the EGD areas (44%) is the highest in the EU27. Sweden's policies reflect strong commitment to gender equality, also in the energy sector. As a member of <a href="Equal by 30">Equal by 30</a>, a global public commitment by public and private sector organisations to work towards equal pay, equal leadership and equal opportunities for women in the energy sector by 2030, Sweden singed the Clean Energy Ministerial Guiding Principles for ensuring gender diversity by 2030. Sweden makes strategic use of public research & innovation funding for promoting gender equality. <a href="VINNOVA">VINNOVA</a>, the Swedish Innovation Agency operating under the Ministry of Enterprise, Energy and Communication, demands that funded projects demonstrably benefit women and men equally. As a result, the number of women project managers has increased from about 30% in 2015 to 40% today. The <a href="Swedish Energy Agency">Swedish Energy Agency</a> has a similar commitment for composition of advisory groups, expert groups or similar it appoints. Nordic Energy Research, a platform for cooperative energy research and policy development under the auspices of the Nordic Council of Ministers, runs the <a href="Nordic Energy Equality Network">Nordic Energy Equality Network</a> for cross-border coordination of activities for gender equality.

#### **Business sector**

According to data published by the IEA, the share of women among senior managers in the Swedish energy sector stands at 18%, which puts Sweden in the middle third of the EU ranking table. A study by Nordic Energy Research from 2021, which calculated a "women's leadership score" by assigning different weights to the different levels of decision-making power, came to a different conclusion. It found that the women's leadership score is about twice as high in the Nordic countries compared to the rest of Europe. A range of business initiatives foster gender balance in the Swedish energy industry. Agencies rating employers by their level of gender equality (e.g., Nyckeltalinstitutet) play a strong role because of the perceived need of companies to demonstrate their engagement for the topic. Leading energy industry players such as Vattenfall, E.ON Energilösningar and Fortum are also signatories of Equal By 30. The industry also boasts several large women's networks, such as Kraftkvinnorna, see box below.

## **Higher education sector**

The share of women among bachelor's and master's graduates in engineering stands at 28% and 32% in Sweden, respectively, which puts it in the top third among EU member states. The country is also making decent progress in boosting the number of female engineering students: Over the last decade, the number of female bachelor's graduates in engineering rose by 7.2% p.a. Getting more women into STEM study programs is an explicit goal of all Swedish universities. A variety of measures have been implemented to this effect, including approaches using controversial policies using preferential treatment, with positive effects: A 2022 study by Silander et al. found the biggest impact in terms of women's share in grade A positions in universities that applied a variety of measures to promote gender equality, especially in those that used preferential treatment measures and targeted measures. Some types of preferential treatment, e.g., earmarking for grade A positions in STEM, had to be abolished, however, as they were considered discriminatory towards men after being ruled out by the European Court of Justice in 2002 and 2003.

## **Insightful cases**

**Kraftkvinnorna** ("The Power Women") is a networking association for women working in the energy sector, founded in 2015, that champions female representation and leadership in the energy sector and promotes gender equality in STEM education and careers. The association has approximately 500 members. Activities include the Power Women of the Year competition, a gender equality label which is awarded to industry seminars and events, as well as advocacy work.

More: Kraftkvinnorna

The **Equal by 30 Campaign** is part of the Equality in Energy Transitions Initiative. Sweden is one of 12 national members. The campaign was launched in 2018 and seeks accelerating gender equality and diversity in the clean energy transition and closing the gender gap by 2030. The three key objectives are: equal pay, equal leadership and equal opportunities for women in the clean energy sector.

More: Equal by 30 Campaign

## 29. Iceland

#### National key figures for Iceland

Total energy sector employment	Share of women in energy sector workforce	Share of women in R&I workforce in the energy sector (estimate)
1,700	(26%)	(15%)
Share of women among senior managers in the energy sector	Gender wage gap (conditional on skills) in the non-energy sector	Gender wage gap (conditional on skills) in the energy sector
(43%)	n.a.	n.a.
Share of women among bachelor's graduates in engineering (2020)	Annual growth in female bachelor's graduates in engineering (2010-2020)	Share of women among master's graduates in engineering (2020)
23%	-0.4%	42%

Note: The colour coding reflects a country's ranking when compared to the 27 member states of the EU: Green signifies a rank equivalent to the top third among the EU; yellow represents the middle third; and red the bottom third. Sources see "Explanation of the data".

### Current status of gender balance in Iceland's energy sector

Of the nearly 1,700 individuals employed by the energy sector in Iceland, 26% are women, which is above the EU27 average of 24.5% but much lower than for most other economic sectors in the country. A <u>study by Women in Energy and EY</u> came to similar results. It found 27% of full-time positions in Iceland's 12 largest power and utility companies are held by women in 2020, an increase of 7 percentage points compared to 2016. Based on our own survey, we estimate a share of women in the energy sector's R&I workforce (business sector only) of 15%. According to the country's <u>national statistical office</u>, the unadjusted gender pay gap in Iceland was 10.2% in 2021, with the biggest gap in financial and insurance activities (29.7%), and the lowest in electricity, gas, steam, and air conditioning supply (4.3%).

#### Governmental sector

General conditions for gender equality in Iceland are very favourable, as its performance on the World Ecomonic Forum's Global Gender Gap Index shows. Iceland ranks first on the overall index as well as on the Political Power subindex. Iceland's government has several policies and initiatives aimed at promoting gender equality across the economy, including the country's important renewable energy industry. Iceland's government introduced quota in 2010 that companies with over 50 employees to have at least 40% of each gender represented on their corporate boards (see box below). Research has shown that the quota has been effective in increasing the representation of women on company boards in Iceland, but that resistance among business managers is still widespread. Iceland has also implemented measures to address the gender pay gap, such as an obligatory equal pay certification, which enforces legislation prohibiting discriminatory practices based on gender and requiring that women and men shall be paid equal wages and enjoy equal terms of employment for the same jobs or jobs of equal value.

#### **Business sector**

Data from the IEA reveals that women constitute 43% of senior managers in Iceland's energy sector, positioning the coountry at the top of the European ranking for gender representation at this level. This confirms the findings of a study by Nordic Energy Research from 2021, which calculated a "women's leadership score" by assigning different weights to the different levels of decision-making power. It found that the women's leadership score in Iceland is the highest in the Nordic countries and about three times as high as the average for the rest of Europe. Nearly 90% of all energy company boards in Iceland achieve gender balance, i.e., at least 40% representation of each gender. This can partly be explained by the existence of a legal quota for listed companies and public enterprises according to which at least 40% of each gender should be represented at board level in Iceland. ON Power, the largest geothermal energy company in the country, has the second highest women's leadership score (59%) in the Nordic countries, and possibly the world. There is evidence of significant positive development: A 2019 study by Women in Energy and EY found that back then, 78% of executives with three years' experience or less were female, which is indicative of the recent growth in female representation in leadership roles.

## **Higher education sector**

In Iceland, women represent 23% of bachelor's and 42% of master's graduates in engineering, figures which are on par and much higher, respectively, than the average among EU27 member states. Recent years have not seen any further progress, however, as reflected in the slow decrease in female engineering students (bachelor's graduates) over the last decade by 0.4% p.a. (EU27: +3.1%). Against this background, the Icelandic government has implemented policies to promote gender equality in education, including the establishment of a Gender Equality in Education Committee and a Gender Equality in Education Action Plan. The country's higher education institutes have ambitious gender equality policies in place to promote gender equality in all aspects of their operations, including teaching, research, and administration.

# **Insightful cases**

Reykjavik Energy, a publicly owned company with about 630 employees and traditionally a very male-dominated workplace, increased its share of women in management from 20% in 2011 to more than 40% in 2017. During the same period, it cut down the gender pay gap from 8% in 2011 to zero in 2017. The starting point for the turn-around was a crisis in 2011, when the company stood on the brink of bankruptcy. A new management team decided that the situation offered the opportunity to reinvent the company, with gender equality as main component of the strategy. The policy was executed top-down, i.e., by the CEO and board of directors. As a result, measuresment of job satisfaction shows that the company is well above the general Icelandic average, and the financial development has been positive.

More: Konur í orkumálum

In 2010 and following the example of Norway, Iceland introduced has a **legal quota of at least 40% representation of both genders on company boards**. In practice this means that if the number of board-members is more than three, the percentage of women or men cannot be under 40%. The quota applies to both private and public companies, and companies that do not comply with the quota can face stiff fines. The quota has been controversial, with some arguing that it is a necessary measure to promote gender equality in the workplace, while others argue that it is a form of discrimination and that it may lead to the appointment of unqualified candidates. There is no doubt, however, that the quota has been effective in siginificantly increasing the representation of women on company boards in Iceland.

More: Government of Iceland

# 30. Norway

#### **National key figures for Norway**

Total energy sector employment	Share of women in energy sector workforce	Share of women in R&I workforce in the energy sector (estimate)
46,900	23%	17%
Share of women among senior managers in the energy sector	Gender wage gap (conditional on skills) in the non-energy sector	Gender wage gap (conditional on skills) in the energy sector
(34%)	-13%	-4%
Share of women among bachelor's graduates in engineering (2020)	Annual growth in female bachelor's graduates in engineering (2010-2020)	Share of women among master's graduates in engineering (2020)
22%	0.4%	33%

Note: The colour coding reflects a country's ranking when compared to the 27 member states of the EU: Green signifies a rank equivalent to the top third among the EU; yellow represents the middle third; and red the bottom third. Sources see "Explanation of the data".

### Current status of gender balance in the Norwegian energy sector

Of the nearly 47,000 individuals employed by the energy sector in Norway, 23% are women, slightly less than the EU27 average of 24.5% and much less than for most other economic sectors in the country. Based on our own survey, we estimate a share of women in the energy sector's R&I workforce (business sector only) of 17%, which would put Norway in the middle third of all European countries we covered. The International Energy Agency (IEA) provides data for the gender wage gap by economic sector (note, however, that the latest data is for 2018). The gender wag gap conditional on skills used here corrects for differences in the level of skills required for job positions taken by women and men. A figure of 0% would indicate no wage gap, i.e., equal pay for men and women at the same skills level, while a 100% gap would mean zero wage for women. The gender wage gap, thus defined, for Norway's energy sector is -4%, better than in any EU member state, and also better than in Norway's non-energy sectors combined, for which the figure is -13%.

#### **Governmental sector**

General conditions for gender equality in Norway are very favourable, as its performance on the World Economic Forum's Global Gender Gap Index shows. Norway ranks second (behind Iceland) on the overall index as well as on the Political Empowerment subindex. As a member of the <a href="Equal by 30 Campaign">Equal by 30 Campaign</a>, a global public commitment by public and private sector organisations to work towards equal pay, equal leadership and equal opportunities for women in the energy sector by 2030, Norway singed the Clean Energy Ministerial Guiding Principles for ensuring gender diversity by 2030. Additionally, Norway's government has several policies and initiatives aimed at promoting gender equality across the economy, including the country's large oil and hydropower industries. As for board members in private companies, Norway in 2003 introduced as the first country worldwide legislation to ensure 40% representation of both genders on the boards of state-owned companies and publicly

listed companies. At that time, only 5% of these companies had a female top manager. The quota came into immediate effect for state-owned companies, followed by the biggest Norwegian companies listed on the stock exchange in 2008. Research published in 2023 in the <a href="Harvard Business Law Review">Harvard Business Law Review</a> presents evidence how the 2003 legislation has impacted companies financially and whether they managed to preserve directors' large-firm CEO experience without making these directors too busy. The findings indicate that there has not been any measurable negative impact on firm value, and that there were enough qualified women available to fill board positions without causing any major problems. Meanwhile, the proportion of women on boards has increased significantly. Against this positive experience, the government is currently discussing whether the legal requirement will be extended to all medium-sized and large companies listed on the stock exchange from 2024. This would imply the need for a major shift in the composition of board members across large parts of the Norwegian economy.

#### **Business sector**

Data from the IEA reveals that women constitute 34% of senior managers in Norway's energy sector, positioning the country near the top of the European ranking for gender representation at this level. This confirms the findings of a <u>study by Nordic Energy Research</u> from 2021, which calculated a "women's leadership score" by assigning different weights to the different levels of decision-making power. It found that the women's leadership score in the Nordic countries is about twice as high as the average for the rest of Europe. Norwegian company Valdres Energi AS was found to have the highest women's leadership score of all companies in the sample. Two more Norwegian companies, BKK and Halogaland Kraft AD, also reached a final score of over 50%, meaning that women have more than 50% of the decision-making power in these companies.

# **Higher education sector**

In Norway, women represent 22% of bachelor's and 33% of master's graduates in engineering, figures which are on par and significantly higher, respectively, than the average among EU27 member states. Recent years have only seen very little further progress, however, as reflected in the slow increase in female engineering students (bachelor's graduates) over the last decade by 0.4% p.a. (EU27: +3.1%). In general, the gender mix among the fields of education still varies significantly according to traditional gender patterns. Against this background, higher education institutes are strongly encouraged to improve gender balance among employees and students. The purpose is to ensure broad recruitment to contribute to knowledge development and to the workforce of the Norwegian economy. Policy initiatives to improve the gender balance within technology education and engineering at vocational schools and universities have been going on since the 1990s, showing a positive but slow change. One tool for improving gender balance in study programs is the system of gender points that can be used by applicants for certain study programs where the gender balance is highly skewed. The gender points system is used to benefit both men and women. Women can receive gender points for programs such as bachelor's level study programs in engineering. To address the use of precarious contracts in R&I, which disproportionally disadvantages women researchers, the Research Council of Norway addressed precarious contracts in its policy to promote gender balance in research.

### **Insightful cases**

The **Nordic Energy Equality Network** (NEEN) is run by Nordic Energy Research, a platform for cooperative energy research and policy development under the auspices of the Nordic Council of Ministers. It acts as an umbrella organisation for cross-border coordination of activities for gender equality. Its membership comprises of government ministries, NGOs, community-based organizations, schools, private sectors, and media partners. Main activities include building bridges between education, research, government, and industry to promote an inclusive approach through the whole sector; striving to make the energy sector increasingly visible to women and highlighting role models in order to attract more women to this sector; collaborating with other organizations to advance gender equality in the energy sector; publishing reports on gender equality.

More: Nordic Energy Equality Network

The Power Women (Kraftkvinnene) is a platform bringing together women working in Norway's renewable industries. It was launched in 2019 and since then has been instrumental in making its voice heard in the public debate about the present and future of the country's renewables industry. It showcases women working in the industry, launches campaigns and provides hands-on support to companies seeking to increase recruitment of women, and helps build professional networks. The list of sponsors includes all major Norwegian renewables companies. In 2013, the title of "Power Woman of the Year" was awarded for the fourth time, acknowledging the work of a woman who through her actions and responsibilities can speak for the renewables industry.

More: Kraftkvinnene

#### 31. Switzerland

### National key figures for Switzerland

Total energy sector employment	Share of women in energy sector workforce	Share of women in R&I workforce in the energy sector (estimate)
24,750	21%	13%
Share of women among senior managers in the energy sector	Gender wage gap (conditional on skills) in the non-energy sector	Gender wage gap (conditional on skills) in the energy sector
11%	n.a.	n.a.
Share of women among bachelor's graduates in engineering (2020)	Annual growth in female bachelor's graduates in engineering (2010-2020)	Share of women among master's graduates in engineering (2020)
10%	8.8%	17%

Note: The colour coding reflects a country's ranking when compared to the 27 member states of the EU: Green signifies a rank equivalent to the top third among the EU; yellow represents the middle third; and red the bottom third. Sources see "Explanation of the data".

#### Current status of gender balance in the Swiss energy sector

Of the 24,750 individuals employed by the energy sector in Switzerland, 21% are women, less than the EU27 average of 24.5% and much less than for most other economic sectors in the country. Based on our own survey, we estimate a share of women in the energy sector's R&I workforce (business sector only) of merely 13%, which would also put Switzerland in the lower third of all European countries we covered. Information on the gender pay gap in the Swiss energy industry is not available.

#### **Governmental sector**

General conditions for gender equality in Switzerland are good, as its performance on the World Economic Forum's Global Gender Gap Index shows. The country ranks 14th on the Political Empowerment subindex, which compares well with the EU average - among member states, it is surpassed only by Finland, Germany and Sweden. Switzerland's government has several policies and initiatives aimed at promoting gender equality across the economy, including the energy industry. Since July 2020, companies in Switzerland with more than 100 employees are obligated to conduct an internal wage equality analysis ("Lohngleichheitsanalyse"). This requirement arises from the revised national Gender Equality Act (GIG), which ensures that internal wage equality is reviewed and confirmed by an independent entity. The government has funded development of Logib, a software tool, to make it easier for employers to identify and eliminate wage inequality between men and women (see box below). The 2020 revision of the GIG, which prohibits gender discrimination in all employment relationships and covers areas such as recruitment, working conditions, and sexual harassment, has the goal of ensuring equal treatment and opportunities for men and women. The Swiss government's comprehensive strategy for the promotion of gender equality is the Federal Council's Equality Strategy 2030, passed in April 2021. The document includes an action plan and lays out the responsibility of the various government sector

stakeholders for their implementation. A strategy on Improving Compatibility between Work and Family is currently under development.

#### **Business sector**

Data from the IEA reveals that women constitute 11% of senior managers in Switzerland's energy sector, positioning the country in the middle to lower end of the European ranking for gender representation at this level. Against this background, major Swiss energy companies are now actively investing in diversity and inclusion initiatives, advocating for gender equality. and supporting women's advancement in the energy sector. Examples include like Alpig, the country's largest energy service provider, which has a women CEO and follows a strategy of valuing nonlinear career paths as a means to attract more women to its workforce. Both Alpiq and Axpo, a major producer and distributor of electricity, are members of the Advance association, see box below. Axpo has a strict policy on equal pay and set itself an ambitious target for increasing the proportion of women in executive positions. BKW Energie, a Swiss multinational company mainly working as power production and distribution utility, has a gender equality strategy that makes strong use of cooperation with NGOs such as Swiss Diversity and Focus 50Plus to promote diversity, inclusion, and equal opportunities. The company encourages women's networking through partnership with Business and Professional Women (BPW) Switzerland. The largest women's organisation in the Swiss energy sector is Women in Power, which engages in networking events and online seminars for female specialists and managers, training, coaching, and mentoring programmes, and hands-on support to companies in implementing diversity and gender equality measures.

### **Higher education sector**

In Switzerland, women represent 10% of bachelor's and 17% of master's graduates in engineering, figures which position the country at the lower end of the European ranking table. Recent years, however, have seen improvements, as reflected in the increase in female engineering students (bachelor's graduates) over the last decade by 8.8% p.a. (EU27: 3.1%). The Federal Council's Equality Strategy 2030 emphasizes the importance of increasing the proportion of women in tertiary education in STEM fields relevant to the energy sector and includes a range of actions to be undertaken to this end. Several multistakeholder initiatives have been set up to diversify educational opportunities in STEM fields. Additionally, programmes like the Swiss TecLadies and the MINT young talent barometer serve to encourage women's participation in STEM education, including in areas related to the energy sector.

# **Insightful cases**

**Advance** is a membership association and centre of expertise on gender equality in Switzerland. It represents a network of close to 140 Swiss companies committed to increasing the share of women in management, including many of the country's large energy sector companies. The shared ambition is to reach a "sustainable minimum of 30% female representation at all management levels" across all member companies by 2030. Advance provides its members with a platform to exchange best practices, network, and collaborate on initiatives to promote gender equality in the workplace.

More: Advance

**Logib**, a software tool, is part of Switzerland's efforts to identify and eliminate wage inequality between men and women by 2030. Since 2020, companies with more than 100 employees are obligated to conduct an internal wage equality analysis. To this end, the government initiated the development of a web-based tool designed to help companies perform a wage equality analysis within their organisation – easily and without cost. In November 2023, a new tool (Logib Wage System) was implemented to enable employers to create a simple system for calculating wages based on gender-neutral criteria.

More: Eidgenössisches Büro für die Gleichstellung von Frau und Mann

# 32. Turkey

## **National key figures for Turkey**

Total energy sector employment	Share of women in energy sector workforce	Share of women in R&I workforce in the energy sector (estimate)
181,070	9%	19%
Share of women among senior managers in the energy sector	Gender wage gap (conditional on skills) in the non-energy sector	Gender wage gap (conditional on skills) in the energy sector
20%	n.a.	n.a.
Share of women among bachelor's graduates in engineering (2020)	Annual growth in female bachelor's graduates in engineering (2010-2020)	Share of women among master's graduates in engineering (2020)
22%	22.5%	31%

Note: The colour coding reflects a country's ranking when compared to the 27 member states of the EU: Green signifies a rank equivalent to the top third among the EU; yellow represents the middle third; and red the bottom third. Sources see "Explanation of the data".

### Current status of gender balance in the Turkish energy sector

Of the more than 180,000 individuals employed by the energy sector in Turkey, only 9% are women, which is below the EU27 average of 24.5% and much less than most other economic sectors in the country. Based on our own survey, we estimate a share of women in the energy sector's R&I workforce (business sector only) of merely 19%, which would put Turkey in the middle third of all European countries we covered. Information on gender pay gap in the Turkish energy industry is not available.

#### **Governmental sector**

The gender equality landscape in Turkey faces challenges, evident in its low ranking of 118<sup>th</sup> out of 146 countries on the Political Empowerment subindex of the World Economic Forum Global Gender Gap Index. Despite the government's efforts in women's empowerment across various sectors, including governance and education, the energy sector lacks an explicit gender equality focus, contrasting with UNESCO's Gender Equality Action Plan for the Natural Sciences Sector, which outlines objectives for gender equality in scientific policy processes, disaster risk reduction, and decision-making participation. Turkey's 2020 budget rationale lacked gender-related considerations, and the meagre 0.74% allocation for the "Empowerment of Women" program in the ministry's 2022 budget highlights the government's insufficient attention to gender equality in resource allocation. There is, nevertheless, a range of policy initiatives wit relevance for gender balance in the energy industry. For example, the Ministry of Labour and Social Security organises the "Gender Equality in the Workplace" competition, evaluating companies based on criteria such as integrating gender equality into the company's mission, employee selection, education, compensation, social responsibility, work-life balance, and supply chain equality.

#### **Business sector**

In Turkey's energy sector women comprise 20% of senior managers, which puts it in the middle third among European countries, as per IEA data. According to a 2018 survey from Deloitte, a business consultancy, women in the sector desire increased efforts from companies to attract female talent, although they acknowledge positive changes. Notably, 35% of respondents who perceived positive changes believed female employment had risen. Leading the way, energy sector companies like OEDAŞ, Enerjisa Energy, and Borusan EnBW Energy have implemented specific initiatives. OEDAŞ received recognition for its "Enerjimiz Eşit" (Our Energy Is Equal) Project, focusing on reviewing human resources policies through an equal opportunity lens and providing training programs to encourage a culture of equality. Energisa Energy actively participated in initiatives such as the UN Women's Empowerment Principles and implemented the "Equal Opportunities in the Electricity Distribution Sector" project. Borusan EnBW Energy developed gender equalityfocused mentorship programs and policies to increase the number of female employees and leaders. Limak Energy completed the United Nations Development Program's Gender Equality in Business program, receiving the UNDP Equality Seal Achievement Certificate. Akkök Holding initiated the "Women in Energy" Project, including programs encouraging girls to pursue electrical education and providing scholarships and mentoring.

#### **Higher education sector**

In Turkey, the share of women among bachelor's and master's graduates in engineering stands at 22% and 31%, respectively, a notable achievement comparable to the top third among EU countries. The progress is evident, with a remarkable increase in female engineering students (bachelor's graduates) over the last decade at a rate of 22.5% per annum. Major players in the Turkish energy sector such as Koc Holding are at the forefront of initiatives aimed at fostering gender diversity in technology fields through collaboration with universities. Their initiative, the "Women in Technology and Innovation Program", is specifically designed to tap into the potential of girls in STEM (Science, Technology, Engineering, and Mathematics) fields, enhancing their access to the technology and innovation ecosystem (see box below). Collaborations with universities, like Batman University, focus on instilling an entrepreneurial culture and easing young individuals' entry into the technology sector, particularly girls. Additionally, projects like the "Young Women Leaders Program" by the Turkish Employers' Associations Confederation (TİSK) and the New Leader Association, and initiatives like the "Women in Energy - Next" project by SEDAS (see box below), provide valuable opportunities for female students to pursue technical education and careers. Strategic partnerships between industry players such as Sisecam, a prominent Turkish industrial group, and Balikesir University are nurturing female talent right from the basic training stages, especially for roles in manufacturing industries.

## Insightful cases

**"Women in Technology and Innovation Program",** an initiative by Koç Holding, one of Turkey's largest private enterprises, aims to empower 100,000 female students over five years in STEM fields. Collaborating with universities, including Batman University, the program fosters entrepreneurship culture, facilitating young, especially female, students' access to the technology and innovation ecosystem.

More: Women in Technology and Innovation Program

**"Women in Energy - Next Project"**, an initiative of electric distribution company SEDAŞ, promotes female participation in electrical departments at high schools and universities. Through scholarships, technical training, mentoring, and field trips, it facilitates their entry into the energy sector. The initiative also provides continuous support, focusing on personal development and fostering career growth for women in the industry.

More: Women in Energy - Next Project

# 33. United Kingdom

## National key figures for the UK

Total energy sector employment (2019)	Share of women in energy sector workforce (2019)	Share of women in R&I workforce in the energy sector (estimate)
244,000	27%	25%
Share of women among senior managers in the energy sector	Gender wage gap (conditional on skills) in the non-energy sector	Gender wage gap (conditional on skills) in the energy sector
14%	-19%	-13%
EIGE Gender Equality Index 2020: Power	Share of women among senior ministers for European Green Deal (EGD) areas (2023)	Share of women among members of parliamentary committees dealing the EGD areas (2023)
56.5	n.a.	n.a.
Share of women among bachelor's graduates in engineering (2020)	Annual growth in female bachelor's graduates in engineering (2010-2020)	Share of women among master's graduates in engineering (2020)
17%	4.6%	26%

Note: The colour coding reflects a country's ranking among all EU member states: Green signifies the top third in performance; yellow represents the middle third; and red indicates the bottom third. Sources see "Explanation of the data".

## Current status of gender balance in the UK energy sector

Of the nearly 250,000 individuals employed by the energy sector in the UK, 27% are women, which is above the EU27 average of 24.5% but much lower than for most other economic sectors in the country. Based on our own survey, we estimate a share of women in the energy sector's R&I workforce (business sector only) of 25%, i.e., nearly as high as for the total workforce. The International Energy Agency (IEA) provides data for the gender wage gap by economic sector (note, however, that the latest data is for 2014). We are here using the gender wag gap conditional on skills, which corrects for differences in the level of skills required for job positions taken by women and men. The gender wage gap, thus defined, for the UK's energy sector is -13%, which is better than in the UK's non-energy sectors combined (-19%), but worse than in most EU member states. Recent data from the Office for National Statistics (ONS) in 2021 reveals varying pay gaps across different energy and utility industries: power -19%, gas networks -17%, water -9%, waste & recycling -5%. The UK Atomic Energy Authority's Gender Pay Gap Report for 2022 reveals a gender pay gap of -12.2% in mean and -26.3% in median, indicating persistent gender pay disparities in STEM (Science, Technology, Engineering, and Mathematics) roles.

#### **Governmental sector**

General conditions for gender equality in the UK are favourable, as its performance on EIGE's Gender Equality Index (Domain: Power), in which it was included until 2020, indicates. In that year, the UK ranked 6<sup>th</sup> on participation of women in decision-making in the political, economic, and social spheres. Presently, the UK as a woman minister for energy

and one woman in the Parliamentary Committee on Energy and Zero Net. The country's government has several policies and initiatives aimed at promoting gender equality in the energy sector, including funding and support for women-led businesses and innovative energy projects, campaigns to increase the participation of women in STEM fields, and initiatives to promote gender diversity in the energy sector's workforce. Examples include the Energy Entrepreneurs Fund, which provides funding and support to innovative energy projects with a special focus on start-ups led by women; and the Women in Innovation program managed by UKRI, the government-owned national research agency. Women in Innovation provides funding and support to women-led businesses in the energy sector. As a member of the Equal by 30 Campaign, a global public commitment by public and private sector organisations to work towards equal pay, equal leadership and equal opportunities for women in the energy sector by 2030, the UK singed the Clean Energy Ministerial Guiding Principles for ensuring gender diversity by 2030.

#### **Business sector**

Data from the IEA reveals that women constitute 14% of senior managers in the UK energy sector, positioning the UK mid-range in the European ranking for gender representation at this level. POWERful Women's 2023 edition of statistics about female representation at the top of the UK energy sector, reports that 29% of board seats, and 16% of executive board seats, across the sector are now held by women. While recent years have shown a gradual improvement in both indicators, nearly three in four top UK energy sector companies still have not a single woman on their executive board. The UK's energy industry is fully aware of the remaining challenges concerning achievement of true gender balance, as the large range of initiatives of the business sector shows. In the UK, so-called 'Skills Partnerships' play an important role in bringing together stakeholders from the public and private sector. civil society, and education to collectively identify and address the unique workforce renewal and skills challenges individual sectors face. The Energy & Utility Skills (EUS) Partnership places strong emphasis on gender equality and diversity as key components of the skills strategy for the energy sector. The initiative launched an Inclusion Commitment for the sector in 2019 as a means to ensure that the energy and utilities sector workforce is an inclusive and diverse one. WISE (Women into Science and Engineering) is a membership organisation for enabling and promoting the participation, contribution, and success of women in the UK STEM workforce. WISE offers concrete guidance in the form of a change management program designed specifically for STEM employers seeking to improve gender equality, and provides training and workshops, networking, and an own jobs board. Regen, a consultancy operating in the UK's renewable energy sector, runs the Women in Renewable Energy Network (ReWIRE), which brings together more than 500 female clean energy leaders and professionals, one of the UK's largest networks of its kind.

### **Higher education sector**

In the UK, the representation of women in engineering stands at 17% for bachelor's and 26% for master's graduates, figures that closely mirror the averages of EU27 member states. Despite a moderate increase in female engineering students (bachelor's graduates) over the past decade, with a growth rate of 4.6% per annum (compared to the EU27's 3.1%), progress remains incremental. According to <a href="She Figures 2021">She Figures 2021</a>, a vital source for pan-European comparable statistics on gender equality in research and innovation, the proportion of women among doctoral graduates in Engineering, Manufacturing, and Construction in the UK was 25.3% in 2018, falling below the EU average. In recognition of these challenges, numerous UK higher education institutions actively promote women's participation in technology-related studies, especially those qualifying for roles in the energy industry. Initiatives like the <a href="Women in Science">Women in Science</a>, Engineering, and <a href="Technology (WiSET)">Technology (WiSET)</a> programs at the University of Sheffield, the <a href="University">University</a> of Edinburgh's

<u>Women in STEM Society</u>, and the University of Cambridge's <u>Women in Science</u>, <u>Engineering</u>, <u>and Technology Initiative</u> (<u>WiSETI</u>) leverage mentoring and networking to support women in their academic and professional endeavours. Additionally, certain institutions have introduced interdisciplinary study programs, such as the University of Manchester's <u>MSc in Renewable Energy Systems and Clean Technology</u>, seeking to appeal to students seeking unconventional engineering career paths.

### **Insightful cases**

UK-based **Atkins**, one of the largest engineering consultancies in Europe, has a range of initiatives and programs to promote und support women in STEM as well as a wide range of diversity networks. Its ParentNEt assists the transitions that employees face from a work role to life as a parent and adjusting back to balancing work as a working parent. Atkins signed the Women in Nuclear Charter (WiN) in 2021, supporting an industry target of 40% women in the nuclear sector by 2030. To provide a fair and inclusive recruitment process, Atkins uses a gender bias decoder, provides ED&I training to interviewers. Additionally, Atkins launched their 'Net Zero Superheroes' school competition in 2020.

More: Atkins

**POWERful Women** (PfW) is a professional initiative based at the UK's Energy Institute. PfW seeks to address the continued underrepresentation of women at the top of the UK energy industry and in the leadership pipeline. To this end, PfW provides companies handson support in how to effectively support gender equality; reports on progress and challenges organisations on their commitments by publishing annual board statistics, the so-called 'Annual State of the Nation', and company pledges; a platform for networking between women in the industry. PfW also runs the Energy Leaders' Coalition, a group of CEOs making a public declaration to improve gender diversity in their companies and the sector.

More: POWERful Women

#### 34. Australia

### **National key figures for Australia**

Total energy sector employment	Share of women in energy sector workforce	Share of women in R&I workforce in the energy sector (estimate)
n.a	21%	21%
Share of women among senior managers in the energy sector	Gender wage gap in the non- energy sector	Gender wage gap in the energy sector
15%	23%	12%
Share of women among bachelor's graduates in engineering (2020)	Annual growth in female bachelor's graduates in engineering (2010-2020)	Share of women among master's graduates in engineering (2020)
19%	3.3%	20%

Note: The colour coding reflects a country's ranking when compared to the 27 member states of the EU: Green signifies a rank equivalent to the top third among the EU; yellow represents the middle third; and red the bottom third. The gender gap figures are not directly comparable between Australia and the EU. Sources see "Explanation of the data".

### **Current status of gender balance in the Australian energy sector**

The exact number of individuals employed in the energy sector in Australia is not currently available. However, according to the Australian Bureau of Statistics, around 26,850 jobs were estimated to be in renewable energy activities in Australia in 2018-2019. Based on our own survey, we estimate that the share women both in the total Australian energy workforce and in the sector's Research and Innovation (R&I) workforce (business sector only) is 21%, which is similar to lower to mid-range figures among EU countries. The Australian Workplace Gender Equality Agency (WGEA) reports that Australia's total remuneration gender pay gap is 22.8%. Interestingly, the gender pay gap in the Electricity, Gas, Water, and Waste Services sector was notably smaller at 11.8% in 2022. The Department of Climate Change, Energy, the Environment, and Water (DCCEEW) has highlighted a data gap in understanding jobs in the energy sector in Australia. Therefore, the Australian government launched a <u>survey</u> in January 2023 to inform the Australian Energy Employment Report (AEER). The forthcoming report is expected to provide insights into workforce diversity.

#### **Governmental sector**

General conditions for gender equality in Australia are rather favourable, as its performance on the World Economic Forum's Global Gender Gap Index shows. The country ranks 29<sup>th</sup> out of 146 on the Political Empowerment subindex, which compares well with the EU average. The Australian Government has demonstrated a robust commitment to advancing gender equality in the energy sector, aligning with international priorities. Pledging to achieve equal pay, leadership, and opportunities for women in the clean energy sector by 2030, Australia is a prominent participant in the Equality in Energy Transitions Initiative. Joining the Equal by 30 campaign, the government has endorsed principles encompassing leading by example, integrating a gender lens into all facets of work, setting high standards for recruitment and promotion, and ensuring transparent reporting. Building on this commitment,

the Australian Government, has undertaken specific initiatives in recent years. These include establishing an Australian Women in Energy Roundtable, promoting gender balance in leadership roles within the Department of Climate Change, Energy, the Environment and Water, advocating for industry-wide equality-based policies, developing a Women in Energy Resources Hub, and expanding engagement in energy forums to champion diversity and gender equality.

#### **Business sector**

Data sourced from the International Energy Agency (IEA) indicates that women hold a 15% representation in senior managerial roles within Australia's energy sector, placing the country in the mid to lower range compared to European counterparts in terms of gender diversity at this level. Against this background, the sector is engaging in a range of initiatives to boost gender balance in the energy industry. The <u>Australian Power Institute (API)</u>, representing major Australian power companies, actively engages in fostering future professional power engineering capabilities. API is a key member of the Australian Women in Energy Roundtable. API supports initiatives such as the Powerful Women Leadership Program and the Powered by Diversity campaign. The institute systematically collects data on diversity across the power sector workforce and contributes to broader projects aimed at capturing comprehensive data on gender equality in the industry. The Clean Energy Council, a major industry association representing the renewable energy and energy storage sectors in Australia, runs the <u>Women in Renewables initiative</u>, which seeks to play a pivotal role in empowering women, encouraging leadership roles and fostering a community of like-minded professionals.

### **Higher education sector**

In the realm of engineering education in Australia, women constitute 19% of bachelor's graduates, which is equivalent to a position in the middle third of EU countries. However, female representation among master's graduates, at 20%, is comparatively low compared to European counterparts. Despite a moderate annual growth rate of 3.3% in female engineering students (bachelor's graduates) over the past decade, the gender disparity persists. Recognising this, initiatives such as the University of Queensland's Women in Engineering (WE) Program are actively working to boost the number of women pursuing engineering careers through educational initiatives, events, and mentorship programs. The Queensland University of Technology (QUT) addresses the intersection of technology and energy solutions with the Shell Energy Scholarship for Women in IT, specifically supporting female undergraduates. Monash University champions girls and women in information technology, implementing initiatives to enhance the representation of women students within the Faculty of IT and broader IT and computer science faculties in Australia. The Melbourne Energy Institute at the University of Melbourne has a strong focus on educational activities, professional development, and industry engagement to equip women for roles in the energy sector.

### **Insightful cases**

The University of Queensland's **Women in Engineering (WE) Program** is a nationally unique industry-funded, but university-led, program to increase the number of women choosing engineering as a rewarding and impactful career. It not only aims to boost enrolment of women in engineering courses but also focuses on creating a supportive and inclusive environment that fosters their long-term success in the engineering field, addressing both educational and industry-wide gender imbalances.

More: Women in Engineering Program

The **Equal by 30 Campaign** is part of the Equality in Energy Transitions Initiative. Australia is one of 12 national members. The campaign seeks accelerating gender equality and diversity in the clean energy transition and closing the gender gap by 2030. The three key objectives are: equal pay, equal leadership and equal opportunities for women in the clean energy sector.

More: Equal by 30 Campaign

#### 35. Canada

#### **National key figures for Canada**

Total energy sector employment (2019)	Share of women in energy sector workforce (estimate)	Share of women in R&I workforce in the energy sector (estimate)
280,665	24%	24%
Share of women among senior managers in the energy sector	Gender wage gap (conditional on skills) in the non-energy sector	Gender wage gap (conditional on skills) in the energy sector
13%	-12%	-22%
Share of women among bachelor's graduates in engineering (2020)	Annual growth in female bachelor's graduates in engineering (2010-2020)	Share of women among master's graduates in engineering (2020)
22%	4.8%	25%

Note: The colour coding reflects a country's ranking when compared to the 27 member states of the EU: Green signifies a rank equivalent to the top third among the EU; yellow represents the middle third; and red the bottom third. Sources see "Explanation of the data".

### Current status of gender balance in the Canadian energy sector

According to the Canadian Centre for Energy Information, total employment in energy industries in Canada was roughly 280,000 in 2019. Based on our own survey, we estimate that the share of women in Canada's energy sector is 24%, the same value as the share of women in the sector's Research and Innovation (R&I) workforce (business sector only). Both values are similar to mid-range figures among EU countries. Utilising data from the International Energy Agency (IEA) on the gender wage gap by economic sector (note that the latest data is from 2018), we apply an approach considering the gap conditional on skills. This method adjusts for variations in skill levels required for positions held by both genders. A 0% figure denotes no wage gap—equal pay for equivalent skills—while a -100% signifies no wage for women. In Canada's energy sector, the gender wage gap thus defined stands at -22.4%, less favourable result compared to both Canada's non-energy sectors collectively and the majority of EU member states.

#### **Governmental sector**

General conditions for gender equality in Canada are reasonably favourable, as its performance on the World Economic Forum's Global Gender Gap Index shows. The country ranks 33rd out of 146 on the Political Empowerment subindex, which compares well with the EU average among members states. The Canadian Government has demonstrated a robust commitment to advancing gender equality in the energy sector, aligning with international priorities. Pledging to achieve equal pay, leadership, and opportunities for women in the clean energy sector by 2030, Canada is a prominent participant in the Equality in Energy Transitions Initiative. Joining the Equal by 30 campaign, the government has endorsed principles encompassing leading by example, integrating a gender lens into all facets of work, setting high standards for recruitment and promotion, and ensuring transparent reporting.

The <u>Women in Cleantech Challenge</u>, part of the broader, government-wide Impact Canada Initiative, specifically targets female entrepreneurs in the cleantech sector (see box below).

#### **Business sector**

In Canada's energy sector, women hold 13% of senior managerial roles, placing the country mid to lower range in gender diversity compared to European counterparts, as per IEA data. The Canadian energy industry is actively promoting gender diversity, recognising women's valuable contributions. Suncor, through its Women Engage (WE) network, actively celebrates women's achievements. Canadian Natural Resources Limited (CNRL) targets a 30% representation of women on its Board of Directors, highlighting the significance of diversity. Enbridge collaborates with Women Building Futures (WBF), an NGO offering programs and support services to help unemployed and underemployed women explore and connect to careers that pay above a living wage, to prepare women for roles in pipeline operations and construction, emphasising training and advancement opportunities. These initiatives collectively reflect a concerted effort within the Canadian energy sector to enhance gender diversity and inclusion.

## **Higher education sector**

In the realm of engineering education in Canada, women constitute 22% of bachelor's graduates, equivalent to the best performing EU member states. However, representation is lower among master's graduates, where women account for 25%, placing Canada in the middle third among European counterparts. Despite an annual growth rate of 4.8% in female engineering students (bachelor's graduates) over the last decade, the gender disparity persists. Recognising this, Canadian higher education institutions are actively promoting the participation of women in technology-related studies, seeking to foster a supportive environment and inspire future leaders. The University of Toronto showcases the achievements of its female engineering graduates, emphasising their creativity, innovation, and global impact. Events like the Girls Leadership in Engineering Experience (GLEE) and the Young Women in Engineering Symposium (YWIES) encourage girls to explore engineering's impactful possibilities, contributing to a first-year engineering class with over 40% women, one of the highest figure among Canadian engineering programs. Simon Fraser University's Women in Engineering, Science, and Technology (WEST) initiative supports female students, staff, and faculty in these fields wth the goal to foster collaboration and community. McGill University's Promoting Opportunities for Women in Engineering (POWE) seeks to empower self-identifying female engineers with resources, events, and outreach initiatives, encouraging girls to pursue STEM (Science, Technology, Engineering, and Mathematics) careers. The Rotman School of Management at the University of Toronto offers the Leadership Development for Mid Career Women program, focusing on developing leadership skills for experienced female managers. These initiatives collectively demonstrate a commitment to gender diversity and inclusion in technology-related studies, including those relevant to the energy industry.

## **Insightful cases**

The **Women Engage Network** by Suncor is a community of employees who engage one another, support career development and help create an inclusive workplace for women. Each year, the Women Engage Network brings together Suncor employee community to engage conversations about how to progress an inclusive workplace environment for women at Suncor; raising awareness of the benefits of gender equality.

More: Women Engage Network

The **Women in Cleantech Challenge** is part of the government's broader approach to support clean technology and innovation. The Challenge was designed to help mitigate gender imbalance in STEM careers and is currently supporting the creation of six new, highly impactful, and globally significant clean technology companies founded and run by women. Following a national call and expert selection process, six finalists were chosen from almost 150 applicants to participate in an intensive 3-year incubation program.

More: Women in Cleantech Challenge

### 36. USA

### National key figures for the USA

Total energy sector employment	Share of women in energy sector workforce	Share of women in R&I workforce in the energy sector (estimate)
1,637,000	23%	27%
Share of women among senior managers in the energy sector	Gender wage gap (conditional on skills) in the non-energy sector	Gender wage gap (conditional on skills) in the energy sector
15%	-19%	-23%
Share of women among bachelor's graduates in engineering (2020)	Annual growth in female bachelor's graduates in engineering (2010-2020)	Share of women among master's graduates in engineering (2020)
22%	9.2%	27%

Note: The colour coding reflects a country's ranking when compared to the 27 member states of the EU: Green signifies a rank equivalent to the top third among the EU; yellow represents the middle third; and red the bottom third. Sources see "Explanation of the data".

#### Current status of gender balance in the US energy sector

Of the more than 1.6 million individuals employed by the US energy sector, 23% are women, which is above the EU27 average of 24.5% but much lower than for most other economic sectors in the country. According to US Department of Energy data from 2022, women's share according to subsectors ranges between 24% in Coal Fuels and in Transmission, Distribution, and Storage at the lower end and 35% in Natural Gas Electric Power at the upper end. The figures for renewables sectors are: 30% in Solar Electric Power, 30% in Wind Electric Power, 31% in Hydropower Electric Power, 32% in Combined Heat and Power, and 31% in Bioenergy. Based on our own survey, we estimate a share of women in the energy sector's R&I workforce (business sector only) of 27%, i.e., slightly higher than for the total workforce. The International Energy Agency (IEA) provides data for the gender wage gap by economic sector (note, however, that the latest data is for 2014). We are here using the gender wag gap conditional on skills, which corrects for differences in the level of skills required for job positions taken by women and men. The gender wage gap, thus defined, for the US energy sector is -23%, more than in any EU member states, and also higher than in the country's non-energy sectors combined (-19%).

#### **Governmental sector**

The US government has several policies and initiatives aimed at promoting gender equality in the energy sector. The National Strategy on Gender Equity and Equality, launched in October 2021, is a policy framework to advance gender equity and equality across all aspects of society, including the economy and education domains. The strategy emphasises promoting gender equality while addressing the climate crisis. It represents a comprehensive approach to integrate gender considerations into climate policies and programs.

#### **Business sector**

Data from the IEA reveals that women constitute 15% of senior managers in the US energy sector, comparable to a position in the middle range of the European ranking for gender representation at this level. At the top management level, there is evidence that energy companies and utilities have outpaced progress in other industries; in fact, eight of the largest electric utility companies in the US are led by women, including five of 29 utilities (17%) in the S&P 500, i.e., the largest companies listed on US stock exchanges. IEA data also shows that women represented only 16% of patent holders in clean energy technologies between 1976 and 2019 in the country. The energy industry in the US is facing a significant challenge to avoid skill shortages arising from the clean energy transition and the shift to renewables. According to projections undertaken by the Department of Energy in 2022, the number of jobs in Solar PV alone will grow from roughly 300,000 in 2020 to between 500,000 and 750,000 in the year 2030, and in battery storage (grid-connected) from 70,000 in 2020 to 200,000–375,000 in 2030.

### **Higher education sector**

In the USA, women represent 22% of bachelor's and 27% of master's graduates in engineering, figures which are slightly better and on par, respectively, with the average among EU27 member states. Progress in recent years has been strong, as reflected in the increase in female engineering students (bachelor's graduates) over the last decade of 9.2% p.a. (EU27: 3.1%). Some higher education institutions have established specific programs or initiatives to attract and support female students in STEM fields related to energy, such as engineering, physics, chemistry, and environmental science. For instance, the University of Texas at Austin has created the Women in Engineering Program (WEP), which offers mentoring, scholarships, outreach, and professional development opportunities for women pursuing engineering degrees. Some providers of vocational education and training (VET) have also developed targeted programs or partnerships to increase the participation and retention of women in energy-related trades and occupations, such as electricians, technicians, operators, and installers. For example, the National Center for Women's Equity in Apprenticeship and Employment works with employers, unions, educators, and community organizations to expand access and opportunities for women in apprenticeship and nontraditional occupations in the energy sector. Likewise, the Solar Training Network (STN). a program of the U.S. Department of Energy's SunShot Initiative, is a connection hub for solar job seekers, solar companies looking for hires, solar training providers, and workforce development boards.

# **Insightful cases**

Women of Renewable Industries and Sustainable Energy (WRISE) is an NGO working across the renewable energy economy. It seeks to provide expertise and hands-on advice to renewable energy companies that are interested in taking the next steps in boosting diversity and inclusion. WRISE aims to inspire companies and organizations to undertake self-reflection and internal practices that open them up to recruiting and retaining more women. WRISE highlights stories of individual women, as well as best practices from research on diversity and inclusion and case studies of companies that are finding successful models to create change at an institutional level so that other companies and organizations have concrete tools to get started.

More: WRISE

The Women of Color Collective in Sustainability (WOC/CS) is an example of an initiative focusing on intersectional aspects. The initiative seeks to amplify the voices and experiences of women of colour. The initiative hosts online and in-person events and runs newsletters to showcase the stories and achievements of women of colour, as well as to provide a platform for peer support, collaboration, and empowerment. The aim is to show the industry and the next generation the opportunities available to women of colour working in the field, and to highlight the key role women of colour can play in the development of a more sustainable economy.

More: WOC/CS

# 37. Explanation of the data

**Total energy sector employment; Share of women in energy sector workforce**: Data from 2022 (Canada, UK, USA: 2019; Malta: 2011). Source (except for Canada): Own analysis of European Labour Force Survey data supplied by Eurostat. Methodological information is available <a href="here">here</a>. The energy sector is defined as comprising the following NACE codes: B05 (Mining of coal and lignite), B06 (Extraction of crude petroleum and natural gas), C19 (Manufacture of coke and refined petroleum products), D35 (Electricity, gas, steam and air conditioning supply).

Share of women in R&I workforce in the energy sector (estimate): Own estimate based on data from 2023 survey of companies in the energy sector, conducted by the GenderInEnergy research consortium. Definition of R&I workforce: "employees engaged in general research, in development of new products and services, or in innovation of new processes". Denominator only includes companies that have a minimum of 10 employees, with at least one of them being involved in R&I activities. No data available for Romania because of a very low number of observations.

**Share of women among senior managers in the energy sector**: Data from 2022. Source: <u>IEA Gender and Energy Data Explorer</u>, based on analysis of corporate data supplied by Refinitiv. The position assigned to each person/year is the highest-ranking job of the first listed officer title, according to the Refinitiv position ranks. Positions are aggregated into the category "senior management". Refinitiv categorisations for companies (<u>TRBC codes</u>) are used to define the energy sector.

**Gender wage gap (conditional on skills)**: Data from 2018 (latest available; UK: 2014). Source: <u>IEA Gender and Energy Data Explorer</u>. Estimates based on the EU Structure of Earnings. The conditional gender wage gap is the percent women earn compared to men on average in the given sector/year/country, controlling for age-by-education dummies, tenure, apprentices, and casual workers, among those employed and of working age. The industry classification follows the NACE Rev. 2 divisions according to the lowest disaggregation possible, which were then grouped to form the energy and non-energy sectors. More methodological information is <u>here</u>. For the EU27 average, the value used is weighted for the relative size of each country in the EU27 total workforce.

**Gender wage gap (Australia only)**: Data from 2022. Source: <u>Australian Workplace Gender Equality Agency (WGEA)</u>, based on the annual WGEA Employer Census. The gender pay gap is the difference between the average earnings for men and women, expressed as a percentage of men's average earnings

**Gender Equality Index 2023: Power**: 2023 edition (UK: 2020), based on latest available data for each indicator (mostly 2021; UK: mostly 2018). Source: <u>European Institute for Gender Equality (EIGE)</u>. The Index is a composite indicator consisting of 31 indicators and ranges from 1 to 100, with 100 representing a gender-equal society. The "power" domain examines gender equality in terms of women's participation in decision-making in the political, social, and economic spheres.

Share of women among senior ministers for European Green Deal (EGD) areas + Share of women among members of EGD parliamentary committees: Data from 2023. Source: European Institute for Gender Equality (EIGE)(2023), Gender Balance in the European Green Deal, doi: 10.2839/024841. The eight areas of the European Green Deal are: Climate,

Energy, Environment and oceans, Transport, Agriculture, Industry, Finance and regional development. Research and innovation.

Share of women among bachelor's graduates in engineering (2020), Annual growth in female bachelor's graduates in engineering (2010-2020), Share of women among master's graduates in engineering (2020): Source: Own calculations based on Eurostat – Education Statistics and OECD (Graduates by field). Compound Annual Growth Rate (CAGR) is used to calculate the annual growth in graduate figures. This provides a smoothed annual rate of growth, ironing out fluctuations that might occur from one year to another.

**Note**: Bracketed figures in the indicator table indicate values with limited statistical validity due to a small number of observations.

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The European Green Deal commits members states to make sure the clean energy transition is just and inclusive. However, women are strongly underrepresented in the energy sector, including in energy research and innovation (R&I) and in management. The situation differs between countries. European countries can learn from each other how to tackle their weaknesses and how to reinforce strengths as regards gender balance in the fast-changing world of energy. This document presents a brief overview of the status and main stakeholder initiatives in 35 countries.

Studies and reports

