Mapping of German Gender and Energy Policies

DELIVERABLE 1.2 REPORT ON MAPPING OF NATIONAL GENDER POLICIES IN THE ENERGY SECTOR

WOMEN ENGAGE FOR A COMMON FUTURE E.V.
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<tr>
<td>AA</td>
<td>Federal Ministry for Foreign Policies</td>
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<tr>
<td>AGG</td>
<td>General Equal Treatment Act</td>
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<td>BMAS</td>
<td>Federal Ministry of Labour and Social Affairs</td>
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<td>BMBF</td>
<td>Federal Ministry of Education and Research</td>
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<td>BMFSFJ</td>
<td>Federal Ministry for Family Affairs, Senior Citizens, Women and Youth</td>
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<td>BMUW</td>
<td>Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection</td>
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<td>BMWK</td>
<td>Federal Ministry for Economic Affairs and Climate Action</td>
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<td>BMZ</td>
<td>Federal Ministry for Economic Cooperation and Development</td>
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<tr>
<td>CEDAW</td>
<td>Convention of the Elimination of All Forms of Discrimination</td>
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<td>EEG</td>
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<td>Energy Efficiency Strategy for Buildings</td>
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<td>EEWärmeGesetz</td>
<td>Renewable Energies Heat Act</td>
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<td>EnEV</td>
<td>Energy Saving Ordinance</td>
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<td>EntgTranspG</td>
<td>Transparency in Wage Structures Act</td>
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<td>EnWg</td>
<td>Energy Industry Act</td>
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<td>FüPOG</td>
<td>German Act on Equal Participation of Women and Men in Leadership Positions</td>
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<td>GEG</td>
<td>Buildings Energy Act</td>
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<td>KWKG</td>
<td>Combined Heat and Power Act</td>
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<tr>
<td>MD</td>
<td>Missing Data</td>
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<td>IC</td>
<td>Istanbul Convention</td>
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<td>NAP</td>
<td>National Action Plan</td>
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<td>NECP</td>
<td>National Energy and Climate Plan</td>
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<tr>
<td>SDG</td>
<td>Sustainable Development Goal</td>
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<tr>
<td>UN</td>
<td>United Nations</td>
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<tr>
<td>WLINTA</td>
<td>Women, Lesbians, Inter, Non-binary, Trans, Agender</td>
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1. Introduction

The legislative system of the energy sector has been exponentially evolving at global, regional, and national levels, driven by the need to reduce greenhouse gas emissions, increase energy efficiency and the share of renewable energy in energy production, and ensure a socially just transition. However, energy and social policies continue to be influenced by a male-dominated perspective, leaving out the perspective and specific experiences of women and other genders as managers, producers, consumers, energy prosumers, decision-makers, investors, and users of energy systems. The energy sector has traditionally been male-dominated, both at the technical level and at the decision and policy-making level. Any new measures or policies based on the model that have created gender inequalities will only perpetuate or exacerbate these inequalities.

A gender-just perspective must therefore be incorporated into policy and decision-making processes, considering the specific experiences of different gender identities, especially women or rather WLINTA.

One of the main objectives of the Empowering Underrepresented Women in the Energy Sector (EUWES) project is to raise awareness, promote opportunities for women’s active participation and contribute to closing the gender gap in management and leadership positions across the energy sector. As a first step, EUWES aims to identify and understand the barriers hindering women's progress in the energy sector through a comprehensive multi-level analysis and mapping national policies and strategies.

A mapping methodology has been developed to guide the mapping process and explain the tools and templates created (see EUWES Deliverable 1.1 Mapping Methodology). Following this methodology, this Deliverable 1.2 Mapping of German Gender and Energy Policies aims to assess the status quo of gender aspects in the energy sector in Germany in the political, economic, and academic spheres. The focus is on gender equality initiatives and energy policies at the national level, so chapters 3 and 4 will provide an overview of Germany’s current aspirations in this regard.

Chapter 5 will present aspects of a detailed gender analysis of selected energy policies and interviews with political decision-makers.

Chapters 6 and 7 will carve out the main findings of desk research on gender in the energy economy and in energy study programmes, as well as show insights from interviews with stakeholders from energy companies and academic institutions.

This report will serve as a starting point for developing targeted recommendations for gender mainstreaming at the German national and EU policy level.

All other EUWES project partners had carried out a similar mapping process, resulting in 3 further reports for the partner countries Croatia, Slovenia, and Spain.
2. Methodology

Following EUWES Deliverable D1.1, a gender-just point of view was adopted to analyse and map the gender and energy policies of Germany. This meant transferring the concept of gender justice based on the three dimensions of redistribution, recognition, and representation to the mapping process\(^1\). The following questions guided the analysis:

- How do national and federal strategies in Germany promote gender equality?
- Which measures ensure equal opportunities for women to participate in the energy sector, especially in leadership positions?
- Do the strategies and measures go further and address aspects of representation, rights and redistribution from a gender perspective?
- What barriers do women (or WLINTA) face regarding their representation in the political, economic, and academic spheres of the energy sector?

With a gender-just theoretical approach in mind, the gender aspects, presented in chapter 4.2 of D1.1, were used to guide the desk research for documents and statistics.

Two parallel processes were initiated: 1) the identification and selection of relevant policies and initiatives, 2) the use of the stakeholder mapping method and a stakeholder Excel template (see Annex _ of D1.1) to prioritise stakeholders for semi-structured interviews.

Concerning 1), policies refer to public policies developed and implemented by public authorities. Through research based on publicly available data and documents, relevant policies were selected for analysis based on criteria such as time frame (adopted between 2005-2023), and type or form of policy (binding, recommendations, statements, etc.). When mapping policies, national policies came first in the search hierarchy, followed by regional policies and then strategy documents. Additional information about policies was obtained from academic papers or official authorities. The policy mapping process involved assessing policy implementation, its barriers, and contradictions and identifying where new policies are required. In addition, strengths and weaknesses were assessed, pointing out new and revised policy approaches and opportunities for advocacy\(^2\). Hence, evaluation criteria were applied,

\(^1\) Following Nancy Fraser, gender justice can be regarded as a multidimensional approach that addresses aspects of redistribution, recognition, and representation. Recognition refers to accepting various social groups and strengthening communities and social trust through open communication and appreciation of diverse perspectives. In other words, mutual recognition would mean questioning existing gender-related hierarchies, breaking down gender stereotypes and creating new standard norms and values. Furthermore, a gender-just perspective would recognise that there are different gender identities, forms of masculinity and femininity and gender role practices. In the energy sector, recognition would refer to recognising women as agents of change, as mentioned in the previous chapter. It means creating spaces in politics and the economic sector where people enter dialogue and the voices of people in marginalised situations, amongst them women, are heard. See: Fraser, Nancy (2007): Feminist Politics in the Age of Recognition: A Two-Dimensional Approach to Gender Justice, in: Studies in Social Justice, 1:1, 23-35.

and the search and analysis results were summarised in a policy analysis Excel spreadsheet (see also ANNEX of D1.1).

Chapters 3 and 4 provide an overview of these results, i.e., an overview of different gender equality policy initiatives on the one hand and energy policies at the national level on the other hand. Some energy policies as written documents were further analysed by using MAXQDA, a qualitative data analysis software. The documents were uploaded to the software and then coded, using keywords such as “women”, “girls”, “gender”, “social”, “equality”, “gender mainstreaming”, “poverty”, “promotion”, “empowering”, or “rights”.

The desk research was extended to include statistics, scientific papers, or journalistic articles to collect quantitative data on women working in the energy sector, women studying STEM subjects and women in Germany’s highest federal ministries. These numbers are represented in Tables 1 to 4 in chapters 5 to 7.

Concerning 2), levels 1 to 3 of the stakeholder mapping process, presented in D1.1, were applied. In Level 1, stakeholders and their necessary contact information were identified through desk research and skimming through already existing WECF’s contact lists. The purpose was to find stakeholders for four main groups – political decision-makers, private sector/energy companies, civil society, and academia. In the second step, Level 2, the relevance of the stakeholders was estimated based on their experience, perspective, and values, using the Power-Interest Matrix by A.L. Mendelow3. For each group, 2 to 3 stakeholders were selected and contacted. Hence, 9 interviews were conducted between August and September 2023, taking place online via Zoom or Teams. A guideline with questions was prepared and specified for each interviewee according to their background. A consent form was also sent to each interviewee. Guided by feminist research ethics, a high focus was to understand and listen attentively to the perspective of the interview partners, especially learning from them. It is essential to mention that the selection of interviewees is influenced by the subjectivity of the researchers and the means available to them at the time. Hence, the results presented in this report are a cut-out of specific perspective and must be put in context (such as time and background of interviewees). The interviews were recorded, transcribed, and then analysed using the software MAXQDA. For this purpose, gender codes were predetermined and then refined in an abductive way, using a list proposed in D1.1, chapter 4.4.2.

The list of representatives interviewed can be found in ANNEX.

3. Gender Equality Policy Initiatives in Germany

In Germany, gender equality between women and men is covered by legislation, i.e., specific laws and initiatives. In this sense, gender equality (Gleichstellung) is not only about including opportunities for different genders from a legal point of view but also about creating personal and professional opportunities⁴.

It is important to note that although gender equality has been legally anchored in Germany, its implementation is ongoing. In addition, German gender equality politics (Gleichstellungspolitik) have in the past focused mainly on two genders, women and men, and are partly evolving to include other gender identities. A central law to guarantee the rights of LGBTIQA* is the Equal Treatment Act (AGG) presented in chapter 3.2. Since 2017, it is enabled for homosexual or queer couples to get married (Ehe für alle) and since 2018, it is possible to register as “diverse” in the German birth register.

Article 3 (2) of the Basic Law (Grundgesetz) calls on the state to promote the actual implementation of equal rights for women and men and to eliminate existing disadvantages⁵. Based on the Basic Law, numerous state equality laws have been enacted in all 16 federal states of Germany⁶.

Hence, German gender equality politics operates at different levels, the national and the regional. In addition, Germany has committed itself to several international initiatives, which will be briefly presented in the next chapter.

3.1 Implementation of International Gender Frameworks

German policy is embedded in international agreements, initiatives, and legal frameworks at the European and global levels.

Convention on the Elimination of All Forms of Discrimination (CEDAW)

CEDAW is the leading international instrument of the United Nations (UN) for the protection of women's human rights⁷. Germany (Bundesrepublik Deutschland, BRD) ratified CEDAW in 1985. It has committed to provide a report every four years to assess the status quo of German gender equality policies; since 1985, Germany has submitted nine reports. The Ninth Periodic Report on CEDAW, issued by the Federal Government involving the federal states in 2021, mentions “[…] intersectionality, diversity and overlapping forms of discrimination as key concerns of gender equality policy⁸. This ninth report

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⁵ Ibid.
⁶ Ibid.
⁷ Ibid.
acknowledges the progress made in German policies by providing a wealth of studies and analyses, some from an intersectional perspective, i.e., *The Road to Equal Pay for Women and Men – Facts, Causes, Measures* (2020), brochure published by the BMFSFJ. The report provides a detailed overview of various gender policies, i.e., concerning gender stereotypes, Women, Peace and Security (WPS), gender-based violence against women, education, and participation in political and public life.

**Istanbul Convention on preventing and combating violence against women and domestic violence (IC)**

The Istanbul Convention is the first legally binding agreement to establish a comprehensive legal framework and methodology for combating violence against women, with a focus on preventing domestic abuse, supporting victims, and punishing perpetrators. These four main objectives encompass a wide range of provisions, including legal and practical actions aimed at causing tangible changes in national responses to violence against women and domestic abuse. Germany was one of the first countries to sign the IC, having played a significant role in its discussions and the Convention entering into force in 2018. However, it lacks a unified definition of violence or types of violence and a national strategy that considers the variances in how different groups are affected. Those in charge of implementing IC in Germany must finally recognise that structural barriers and institutional systems of discrimination impact everyone differently and that the state must remove these obstacles in an intersectional way.

**Transforming our world: The 2030 Agenda for Sustainable Development**

Agenda 2030 is a United Nations resolution which was ratified in Germany in 2015 and for which the German government secured 140 million Euros of funding for SDG5 from 2019 to 2023. Sustainable Development Goal 5 (SDG 5) aspires to provide equal rights and opportunities for women and girls to live free from discrimination, including employment discrimination and violence. This is done to promote gender equality and to empower all women and girls. Gender equality legal bases have been established, including the Gender Equality Management Positions Act, which includes binding gender

9 CEDAW/C/DEU/9
10 Council of Europe (n.d.): Key facts about the Istanbul Convention. Available at: https://www.coe.int/en/web/istanbul-convention/key-facts (last accessed: 23.8.2023.)
13 DaMigra (2023): Finally, the Istanbul Convention applies without reservation! Now on to full implementation – if not now, then when? Available at: https://www.damigra.de/en/meldungen/endlich-gilt-die-istanbul-konvention-vorbehaltslos-nun-auf-zur-vollstaendigen-umsetzung-wenn-nicht-jetzt-wann-dann/ (last accessed: 23.8.2023.)
quotas for supervisory boards of listed and fully co-determined companies, then the Transparency in Wage Structures Act, and the Second Gender Equality Management Positions Act\textsuperscript{16}. Additionally, Germany has been implementing a three-track approach through the cross-sectoral strategy "Gender Equality in German Development Policy" since 2014; 1\textsuperscript{st} track) Gender mainstreaming, i.e. incorporation of a gender perspective into all development policy-related initiatives and programs, 2\textsuperscript{nd} track) Specific programs aimed at eliminating discrimination against women and girls and promoting women's rights, 3\textsuperscript{rd} track) Integrating women's rights into development policy dialogues with partner nations\textsuperscript{17}.

**National Action Plan (NAP) for the implementation of United Nations Security Council Resolution (UNSCR) 1325**

NAP is a policy document outlining steps to support the implementation of UN Resolution 1325, which came into effect in 2013 in Germany\textsuperscript{18}. There have been three NAPs so far, with NAP 3 being in force during the 2021-2024 period\textsuperscript{19}. For the first time, the Federal Government enshrines the obligation of German corporations to respect human rights in a defined framework in the NAP\textsuperscript{20}. In it, the Federal Government states unequivocally that corporations must undertake due diligence regarding human rights and respect them throughout their supply and value chains\textsuperscript{21}. The goal is clear: the Federal Government intends to use its NAP to assist the global human rights situation better and give globalisation a social component per the Agenda 2030 for Sustainable Development. Six areas have been identified as priorities in NAP 3: crisis prevention, participation, protection and support, humanitarian aid, crisis management, and rebuilding, advancing the Women, Peace and Security Agenda, and enhancing institutional coherence and capabilities\textsuperscript{22}. In comparison to the first two NAPs, NAP 3 has a larger monitoring and evaluation structure that includes information on how the activities were carried out\textsuperscript{23}.

\textsuperscript{17} Ibid.
\textsuperscript{19} Women's International League of Peace and Freedom (n.d.): Germany. Available at: http://1325naps.peacewomen.org/index.php/germany/ (last accessed: 23.8.2023.)
\textsuperscript{20} National Action Plans on Business and Human Rights (n.d.): Gender & women’s rights. Available at: https://globalnaps.org/issue/gender-womens-rights/ (last accessed: 23.8.2023.)
\textsuperscript{22} Women’s International League of Peace and Freedom (n.d.).
\textsuperscript{23} Federal Foreign Office (2021).
3.2 Main National Gender Acts and Policies

German Act on Equal Participation of Women and Men in Leadership Positions (FüPoG I)

The Act on Equal Participation of Women and Men in Leadership Positions (FüPoG I) came into force on May 1, 2015, with the primary objective of elevating the representation of women in leadership roles within both the private and public sectors. Its underlying goal was to advance the principle of gender equality as enshrined in Article 3 of the German Basic Law. For public companies with equal co-determination, the Act establishes a set gender-based quota of at least 30% for the supervisory board, thereby necessitating the filling of vacancies with members of the underrepresented gender. Consequently, companies are obligated to disclose in their annual management report and "Corporate Governance Statement" whether the 30% quota for the Supervisory Board has been met, accompanied by an explanation in case of non-compliance. As of August 2022, the aims set by FüPoG I had largely materialised. Thanks to the supervisory board quota, women now constitute 34.9% of the workforce in DAX40 companies. However, the private sector exhibited implementation challenges, with companies often setting the target for the percentage of women on supervisory boards as "zero". A notable limitation of FüPoG I is the absence of stipulated penalties within the Act. Additionally, there is a need for further progress in places where the voluntary quota for women on supervisory boards is concerned. Furthermore, the quota could be changed to a WLINTA quota, including genders that do not fall into a binary concept of men/women.

Second Management Positions Act (FüPoG II)

The Second Management Positions Act (FüPoG II) from 2022 builds upon and enhances the regulations outlined in the 2015 Management Positions Act (FüPoG). FüPoG II aims to augment the efficacy of the original Act and address its shortcomings, particularly in the areas of voluntary quotas and the establishment of a goal of zero women in high-ranking managerial and supervisory board roles. A pivotal advancement introduced by FüPoG II is the stipulation of a minimum participation requirement.

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27 Covington (2022).

28 Ibid.

for boards consisting of more than three members within large German corporations. Under FüPoG II, executive boards of listed and co-determined firms comprising more than three members must include at least one woman. This requirement will apply to new appointments commencing from August 1, 2022. This regulation introduces a new dimension to the composition of executive boards. Notably, the impact of the management board quota of 2021 is already evident, with women constituting 14.3% of DAX management boards as of March 1, 2022—a record high. While the German government has demonstrated a strong commitment to enhancing women's representation in first- and second-level management roles, its efforts fall somewhat short of the European Union's. In June 2022, the EU Council and Parliament reached an agreement to implement gender quotas in the management bodies of publicly traded companies. These quotas will take effect from 2026, with thresholds set at 33% and 40% for executive and non-executive management bodies, respectively. FüPoG II exclusively pertains to 70 major corporations in the country, with the expectation that they will set an example for smaller businesses by embracing greater managerial diversity.

**General Equal Treatment Act (AGG)**

In 2006, the General Equal Treatment Act (AGG) incorporated four EU Directives, namely the Equal Treatment Directive, the Equal Treatment in Goods and Services Directive, and the Framework Directive on Employment. The primary objective of the General Equal Treatment Act is to counteract and prevent discrimination rooted in race or ethnicity, gender, religion or belief, physical or mental disability, old age, or sexual orientation, particularly within the realm of employment and occupation. The AGG outlines legal safeguards against discrimination, spanning workplace and civil law contexts. According to the guidelines, the following aspects are addressed: protective measures and employer responsibilities to combat discrimination, as well as employee entitlements (such as the right to file a complaint and the right to refuse specific tasks), along with their recourse in cases of discrimination violations (compensation and damages). Employers have the autonomy to choose the measures they deem necessary to fulfil this obligation, i.e., implementing anti-discrimination policies and training.

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32 Covington (2022).
33 Ibid.
34 Ibid.
35 Ibid.
36 Ibid.
employees\textsuperscript{40}. Some identified policy gaps persist: the two-month time frame for filing legal claims should be extended, anti-discrimination organisations\textsuperscript{41} and groups should be granted the ability to file legal claims in court, and sexual harassment should be explicitly prohibited in settings beyond the workplace\textsuperscript{42}. Moreover, an enforceable right should be established to ensure the adoption of appropriate precautions and procedures for barrier-free accessibility for individuals with disabilities.

**Transparency in Wage Structures Act (EntgTranspG)**

The Transparency in Wage Structures Act was enacted in 2017, establishing a definitive legal foundation for achieving equal pay based on similar labour and value for both genders\textsuperscript{43}. It encourages employers, collective bargaining parties, workplaces, and employee representatives to work towards equal pay for men and women within the context of their job roles and feasible actions\textsuperscript{44}. The law introduces transparency by establishing three fundamental components, 1) granting individuals the right to information about salaries, 2) procedures for evaluating and ensuring fair pay within workplaces, 3) introducing equality and equal pay reporting \textsuperscript{45}. However, due to the prevalence of collective bargaining agreements in large companies, pay disparities are less likely, resulting in limited impact on addressing unequal pay in small and medium-sized businesses. While allowing employees to request information about colleagues' salaries is a step toward narrowing the gender pay gap, this right does not enable comparisons between salaries of different job levels or between individuals of the same gender\textsuperscript{46}. The Act strictly prohibits gender discrimination in all pay components and conditions when work is of equal value. This complements Germany's 2006 anti-discrimination law (AGG), which covers all forms of discrimination\textsuperscript{47}. However, the Act does not include collective measures to address pay discrimination. Despite the positive adoption of the individual right to information, individual legal action by women may lead to professional retaliation. The mandatory pay review procedure is voluntary - and historically,


\textsuperscript{41} The Federal Anti-Discrimination Agency serves as an independent resource for those who have encountered discrimination. This Agency, detailed in the German Equal Treatment Act and compliance with EU regulations on equal treatment, offers guidance to individuals who have faced discrimination and require assistance. However, as per the Act, the Agency lacks the authority to conduct independent investigations into discrimination allegations or issue legally binding decisions. It can also not initiate lawsuits, and the Act does not empower the Agency to testify as a witness in court proceedings related to discrimination; see Federal Anti-Discrimination Agency (2019).

\textsuperscript{42} Federal Anti-Discrimination Agency (2019).


\textsuperscript{44} Federal Ministry for Family Affairs, Senior Citizens, Women and Youth (2017): Das Entgelttransparenz. Available at: https://www.bmfsfj.de/resource/blob/117322/c9ef7c4bbe4822e644c94821b09aa88f/das-entgelttransparenzgesetz-informationen-zum-gesetz-zur-foerderung-der-entgelttransparenz-data.pdf (last accessed: 23.8.2023.)


\textsuperscript{46} Pfaffenberger, B. (n.d.).

\textsuperscript{47} Federal Ministry for Family Affairs, Senior Citizens, Women and Youth (2017).
voluntary efforts have not yielded substantial outcomes. The Act should encompass all employers rather than just those with 200 or 500 employees to be more effective. Furthermore, the absence of a collective action system for unions and the lack of mandatory compensation reviews are the shortcomings of the Act. Critiques have labelled the Act as bureaucratic and insufficient in achieving its goal of expanding employment opportunities for women. The German government hopes that large businesses covered by the Act will serve as examples for smaller counterparts by voluntarily disclosing wage information.

4. Energy Policies on a National Level

Renewable Energy Sources Act (Erneuerbare-Energien-Gesetz, EEG)

The Renewable Energy Act (EEG), introduced in 2000, was regarded a success story in terms of most efficient policies since it provided a stable investment environment and paved the way for sustainable energy in Germany. Its primary objective was to support emerging technologies such as wind and solar energy by ensuring consistent pricing and a guaranteed purchase framework. Under the Renewable Energy Act (EEG), the concept of feed-in tariffs operated on a straightforward principle. Operators of renewable energy power plants were offered a guarantee to feed in the energy in the public grid and a fixed rate for each kilowatt-hour of renewable energy produced over 20 years. Several countries have replicated or adapted the EEG to their own national context. In Germany, the share of renewable power has risen from 5.4 per cent in 1999 to more than 40.3 per cent in 2017 under the influence of EEG. To fulfil the objectives of the Paris Agreement and to maintain a stable planning and investment landscape for renewable energy projects, the Renewable Energy Act must be upheld.

Buildings Energy Act (Gebäudeenergiegesetz, GEG)

The Building Energy Act (GEG) from 2020 outlines the energy standards governing constructions. It

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50 LBBW (n.d.): Energiegesetze. Leitplanken auf dem Weg zur Energiewende. Available at: Energiegesetze: Leitplanken auf dem Weg zur Energiewende (lbbw.de) (last accessed 1.8.2023.)
54 Ibid.
55 Ibid.
replaced and united the Energy Saving Ordinance (EnEV), the Energy Saving Act (EnEG), and the Renewable Energies Heat Act (EEWärmeG) into one legal framework\textsuperscript{56}. Beyond addressing space heating and cooling, the energy equilibrium of structures is calculated by encompassing aspects like hot water generation, ventilation system operation, and the electricity necessary for operating equipment such as heating pumps, boilers, and controllers\textsuperscript{57}. The GEG was designed to establish a consolidated, standardised, and synchronised set of regulations for new and existing structures and the application of renewable energies for building heating and cooling. The core aim of the Building Energy Act is to rationalise energy-saving regulations for buildings and alleviate bureaucratic processes which involve the assimilation, revision, and simplification of EnEV and EEWärmeG\textsuperscript{58} \textsuperscript{59}. The GEG was designed to establish a consolidated, standardised, and synchronised set of regulations for both new and existing structures and the application of renewable energies for building heating and cooling \textsuperscript{60}. Numerous businesses will be obliged to disclose their strategies and statistics. Some clarity about the legislative process is missing, for example, providing a precise definition of the term “company” \textsuperscript{61}. Consequently, corporate groupings, including holding structures and private equity entities, are unregulated.

**Energy Efficiency Strategy for Buildings**

The Energy Efficiency Strategy for Buildings outlines a comprehensive plan for the energy sector, combining power, heat, and energy efficiency to establish a cohesive framework for transitioning the buildings sector to clean energy\textsuperscript{62}. Given that buildings account for approximately 35 per cent of final energy consumption and about one-third of greenhouse gas emissions in Germany, their role is pivotal in achieving energy and climate policy targets. Aiming to eliminate nuclear energy by 2022 and decrease greenhouse gas emissions by 80 to 95 percent by 2050, the German government underscores its commitment to making the building sector nearly climate-neutral by 2050\textsuperscript{63}. This is evident through support for renewable energy initiatives, local and district heating systems based on renewable sources, and the establishing of the Energy Transition Buildings Platform in 2014, which facilitates discussions and actions aligned with agreed guiding principles. The strategy proposes the

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\textsuperscript{59} Climate Change Laws of the World (2020).

\textsuperscript{60} Beuth Verlag (n.d.): Energy efficiency in buildings. Available at: https://www.beuth.de/en/topics-offers/energy-efficiency (last accessed: 22.8.2023.)


\textsuperscript{63} Ibid.
transformation of energy advice into a coordinated national service with standardised quality requirements and regionally connected stakeholders\(^{64}\). It also envisions standardised and easily understandable energy-related refurbishment guidelines for building owners using renovation roadmaps. While non-residential buildings contribute significantly to the construction sector's total energy consumption, they often receive less attention despite planned efficiency improvements\(^{65}\). The strategy highlights the importance of strengthening market mechanisms and progressively enhancing relevant services to address this gap. Considering that approximately 35% of total final energy consumption is attributed to heating and hot water needs at home, there is substantial potential for energy reduction\(^{66}\). To clarify how the Federal Government's objectives, particularly achieving near climate-neutral buildings by 2050, can be realised, the Energy Efficiency Strategy for Buildings in the National Action Plan for Energy Efficiency (NAPE) must be further expanded and refined\(^{67}\). This should involve expanding current financial incentives, introducing tax incentives, and establishing precise and stable long-term financing mechanisms. For instance, the energy-saving contracting service is a suitable solution for addressing funding and investment issues during refurbishment projects\(^{68}\).

**Energy Industry Act (Energiewirtschaftsgesetz, EnWG)**

The Energy Industry Act (EnWG), also referred to as the legislation governing the supply of electricity and gas, encompasses the foundational principles of energy transmission law. Initially enacted in 1935, the Act was substituted with a new version in 2005, followed by subsequent amendments\(^{69}\). The implementation of the EnWG falls under the responsibility of the Federal Network Agency for Electricity, Gas, Telecommunications, Post, and Railway (Federal Network Agency)\(^{70}\). The primary aim of the Act is to ensure that public access to grid-based supplies of electricity, gas, and hydrogen—increasingly derived from renewables—is secure, affordable, consumer-oriented, efficient, environmentally compatible, and greenhouse gas-neutral\(^{71}\). It is essential to note that the Act solely pertains to electricity, natural gas, and biogas supply, as these energy sources are conveyed through grid networks to consumers, excluding oil and liquid gas\(^{72}\). The Act employs various strategies to achieve its objectives, including the authorisation and notification prerequisites, the constraint on unrestricted pricing, the

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\(^{64}\) Ibid.

\(^{65}\) Deutsche Energie-Agentur (n.d.): Pooling competencies for energy efficiency. Available at: https://www.dena.de/thetaemen-projekte/energieeffizienz/gebaeude/energiepolitik-gebaeude/positionen/ (last accessed: 22.8.2023.)


\(^{67}\) Deutsche Energie-Agentur (n.d.).

\(^{68}\) Ibid.

\(^{69}\) Vattenfall (n.d.): Energiewirtschaftsgesetz: EnWG. Available at: https://www.vattenfall.de/glossar/energiewirtschaftsgesetz (last accessed: 22.8.2023.)

\(^{70}\) Bayerisches Landesamt für Umwelt (2023): EnWG - Energiewirtschaftsgesetz. Available at: https://www.umweltbundesamt.bayern.de/energie_klima/recht/bund/404/enwg-energiewirtschaftsgesetz (last accessed: 22.8.2023.)

\(^{71}\) Bundesministerium für Wirtschaft und Klimaschutz (n.d.): Energiewirtschaftsgesetz (EnWG). Available at: https://www.erneuerbare-energien.de/EE/Redaktion/DE/Standardartikel/energiewirtschaftsgesetz.html (last accessed: 22.8.2023.)

\(^{72}\) Vattenfall (n.d.).
separation of ownership, and the intervention authority of the Federal Network Agency\textsuperscript{73}. A favourable modification to the legislation would be one that automatically acknowledges innovative district supplies with cost-effective electricity rates, substantial environmental energy, or above-average energy efficiency as client systems\textsuperscript{74}. Collaboration among economic actors and public regional authorities is essential to effectively manage the energy sector as a pivotal aspect of economic and societal life. Public influence must be secured in all matters related to energy supply to prevent adverse competitive effects on the economy, fostering a balanced approach through integrated economics\textsuperscript{75}.

**Combined Heat and Power Act (Kraft-Wärme-Kopplungsgesetz, KWKG)**

The 2002 Combined Heat and Power Act provides support for the adoption of combined heat and power (CHP) plants, along with their associated cooling, heating networks, and storage systems\textsuperscript{76}. With an annual allocation of 1.5 billion euros, this legislation aims to achieve lowered CO2 emissions, increased integration of CHP-generated electricity within the German electrical grid, and enhanced energy efficiency. The objective of this Act is to augment the energy output from CHP facilities, encourage the growth of the fuel cell industry, and provide financial support for the installation and expansion of heating and cooling networks\textsuperscript{77}. Over the years, the German government has revised this Act multiple times, including in 2009, 2016, and 2023. As a result of the 2008 and 2009 amendments, the proportion of high-efficiency CHP plants in electricity and heat generation (with primary energy use exceeding 90%) increased from 12% to 25\textsuperscript{78}. In many instances, based on KWKG calculations, utilising the power on-site is more economically advantageous for mini-CHP operators than feeding it into the general supply network as per the EEG regulations\textsuperscript{79}.

### 5. Gender Aspects and Women’s Representation in Energy Policies and Politics

**Detailed gender analysis of energy policies**

Beforehand, an overview of past and current gender and energy programmes and policies was presented. Noteworthy is the nexus between both topics and areas, hence the question of how far German politics are considering this entanglement and in what way they are applying a gender

\textsuperscript{73} Ibid.

\textsuperscript{74} ASUE (n.d.): Energiewirtschaftsgesetz (EnWG). Available at: https://asue.de/gesetze_verordnungen/enwg (last accessed: 22.8.2023.)

\textsuperscript{75} EnArgus (n.d.): Energiewirtschaftsgesetz. Available at: https://www.enargus.de/pub/bscw.cgi/d3330-2/*/*/Energiewirtschaftsgesetz.html?op=Wiki.getwiki (last accessed: 22.8.2023.)


\textsuperscript{77} Ibid.

\textsuperscript{78} Ibid.

\textsuperscript{79} ASUE (n.d.): Kraft-Wärme-Kopplungsgesetz (KWKG). Available at: https://asue.de/gesetze_verordnungen/kwkg (last accessed: 22.8.2023.)
dimension to energy policies. This question will be further analysed and discussed in the following chapter. As mentioned in Chapter 2, this discussion is based on the analysis of different energy laws (by applying gender codes and using MAXQDA), on the findings of the desktop research (identifying current numbers and statistics), as well as on the results of the stakeholder interviews.

The primary energy laws GEG, EEG and EnWG, and the Energy Efficiency Strategy for Buildings (EES) do not mention any specific gender aspects. The lexical search run by MAXQDA showed that none of the respective documents mentioned any specific gender (i.e., women), gender mainstreaming, nor subtopics that are often related to gender, such as care duties, reproductive work, or parenthood.

However, some documents addressed citizens or consumers; the Energy Efficiency Strategy for Buildings used gendered language addressing citizens (Bürger and Bürgerinnen). It must be noted here that the EES document should be viewed differently from the other documents, as the document type differs: It is not written law but a strategy, hence as set of goals that the German government proposes to aim for climate-neutral energy consumption and implementing energy efficiency measures. The EES document mentions that the strategy fulfils an essential social function by supporting citizens in contributing to the energy transition. Furthermore, it is highlighted that social factors such as the living environment, differences between countryside and cities and demographic developments should be considered in planning energy consumption(s). However, it can be assumed that demographic developments include factors such as gender, age, or ethnicity, but these factors are not specifically mentioned regarding EES.

Furthermore, the EES aims for a target-group-specific communication so that consumers nationwide are informed about renewable energy and energy transition topics, i.e., through informing about energy labels. The government considers this necessary so that consumers apply energy-saving measures. Here, it can be stated that the EES is fulfilling an important function by considering the role of citizens. On one hand, it is important to consider the role of citizens as consumers since the access and affordability of energy must be regarded as a basic human right. On the other hand, citizens can be mobilised as active agents of the energy transition, i.e., as members of energy communities. Unfortunately, the EES does not further distinguish the target groups, hence it misses the opportunity to underline gender-specific differences when it comes to energy consumption on the household level. Socio-economic factors are only mentioned partially in the EES – energy poverty is not used as a specific term. But it is considered that low-income households are more affected by CO2 pricing regulations and that higher incomes, which the state is gaining through CO2 pricing, should be directed towards reducing the energy expenditures of citizen-consumers.

The EEG includes a chapter on citizen energy, promoting the involvement of citizens in the energy transition and highlighting specific favours for citizen energy projects (i.e., tenant electricity surcharge). It is planned to include obligatory participation of citizens and municipalities for renewable energy power projects, but it is not yet approved and implemented. On the county level there are obligatory
participation schemes, i.e., in Mecklenburg-Vorpommern and Thüringen.

The most recent draft amendment of the EnWG and the GEG do not consider any social aspects that are relevant for this analysis. The EnWG amendment even says that it is not aiming to propose changes to the law in terms of equality policies but that it is only restructuring the law.

In consequence, this means that social aspects are partly covered in strategies of the German government, as in the EES. But besides the EEG addressing citizen energy, neither gender nor social aspects are covered in the written energy law.

**Insights shared by stakeholders**

The observation that gender aspects are not integrated into German energy policies, at least not in written law or written strategies, concurs with statements of some stakeholders who were interviewed on behalf of WECF in August and September 2023. An interviewed representative of the NGO GenderCC conducted thorough research identifying gender in energy law but mentioned that the gender-energy-nexus in German policies seems to be completely neglected, even nonexistent (I980).

One member of the German Parliament for Alliance 90/The Greens stated that the energy sector holds excellent potential for gender budgeting measures and measures supporting citizens (energy) since 50% of the energy plants are public (I2). Translating gender measures into laws could strengthen the diversity of various social groups and the engagement of citizens, especially women, could be strengthened (I2).

The same parliament member and one representative of the NGO Germanwatch highlighted that Germany is instead encouraging the inclusion of gender in foreign policies or international level related to climate and energy, but not so much on a national level. For example, Germany has elected National Gender Focal Points under the United Nations Framework Convention for Climate Change (UNFCCC), in alliance with the gender and climate change decision 3/CP.25. Furthermore, the strategies by the German Federal Foreign Office (AA) and by the Federal Ministry for Economic Cooperation and Development (BMZ) regarding feminist foreign policies and feminist development policy are directed towards international cooperation, not so much dealing with national internal or ministerial structures. The AA and BMZ are the two of the 16 federal ministries most progressing on gender topics. In contrast, no gender budgeting strategy is planned for internal gender politics, i.e., for the financial ministry or the federal budget.

International climate strategies are aiming at implementing gender more coherently in national energy

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80 A list of stakeholders interviewed, or rather a list of their organisations, is shown in ANNEX 1. The abbreviation “I” refers to “Interview”.
and climate plans (NECP). However, as highlighted by the representative of Germanwatch, Germany failed to submit its NECP update in 2023. The NECP, as well as energy strategies under the European Green Deal, are generally seen as promising to integrate gender aspects by some stakeholders (I2; I8). For this, and to ensure that gender aspects are considered from the beginning of policy processes, civil society would need to be integrated into a dialogue process about such updates or action plans. Furthermore, funding for the integration of civil society would need to be ensured (I8; I9).

Some of the stakeholders interviewed mentioned reasons for neglecting gender aspects in energy policies. One reason is conflicts between parties in the government: Alliance 90/The Greens is partly seen as a feminist party or rather a party which pushes for gender topics, whereas some conservative parties do not consider gender as necessary to apply to discussions (I2). These discrepancies lead to conflicts in the political discourse, even to the extent that feminist policymakers experience a gender backlash. Gender backlash refers to a regression in gender politics: While gender was considered an important concept in international politics since the UN Fourth World Conference on Women in Beijing in 1995 and has been more and more institutionalised ever since, governmental and nongovernmental actors aiming for gender equality measures experience a backlash on the international as well as the national level. This is mainly linked to the rise of right-wing populist parties in several states.

From the perspective of a member of the state parliament of Baden-Württemberg, the current aspirations of Alliance 90/The Greens are to aim for more representation of women in parliaments and councils on local, federal, and national levels (I1). Both interviewed politicians highlighted that gender quotas or mentoring programs can support mobilising women for political positions, i.e., in energy-related committees (I1; I2). The Greens are known for quotas of their executive committees and election candidate lists; they have therefore been using this gender tool for several years to push for gender parity. It must be highlighted here that only representatives of Alliance 90/The Greens were interviewed for this report so that the variety of German political parties is not covered. This leads automatically to a one-sided and narrowed view on current aspirations of German policymakers on gender equality and on including gender tools in their daily political work.

The following paragraph will show the share of women in energy-related ministries. But as the representative of Germanwatch underlined, achieving gender justice would go beyond bringing women to the table but somewhat changing the patriarchal structures of the energy sector (I8).

**Share of women in energy-related ministries**

There are several (sub-)committees and working groups in parliament(s) on the German federal and national level. However, the ministries are part of the government, hence the executive. For this purpose, the share of women in some crucial ministries shall be shown here.

As mentioned, Germany is divided into 16 federal states, each with its own government. Furthermore, it has 24 federal authorities, including 16 federal ministries, federal commissioners, the office of the
federal president, the federal criminal office, and the federal intelligence service. The overall share of women in these 24 supreme federal authorities of Germany was 55% in 2022 (including civil servants, judges, employees, and trainees, either employed on a full-time, part-time basis or on parental leave)\textsuperscript{81}. This means that more women than men were employed in the highest federal authorities, whereas none of the authorities listed any non-binary or other gender identities\textsuperscript{82}. But it may be noted here that two of the German parliament members for the legislative period between 2021 and 2025, both for Alliance 90/The Greens, are trans women engaging in queer politics.

As seen in Table 1, the Federal Ministry for Family Affairs, Senior Citizens, Women and Youth (BMFSFJ) has the highest share of women compared to the other ministries – which is unsurprising since most institutions working on women’s studies or women’s policies are run by women. However, when it comes to women in leading positions, the total share of women in all ministries is 41\%\textsuperscript{83}. Remarkable is here that the AA is below the average since only 30\% of all leading positions are held by women. This is remarkable against the background and shared observation that the AA is pursuing a feminist foreign policy.

This might lead to two explanations: On one hand, as mentioned by the stakeholders in the interview (see subchapter before), Germany concentrates rather on gender aspects on an international level and regarding foreign policies than on changing internal structures. On the other hand, the number of women employed or in leading positions does not automatically guarantee a feminist or a more gender-aware perspective. Representation goes beyond bringing women to the table or giving them a seat during a panel session. Since the promotion of women does not yet result in gender-just policies, gender parity in (energy-related) political positions should be more than just an indication of numbers\textsuperscript{84}. In terms of representation of women (and WLINTA) within energy-related ministries, this number must be interpreted in connection to the policies a ministry is pursuing. A complete representation would mean not integrating women into existing patriarchal structures, but rather breaking down patriarchal structures and collaborating with them to reach a social and gender-just transformation of the energy sector.

### TABLE N° 1: Share of Women in Selected Federal Ministries of Germany

<table>
<thead>
<tr>
<th>Ministry</th>
<th>Share of women among employees</th>
<th>Share of women in leading positions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Ministry for Economic Cooperation and Development (BMZ)</td>
<td>56%</td>
<td>51% (2022)</td>
</tr>
<tr>
<td></td>
<td>50% of the people sent to</td>
<td></td>
</tr>
</tbody>
</table>


\textsuperscript{82} Ibid.; one must remark here that the data collected might be sex-disaggregated data on a binary concept (men/women) and that other gender identities had not been identified in a consistent way.

\textsuperscript{83} Ibid.

German missions abroad (i.e., to development banks, IO, EU, embassies) are women

<table>
<thead>
<tr>
<th>German missions abroad (i.e., to development banks, IO, EU, embassies) are women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Ministry for Economic Affairs and Climate Action (BMWK)</td>
</tr>
<tr>
<td>Federal Ministry for Family Affairs, Senior Citizens, Women and Youth, BMFSFJ</td>
</tr>
<tr>
<td>Federal Ministry of Education and Research, BMBF</td>
</tr>
<tr>
<td>Federal Ministry of Labour and Social Affairs, BMAS</td>
</tr>
</tbody>
</table>


6. Gender Aspects and Women's Representation in the Economic Sphere of the Energy Sector

During the past years, some studies on gender aspects and women's representation in the energy sector or rather in energy companies have been conducted. Most of these studies show a similar share of women in the energy sector's workforce globally, with less than 30%. In comparison to other economic sectors, women's share in the economic sphere of the energy sector is entirely below the average. As seen in Table 2, the share of women was slightly higher in renewable energy companies in the year 2021.

According to PwC, the overall share of women in leadership positions in the German energy sector is about 15.5%, as shown in Table 3. The highest share of women, 19%, can be noticed for administrative and/or advisory board positions. This number agrees with the observation that women in the energy sector tend rather to take on administrative than technical positions. Laws such as FüPoG II seem to

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86 BMWK (2022).
influence the slow but steady growth of the share of women in leadership positions, especially in administrative positions\textsuperscript{87}.

Regarding the \textit{Gender Pay Gap}, women tend to earn 9\% less than men in the energy sector \textsuperscript{88}.

However, these numbers are not updated for the year 2023; they might be a sample and only show an estimation of the current status quo.

\textbf{TABLE N° 2: Share of women in different subsectors of the German energy sector in the year 2021}

<table>
<thead>
<tr>
<th>Subsector</th>
<th>Women</th>
<th>Men/Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil and gas</td>
<td>22%</td>
<td>78%</td>
</tr>
<tr>
<td>Wind energy</td>
<td>21%</td>
<td>79%</td>
</tr>
<tr>
<td>Renewable energy in total</td>
<td>32%</td>
<td>68%</td>
</tr>
<tr>
<td>PV</td>
<td>40%</td>
<td>60%</td>
</tr>
</tbody>
</table>

\textbf{Source:} Irena Online Solar PV Survey, adapted in BMWK (2023), \textit{BMWK - Für mehr Geschlechtergerechtigkeit und Diversität im Energiesektor}

\textbf{TABLE N° 3: Share of women in different positions in the energy market/in energy companies in the year 2021}

<table>
<thead>
<tr>
<th>Positions</th>
<th>Share of women</th>
<th>Share of Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership positions, in general</td>
<td>15,5%</td>
<td>83,5%</td>
</tr>
<tr>
<td>Steering Committee (Vorstand)</td>
<td>9%</td>
<td>91%</td>
</tr>
<tr>
<td>Executive board (Geschäftsführung)</td>
<td>6,5%</td>
<td>94%</td>
</tr>
<tr>
<td>Administrative and/or advisory board (Aufsichts- und Verwaltungsrat)</td>
<td>19%</td>
<td>81%</td>
</tr>
<tr>
<td>Prokura</td>
<td>14%</td>
<td>86%</td>
</tr>
</tbody>
</table>


To react to the underrepresentation of women in energy companies, especially in the renewable energy subsector, ministries such as the BMWK are strengthening programmes on women’s involvement. For example, the BMWK together with Global Women’s Network for the Energy Transition (GWNET) and

\textsuperscript{87} PwC (2021).
\textsuperscript{88} BMWK (2022).
Gesellschaft für Internationale Zusammenarbeit (GIZ) implemented the mentoring program "Energising Women to Advance the Energy Transition" as well as the communication campaign "Women Energize Women". Furthermore, in 2018 and then again in 2022, the G7 energy ministers committed to working towards equal pay, and equal opportunities for men and women and strengthening women in leadership positions within the energy sector until 2030.

As had been observed in terms of gender aspects in the political sphere, central studies, and data deal with a binary concept of gender, focussing on women and men. Not much information has been shared about the role of other gender identities, intersectional aspects, such as the consideration of LGBTIQA+ in the energy sector.
However, some information has been shared from stakeholders working in energy companies, which will be discussed in the following subchapter.

**Insights shared by stakeholders**

Three stakeholders from different energy companies were interviewed to share insights about the position of women and gender-friendly policies in their respective company.

Regarding the share of women in their company, these interviewees mirrored observations similar to the statistics shown in the previous subchapter. In N-ENERGIE, the share of women is relatively low, especially on the management level. In Siemens Energy, 2 of 12 leading positions are held by women. In Bremerbau, currently, no leading positions seem to be covered by women.

In general, the larger energy companies seem to be aware of gender equality. For example, N-ENERGIE and Siemens Energy are trying to address different genders and people with various backgrounds, especially by job descriptions. Bremerbau regularly offers training on communications for the internal staff, partly including gender-sensitive communication.

The stakeholders' opinions on further mainstreaming gender in their companies were quite ambivalent. On one hand, two interviewees answered that their company had already reached a culture of appreciation. For example, many employees have been working for years in the company N-ENERGIE and have already established an understanding of each other. Siemens Energy also demonstrates a high openness for diversity and equality, according to the interviewed representative. Furthermore, the regulations for quotas (see explanations to FüPoG I and FüPoG II) are leading to the point that women with a professional background in STEM have very high chances of getting a job at an energy company. Furthermore, N-ENERGIE and Bremerbau enable structures for parental leave, enabling parents to combine their professional career with care work taking care of children.

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89 BMWK (2022).
90 Ibid.
and II, as well as the Act for Transparency in Wage Structures, can support women in diminishing the Gender Pay Gap.\footnote{One of the politicians interviewed regarding gender policies mentioned that she does not consider this Act effective, as it takes courage for women to use this right by asking for information. In reverse, this can negatively affect women and their recognition at work.}

On the other hand, one interviewee highlighted that gender-stereotypical behaviour or prejudices might persist since sometimes employees make sexist jokes. This already hints at invisible barriers – although policies, quotas and structures are significant steps to transform an energy company into a more gender-just, the working atmosphere and gender roles might persist.

The representative of N-ENERGIE highlighted that it is vital to mobilise more broadly for the energy transition; currently their company is focusing on diversity (I4). For example, the company signed the Charter of Diversity (Charta der Vielfalt), and they went to Pride (Christopher-Street-Day). Such initiatives are an opportunity to react to the shortage of skilled labour force (Fachkräftemangel) and older employees leaving companies due to pension. Regarding reacting to the shortage of skilled workers, another legal strategy is the Immigration Act for Skilled Workers (FEG) (also mentioned in I2).

However, two interviewees mentioned that the reason for the underrepresentation of women is not rooted in the economic sphere of the energy sector but in the education system (I4; I5). According to one interviewee, education in primary and secondary schools should be geared towards supporting girls unfolding their interest in technical fields, primarily when their friends are led to other fields such as arts or languages. This leads to the next chapter presenting the current discussions of gender in education and energy-related academic disciplines.

### 7. Gender Aspects and Women's Representation in Education and Academia Related to Energy

Regarding the shortage of skilled workers (Fachkräftemangel), the share of women in STEM studies is the focus of discussions. The overall number of students of all genders in these study programs seems to have decreased during the past years, mainly due to the Covid-19 pandemic, since international students were facing obstacles to starting a program in Germany.\footnote{Destatis (2023): 6,5\% weniger Studienanfängerinnen und -anfänger in MINT-Fächern im Studienjahr 2021, Pressemitteilung Nr. N004 vom 23.Januar 2023, 6,5 % weniger Studienanfängerinnen und -anfänger in MINT-Fächern im Studienjahr 2021 - Statistisches Bundesamt (destatis.de) (last accessed 23.10.2023).} Educating more women on these subjects is one solution to tackle the shortage of skilled workers. Generally, in comparison to the overall
number of students, the share of women has been increasing over the past years, but it is often not higher than 35%, except for interior architecture, with 88.2% of women in 2021\(^{93}\). Furthermore, the share varies regarding the various disciplines; the lowest share of women was noticed for steel construction, with 2.2% in 2021.

This observation can be underlined with Table 4, which shows the number of two genders (women/men) holding a master's or a doctor's degree in STEM studies in Germany. A sample of 1000 people was retrieved, from which 5.3 women hold a master's degree in STEM in Germany.

Regarding energy-related study programs, it is challenging to find gender-disaggregated data. One of the reasons for this is that different disciplines can prepare for a job in the energy sector, such as mechanical engineering, building, or renovation.

TABLE N° 4: Graduates in Tertiary Education in Science, Math, Computing, Engineering, Manufacturing, Construction in Germany

<table>
<thead>
<tr>
<th>Graduates: Master’s or equivalent level in science, math. Computing, engineering, manufacturing, construction (per 1000 of population, aged 20-29)</th>
<th>Women</th>
<th>Men</th>
<th>Other gender identities</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.3</td>
<td>9.5</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

| Graduates at doctoral level in science, math., computing, engineering, manufacturing, construction (per 1000 of population, aged 25-34) | 0.9 | 1.6 | - |


Year selected: 2021
Time frequency: Annual
Unit of measure: Per thousand inhabitants

Several universities have specific programs to mobilise women for their studies through mentoring programs, STEM days in schools, or open house days. A university in Mülheim an der Ruhr has even created a branch of study of mechanical engineering that is only open to women: It is called

\(^{93}\) Ibid.
**Frauenstudiengang Maschinenbau** and creates a safer space for women for the first four semesters; afterwards, they study together with men. The idea is to create an atmosphere free from prejudices and gender stereotypes.

**Insights shared by stakeholders**

Two interviewees from academic institutions shared experiences with their programs strengthening the capacities of women.

For example, the Renewable Energy Academy (RENAC) had implemented one specific successful program for Empowering Women (I6). After that program, RENAC did not focus further on including gender aspects in their work or on specific programs strengthening the capacities of women (ibid.). When creating programs, RENAC tries to focus on the individual people joining the program regarding their learning goals, professional backgrounds, and skills – more than on their personal background (gender, age, etc.) (ibid.).

The other interviewee shared the Best Practices of a project called FIT in MINT (STEM): Frauen.Innovation.Technik. This project aimed at strengthening women – currently unemployed and mainly mothers – by conducting a further education program (Weiterbildungsprogramm) (I7). So, many women, having had a different career beforehand, re-educated and joined this training on energy subjects. Preconditionally, women had to register at the labour office (Arbeitsamt) and receive an official education voucher (ibid.)

According to the two interviewees, an ambivalence regarding gender aspects in STEM subjects can be noticed in public discourse. On one hand, due to the shortage of skilled workers, the need of specific programs for women is high. On the other hand, as one interviewee stated, many students do not feel the urge to organise themselves and transform the structures to become gender-just (I7). The interviewee was involved in mobilising women and building networks for decades; however, the engagement has changed: women students at technical universities do not engage for gender topics, or the focus is not on women but rather on various gender identities (i.e., non-binary gender) (ibid.).

An explanation for the decreased engagement is that women students might not want to spend extra time organising events. Some others consider such programs as positive discrimination, saying that they are not treated similarly to men and that such programs might question their competency.

Also, the awareness about gender topics and their necessity might be neglected in study programs. For example, the social dimension is not an essential part of current curricula, meaning that it needs to be included in the content or modules of energy study programmes. In rare cases, modules about energy economy or energy politics are included in technical studies – but that gender is mainstreamed, or interdisciplinary approaches are promoted, is not realised at the moment.

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8. Conclusion & Recommendations

Considering gender aspects and gender mainstreaming in the political, economic, and academic spheres of the energy sector in Germany is still very much expandable.

In all spheres, the representation of women is considered by authorities, primarily through the share of women in different political or economic positions. Laws such as FüPoG I and II, as well as the Transparency in Wage Structures Act, are attempts to regulate the gender imbalance in economies, hence also impacting energy companies. FüPoG II was considered a successful instrument in influencing the rise of women in leadership positions.

Assumptions about barriers hindering women from entering the energy sector (also mentioned in D1.1 Mapping Methodology) were underlined in stakeholder interviews. Thus, performing gender roles in care work with women being the primary caretakers of children and other family members is one reason, especially for the Gender Pay Gap in the energy sector. Highlighted by all stakeholders was a male-dominated perspective in STEM subjects and gender stereotypes about these subjects in education. This is reflected, for example, in a chauvinistic working atmosphere or girls’ underestimation of their own technical capabilities and interests. Such invisible and, at the same time, subtle barriers should be considered in light of the fact that much is already being done formally to represent women in the energy sector. For example, companies are obliged to set up gender quotas, huge companies are pursuing gender equality policies such as anti-discrimination policies, schools are organising Girls’ Days, and STEM disciplines at universities are aiming for mentoring programs, open house, or women’s-only study programs.

However, this leads to the main message retrieved from the whole research: the roots of the gender imbalance must be tackled, patriarchal structures transformed into gender-just ones, feminist perspectives and gender mainstreaming thoroughly applied through all spheres, starting with gender mainstreaming in energy policies. One step would be to apply the social and gender dimensions to these policies and not consider them as technical or economic issues only, but issues that intersect.

A first recommendation for this is to acknowledge different genders in different roles within the energy sector, not only as employees or leaders (i.e., as policymakers) but also as consumers and prosumers. That would contribute to integrating a gender perspective in terms of energy demand, raise awareness on phenomena such as energy poverty, and influence the shaping of energy technologies. In consequence, this can raise the acceptance of energy transition and mobilise more citizens to actively engage in this transition.

Conversely, this would imply for policymakers to aim for thorough gender-disaggregated data on the gender-energy-nexus, in relation to intersectional aspects (age, race, health, economic status). It was evident that hardly any data existed about non-binary genders or other gender identities as well as the role of diversity and intersectionality in the energy sector. Furthermore, a cross-sectoral strategy is
needed, including gender- and energy-related sectors such as the mobility and building sector, as well as social, care and welfare policies. This would require a stronger collaboration between federal ministries and synchronizing policies (i.e., BMSFSJ and BMWK).

A **second recommendation for policymakers** is to include civil society, especially organisations working on gender topics or women’s rights in decision-making processes about energy and climate policies such as the NECP. The continuous exchange with civil society actors on new strategies ensures that the most diverse perspectives possible can be incorporated into the new policy, especially since civil society actors are working closely together with people most affected by discrimination.

A **third recommendation, directed towards leaders in energy companies**, is to apply a regular gender self-assessment to check and improve the current status quo of gender equality in their company. As the stakeholder interviews and the desk research showed, many companies are already fulfilling several strategies according to German law. However, to tackle the subtle barriers, training on gender-just communication, and training on anti-discriminatory working atmosphere (i.e., feminist moderation, awareness person, safer spaces) are needed to create welcoming structures for all genders. Furthermore, as mentioned in stakeholder interviews, energy companies lack on trainings on diversity and intersectionality, i.e., to balance conflicts between people from different cultural backgrounds or people with different political positions.

A **fourth recommendation, directed towards academic institutions**, is to include modules on gender, energy politics and social aspects in their energy curricula (mainly for the technical disciplines). On the one hand, this would emphasise the importance of gender. On the other hand, working towards a gender-just and non-discriminatory study atmosphere would become obligatory for everyone; hence, the engagement for gender topics would not be doomed to leisure time and would not only be organised mainly by people who are already affected by (gender) discrimination. Furthermore, academic institutes are required to work closer together with secondary schools to inform all genders about energy-related disciplines. The already existing programs such as open-house days, Girls’ Days/WLINTA Days as well as summer academies could be strengthened. But teachers should also be trained in awareness about gender stereotypes and ways to strengthen MINT potential in all kids. Antidiscrimination and gender awareness would need to be integrated even stronger in study programmes preparing for the teaching profession.

In sum, this report builds the basis for ongoing EUWES activities, especially for elaborating more precise policy recommendations for all stakeholder groups and for preparing stakeholder trainings and trainings for women and girls interested in STEM subjects.
9. Bibliography


BMZ (n.d.): Vielfalt im BMZ, Vielfalt im BMZ | BMZ (last accessed 30th of October 2023).


Jakovou, N. (n.d.): Second Act on Equal Participation of Men and Women in Management Positions (Zweites Führungspositionen-Gesetz - FüPoG II). Available at:


## Annex 1: List of Stakeholders Interviewed

<table>
<thead>
<tr>
<th>Interview Number</th>
<th>Stakeholder Group</th>
<th>Organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I1</td>
<td>Political decision-makers</td>
<td>Member of the Parliament of State of Baden-Württemberg, The Alliance 90/The Greens</td>
</tr>
<tr>
<td>I2</td>
<td>Political decision-makers</td>
<td>Member of the German Parliament, The Alliance 90/The Greens</td>
</tr>
<tr>
<td>I3</td>
<td>Private energy sector</td>
<td>Bremerbau</td>
</tr>
<tr>
<td>I4</td>
<td>Private energy sector</td>
<td>N-ENERGIE</td>
</tr>
<tr>
<td>I5</td>
<td>Private energy sector</td>
<td>Siemens Energy</td>
</tr>
<tr>
<td>I6</td>
<td>Academia</td>
<td>Renewables Energy Academy (RENAC)</td>
</tr>
<tr>
<td>I7</td>
<td>Academia</td>
<td>Hochschule Bremen/City University of Applied Sciences</td>
</tr>
<tr>
<td>I8</td>
<td>Civil Society</td>
<td>Germanwatch</td>
</tr>
<tr>
<td>I9</td>
<td>Civil Society</td>
<td>GenderCC</td>
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</table>
# Annex 2: List of Energy Policy Documents Analysed via MAXQDA

<table>
<thead>
<tr>
<th>Document name</th>
<th>Link to the document</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Entwurf eines Gesetzes zur Anpassung des Energiewirtschaftsrechts an unionsrechtliche Vorgaben und zur Änderung weiterer energierechtlicher Vorschriften (EnWG)</td>
<td>Deutscher Bundestag Drucksache 20/7310 Gesetzentwurf der Bundesregierung Entwurf eines Gesetzes zur Anpassung des Energiewirtschaftsrechts an unionsrechtliche Vorgaben und zur Änderung weiterer energierechtlicher Vorschriften</td>
<td>German Parliament</td>
</tr>
<tr>
<td>2. Energieeffizienzstrategie 2050 (EES)</td>
<td>BMWK - Energieeffizienzstrategie 2050</td>
<td>BMWK</td>
</tr>
<tr>
<td>3. Gesetz zur Vereinheitlichung des Energieeinsparrechts für Gebäude und zur Änderung weiterer Gesetze (GEG)</td>
<td>Bundesgesetzblatt Teil I Nr. 37 (geg-info.de)</td>
<td>German Parliament</td>
</tr>
</tbody>
</table>