Comparative Analysis

DELIVERABLE 1.4 COMPARATIVE ANALYSIS OF THE NATIONAL SITUATIONS

WOMEN ENGAGE FOR A COMMON FUTURE E.V.

Funded by the European Union

Title: Deliverable 1.4 COMPARATIVE ANALYSIS OF THE NATIONAL SITUATIONS

WP leaders: DOOR

Version: Final

Date: February 2023

Authors: Women Engage for a Common Future (WECF): Kiara Groneweg, Katharina Habersbrunner, Marilys Louvet, Franziska Reichmann

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Commission. Neither the European Union nor the European Commission can be held responsible for them.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS

BMFSFJ	Federal Ministry for Family Affairs, Senior Citizens, Women and Youth
BMWK	Federal Ministry for Economic Affairs and Climate Action
CEDAW	Convention of the Elimination of All Forms of Discrimination
EEG	Renewable Energy Sources Act
EES	Energy Efficiency Strategy for Buildings
EIGE	European Institute for Gender Equality
EntgTranspG	Transparency in Wage Structures Act
ERHA	Renewable Energies, Renewable Hydrogen, and Storage
ETJ	Just Transition Strategy
FüPOG	German Act on Equal Participation of Women and Men in Leadership Positions
GAP	Gender Action Plan
GEG	Buildings Energy Act
GEP	Gender Equality Plan
GREVIO	Group on Action against Women and Domestic Violence
M.D.	Missing Data
MDDSZEM	Ministry of Labour, Family, Social Affairs and Equal Opportunities
LGBTIQA+	Lesbians, Gay, Bi, Trans, Inter, Queer, Agender/Asexual
IC	Istanbul Convention
NAP	National Action Plan
NECP	National Energy and Climate Plan
PERTE	Strategic Projects for Economic Recovery and Transformation
PNIEC	National Integrated Energy and Climate Plan
SDG	Sustainable Development Goal
STEM	Science, Technology, Engineering, and Mathematics
UN	United Nations
WLINTA	Women, Lesbians, Inter, Non-binary, Trans, Agender
ZVarD	Protection Against Discrimination Act

1. Introduction

Energy systems determine and shape who enjoys the benefits of energy technologies and who bears the resulting burdens. Globally, women's decision-making power in the energy sector and their access to resources and services relevant to climate and energy are limited[1]. This is due to gender stereotypes and structural inequalities between different genders, such as lower financial resources (e.g. general and energy sector-specific gender pay gap) and unequal distribution of unpaid care work (gender care gap)[2]. Due to widespread traditional role models in the patriarchy, men are more often involved in community policy activities that are associated with status and/or power[3].

The effects of energy policy decisions are therefore gender-specific, but this consequence is neither reflected in political action nor in national legislation. Although the legislate systems of the energy sector has been exponentially evolving at global and national levels, 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, prosumers of energy, decision-makers, and users of energy systems. The energy sector has traditionally been a male-dominated sector, both at the technical level and at the level of decision and policy-making level. Any new measures or policies based on the model that has 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 and other female-socialised people.

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

---

[1] Clancy, J., & Roehr, U. (2003). Gender and energy: is there a Northern perspective? *Energy for Sustainable Development*, *7*(3), 44-49;
Feenstra, M., & Clancy, J. (2020). A view from the north: Gender and energy poverty in the European Union. In Engendering the energy transition, 163-187. Palgrave Macmillan;
Petrova, S., & Simcock, N. (2021). Gender and energy: domestic inequities reconsidered. *Social & Cultural Geography*, 22(6), 849-867.
[2] DESTATIS (2023a). Statistisches Bundesamt. Von Verdienste. Gender Pay Gap: https://www.destatis.de/DE/Themen/Arbeit/Verdienste/Verdienste-GenderPayGap/_inhalt.html (last accessed 31.01.2024); DESTATIS (2023b). Statistisches Bundesamt. Von Einkommen, Konsum und Lebensbedingungen. Zeitverwendung.: https://www.destatis.de/DE/Themen/GesellschaftUmwelt/Einkommen-Konsum-Lebensbedingungen/Zeitverwendung/_inhalt.html (last accessed 31.01.2024).
[3] EIGE (n.d.). women's triple role, European Institute for Gender Equality, viewed 31 May 2023, https://eige.europa.eu/thesaurus/terms/1442 (last accessed 31.01.2024).

across the energy sector.
A first step of EUWES project was to identify and understand the barriers hindering women's progress in the energy sector through a comprehensive multi-level analysis and mapping of national policies and strategies of Croatia, Germany, Slovenia, and Spain.
These analyses resulted in four reports for each partner country, including a review of current gender equality initiatives and energy policies at the national level, as well as including insights of interviews that the EUWES partners had conducted with national stakeholders.

This analysis serves as a comparison between the four reports that had been written by each partner organisation. It will give an overview of the similarities in gender strategies all countries are conducting as well as highlight initiatives, best practices, and exemplary policies of each country in terms of strengthening gender aspects in the energy sector in the political, economic, and academic spheres.

After giving insight into the methodology in chapter 2, chapter 3 will present an excerpt of international gender frameworks which each country implements on national level on one hand, and main national gender laws on the other hand. Particularly the international frameworks provide an opportunity for the comparison of all four countries since they lay the normative foundation for all countries to pursue gender mainstreaming approaches on a national level.
Chapter 4 will shed light on those energy policies of each country mentioning gender aspects. So, the aim in this chapter is not to give an overview of the energy legislation of each country, but rather highlight which of the policies and strategies can be regarded as most progressive in including a gender perspective.
Chapter 5 will present aspects of a more detailed analysis of the political sphere, hence in what way gender is addressed in energy and climate discourses of each country, what are the numbers of women in political decision-making positions and what are key take-aways of interviews that EUWES project partners conducted 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.

Furthermore, this analysis exerts influence on the development of targeted recommendations for gender mainstreaming at all national levels and EU policy level; a first draft of recommendations will be presented in the concluding chapter 8.

2. Methodology

Following EUWES Deliverable D1.1, the D1.2 reports[4] were analysed from a gender-just point of view.

This meant transferring the concept of gender justice based on the three dimensions of redistribution, recognition, and representation to the mapping process[5]. The partners were encouraged to analyse their national policies by applying the following questions:

- **How do national and federal strategies 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 in terms of their representation in the political, economic, and academic spheres of the energy sector?**

The present report builds on the written D1.2 reports by all partner organisations and on the data and tools they have used for their own analysis. Therefore, all reports were thoroughly read, and the similarities and differences identified by using the software MAXQDA to carve out the necessary information. In D1.1, WECF has provided templates for policy mapping and stakeholder mapping for the partners to use. The templates have been filled in by the partners during the mapping process and serve as a basis for comparison here. Furthermore, several partners have collected secondary data such as the Gender Equality Index by EIGE, the share of women in energy companies and in STEM subjects.

In this case, 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

[4] All reports have been published on EUWES project webpage: Publications | EUWES (door.hr)

[5] Following Nancy Fraser, gender justice can be regarded a multidimensional approach that addresses aspects of redistribution, recognition, and representation. Recognition refers to strengthening the acceptance of various social groups, 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 common 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 terms of the energy sector, recognition would refer to recognising women as agents of change, as mentioned in the previous chapter. It means to create spaces in politics and in 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.

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.

Concerning the stakeholders' interviews, each partner was required to identify relevant stakeholders from four stakeholder groups – political decision-makers, private sector/energy companies, civil society, and academia. The relevance of the stakeholders was estimated based on their perspective and values, using the Power-Interest-Matrix by A.L.Mendelow[6]. The identified stakeholders were contacted and interviews with them conducted, the data afterwards kept sensitive and pseudonymised for the D1.2 reports. 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 perspectives and must be put in context (such as time and background of interviewees).
Due to respecting research ethics, the names and institutions of the stakeholders are not listed in this report, but some of the EUWES project countries do mention them partially in their respective D1.2 reports.

3. Gender Equality Policy Initiatives

3.1 Implementation of International Gender Frameworks

International gender frameworks are important to promoting gender equality and strengthening the capacities of women and other genders on a global scale. The United Nations (UN) play a key role in addressing gender on a global scale with several achievements, starting in the 1970s with the first UN World Conference on Women, the UN Convention on the Elimination of Discrimination against Women (CEDAW), the recognition of women´s rights as human rights during the Beijing Conference in 1995, to the founding of UN Women in 2010. Frameworks such as CEDAW play a critical role in ensuring that a gender perspective is properly reflected in national regulations, since they provide a basis for

[6] Mendelow, A. L. (1981): Environmental Scanning - The Impact of the Stakeholder Concept. ICIS 1981 Proceedings. 20. Available at: http://aisel.aisnet.org/icis1981/20, (last accessed 14.6.2023).

countries to align their policies and initiatives with international standards, fostering collaboration, sharing of best practices, and holding them accountable for their commitment to gender equality on their way to a more sustainable world.

Against this background, this chapter shall give an overview of the current ambitions of Croatia, Germany, Slovenia, and Spain to follow some of the international frameworks, more concretely by focusing on the examples of CEDAW, the Istanbul Convention and the 2030 Agenda for Sustainable Development.

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 rights[7].

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 policy"[8]. Furthermore, the importance to include gender equality into climate and energy policies was highlighted in the CEDAW Committee´s review, since there was a concern about the potential of violating women´s rights in the context of these policies[9].

Croatia ratified CEDAW in 1992; and in 1994, the Croatian Government submitted an initial report on the application of the Convention covering the period from 1990 to 1994. The most recent National Action Plan (NAP) of Croatia regarding CEDAW was published in 2019, demonstrating the country´s ongoing commitment to promoting gender equality. It was considering the period 2019-2023, which is organised by four thematic areas: Prevention, Participation, Protection and Post-Conflict Recovery, aiming to strengthen implementation and monitoring[10]. Also, a Working Group has been established which included sectoral bodies and representatives such as the Ombudsman for Gender Equality (for further information on the

[7] Klammer, U. (2019). Gleichstellungspolitik: wo Geschlechterforschung ihre praktische Umsetzung erfährt. In: Kortendiek, B.; Riegraf, B. & Sabisch, K. (eds.): Handbuch Interdisziplinäre Geschlechterforschung, 983-992.
[8] UN (2023b). Convention on the Elimination of All Forms of Discrimination against Women, CEDAW/C/DEU/9, 31st of May 2023.
[9] Rodenberg, B. (2023). CEDAW Committee: German climate policy is not gender just. In: Heinrich Böll Foundation, CEDAW Committee: German climate policy is not gender just | Heinrich Böll Stiftung (boell.de) (last accessed 15.01.2024).
[10] WILPF (n.d.). 1325 NAPS, Croatia, Croatia – 1325 National Action Plans (peacewomen.org) (last accessed 15.01.2024).

Ombudsman, see chapter 3.2).

Spain ratified CEDAW in 1984, and it has submitted several reports since then. Observations made in 2023 by the CEDAW Committee on the ninth report submitted by the Spanish State showed positive advances towards wage equality, labor market stabilisation, and reduction of the pension gap. The Committee recommends providing access to public services for women who are facing gender-based discrimination on one hand, and to generate gender-disaggregated data on the other hand. Furthermore, the Committee expresses concern about the underrepresentation of women in STEM[11]. This shows entry points for EUWES project to place recommendations on increasing the share of women in STEM and in the Spanish energy sector by referring to CEDAW and the Committee´s observations.

Slovenia has ratified CEDAW in 1992 and it has submitted seven reports since. The seventh periodic report was submitted in July 2021. During the revision of the Committee in 2023, it was emphasised with positive remark that Slovenia had elected their first female President in 2022, and that 40 per cent of Parliament members are women[12]. The Slovenian delegation present at this revision highlighted that there is progress on increasing the representation of women and girls in STEM, since two projects with non-governmental organizations had been carried out to combat gender stereotypes in regard of STEM[13].

Istanbul Convention on Preventing and Combatting 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[14]. 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

[11] CEDAW (2023). Concluding observations on the ninth periodic report of Spain, CEDAW/C/ESP/CO/R.9 (igualdad.gob.es) (last accessed 16.01.2024).
[12] UN (2023a). Experts of the Committee on the Elimination of Discrimination against Women Commend Slovenia on Women´s Political and Economic Participation, Ask about Roma Women and the Representation of Girls in Science Subjects, 17th of February 2023, Experts of the Committee on the Elimination of Discrimination against Women Commend Slovenia on Women's Political and Economic Participation, Ask about Roma Women and the Representation of Girls in Science Subjects | OHCHR (last accessed 16.01.2024).
[13] Ibid.
[14] 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).

abuse[15].

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[16]. 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[17].

Since the ratification of the IC in 2014, **Spain** has exhibited a strong commitment to its implementation. The Council of Europe´s Expert Group on Action against Women and Domestic Violence (GREVIO) lauded the Spanish authorities for their robust policy framework aimed at preventing and addressing violence against women. Spain was regarded as a pioneer in enacting a comprehensive law on intimate partner violence, which adopts a survivor-centered approach and acknowledges the gendered nature of this form of violence[18]. A report published by GREVIO in 2020 identified areas necessitating improvement, such as the need for extensive support services for survivors of various forms of violence, including gender-based and sexual violence or forced marriage. The report underscores the significance of ensuring adherence to the principles of the IC at all levels of the Spanish administration, including regional and autonomous levels.

Slovenia ratified IC in 2015. In the evaluation report of GREVIO from 2021, GREVIO has expressed approval for Slovenia´s enactment of the Domestic Violence Prevention Act in 2008, providing support and protection for survivors of domestic violence[19]. Furthermore, it was acknowledged that Slovenia has introduced a range of supplementary measures to ensure compliance with the provisions of the IC. However, in the report, also areas for progress had been identified, for example, a national strategy addressing all forms of violence

---

[15] GREVIO (2022). Comments submitted by Germany on GREVIO's final report on implementing the Council of Europe Convention on preventing and combating violence against women and domestic violence. Available at: https://rm.coe.int/germany-comments-to-the-grevio-report/1680a86939 (last accessed: 23.8.2023).
[16] Lembke, U. (2017). Statute on the Ratification of the Istanbul Convention. Available at: https://www.equalitylaw.eu/downloads/4313-germany-statute-on-the-ratification-of-the-istanbul-convention-pdf134-kb (last accessed: 23.8.2023).
[17] 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-konventionvorbehaltslos-nun-auf-zur-vollstaendigen-umsetzung-wenn-nicht-jetzt-wann-dann/ (last accessed: 23.8.2023).
[18] Council of Europe (2020). GREVIO publishes its first baseline report on Spain, 25.11.2020, GREVIO publishes its first baseline report on Spain - Istanbul Convention Action against violence against women and domestic violence (coe.int) (last accessed 16.01.2024).
[19] GREVIO (2021). Baseline Evaluation Report on legislative and other measures giving effect to the provisions of the Council of Europe Convention on Preventing and Combating Violence against Women and Domestic Violence (Istanbul Convention), 12 October 2021, 1680a4208b (coe.int), (last accessed 16.01.2024).

against women has not been adopted yet. Also, there is not coordinated action between policy, legislative and institutional level when it comes to sexual violence, for example the definition of rape is not complying to the definition of the IC, survivors of rape do not have access to adequate services like sexual violence referral centres.

Croatia ratified the Istanbul Convention in 2018. The latest baseline evaluation report by GREVIO highlighted positive measures taken by Croatian authorities such as the adoption of strategic documents to combat gender inequality and legislative amendments to improve compliance with the convention. Areas requiring improvement are the insufficient recognition of gender aspects in policies combatting violence against women, especially in regard of acknowledging intersectional forms of discrimination, creating services for women survivors of sexual violence, and increasing attention towards domestic violence on women by the justice system[20].

Transforming Our World: the 2030 Agenda for Sustainable Development

Table 1: Sustainable Development Goals: Country Profiles[21]

	Croatia	Germany	Slovenia	Spain
SDG Index Rank	12/166	4/166	13/166	16/166
SDG Index Score	81.5	83.4	81.0	80.4

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[22]. 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[23].

Table 1 demonstrates that all countries are in a similar range with their SDG Index Rank and SDG Index Score, with Germany achieving the highest rank among the countries. To monitor

[20] Council of Europe (2023). GREVIO publishes its baseline evaluation report on Croatia, 6.09.2023, GREVIO publishes its baseline evaluation report on Croatia - Istanbul Convention Action against violence against women and domestic violence (coe.int) (last accessed 17.01.2024).
[21] Sustainable Development Report (n.d.). Country Profiles. Track progress and trends on achieving the Sustainable Development Goals for all 193 UN Member States, Sustainable Development Report 2023 (sdgindex.org) (last accessed 17.01.2024).
[22] The Federal Government (2021). Report on implementing the 2030 Agenda for sustainable development. Available at: https://sustainabledevelopment.un.org/content/documents/279522021_VNR_Report_Germany.pdf (last accessed: 23.8.2023).
[23] UN (2023c). Goal 5: Achieve gender equality and empower all women and girls. Available at: https://www.un.org/sustainabledevelopment/gender-equality/ (last accessed: 23.8.2023).

the implementation of SDG5, several gender indicators had been created, such as *the demand for family planning satisfied by modern methods, ratio of female-to-male mean years of education received, ratio of female-to-male labor force participation rate, share of women in national parliament,* or *the gender wage gap*[24].

In **Germany,** Gender equality legal bases have been established, including the Gender Equality Management Positions Act, which includes binding gender 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[25].The 2023 monitoring showed that the share of women in national parliament reduced comparing the year 2016 with 36% to the year 2023 with 34%[26]. Positive achievements were observed in terms of the *ration of female-to-male mean years of education* received up to 2023, as well as in the *ration of female-to-male labor force participation rate*. Germany has a high rank on the SDG score, but for SDG5 the score is only moderately improving, insufficient to attain the goals.

Spain commits to 2030 Agenda for Sustainable Development for example with Law 7/2021 on climate change and energy transition, which incorporates Spain´s international commitments from its National Integrated Energy and Climate Plan (PNIEC) into national legislation. The law provides a regulatory framework to fulfill the country´s obligation under the Paris Agreement, particularly concerning greenhouse gas reduction and climate change adaptation and by respecting the guiding principles of 2030 Agenda to guarantee the protection of groups in vulnerable situations and gender equality. In line with the 2030 Agenda, the Spanish government has also integrated a feminist approach into its cooperation policy and launched a Feminist Foreign Policy Guide addressing gender equality as a cross-cutting issue. The monitoring of SDG5 in 2023 showed that Spain, especially in comparison to the other three countries discussed here, is on track or maintaining SDG achievement. It showed progress in all gender indicators, besides showing some challenges reducing the gender wage gap[27].

Croatia identified main gender indicators to progress on SDG5 of Agenda 2030, such as the *demand for family planning satisfied by modern methods, the ratio of female-to-male mean years of education received, ration of female-to-male labor force participation* rate, and *seats*

[24] Sustainable Development Report (2023). Country Profiles. Available at: Sustainable Development Report 2023 (sdgindex.org) (last accessed 31.01.2024).
[25] The Federal Government (2021).
[26] Sustainable Development Report (2023).
[27] Sustainable Development Report (2023).

held by women in national parliament[28]. The monitoring of the indicators in 2023 showed that *the ratio of female-to-male labor force participation rate* increased from 72% in 2000 to 79% in 2023 and that the SDG goals for this indicator has thus been achieved.

Like Germany, the *ratio of female-to-male labor force participation* and *ratio of female-to-male mean years of education* increased in **Slovenia**. For both gender indicators, Slovenia is on track achieving its goals. The seats of women in national parliament had been decreasing from 36% in 2017 to 26% in 2021[29], according to the SDG monitoring. However, this gender indicator needs to be considered carefully, since other sources show a huge fluctuation in the share of women in national parliament. For example, for 2022, a share of 40% of women in the Slovenian National Assembly was noticed[30].

Intermediate Conclusion

Overall, all four partner countries are quite advanced in committing to international frameworks and implementing them at the national level. Although **Spain** ranks below the other countries in their overall SDG ranking, it was regarded as a pioneer in several gender equality strategies, such as enacting a comprehensive law on intimate partner violence or launching a Feminist Foreign Policy Guide. Related to this, but not discussed in terms of the three presented international frameworks, is that **Germany** and **Slovenia** also announced a Feminist Foreign Policy. It was announced by **Slovenia** in January 2023, the official policy was set to be released in June 2023, intended to strengthen the role of women in diplomacy at all levels, including in decision-making positions[31]. **Germany´s** Foreign Minister and the Minister for Economic Cooperation and Development announced mutually a feminist foreign policy and a feminist development policy in March 2023 outlining key principles such as gender-transformative human rights, representation of women, gender-equal access to resources and opportunities, demilitarization and diplomacy, including civil society more strongly and applying an intersectional approach[32]. **Croatia** has not officially announced a feminist foreign

[28] Sustainable Development Report (2023). Croatia, Indicators, Sustainable Development Report 2023 (sdgindex.org) (last accessed 31.01.2023).
[29] Sustainable Development Report (2023). Slovenia, Indicators, Sustainable Development Report 2023 (sdgindex.org) (last accessed 31.01.2023).
[30] United Nations Human Rights Office of the High Commissioner (OHCHR) (2023). Experts of the Committee on the Elimination of Discrimination against Women Commend Slovenia on Women´s Political and Economic Participation, Ask about Roma Women and the Representation of Girls in Science Subjects, 17.02.2023, Experts of the Committee on the Elimination of Discrimination against Women Commend Slovenia on Women's Political and Economic Participation, Ask about Roma Women and the Representation of Girls in Science Subjects | OHCHR, (last accessed 31.01.2023).
[31] Gender Security Project (2023). FFP Countries, Slovenia, Slovenia — The Gender Security Project (last accessed 29.01.2024).
[32] Federal Foreign Office of Germany (2023). Guidelines for Feminist Foreign Policy: a foreign policy for all, 01.03.2023, Guidelines for Feminist Foreign Policy: a foreign policy for all - Federal Foreign Office (auswaertiges-amt.de) (last accessed 29.01.2024).

policy yet.

Important to monitor and observe for each country is, in how far the feminist foreign policy guidelines include pillars on climate and energy topics to address the gender-energy-nexus. A feminist foreign policy can promote climate justice, mainly a just energy transition, by recognizing the unequal power relationships and structural inequities that underpin the energy crisis. Mainly, such a policy can ensure that climate finance is gender-transformative and prioritises the needs of women and other groups in vulnerable situations by applying an intersectional approach.

However, after having portrayed the aspirations of the partner countries to mitigate in such an international environment, the next chapter will focus on the national level and gender policies and strategies which have been enacted by national governments.

3.2 Main National Gender Acts and Policies

Table 2: Overview of The Main National Gender Acts and Policies

	Croatia	Germany	Slovenia	Spain
Anti-discrimina-tion law	Antidiscrimination Act (*Zakon o suzbijanju diskriminacije*)	General Equal Treatment Act (*Allgemeines Gleichbehandlungsgesetz*)	Protection Against Discrimination Act (*ZVarD*)	Comprehensive Law 15/2022, for equal treatment and nondiscrimination (*Ley 15/2022, integral para la igualdad de trato y la no discriminación*)
Gender Equality Law	Gender Equality Act (*Zakon o ravnopravnosti spolova*)	Article 3 (2) of the Basic Law (*Grundgesetz*) calls on the state to promote the actual implementation of equal rights for women and men	Equal Opportunities for Women and Men Act (*Zakon o enakih moznostih zensk in moskih, ZEMZM*)	Organic Law 3/2007, for effective equality between men and women (*Ley Orgánica 3/2007, para la igualdad efectiva entre hombres y mujeres*)

National strategic plan/ programme on gender equality	-	Federal Equality Strategy	Resolution on the national programme for equal opportunities of women and men 2015 - 2020 (*Resolucija o nacionalnem programu za enake možnosti žensk in moških 2015-2020*)	Strategic plan for effective equality between men and women (*Plan estratégico para la igualdad efectiva entre hombres y mujeres* 2022-2025)
Institutions	Ombudsperson for Sex Equality; Ministry of Labour, Pension System, Family and Social Policy	Federal Anti-Discrimination Agency, Independent Commissioner for Anti-Discrimination Federal Ministry for Family Affairs, Senior Citizens, Women and Youth (BMFSFJ)	Advocate for the Principle of Equality; Ministry of Labour, Family, Social Affairs and Equal Opportunities (MDDSZEM)	Ministry of Equality; Inter-Ministerial Commission for Equality between Women and Men

As shown in Table 2, all countries have passed a law prohibiting discrimination in the early 2000s, either described as equal treatment act or antidiscrimination law. The **Croatian** Constitution prohibits discrimination based on race, skin colour, sex, language, political or other opinions, national or social origin, property, birth, education, social status, or any other characteristic[33]. Similar expressions are found for the General Equal Treatment Act of **Germany**, adding religion or belief, physical or mental help as well as sexual orientation[34]. The first article of the Protection Against Discrimination Act of **Slovenia** lists similar characteristics and adds to that list that discrimination should also be prohibited based on "any other personal circumstance", meaning that "[t]hese circumstances are either inherent or acquired personal characteristics, features, conditions or statuses, which, as a rule, are either permanently and inalienably linked to a particular individual and their personality, in particular their identity; or cannot easily be changed by the individual"[35]. The Spanish comprehensive

[33] EUWES, DOOR (2023). D1.2 Report on the mapping of national gender policies in energy sector – Croatia, Publications | EUWES (door.hr) (last accessed 29.01.2024).
[34] Federal Anti-Discrimination Agency (2019). Guide to the General Equal Treatment Act. Available at: https://www.antidiskriminierungsstelle.de/SharedDocs/downloads/EN/publikationen/agg_wegweiser_engl_guide_to_the_general_equal_treatment_act.pdf?__blob=publicationFile (last accessed: 23.8.2023.)
[35] Republic of Slovenia (2021). Decision: Advocate of the Principle of Equality, Decision-Advocate-of-the-Principle-of-Equality.pdf (equineteurope.org) (last accessed 31.01.2024).

law 15/2022 is also highlighting such a list, adding "[…] serological situation, genetic features, language, socioeconomic status or any other condition or personal situation (without defining any of the concepts)"[36].

These above-mentioned statements show that the constitutions of each EUWES partner country seem to be aware of different social groups and their needs. However, already here a difference can be noticed in terms of using the expressions *gender* and *sex.* **Croatia** is referring to two sexes, women and men, and not to other gender identities, whereas in **Germany**, persons who do not identify as men and women can choose the option "diverse", the so-called "third option", in addition to the genders "male" and "female" for entry in the register of births and marriages[37]. **Spain** has passed a law known as "Trans Law" in the beginning of 2023, being considered a huge milestone for the recognition of gender concepts, different gender identities and the rights of LGBTIQA+ people[38]. In D1.2 report of **Slovenia**[39] was mentioned that the Resolution on the national programme for equal opportunities of women and men until 2030 describes the importance of the intersectional approach, thus moving beyond the binary approach, emphasising the need to look at intersectional discrimination, also including LGBTIQA+ persons.

Furthermore, all four observed countries have institutionalised gender equality on national level, with main gender equality acts or strategies shown in Table 2. For example, the Gender Equality Act of **Croatia** establishes the protection and promotion of gender equality as a fundamental value. It prohibits discrimination based on sex, marital or family status and sexual orientation.

Slovenia has adopted the Equal Opportunities for Women and Men Act[40] in 2002 as a key legal instrument for gender equality, as well as a first national programme on gender equality in 2023, that shall implement measures until 2030. To implement the national programmes, the Equal Opportunities Act determines that two-year action plans should be adopted, and the

---

[36] European Network of Equality Bodies (2022). New Spanish comprehensive anti-discrimination law, New-Spanish-Comprehensive-Anti-Discrimination-Law-summary.pdf (equineteurope.org) (last accessed 05.12.2023).
[37] Federal Anti-Discrimination Agency (n.d.). Frau-Mann-Divers: Die „Dritte Option" und das Allgemeine Gleichbehandlugnsgesetz (AGG), Antidiskriminierungsstelle - Dritte Option - Frau – Mann - Divers: Die „Dritte Option" und das AGG (last accessed 31.01.2024).
[38] Cabrera, C. G. (2023). Victory in Fight for Gender Recognition in Spain. Law Expands Protections for LGBTI People in Various Areas, 16th of February 2023, Victory in Fight for Gender Recognition in Spain | Human Rights Watch (hrw.org) (last accessed 31.01.2024).
[39] EUWES, FOCUS (2023). D1.2 Report on the mapping of national gender policies in energy sector, Slovenia, Publications | EUWES (door.hr), (last accessed 29.01.2024).
[40] PIS (n.d.). Zakon o enakih možnostih žensk in moških (ZEMŽM), http://pisrs.si/Pis.web/pregledPredpisa?id=ZAKO3418 (last accessed 01.02.2024).

Government then must report on their implementation every two years. The objectives and measures, which are defined in the national programme, provide guidelines to the ministries and other governmental authorities both for planning and implementing their respective policies and programmes as regards gender equality, and for mainstreaming gender into their work. Under the Equal Opportunities Act, the government and all ministries are obliged to consider gender equality when planning, designing, and implementing policy measures, with all ministers having Coordinators for Equal Opportunities for Women and Men.

In **Germany**, one key legal instrument for gender equality is Article 3 (2) of the Basic Law (dt.: Grundgesetz), which calls on the state to promote the actual implementation of equal rights for women and men and to eliminate existing disadvantages[41]. Based on the Basic Law, numerous state equality laws have been enacted in all 16 federal states of Germany. Germany has also adopted a national strategy for equality between women and men, the Federal Equality Strategy, with nine main goals aiming for example at reducing the gender pay gap and increasing the representation of women in leadership positions[42].

The first state gender equality law passed in **Spain** was Organic Law 3/2007, for effective equality between men and women. Law 3/2007 regulates aspects such as parity in public and private administration, in positions of responsibility, equal opportunities in the workplace, non-discrimination based on sex, the fight against harassment at work and the reconciliation of personal, family and working life. It also establishes the tool of the equality plan or the equality label in the company.

All countries also established specific institutions such as an ombudsperson or ministries. In all four countries, a ministry for social politics and family affairs has been created, with variations in their responsibilities. For example, the Ministry of Labour, Pension System, Family and Social Policy in **Croatia** is responsible for coordinating gender equality policy, but its main activities relate to the regulation of labor relations, the labor market, and active employment policy[43].

Croatia established the Ombudsperson for Sex Equality office based on the Sex Equality Law (Official Gazette, number 116/03) in 2003. The aim is to independently monitor the

[41] Klammer, U. (2019).

[42] EIGE (n.d.). Gender Mainstreaming Approach, Germany, Gender Mainstreaming Approach - Germany (europa.eu) (last accessed 01.02.2024).

[43] Employment policy measures are Employment Aid, First Employment / Traineeship Aid, Training Aid, Self-Employment Aid, Education of Unemployed Persons, Education of Employed Persons, On-the-Job Training, Education for the Completion of Primary School and Acquisition of First Employment, Public Works, Job Preservation Aid, Permanent Seasonal Worker, HRVATSKI ZAVOD ZA ZAPOSLJAVANJE (n.d.), https://mjere.hr/katalog-mjera/mjere-aktivnog-zaposljavanja/ (accessed on December 19, 2023).

implementation of this respective law as well as other regulations concerning gender equality. **Germany´s** main institutions to implement gender equality is the Federal Ministry for Family Affairs, Senior Citizens, Women and Youth (BMFSFJ) which strives for equal participation of women in politics, business, and society; the overcoming of stereotypes and the fight against sexism are central tasks of gender equality policy in their equal opportunities strategy[44]. In addition, Germany has established the Independent Federal Commissioner for Anti-Discrimination as well as The Federal Anti-Discrimination Agency. This Agency supports people affected by discrimination, provides information on discrimination and how to combat it, conducts scientific research and reports to the German parliament[45]. It is an independent contact point that supports people regardless of their ethnic origin, religion, sexual identity, gender, age, or disability. The agency works based on the General Equal Treatment Act and has legally defined tasks such as information, counselling, research, and public relations work[46].

Similar to the BMFSFJ in Germany, in **Slovenia,** the Ministry of Labour, Family, Social Affairs and Equal Opportunities (MDDSZEM) is responsible for the promotion of gender equality. Within the ministry, the Department for Equal Opportunities is responsible for the area. It was established in 2012 and it replaced the Governmental Office for Equal Opportunities, which was originally named Women's Policy Office. The Advocate of the Principle of Equality in Slovenia is an independent state institution that provides assistance and support to individuals who have experienced discrimination, but important to mention here is that it´s work is not limited to the public sector but also extends to the private sector, including making recommendations to employers, economic operators, and other private entities to prevent and eliminate discrimination[47].

The main bodies responsible for gender equality in **Spain** are the Ministry of Equality and the Inter-Ministerial Commission for Equality between Women and Men[48].

The Ministry of Equality in Spain develops and implements policies on gender equality and anti-discrimination, it conducts gender-sensitive analyses of policies and legislation, and it also supervises the Institute of Women, the Institute of Youth, the General Directorate of Sexual Diversity and LGBTIQA+ Rights[49].

---

[44] BMFSFJ (2022): Die Gleichstellungsstrategie der Bundesregierung, 30.12.2022, BMFSFJ - Die Gleichstellungsstrategie der Bundesregierung (last accessed 10.01.2024).
[45] Federal Anti-Discrimination Agency (n.d.). Was ist Diskriminierung, Antidiskriminierungsstelle - Startseite (last accessed 12th of January 2024).
[46] Ibid.
[47] European Network of Equality Bodies (n.d.). Advocate of the Principle of Equality, Advocate of the Principle of Equality – Equinet (equineteurope.org).
[48] EIGE (2022a). Gender Mainstreaming Approach, Spain, Gender Mainstreaming Approach - Spain (europa.eu) (last accessed 15.01.2024).
[49] Ibid.

All four countries do have gender policies which are not listed in Table 2, since they cannot be compared which each other. But some of them are relevant for the goals of EUWES project, such as **the Labour Law of Croatia**. The Labour Law (Official Gazette, number: 93/14, 127/17, 98/19, 151/22, 64/23) in Article 91 defines that an employer must pay the same compensation to both male and female workers for the same work or work of the same value. The same Law also prohibits sexual harassment in the workplace and defines that employers who employ more than 75 employees need to appoint two employees of different sexes who oversee solving potential harassment claims and protecting the dignity of employees.

Laws of Germany relevant for labour market are The Act on Equal Participation of Women and Men in Leadership Positions (FüPoG I) and Second Management Positions Act (FüPoG II). The underlying goal of FüPoG I 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[50]. FüPoG II aims to augment the efficacy of the original Act I 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[51]. Under FüPoG II, executive boards of listed and co-determined firms comprising more than three members must include at least one woman[52]. 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[53].

Furthermore, the Transparency in Wage Structures Act seems to be promising to reduce the Gender Pay Gap in Germany, since it established a definitive legal foundation for achieving equal pay based on similar labour and value for both genders, and 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[54].

---

[50] Covington & Burlington LLP (2022). FüPoG II - The gender quota on the Executive Board. Available at: https://www.cov.com/en/news-and-insights/insights/2022/07/fupog-ii--the-gender-quota-on-the-executive-board (last accessed: 23.8.2023).

[51] Jakovou, N. (n.d.): Second Act on Equal Participation of Men and Women in Management Positions (Zweites Führungspositionen-Gesetz - FüPoG II). Available at: https://www2.deloitte.com/dl/en/pages/legal/articles/frauenquote-fuehrungspositionen-gesetz-2.html (last accessed: 23.8.2023).

[52] Bittmann, B. & Völkerding, L. M. (2022). Frauen in Führungspositionen – mehr als nur gute Vorsätze fürs neue Jahr. Available at: https://www.cmshs-bloggt.de/arbeitsrecht/frauen-in-fuehrungspositionen-mehr-als-nur-gute-vorsaetze-fuers-neue-jahr/ (last accessed: 23.8.2023).

[53] Covington & Burlington LLP (2022).

[54] Pfaffenberger, B. (n.d.). Pay Transparency in Germany: The Company's Size is Decisive. Available at: https://www.primerus.com/international-business-articles/pay-transparency-in-germany-the-companys-size-is-

Spain's legislation has changed so that companies with 50 or more employees will have to carry out an Equality Plan, including a remuneration registry report on an annual basis. For example, companies with 50 or more employees have to justify that salary differences among genders of 25% or higher are not based on a discrimination[55]. Generally, Spain is making efforts to ensure that the legal system offers equal access to everyone and to eliminate gender gaps in the labour market, for example with the goal to introduce a more comprehensive state care system[56].

It appears that **Slovenia** does not have legislation for companies to require a report on pay transparency or gender/ethnic/disability pay gaps; neither quota at the board level or below are regulated by Slovenian law[57]. The country has introduced legislation and policies aimed at tackling the gender pay gap and promoting gender equality in the labor market with the above-mentioned Equal Opportunities for Women and Men Act and the Employment Relationships Act[58].

After having portrayed the main national gender acts and policies of all four countries, showing that all of them have institutionalised mechanisms to reach gender balance, the next chapter will give an overview in what way these mechanisms influence energy policies on national level.

4. Energy Policies on National Level

The main energy policies and strategies at national level of Germany, Croatia, Slovenia, and Spain have been identified and afterwards analysed in detail to examine if gender aspects or the strengthening of women as a key topic is addressed in these policies.
Table 3 gives an overview of the energy policies which have been analysed by each project

decisive.htm (last accessed: 23.8.2023); BMFSFJ (2017). Das Entgelttransparenzgesetz: Informationen zum Gesetz zur Förderung der Entgelttransparenz. Available at: https://www.bmfsfj.de/resource/blob/117322/c9ef7c4bbe4822e644c94821b09aa88f/dasentgelttransparenzgesetz-informationen-zum-gesetz-zur-foerderung-der-entgelttransparenz-data.pdf (last accessed: 23.8.2023).

[55] BDO Global (2019). SPAIN – Changes to employment law regulation on gender equality and working time in Spain, June 2019, SPAIN - Changes to employment law regulation on gender equality and working time in Spain - BDO (last accessed 31.01.2024).

[56] EIGE (2022b). How Spain and the EU can take steps forward for gender equality, 23. August 2022, How Spain and the EU can take steps forward for gender equality | European Institute for Gender Equality (europa.eu) (last accessed 31.01.2024).

[57] CMS (n.d.). CMS Expert Guide on Discrimination in the Workplace in Slovenia, Laws on discrimination in the workplace in Slovenia (cms.law) (last accessed 31. January 2024).

[58] Ibid.

partner for their respective national report.

It must be remarked here that the number of energy policies varies according to the different countries and that some partner organisations have focused on specific main important energy laws as a sample.

Table 3: Overview of the National Energy Policies

Croatia	• Energy law (Official Gazette, No. 120/12, 14/14, 102/15, 68/18), • Law on the Electricity Market (Official Gazette, No. 22/13, 102/15, 68/18, 52/19), • Law on the gas market (Official Gazette, No. 18/18, 23/20), • Law on liquefied natural gas terminal (Official Gazette, No. 57/18), • Law on the thermal energy market- (Official Gazette, No. 80/13, 14/14), • Law on the market of oil and oil derivatives (Official Gazette, No. 19/14, 73/17, 96/19), • Act on biofuels for transport (Official Gazette, No. 65/09, 145/10, 26/11, 144/12, 14/14, 94/18, 52/21), • Law on Regulation of Energy Activities (Official Gazette, No. 120/12, 68/18), • Law on renewable energy sources and high-efficiency cogeneration (Official Gazette, no. 100/15, 111/18), • Law on Energy Efficiency (Official Gazette, No. 127/14, 116/18, 25/20, 41/21), • Law on implementation of Council Regulation (EU) 2022/1854 of 6 October 2022 on an emergency intervention to address high energy prices ("Official Gazette", No. 85/10 - consolidated text and 5/ 14 - Decision of the Constitutional Court of the Croatian Republic) • Law on Climate Change and Ozone Layer Protection (Official Gazette, No. 127/19), • Energy Development Strategy of the Republic of Croatia until 2030 with a view towards 2050 (Official Gazette, No. 25/2020), • Integrated National Energy and Climate Plan (NECP) for the period 2021-2030. Years. (Official Gazette No. 123/17, 151/22).
Germany	• Renewable Energy Sources Act (Erneuerbare-Energien-Gesetz, EEG) • Buildings Energy Act (Gebäudeenergiegesetz, GEG) • Energy Efficiency Strategy for Buildings • Energy Industry Act (Energiewirtschaftsgesetz, EnWG) • Combined Heat and Power Act (Kraft-Wärme-Kopplungsgesetz, KWKG)

Slovenia	• Energy law • National Climate and Energy Plan • Regulation on energy poverty • Law on energy efficiency • Law on stimulating renewable sources of energy • Law on electrical energy supply • National strategy for the exit from coal and the restructuring of coal regions in accordance with the principles of a just transition • Act on the introduction of installations for the production of electricity from renewable energy sources • Long-term strategy to promote investment in the energy renovation of buildings
Spain	• Electricity Sector Act • National Integrated Energy and Climate Plan • Climate Change and Energy Transition Law • Just Transition Strategy • PERTE on Renewable Energies, Renewable Hydrogen and Storage • National Fuel Poverty Strategy • Electricity and thermal social vouchers

One of the key findings valid for all four countries is that no energy policy or law had been identified that offers a thorough gender mainstreaming approach. Although, as demonstrated in Chapter 3, all countries pursue several and similar gender equality strategies, the intersectoral approach, bringing together gender and social aspects together with more technical issues, such as energy, needs to be further elaborated.

Regarding **Germany**, it was noticed that the primary energy laws GEG, EEG, KWKG 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.

Some of these laws mentioned social aspects; for example, the Energy Efficiency Strategy for Buildings fulfils an essential social function by supporting citizens in contributing to the energy transition. 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[59]. 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. It also envisions standardised and easily understandable energy-related refurbishment guidelines for building owners using renovation maps. The strategy 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. The EES also 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. 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 partially mentioned 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.

Whereas the other analysed energy policies of Germany, shown in Table 3, do not mention the active role of citizen in the energy transition, 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.

Besides the EES and EEG highlighting some social aspects, it can be remarked here for the case of Germany, that neither gender nor social aspects are covered in the written energy law of Germany.

For **Croatia**, a similar picture is portrayed. The laws (see Table 3) that are relevant for the energy sector and the shape of energy policies in Croatia, are by no means relevant to gender policies nor are they in any measure influencing or mentioning gender policies as such, hence they continue to be designed for a “gender-neutral” energy consumer. Croatian legal

[59] Federal Ministry for Economic Affairs and Climate Action (2015). Energy Efficiency Strategy for Buildings. Available at: https://www.bmwk.de/Redaktion/EN/Artikel/Energy/energy-efficiency-strategy-for-buildings.html (last accessed: 22.8.2023).

framework relevant to the energy sector also does not mention or define specific measures aimed at gender equality.

It could be claimed that the Energy Law (Official Gazette, number: 120/12, 14/14, 95/15, 102/15, 68/18) and Integrated National Energy and Climate Plan for the period 2021-2030 implicitly mention gender dimension by mentioning a category of vulnerable consumers. By law, these are consumers who have a right to subsidised energy supply under special conditions, i.e., related to social status and/or health condition. Considering that women are at higher risk of such energy poverty due to less financial resources, gender pay gap and gender pension gap, one can argue here that the Integrated National Energy and Climate Plan recognises social and gender aspects when considering the vulnerability of consumers.

As elaborated in D1.2 of **Slovenia**, the direct mention of gender aspects in the country´s energy strategy was not found in the provided analysis and search results, although gender mainstreaming has been introduced into Slovenian national legislation, and there are guidelines for mainstreaming gender in development and humanitarian aid. For example, the Development Co-operation and Humanitarian Aid Strategy of the Republic of Slovenia until 2030 (2018 Strategy) sets the fight against climate change and adaptation to it, by including gender equality as one of the key provisions and pillars[60].

However, gender equality is addressed in the overall Slovenian energy sector through programmes and initiatives, as described in chapters 5 to 7.

In comparison to Germany, Croatia and Slovenia, Spain seems to be the country most progressing on including gender aspects into energy and climate law. Similar to the Croatian example of the Integrated National Energy and Climate Plan, the Electricity Sector Act of Spain mentions consumers in vulnerable situations, or rather those affected by energy poverty. This law lays the foundation for the “bono social eléctrico” consisting of a reduced tariff for people in vulnerable situations. The criteria for assessing vulnerability include income scales for single-parent households or victims of gender-based violence. In addition, they are also extended for each child in the household.

Furthermore, the updated version of the National Integrated Energy and Climate Plan (PNIEC) 2021-2030, which was drafted in 2023, includes a sub-section on gender in the chapter “Cross-cutting Aspects in the Ecological Transition”.

---

[60] OECD (n.d.). Integrating Environmental and Climate Action into Development Co-operation: Reporting on DAC Members´ High-Level Meeting Commitments, Slovenia | Integrating Environmental and Climate Action into Development Co-operation : Reporting on DAC Members' High-Level Meeting Commitments | OECD iLibrary (oecd-ilibrary.org) (last accessed 23rd of January 2024).

The PNIEC-2023 version acknowledges the gender gap in the energy sector concerning employment, business leadership, entrepreneurship, and innovation. It emphasises the need for gender-focused studies to understand the state of the energy sector, promote women´s participation and leadership in green jobs, and ensure gender equality in mobility and transport policies[61]. However, it is noted that the plan does not include equality bodies such as the Women´s institute or its corresponding counterpart in the Autonomous Communities.
In accordance with this, the Law 7/2021, of 20 May, on climate change and energy transition[62] raises to legislative level the international commitments acquired by the Spanish State in its PNIEC. The consideration of gender in the energy sector begins in Article 27, which focuses on the Just Transition Strategy. This article emphasises the need to incorporate a gender perspective into the development of the strategy and its related instruments. Article 28 introduces the Just Transition Agreements, which are designed to facilitate the transition for sectors affected by the changes. While these agreements do not explicitly mention gender, they are likely to have different impacts on men and women, especially in the energy sector, where men constitute most employees.

Furthermore, gender equality is considered in PERTE ERHA of **Spain**. The PERTE, or the Strategic Projects for Economic Recovery and Transformation, are collaborative projects between the public and private sectors aimed at advancing specific and high-priority initiatives for the Spanish economy. One such example is PERTE for renewable energies, renewable hydrogen, and storage (ERHA), approved in mid-December 2021, which is based on four main drivers: ecological transition, digital transformation, social and territorial cohesion, and gender equality. For the latter, the strategies are deployed, such as incorporating the gender perspective when selecting initiatives, supporting the development and promotion of equal opportunities, or aiming for a balanced representation of women and men in governing bodies. Also, the PERTE ERHA acknowledges the gender disparity in the renewable energy sector, despite a higher rate of women´s employment compared to the oil and gas industry. To address this, over 26 million euros will be allocated to the development of green skills and jobs as part of gender mainstreaming in public policies for employment activation.

A progressive and promising national strategy of **Spain**, which includes gender aspects, is the

[61] See also García-Baños, C. et al. (2023). Employment of women in the Just Energy Transition in Spain. Summary of the analysis and opinions of expert voices. In: Naturgy Foundation, Employement-of-Women-in-the-Just-Energy.pdf (transicionjusta.gob.es) (last accessed 21.02.2024).
[62] Spain, Spanish Government (2021). Law 7/2021, of 20 May, on climate change and energy transition. Official State Gazette. 21 May 2021, no. 121. Available at: https://www.boe.es/diario_boe/txt.php?id=BOE-A-2021-8447 (last accessed 01.02.2024).

National Poverty Fuel Strategy[63]. This document emphasizes the important of considering gender in addressing energy poverty, since it acknowledges the necessity for statistical data to understand energy poverty from a gender standpoint, highlighting the significance of disaggregation by gender to analyse intra-household inequalities. Furthermore, women are identified as a vulnerable group requiring special protection due to the feminization of poverty, precarious employment, wage gaps, and instances where women are the sole income earners. Pregnant women are specifically noted as highly vulnerable to thermal extremes. The National Poverty Fuel Strategy prioritises survivors of gender violence and single-parent family units for social bonuses. In the context of building refurbishments, the document recommends incorporating gender perspectives in competitive tendering processes and cites good practices from Barcelona City Council, such as including gender perspectives in calls for aid applications and revising criteria based on income levels, particularly for single-parent households.

What can be highlighted here is that Spain, at least according to the national report D1.2 provided, seems to be the most progressive of the four discussed countries here, since some national law and strategies manage to intertwine gender aspects with energy topics.

Recognition of Gender Dimension in Energy Poverty Discussions by Country

As countries strive to achieve energy security and environmental sustainability, the need to integrate energy poverty considerations into policy frameworks has gained prominence. Any robust approach to energy poverty must go beyond addressing its broad implications and extend into the terrain of gender dynamics. Recognizing the gendered nature of energy poverty is essential to developing policies that are not only effective but also socially just and inclusive. Women often bear a disproportionate burden of energy poverty, facing unique challenges linked to socio-economic disparities, household roles, and vulnerability to the impacts of energy insecurity[64].

In **Spain**, in addition to the noteworthy initiative National Strategy against Fuel Poverty, previously mentioned, the Just Transition Strategy (ETJ) for the period 2021-2024 addresses gender equality within the ecological transition. Strategic Objective 2 aims to reduce

[63] Ministry of Ecological Transition and Demographic Challenge (2019). *National Strategy against Energy Poverty 2019-2024.* Government of Spain. https://www.miteco.gob.es/content/dam/miteco/es/prensa/estrategianacionalcontralapobrezaenergetica2019-2024_tcm30-496282.pdf (last accessed 25.01.2024)

[64] EmpowerMed (2023). Energy poverty and gender publications, https://www.empowermed.eu/material/reports/ (last accessed 24.01.2024)

employment inequalities for women, but the focus is broad, encompassing various disadvantaged groups. While Axis C acknowledges the need to reduce inequality in the context of energy poverty, the gender-specific impacts are not explicitly outlined. On a positive note, Axis H emphasizes periodic analyses of the energy transition, including gender-disaggregated data, signaling a commitment to better understanding and addressing gender disparities.

Croatia exhibits efforts to combat energy poverty, with specific programmes such as the Energy Poverty Reduction Programme. However, despite the significant efforts of the country to promote gender equality through national policies and legislative framework, and the delegation of gender mainstreaming to gender equality coordinators in various public bodies and the creation of the independent equality body, the Ombudsperson for Gender Equality mentioned above, the lack of a systematic and adequate policy framework constitutes a notable gap. While the policy framework does not indicate any explicit gender mainstreaming within energy poverty policies and programme, Croatia's broader commitment to gender mainstreaming in various sectors suggests that gender considerations are likely integrated into social and economic programmes, including those related to energy poverty[65].

Slovenia demonstrates a commitment to gender mainstreaming in broader policies but falls short in the context of energy poverty. Despite having guidelines and resolutions on gender equality, the nexus between the energy sector, energy poverty, and gender is not explicitly addressed in key documents[66]. However, the issue is being addressed through EU initiatives like the EmpowerMed project highlight the disproportionate impact of energy poverty on women and advocate for a fair gender perspective in the transition to sustainable energy. The acknowledgement of the importance of gender-sensitive green transition plans is a positive step.

Finally, **Germany's** approach to energy poverty is embedded in comprehensive social policies, with specific measures targeting vulnerable groups[67]. However, the German policies do not explicitly mention gender mainstreaming within energy poverty programmes. The focus remains on alleviating energy poverty for low-income households[68] without a gender-specific emphasis. While the programmes indirectly benefit both men and women facing energy poverty, there is room for improvement in explicitly addressing gender disparities within these

---

[65] EIGE (2022c). Croatia country information, https://eige.europa.eu/gender-mainstreaming/countries/croatia (last accessed 23.01.2024).

[66] EUWES, FOCUS (2023). D1.2 Report on the mapping of national gender policies in energy sector, Slovenia, Publications | EUWES (door.hr), (last accessed 29.01.2024).

[67] IEA (2023). 3rd Relief Package, https://www.cleanenergywire.org/news/german-govt-should-combat-energy-poverty-targeted-support-low-income-households-report, (last accessed, 23.01.2024)

[68] CA-EED (2022). Poverty - Energy Efficiency Measures in Germany, https://www.ca-eed.eu/ia_document/poverty-energy-efficiency-measures-in-germany/ (last accessed 23.01.2024).

initiatives.

Among the four countries, **Spain stands out for its efforts in recognizing and addressing gender disparities in energy poverty policies**. Croatia, Slovenia, and Germany, on the other hand, show room for improvement in explicitly mainstreaming gender within their respective programmes. A more comprehensive and targeted approach to gender considerations in energy poverty policies can contribute to more effective and inclusive outcomes.

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

5.1 Women's Representation and Data in Politics

In the pursuit of fostering social justice and gender equality, it is imperative to examine the landscape of women's representation in energy policies and politics across Spain, Croatia, Slovenia, and Germany. This comparative analysis delves into the political scenarios of each country.

At first, **Spain** stands out as a trailblazer in achieving gender parity in ministerial positions. With 60.9% female representation in the Council of Ministers, Spain has surpassed the 50% mark established by the Inter-Parliamentary Union. The EUWES D1.2 "Mapping on energy and gender policies in Spain"[69] report highlights the transformative impact of Pedro Sánchez's government in 2018, forming a Council of Ministers with 65% women. The introduction of the Preliminary Draft Organic Law on Equal Representation in 2023 further underlines Spain's commitment to balanced representation, with a mandated 40% threshold. The political landscape in Spain reflects a significant increase in women's presence in parliamentary and executive positions, reaching notable percentages in the Congress of Deputies (44.2%), the Senate (42.5%) by the end of 2023[70].

The analysis highlights also the leadership of **Slovenia** on gender equality in the public sector. Slovenia emerges as a leader in gender equality, particularly in the public sector. The country holds the highest share of women in senior positions, with 57.1% representation in 2021,

[69] EUWES, ESF (2023). Mapeo de las políticas de energía y género en el Estado español, Spain. Publications | EUWES (door.hr), (last accessed 29.01.2024).

[70] EIGE (2023a). Gender Statistics Database, National Parliaments: presidents and members, Spain, 4th quarter 2023, https://eige.europa.eu/gender-statistics/dgs/indicator/wmidm_pol_parl__wmid_natparl/datatable?sex=W&UNIT=PC&POSITION=MEMB_PARL&EGROUP=PARL_SINGLOW&col=time&row=geo (last accessed 25.01.2024).

earning Slovenia the top spot in gender equality OECD rankings[71]. The election of a female President in 2022[72] and a parliamentary representation of 37.8%[73] women highlight Slovenia's commitment to political gender parity. Despite these achievements, the EUWES, Focus, D1.2 National Report "Women in energy sector in Slovenia"[74] acknowledges persistent challenges rooted in gender stereotypes and systemic barriers within the electoral system. Legislative and policy frameworks are discussed as instruments to promote gender equality, offering insights into Slovenia's multifaceted approach[75].

Looking at German national report, some complexities in executive leadership are unraveling. **Germany** presents a nuanced picture of gender representation in its federal authorities. While the overall share of women in the 24 supreme federal authorities reaches 55% in 2022, the analysis drills down into specific ministries. The Federal Ministry for Family Affairs, Senior Citizens, Women, and Youth leads with a 41% share of women, while the Federal Foreign Office, despite pursuing a feminist foreign policy, lags below the average at 30%. The EUWES WECF D1.2 "Mapping of German Gender and Energy Policies"[76] report emphasises that the representation of women alone, as one main gender indicator, does not guarantee a feminist or gender-just perspective. The discussion extends beyond numerical indicators, urging a holistic approach that dismantles patriarchal structures and promotes gender-just policies. The report also touches on the representation of transgender women in the German parliament, reflecting a broader spectrum of gender identities in political spaces.

Finally, **Croatia's** national report[77] presents some challenges in political leadership. Croatia grapples with a gender imbalance in political representation, with only 1/3 of parliamentary members being women. The report sheds light on the composition of the current government, where out of 18 members, only 4 are women, holding key positions such as deputy prime

---

[71] OECD (2021). Slovenia has the highest share of women in senior positions in the public sector, 2021, https://www.gov.si/en/news/2023-07-07-oecd-study-slovenia-has-the-highest-share-of-women-in-senior-positions-in-the-public-sector/ (last accessed 22.01.2024).

[72] OHCHR (2023): Experts of the Committee on the Elimination of Discrimination against Women Commend Slovenia on Women's Political and Economic Participation, Ask about Roma Women and the Representation of Girls in Science Subjects, https://www.ohchr.org/en/news/2023/02/experts-committee-elimination-discrimination-against-women-commend-slovenia-womens (last accessed 22.01.2024).

[73] EIGE (2023b). Gender Statistics Database, National Parliaments: presidents and members, Slovenia, 4th quarter 2023, https://eige.europa.eu/gender-statistics/dgs/indicator/wmidm_pol_parl__wmid_natparl/datatable?sex=W&UNIT=PC&POSITION=MEMB_PARL&EGROUP=PARL_SINGLOW&col=time&row=geo (last accessed 25.01.2024).

[74] EUWES, FOCUS (2023). D1.2.

[75] UNWOMEN (2019): Slovenia: inputs for SG report on "Women in development", https://www.unwomen.org/sites/default/files/Headquarters/Attachments/Sections/Library/Publications/2019/A-74-279-Submission-Slovenia-en.pdf (last accessed 22.01.2024).

[76] EUWES, WECF (2023). D1.2. Report on the mapping of national gender policies in energy sector, Germany, Publications | EUWES (door.hr), (last accessed 29.01.2024).

[77] EUWES, DOOR (2023). D1.2.

minister, minister of agriculture, minister of sports and tourism, and minister of culture and media. The examination of various ministries reveals a pattern where higher managerial positions are predominantly occupied by men, while women are more likely to hold lower-ranking roles. The analysis extends to the regional and city levels, uncovering a gender gap in mayoral positions. The representation of women in civil society organizations within the energy sector adds another layer, emphasising the need for greater inclusivity.

Table 4: Representation of Women in Political Positions

Country	Women in Ministerial Positions (%)[78]	Representation of parliament (%)[79] (1 - lower house / 2 – upper house)	Women in Senior Public Sector Positions
Spain	52.2	[1]Congress: 44.2, [2]Senate: 42.5, Both houses: 43.4	-
Croatia	22.2	[1]Congress: 33.1, [2]Senate: does not exist, Both houses: 33.1	-
Slovenia	33.3	[1]Congress: 37.8, [2]Senate: 17.5, Both houses: 31.5	57.1 (Senior Public Sector Positions, 2021)
Germany	41.2	[1]Congress: 35.3, [2]Senate: 36.2, Both houses: 35.4	55 (Supreme Federal Authorities, 2022)

The analysis not only highlights achievements but also acknowledges ongoing challenges, urging a continued commitment to the path of progress. It emphasizes that the representation of women in politics serves as a vital indicator, but the true lever lies in dismantling patriarchal structures, fostering inclusivity, and steering towards a social and gender-just transformation in the energy sector.

[78] EIGE (2023d). Gender Statistics Database, National governments: ministers by seniority and function of government, Spain, Croatia, Slovenia, Germany, 4th quarter 2023 https://eige.europa.eu/gender-statistics/dgs/indicator/wmidm_pol_gov__wmid_natgov_minis/datatable?sex=W&UNIT=PC&POSITION=MEMB_GOV&BEIS=TOT&col=time&row=geo (last accessed 25.01.2024).

[79] EIGE (2023c). Gender Statistics Database, National Parliaments: presidents and members, Spain, Croatia, Slovenia, Germany, 4th quarter 2023, https://eige.europa.eu/gender-statistics/dgs/indicator/wmidm_pol_parl__wmid_natparl/datatable?sex=W&UNIT=PC&POSITION=MEMB_PARL&EGROUP=PARL_SINGLOW&col=time&row=geo (last accessed 25.01.2024).

5.2 Policies and Programmes for Increasing the Representation of Women in Politics

The analysis will shed light on the policies and programmes implemented in each country, focusing on key indicators such as ministerial positions, legislative power, and initiatives addressing underrepresentation. Distinctive approaches and varying degrees of success in promoting gender equality were observed.

Spain stands out as a global leader in women's ministerial representation, with over 50% women in ministerial positions, according to the Inter-Parliamentary Union and EIGE Statistical Data. The arrival of Pedro Sánchez's government in 2018 marked a significant shift, forming a Council of Ministers with 65% women. The commitment to balanced representation is further solidified by the Preliminary Draft Organic Law on Equal Representation, emphasizing a minimum of 40% women or men in key political bodies. Legislative power also reflects positive trends, with notable percentages of women in the Congress of Deputies, the Senate, and the European Parliament.

On its side, **Croatia's** political landscape reveals challenges in achieving gender balance, particularly within ministries. While the overall share of women in the parliament is around one-third, women hold only a limited number of key ministerial positions. Higher managerial roles in ministries related to energy often skew male, pointing to a gender disparity in decision-making roles. The absence of comprehensive gender equality plans and limited representation of women in mayoral positions underscore areas requiring attention.

Slovenia emphasises gender mainstreaming in government and ministries, with departments dedicated to equal opportunities. The presence of coordinators for equal opportunities signals a commitment to policy implementation. Projects funded through EU initiatives have played a crucial role in promoting gender mainstreaming, culminating in the adoption of Guidelines for Gender Mainstreaming in the Work of Ministries. However, the absence of gender equality plans at the ministry and presidential levels indicates potential areas for improvement.

Finally, **Germany** showcases a nuanced scenario with significant female representation in the highest federal authorities. The Federal Ministry for Family Affairs, Senior Citizens, Women, and Youth leads with the highest share of women among ministries. However, challenges arise in translating the commitment to feminist foreign policy into internal structures, as observed in the lower representation of women in leading positions within the Federal Foreign Office (AA). Germany acknowledges the importance of gender-aware perspectives but recognizes that representation alone does not guarantee transformative policies. In **Germany**, ministries such as the BMWK have adopted initiatives and programmes to strengthen women's involvement. For example, the BMWK together with Global Women's Network for the Energy Transition

(GWNET) and Gesellschaft für Internationale Zusammenarbeit (GIZ) implemented the mentoring programme "Energising Women to Advance the Energy Transition" as well as the communication campaign “Women Energize Women”[80]. 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[81].

Across these four countries, initiatives targeting women's representation in the energy sector vary. **Spain's** commitment to gender balance extends to energy policies, while Slovenia integrates gender perspectives into national policies. In **Croatia**, gender disparities persist within energy-related ministries, requiring targeted programmes. Germany's focus on women in energy companies, exemplified by mentoring programmes and international commitments, demonstrates a proactive stance.

5.3 Inputs From Stakeholders’ Interviews

In examining the perspectives of stakeholders on gender aspects and women's representation in energy policies and politics across Spain, Croatia, Slovenia, and Germany, it is crucial to delve into the ground-level insights provided by the interviewees.
As mentioned in chapter 2, the methodology, all project partners conducted interviews with four stakeholder groups, with political decision-makers, representatives of the private sector, academics, and representatives of civil society (organisations). The results of the interviews were analysed for a non-public deliverable D1.3, and for the publicly available D1.2 reports, but it is important to mention that the names and institutions of the interviewees are pseudonymised here.

Stakeholders in **Spain** highlighted a noteworthy level of gender parity within the institutional sphere, especially when compared to the private sector. However, they emphasised that achieving parity alone does not guarantee the adoption of feminist policies. The stakeholders argued that genuine progress involves challenging and dismantling patriarchal structures within the political system. Additionally, they stressed the importance of moving beyond numerical representation to truly embrace a feminist agenda. This includes actively

[80] BMWK (2022). Für mehr Geschlechtergerechtigkeit im Energiesektor, BMWK - Für mehr Geschlechtergerechtigkeit und Diversität im Energiesektor (last accessed 12.01.2024).
[81] Ibid.

showcasing and acknowledging the contributions of influential women in politics and supporting measures that enable citizen participation in shaping the energy system.

In **Croatia**, the ground-level perspective indicates a prevailing perception that positions in the energy sector are often reserved for male workers. Women face challenges in obtaining equal credit for their work, and stereotypes label the sector as a "male field." Despite some improvement at the local municipality level, women remain underrepresented in higher education related to the energy sector. The absence of equal opportunities programmes at the national level exacerbates gender disparities. This underscores the need for comprehensive strategies to combat prejudices, promote equal opportunities, and address gender imbalances in the energy sector.

Slovenian stakeholders[82] stressed the need for in-depth research to comprehend the factors contributing to the low representation of women in the energy sector. The acknowledgment of energy poverty's impact on women, especially single mothers and older women, reflects an understanding of intersectional issues. While the President advocates for gender equality, the absence of gender equality plans at the national level presents an area for improvement. The emphasis on gender sensitivity in green transition plans aligns with a broader call for integrating feminist perspectives into energy policies.

Similarly, in **Germany**, stakeholders observed a lack of integration of gender aspects into energy policies, particularly at the national level. The gender-energy nexus is perceived as neglected or nonexistent, emphasising a critical gap in policy frameworks. The potential for gender budgeting measures and support for citizens in the energy sector, as mentioned by a member of the German Parliament, offers a positive avenue for change. However, the discrepancy between the focus on gender in foreign policies versus the lack of internal gender budgeting strategies reveals a need for more comprehensive and coherent approaches. The conflicts between political parties, notably regarding the significance of gender topics, pose challenges to advancing gender-inclusive energy policies.

Across all four countries, the stakeholders´ perspective emphasises the crucial role of women's representation in political decision-making. In **Croatia,** women's different perspectives in energy policy decision-making are acknowledged. In **Spain**, the call for visible

[82] EUWES (2023), Focus, D1.2; also, EUWES D1.3 which is a non-public deliverable with sensitive information about the stakeholders´ perspectives.

women of reference aligns with Slovenia's emphasis on the importance of women's representation. In **Germany,** despite conflicts between political parties, there is a shared aspiration for increased representation of women in politics, particularly in energy-related committees. This common thread underscores the universal recognition of the need for diverse voices and perspectives in shaping energy policies.

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

Representation of women in the economic sphere represent a key lever to gender equality and women's rights in the society. Following UN Women's definition, women's economic empowerment

> "[…] includes women's ability to participate equally in existing markets; their access to and control over productive resources, access to decent work, control over their own time, lives and bodies; and increased voice, agency and meaningful participation in economic decision-making at all levels from the household to international institutions"[83].

Numerous studies on gender aspects and women's representation in the energy sector or rather in energy companies have been conducted[84]. These studies show a similar share of women in the energy sector's workforce globally, with less than 30%, in 2018. In comparison to other economic sectors, women's share in the economic sphere of the energy sector is entirely below the average[85]. This applies to all four countries of this comparative analysis. However, the share of women in renewable energy sector tends to be slightly higher than in the fossil fuel energy sector, in 2019, 32% of women globally were employed in the renewable energy sector[86], against 16% in the fossil fuel energy sector[87].

The gender imbalance is particularly significant in technical roles, where women's participation in science, technology, engineering, and mathematics (STEM) jobs is lower than in administrative positions[88]: For example, in Spain, 44% of women are part of administrative positions compared to 13.8% of men[89]. Since administrative positions tend to be paid less

---

[83] UN Women (n.d.). Facts and Figures: Economic Empowerment, https://www.unwomen.org/en/what-we-do/economic-empowerment/facts-and-figures (last accessed 22.12.2023).
[84] PwC (2021). Frauen in der Energiewirtschaft, frauen-in-der-energiewirtschaft-warum-die-branche-mehr-frauenpower-braucht.pdf (pwc.de) (last accessed 26.10.2023); International Renewable Energy Agency (2019). Renewable Energy. A Gender Perspektive, https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2019/Jan/IRENA_Gender_perspective_2019.pdf?rev=bed1c40882e54e4da21002e3e1939e3d Renewable Energy A Gender Perspective (irena.org) (last accessed 26.10.2023); BMWK (2022).
[85] BMWK (2022).
[86] IRENA (2019).
[87] IEA (n.d.). Energy and gender, https://www.iea.org/topics/energy-and-gender (last accessed 16.01.2023).
[88] IRENA (2019).
[89] EUWES, ESF (2023). D1.2.

than technical ones, gender stereotypes are reinforced, the gender pay gap and the gender pension gap deepened. Even more so, the underrepresentation of women in STEM holds back innovation by depriving the sector of new perspectives.

6.2 Data and Representation: Women in the Labour Market

Women face barriers in the labour market both at the level of employment and level of the pay rate. In the four EUWES countries, the unemployment rate for women is higher than for men (e.g., 7.9% against 6.1% for men in 2022 in **Croatia**[90]), in addition, women tend to work on average fewer hours than men, as they also carry out care tasks disproportionately to men in the households. For example, in Spain women work -9.8% less hours than men in non-energy related sectors and -8.5% in the energy sector[91].

One key aspect to increase the economic participation of women in the energy sector, is establishing and ensuring equal pay for all genders. This allows to value the work of men and women the same way, and to enable well-financed part-time work which allows combining paid labour and unpaid care labour (e.g. taking care of children).

Very few countries in the European Union have closed the gender pay gap in 2023. Gender pay gap (difference between average gross hourly earnings of male and female employees as % of male gross earnings) leads in the future to gender pension gap, also creating obstacles for women beside economic empowerment, to invest in solutions against energy poverty or more sustainable RES solutions. The gender pension gap is induced from lower women participation in the labour market and in management positions, from higher share of women in low salaries jobs (often feminised jobs). Finally, another influential factor contributing to the gender pension gap is the "motherhood penalty", a phenomenon where women who have children earn less compared to those who do not[92]. This is due to various interconnected factors, as workplace biases, limited opportunities for career advancement due to maternity-related career breaks, and societal expectations that often shape women's career choices after becoming mothers. The impact of the motherhood penalty on the gender pension gap is substantial, as it reflects a systemic issue where the financial repercussions of being a mother extend beyond the immediate earning period, affecting women's long-term economic security and retirement savings. Addressing this issue requires a comprehensive approach that challenges rooted stereotypes, promotes workplace policies supporting work-life balance, and

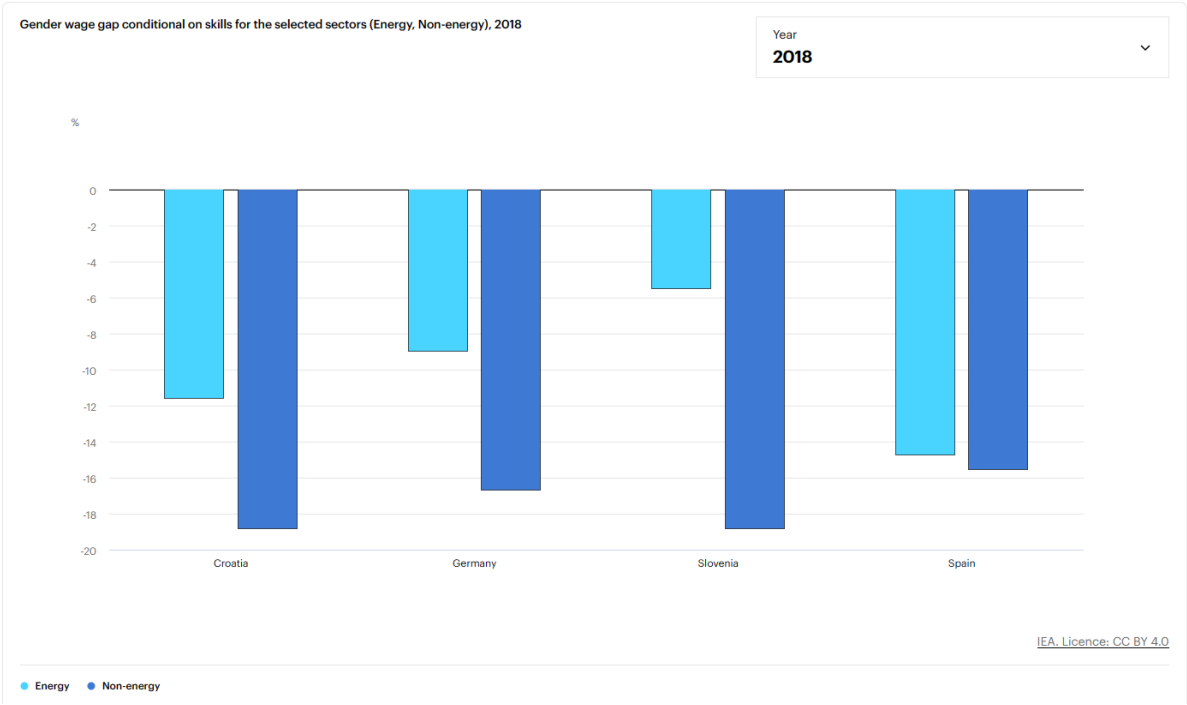
[90] EUWES, DOOR (2023). D1.2.
[91] EUWES, ESF (2023). D1.2.
[92] EUWES, DOOR (2023). D1.2.

advocates for equal opportunities for mothers in the workforce to mitigate the enduring effects of the motherhood penalty on women's financial futures.

Table 5: Comparison of Gender Pay Gap and Gender Pension Gap

	Croatia	Germany	Slovenia	Spain	EU
Gender pay gap (2021)[93]	11.1%	17.6%	3.8%	8.9%	12.7%
Gender pension gap (2019)[94]	27.6%	36.3%	16.4%	31.3%	29.4%

Figure 1: Gender Wage Gap Conditional on Skills for the Selected Sectors (Energy, non-Energy), 2018 [95]



Globally, according to data collected by the International Energy Agency in 2018, the gender pay gap for similar positions was 15% in the energy sector, meaning that women working in the sector earn 15% less than men, even when they have similar skill levels. This wage gap

[93] Statista (2021). Gender pay gap of average gross hourly earnings in selected European countries in 2021, https://www.statista.com/statistics/1203135/gender-pay-gap-in-europe-by-country/ (last accessed 23.01.2024).
[94] Eurostat (2023a). Gender pension gap by age group,https://ec.europa.eu/eurostat/databrowser/view/ILC_PNP13__custom_470372/bookmark/table?lang=en&bookmarkId=ca6425d8-bd3e-4a09-b6d8-c181ea76bc6a (last accessed 23.01.2024).
[95] IEA (2018). Gender and Energy Data Explorer, Gender wage gap conditional on skills for the selected sectors (Energy, non-energy), https://www.iea.org/data-and-statistics/data-tools/gender-and-energy-data-explorer (last accessed 01.02.2024).

is slightly lower -13% for non-energy sector[96]. The gender pay gap stems from several factors. Firstly, a significant number of women work part-time, a trend influenced by gendered social norms where women often shoulder more household and family care duties, leaving less time for full-time employment. Secondly, women frequently face choices between their careers and family responsibilities, with traditional gender roles shaping their decisions and leading to career adjustments or breaks for family duties. Additionally, the overrepresentation of women in lower-paying sectors, accounting for around 24% of the pay gap, underscores the undervaluation of women's work and the impact of societal expectations on career choices. Lastly, the underrepresentation of women in managerial roles, especially in male-dominated sectors, contributes to a significant pay disparity, with female managers earning 23% less per hour than their male counterparts[97].

According to Table 5 can be stressed that **Germany** had the highest gender pay gap and gender pension gap in comparison to the other respective project countries, which is surprising against the background that Germany seems to be quite progressive in implementing gender equality strategies, and policies to increase the share of women in STEM and to reduce the gender pay gap. For example, the German Act on Equal Participation of Women and Men in Leadership Positions (FüPoG I and FüPOG II) as well as the Transparency in Wage Structures Law are measures to create more gender balance in the overall German economy (as explained in chapter 3.2).

In **Croatia**, despite the Article 91 of the Labour Law that explicitly prohibits discrimination based on compensation for equal work and work of equal value[98], large gender pay gap persist and needed measures for industries to justify such gap are still missing.

Similar to Croatia, **Spain** presents a lower gender pay gap than the EU average. However, as the EUWES D1.2 Spanish report illustrates in its table 2 and figure 2[99], there are indicators that indirectly suggest the presence of distinct care burdens for women, one of which is the gap in hours worked. In Spain, women tend to work fewer hours on average, presumably reflecting their disproportionate involvement in caregiving responsibilities compared to men. Variations also emerge based on education levels and the number of hours worked. Specifically, in professions requiring a university degree, more women are found in economic sectors unrelated to energy, while the energy sector sees a higher representation of men. This

[96] Ibid.
[97] EUWES, DOOR (2023).
[98] Croatian Government (n.d.). Labour Law, Art.91., (Official Gazette, number: 93/14, 127/17, 98/19, 151/22, 64/23).
[99] EUWES, ESF (2023). D1.2.

discrepancy intensifies as the level of education decreases, underscoring the widening gap in employment patterns.

Slovenia has a record low gender pay gap. This can be explained by the relatively high employment rate for both women and men in Slovenia, thanks to a good regulation of employment, parental leave, childcare and primary education[100]. In addition, Slovenia has taken measures to reduce gender-based occupational segregation and the gender pay gaps, and has introduced policies to recruit, retain and promote women[101]. In some sectors where women are underrepresented, the pay gap appears to be even smaller and sometimes in favour of women.

This shows that the gender gap is slowly closing when targeted measures are taken to eliminate gender gaps and inequalities in the labour market. However, there is still a need for continued efforts to achieve gender equality in labour market pay.

6.3 Data and Representation: Share of Women in Leadership/Management Positions

The share of women in decision-making and leadership position also spotlights the difference of representation of women and men in the economic sphere. As the European Commission 2022 report on gender equality in the EU mentions, the sectoral and occupational gender imbalances contribute to disparities in the quality of jobs (and incomes) held by women and men and the higher concentration of women in part-time, temporary, low-paid, and precarious employment[102].

In the energy sector, the employment of women is globally lower than in other economic sectors. However, when looking at the renewable energy sector, data tends to show more women in renewable energy sector jobs than in traditional energy sector positions.

In addition, renewable energy sector tends to have a higher share of women in decision-making and leadership positions, but the shares rate still quite low.

[100] UNWOMEN (2019). Slovenia, inputs for SG report on "Women in Development", https://www.unwomen.org/sites/default/files/Headquarters/Attachments/Sections/Library/Publications/2019/A-74-279-Submission-Slovenia-en.pdf (last accessed 30.01.2024).

[101] Ibid.

[102] European Commission (2022). 2022 report on gender equality in the EU, https://op.europa.eu/en/publication-detail/-/publication/0fb69c07-e79d-11ec-a534-01aa75ed71a1 (last accessed, 12.01.2024).

Figure 2: Gender Employment Gap for Energy and non-Energy Sector in 2018, in Percentage [103]

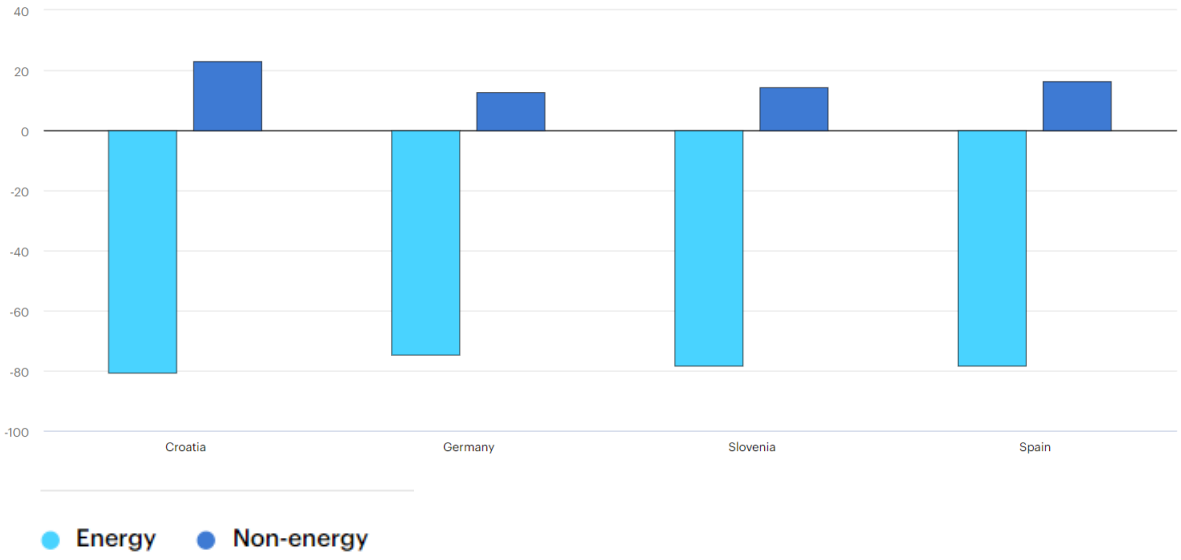


Table 6: Comparison of Women's Representation in the Energy Sector

Sector	Croatia	Germany	Slovenia	Spain
Energy sector (2022)[104]	12%	26%	15%	31%
Renewable energy sector	13%[105]	32% (2021)	-	18.2% (2022)[106]
Leadership/management position in the energy sector	12%[107]	15.5% (2021)[108]	20% (2018)[109]	-

While looking at the data of the economic sector, the energy sector, does not seem to be a prosperous promotor of gender equality. Gender equality in the workforce is not only a matter of fairness but also makes sound economic sense. Greater representation of women in top positions is associated with a higher rate of return on equity, and companies with more women on their boards have higher returns on equity[110]. However, the renewable energy sector, rather

[103] IEA (2018). Gender and Energy Data Explorer.
[104] EIGE (n.d.). Gender Equality Index: Green Deal in "each country", https://eige.europa.eu/gender-equality-index/thematic-focus/green-deal/country (last accessed, 23.01.2024).
[105] EUWES, DOOR (2023). D1.2.
[106] Ibid.
[107] EUWES, DOOR (2023). D1.2.
[108] EUWES, WECF (2023). D1.2.
[109] EUWES, FOCUS (2023). D1.2.
[110] EIGE (n.d.). Economic Benefits of Gender Equality in the European Union, https://eige.europa.eu/newsroom/economic-benefits-gender-equality?language_content_entity=en (last accessed 31.01.2024). See also: OECD (2015). Why a push for gender equality makes sound economic sense, https://www.oecd.org/social/push-gender-equality-economic-sense.htm (last accessed 31.01.2024).

offers higher opportunities for women to access technical, decision-making and leadership position and with a low gender pay gap. For instance, women account for 40% of the global solar PV workforce[111]. Also, the decentralized renewable energy sector, where solar technologies are intensively deployed, sees women's role growing in activities such as installation, maintenance and management of renewable energy systems and offers higher entrepreneurship and leadership positions[112]. Efforts to improve gender diversity in the energy sector are also gaining momentum, with larger companies implementing corporate policies focused on diversity and inclusion, leading to increased representation of women in leadership positions. The transition towards renewable energy sources presents high opportunities for women, offering a more inclusive and sustainable energy future by implementing inclusive hiring policies and fostering grassroots empowerment, the sector is working towards a more equitable presence of women in leadership positions[113].

Finally, it is noticeable that there is a clear lack of disaggregated data in the energy sector. This challenge prohibits adequate statistics to identify and monitor gender barriers to women's access to energy sector jobs as well as progress toward gender equality[114]. Gender mainstreaming and gender disaggregated data are essential to adopt and implement targeted gender-friendly policies and programmes and ensure a real democratisation of the energy model towards a distributed, socially and environmentally just one.

6.4 Programmes and Actions Implemented for Higher Economic Women's Empowerment by Energy Companies and Authorities

Overall, while looking for explanation of women's underrepresentation in the economic sphere of energy sector in the four EUWES countries, the same conclusions appear: Women are highly underrepresented in technical and energy-related studies particularly due to gender stereotypes in schools. Research on the impact of gender stereotypes on the self-concept of female students in STEM subjects showed that STEM studies with low proportion of females are due to barriers that women face in schools and other factors such as parents and

[111] IRENA (2022). Solar PV: A Gender Perspective, https://www.irena.org/publications/2022/Sep/Solar-PV-Gender-Perspective (last accessed: 31.01.2024).
[112] IRENA (2023). Women as Key Players in the Decentralised Renewable Energy Sector: Beneficiairies, Leaders, Innovators (https://www.irena.org/Events/2023/Mar/Women-as-Key-Players-in-the-Decentralised-Renewable-Energy-Sector) (last accessed: 31.01.2024).
[113] Global Energy Alliance for People and Planet (2023). Empowering Women for a Sustainable Energy Future, https://energyalliance.org/empowering-women-for-a-sustainable-energy-future/ (last accessed, 31.01.2024).
[114] Energy Community Secretariat (2022). Policy Paper on Collecting Gender-Disaggregated Data in the Energy Sector, https://www.energy-community.org/dam/jcr:002983b8-8c9f-40ad-86c6-5c8e931dcd01/PP-04/2021%20ECS_Gender_0422.pdf (last accessed: 31.01.2024).

teachers[115].

However, various tools are available for energy companies and authorities to face women's unequal representation such as gender-self assessment, gender responsive communication, or family and gender-friendly workplaces and policies, or women leaderships programmes. The scope of gender tools is broad, any action taken to mainstream gender equality in a field of interest may be considered as a gender tool. In the four EUWES countries, stakeholders of the energy sector have adopted innovative programmes to increase women's representation in their workplace, or in the energy sector in general. Many companies aiming for better gender balance have adopted gender action plans (GAP). This is the case for Elektro Gorenjska, the energy company in the region of Gorenjska, in **Slovenia**, which adopted their GAP in 2022 and which counts now the highest share of women (22%) in all power distribution companies in Slovenia. A Gender Action Plan is a tool/roadmap of strategies that one can adopt, to ensure that the gender-inclusive and transformative vision can be achieved in the workplace. GAP is a big umbrella solution to solve gender-based problems within the workplace and projects[116].

In **Croatia**, despite the regulated legislative framework, women still face multiple discrimination in the labour market. Starting with asking legally prohibited questions during job interviews such as issues of marital and parental status, or family planning. But also, through discrimination and harassment in the workplace, successive extensions of fixed term employment contracts, to unequal compensations[117]. Out of 479 companies, 16 have developed ethical codes outlining various ethical aspects and guiding principles such as gender, gender equality, anti-discrimination, and similar concepts. They include prohibiting and preventing discrimination based on race, colour, gender, age, language, religion, political or other opinion, ethnic or national or social origin, property, union membership, education, social status, marital and family status, age, health condition, disability, birth, sexual orientation, gender identity or any other status including matrimonial or parental status. Only one of the 149 companies analysed, mentions ensuring equal opportunities and the right to equal pay for equal work[118].

In **Germany**, energy companies are obliged to fulfill the FüPoG II, hence increase the share of women in leadership positions. Furthermore, many energy companies apply gender equality policies, and gender tools such as the before-mentioned Gender Action Plan. Going

---

[115] Ertl, B., Luttenberger, S. & Paechter, M. (2017). The Impact of Gender Stereotypes on the Self-Concept of Female Students in STEM Subjects with an Under-Representation of Females https://www.frontiersin.org/articles/10.3389/fpsyg.2017.00703/full (last accessed 23.01.2024).

[116] W4RES (2023). WECF: Capacity building programme for women empowerment in RHC sector, https://w4res.eu/wp-content/uploads/2023/09/Capacity-building-program_shortenedversion.pdf (last accessed 16.01.2024).

[117] EUWES, DOOR (2023). D1.2.

[118] Ibid.

from the representation of women to a broader scope of increasing diversity at a workplace, several energy companies in Germany subscribed to the Charta of Diversity, for example N-ERGIE, which also took place in the Pride (Christopher-Street-Day) with their company[119]. Such measures are an opportunity to react to the current shortage of skilled labour force (*Fachkräftemangel*) in Germany.

Spanish energy firms are actively undertaking diverse initiatives to advance gender equality within the industry. Notably, the Naturgy Foundation and the Institute for Just Transition (ITJ) have collaborated on a comprehensive study, analysing the involvement of women in the energy sector – a crucial initial step in addressing gender disparities[120]. Moreover, the Spanish Photovoltaic Union (UNEF) is dedicated to achieving "full and equal" inclusion of women in the field[121]. The Iberdrola Group, a prominent player in the energy sector, has implemented strategies to attract women to the electricity market, empower women professionally, and introduce a Labor Relations Equality Plan to cultivate a fair and equitable workplace[122]. These endeavors signify an increasing acknowledgment of the significance of gender equality in the energy industry and a commitment to rectifying the underrepresentation of women in various capacities within energy companies.

6.5 Input From Stakeholders' Interviews

In **Slovenia**, stakeholders tend to explain the low numbers of women in the sector due to low women in STEM studies. However, the lack of gender-disaggregated data in the sector represents a high barrier to understanding the gender patterns of the sector. The Slovenian President advocates for gender equality and organised a round table "Women in Energy" to stress the importance of increasing data and actions for women in leadership positions in March 2023.

In **Germany**, big energy companies (e.g., Siemens Energy, N-ERGIE) seem to be engaged into bringing better gender balance and equality in their companies. Programmes such as targeted communication in job offers, training on communication for internal staff also including gender-sensitive communication are used to address different genders and people with various backgrounds. However, from the interviewees' experience, stakeholders' opinions on further mainstreaming gender in their companies were quite ambivalent. On one hand, two

[119] EUWES, WECF (2023). D1.2.
[120] RatedPower, (2023). The role of women in the energy sector in Spain, https://ratedpower.com/blog/women-in-the-energy-sector/ (last accessed 23.01.2024).
[121] Ibid.
[122] Iberdrola Group (n.d.). Women at Iberdrola Group: Acting for effective gender equality, https://www.iberdrola.com/social-commitment/importance-women-iberdrola-group (last accessed, 23.01.2024).

interviewees answered that their company had already reached a culture of appreciation and highlighted the positive impact of policies for women to get a secured job in the energy sector or to getting close to close the gender pay gap (as aforementioned in chapter 5). On the other hand, one interviewee highlighted that gender-stereotypical behaviour or prejudices might persist since employees sometimes 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.

This is the case in **Croatia**, where interviews revealed that it is more likely that women will be engaged in so-called "soft areas" such as communication, research or social aspects of the energy transition, climate change, and renewable energy. According to the interviewees, men are still perceived to be more educated, reliable, and bigger experts for all things considered "technical". Technical studies have always been considered male-dominated and in a way "reserved" for male students[123]. There is still a lack of female researchers in the energy sector and the glass ceiling is domineering not only energy sector but science and research as such.

As it was underlined by an interview in **Spain**, the energy transition cannot be just if it only involves a change of technology. In order to call the energy transition a *just* transition, businesses and authorities should adopt real transformative factors and indicators, and include feminist policies and redistribution that goes with them. Finally, in Spain, the Women's Network for an Ecofeminist Energy Transition started to build a database of women working for the change of energy model.

Conclusion on the Representation of Women in the Economic Sphere in EUWES Countries

Despite efforts to address the gender imbalance in the economic sphere, a lack of data collection and updated data hinder that the underrepresentation of women can be portrayed in a realistic way, hence this also constitutes a barrier to promote adequate initiatives and programmes. The energy sector is male dominated, with women earning lower wages and representing only a small percentage of the workforce. In addition, gender gaps in the energy sector are evident, with women being underrepresented in high-level positions and leadership roles.

In addition, regarding gender aspects in the political sphere, studies and current data deal with a binary concept of gender, focussing on women and men. Not much information has been

[123] EUWES, DOOR (2023). D1.2

shared about the role of other gender identities or intersectional aspects, such as the consideration of LGBTIQA+ in the energy sector. Therefore, the gender gap in the energy sector remains a significant challenge that requires long-term and inclusive solutions, a comprehensive data collection and approaches that react to the perspectives of several target groups.

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

Education plays a pivotal role in shaping career opportunities and success. Equipping individuals with knowledge and skills does not only foster confidence but also lays a solid foundation for personal and professional development. However, barriers and stereotypes can impede equal access to quality education, subsequently influencing job selection and career paths. Gender disparities in the energy sector are intricately linked to the education system. This underrepresentation perpetuates gender gaps in the energy labour market. Addressing these barriers is crucial for achieving a more gender-diverse and inclusive energy sector and driving the energy transition. Efforts to encourage women to pursue energy-related subjects, improve access to information, and challenge existing perceptions of the industry are essential steps in bridging these gender disparities.

In the EU, 48% of women aged 25-34 years attained a tertiary degree in 2022, while in comparison, only 37% of the males of the same age graduated[124]. But despite women outpacing men in completing tertiary education, they remain underrepresented in energy-related fields, particularly in STEM disciplines.

Table 7: Graduates in Tertiary Education, in Science, Math., Computing, Engineering, Manufacturing, Construction in 2020, by sex – per 1000 of Population Aged 20-29 [125]

	Males	Females
EU – 27 countries	8.8	5.7
Germany	9.5	5.3
Spain	6.3	4.1
Croatia	9.6	6.9
Slovenia	5.9	4.8

[124] Eurostat (2023b). More women than men held tertiary degrees in 2022. Eurostat. Available at: https://ec.europa.eu/eurostat/web/products-eurostat-news/w/ddn-20230530-3 (last accessed 17.01.2024).
[125] Eurostat (2023c). Graduates in tertiary education, in science, math., computing, engineering, manufacturing, construction, by sex - per 1000 of population aged 20-29. https://ec.europa.eu/eurostat/databrowser/view/EDUC_UOE_GRAD04__custom_9394485/default/table?lang=en&page=time:2021 (lastly accessed 17.01.2024) (last accessed 01.02.2024).

According to Eurostat, in the EU in 2020 per 1000 habitants aged 20-29 years, 5.7 women and 8.8 men graduated in a STEM subject on a Master level. The number of male graduates exceeds the number of the females by over 50%[126]. This situation is also prevalent among the four EUWES partner countries:

In **Germany**, 5.3 women graduated, strongly outperformed by men with 9.5 Master graduates, an 80% higher share compared to women[127]. The overall number of participants in STEM programmes has decreased over the last years, due to the COVID-19 pandemic. The number of women in the subjects has increased but often does not exceed a share of 35%, except for interior architecture, with 88.2% of women in 2021. The lowest share of women was noticed for steel construction, with 2.2% in 2021.[128]

4.1 **Spanish** women attained their master's degree, excelled by 6.3 Spanish male graduates, which is over 50% more than the females[129]. In Spain, women are more dominant in the fields of education (78%), health and social services (73%), while their absence is remarkably noticeable in the technical fields, as it can be seen in the male representation in Computer Science (84%) and Engineering, Industry and Construction (69%)[130]. Degrees related to environmental sustainability and care are more feminised, which is essential for carrying out a just energy transition. But the technical qualifications that are also related to energy remain occupied by men.

In **Slovenia**, 4.8 women and 5.9 men graduated in a STEM discipline. The number of male master graduates surpasses the females by 23%.[131]

In **Croatia**, 6.9 females and, with almost 40% more, 9.6 males completed their STEM master[132]. Varieties can be detected among the technical faculties in Croatia: In some faculties is only little (e.g. Faculty of Engineering and Computing and Faculty of Mechanical Engineering and Naval Architecture (FSB) at the University of Zagreb) to even a negative trend (Faculty of Forestry and Wood Technology at the University of Zagreb) noticeable. In other faculties, female students are very well represented and a strongly positive progress can

---

[126] Ibid.
[127] Ibid.
[128] DESTATIS (2023c): 6,5% weniger Studienanfängerinnen und anfänger in MINT Fächern im Studienjahr 2021, Pressemitteilung Nr. N004 vom 23.Janaur 2023, 6,5 % weniger Studienanfängerinnen und anfänger in MINT Fächern im Studienjahr 2021 Statistisches Bundesamt (destatis.de) (last accessed 23.10.2023).
[129] Eurostat (2023c).
[130] Deputy Directorate General for University Research Activity of the Ministry of Universities (2023). "Datos y cifras del Sistema Universitario Español" (Spanish University System Facts and Figures). Ministry of Universities. Available at: https://www.universidades.gob.es/wp-content/uploads/2023/04/DyC_2023_web_v2.pdf (last accessed 17.01.2024).
[131] Eurostat (2023c).
[132] Ibid.

be monitored, such as in the Faculty of Chemical Engineering and Technology at the University of Zagreb with a share of 76%, the Faculty of Geotechnical Engineering Varaždin at the University of Zagreb with 62%, the Faculty of Chemistry and Technology at the University of Split with 87%, and Mechanical Engineering Faculty at the University of Slavonski Brod 50% of female students in the academic year 2021/2022. [133]

To comply with the eligibility criterion of the European Commission's Directorate General for Research and Innovation and Horizon Europe programme[134] almost all the universities and faculties have established gender equality plans, except for Zagreb University of Applied Sciences.

Table 8: Graduates at Doctoral Level, in Science, Math., Computing, Engineering, Manufacturing, Construction in 2020, by sex – per 1000 of Population Aged 25-34 [135]

	Males	Females
EU – 27 countries	0.9	0.5
Germany	0.7	0.4
Spain	0.4	0.3
Croatia	0.2	0.2
Slovenia	0.4	0.3

Women's underrepresentation in the STEM subjects is also reflected among the number of graduates on a doctoral level in a STEM subject. In 2020, per 1000 habitants of the EU population, aged 25-24 years, 0.5 women completed a doctorate in contrast to 0.9 men, 80% more than the women. In **Croatia**, the numbers of females in STEM doctoral programmes in the STEM subjects has increased: Both, 0.2 men and women attained their doctor's degree. In both, **Slovenia and Spain**, 0.3 women and 0.4 men graduated at that level, which means that 100 more men completed their degree. In **Spain**, women were not only found to be underrepresented as doctoral students, but also among the research and teaching staff, especially in the university professorships. Instead, they represent almost two thirds of the administrative and service personnel. In **Germany** 0,4 female students and 0,7 male, 75%

[133] Croatian Agency for Science and Higher Education (AZVO): Statistike. https://www.azvo.hr/hr/visoko-obrazovanje/statistike (lastly accessed 17.01.2024).
[134] European Commission (2023). Gender Equality Plans as an eligibility criterion in Horizon Europe, https://research-and-innovation.ec.europa.eu/strategy/strategy-2020-2024/democracy-and-rights/gender-equality-research-and-innovation_en#gender-equality-plans-as-an-eligibility-criterion-in-horizon-europe (last accessed 17.01.2024).
[135] Eurostat (2023d). Graduates at doctoral level, in science, math., computing, engineering, manufacturing, construction, by sex - per 1000 of population aged 25-34. https://ec.europa.eu/eurostat/databrowser/view/EDUC_UOE_GRAD07__custom_6593758/default/table?lang=en (lastly accessed 17.01.2024).

more compared to women, completed their STEM doctor.[136]

A PISA study from 2019 showed that boys in 39 of 51 countries exhibit more confidence, interest and self-efficacy in learning science compared to girls[137]. This phenomenon was also observed in the **Spanish partner country**: The Equality Unit of the Ministry of Education and Vocational Training approved that although women obtain higher average marks in the Bachillerato and in the University Entrance Exams, they have a lower confidence and self-perception of their skills and of their professional expectations in technical fields[138]. These circumstances contribute to lower graduation rates for women in STEM fields. Surprisingly, the gender gaps in the STEM subjects are more pronounced in countries with a greater gender equality index.[139] This phenomenon is described the “gender-equality paradox” in STEM by Stoet and Geary who found that in countries with higher levels of gender equality, the differences in the magnitude of relative academic strengths and the pursuit of STEM degrees between males and females were more significant[140].

As also cited in the PISA study, Stoet and Geary claim that students' career choices are influenced by their understanding of academic strengths, confidence, and interest in science. Boys outperform in science and math, while girls excel in reading, influencing career choices. Therefore, addressing boys' underperformance in reading is as crucial as supporting girls' performance in STEM to ensure greater representation of women in science careers[141].

Good Practices

To increase gender diversity in STEM subjects and hence in the energy sector, some good practices have been implemented in the education and academia sector of the four partner countries.

In **Germany**, there have been several programmes to mobilise women for STEM studies through mentoring programmes, STEM days in schools, or open house days at the universities. A university in Mülheim an der Ruhr has even created a study programme of mechanical engineering that is only open to women called *Frauenstudiengang*

[136] Ibid.
[137] PISA (2019). Why don’t more girls choose to pursue a science career?, https://www.oecd-ilibrary.org/education/why-don-t-more-girls-choose-to-pursue-a-science-career_02bd2b68-en (last accessed 17.01.2024).
[138] Grañeras Pastrana, M. et al. (2022). "Radiography of the gender gap in STEAM training". In: Ministry of Education and Vocational Training, https://alianzasteam.educacionyfp.gob.es/publicaciones/informes-alianza-steam.html (last accessed 17.01.2024).
[139] PISA (2019).
[140] Stoet, G., & Geary, D. C. (2018). The gender-equality paradox in science, technology, engineering, and mathematics education. *Psychological science*, *29*(4), 581-593.
[141] Ibid.

Maschinenbau[142]. It aims to create a safer space for women for the first four semesters. Afterwards, they study together with men. The Renewable Energy Academy (RENAC) had implemented one specific successful programme *Empowering Women* focused on capacity building, mentoring and networking, accelerate career growth by enhancing knowledge, fostering business acumen, and facilitating valuable professional connections[143]. Deplorably, RENAC did not put any further focus on gender equality after this programme.
The project *FIT in MINT (STEM): Frauen.Innovation.Technik.* aimed at strengthening women – currently unemployed and mainly mothers – by conducting a further education programme. Many of them have had a different career beforehand, re-educated and joined this training on energy subjects.[144]

In **Spain**, the Ministry of Education and Vocational Training launched in 2021 the *STEAM Alliance for Female Talent*[145] to reduce the gender gap by inspiring girls to trust in their technical learning abilities, awaken their passion for the STEM subjects and make women leaders in the field. Some actions of the Alliance are the announcement of awards for educational projects, the provision of curricular materials and educational or training innovation, the creation of a Statistical Observatory to measure the gender gap in STEAM education in Spain and the generation of a repository of initiatives promoted by companies and organisations that are members of the *STEAM Alliance*.

Although the **Slovenian report** does not provide any examples, some national good practices could be identified: The *FeSTEM* project aims to promote female representation in STEM by using traditional and computationally rich media to connect students from the higher education with successful female role models in the field and thereby establishing a peer support system. The project focuses on creating gender-sensitive teaching methodologies, an open-source online instrument for shareable gender-sensitive exhibits, and a mentoring community platform for STEM students. By engaging students in creative hands-on scientific activities, the project fosters their motivation to pursue careers in STEM.[146]
The *Women and Girls in STEM Forum* is another important platform, like *FeSTEM*. It serves

[142] Hochschule Ruhr West (2023). Frauenstudiengang Maschinenbau, https://www.hochschule-ruhr-west.de/studium-lehre/studienangebot/bachelor/frauenstudiengang-maschinenbau/ (last accessed 17.01.2024).
[143] RENAC (2023). Empowering women, https://www.renac.de/trainings-services/market-development-and-consulting/empowering-women (lastly accessed 17.01.2024).
[144] Komm, mach MINT (2023). FIT in MINT - Frauen.Innovation.Technik. https://www.komm-mach-mint.de/schuelerinnen/mint-karte/projekte/fit-in-mint-frauen.innovation.technik (last accessed 17.01.2024).
[145] Spanish Presidency. Council of the European Union (2023). International Conference on the Future of Girls in STEAM, International Conference on the Future of Girls in STEAM (europa.eu) (last accessed 01.02.2024).
[146] FeSTEM (2024). The project, https://festemproject.eu/the-project/ (last accessed 22.01.2024).

as a space for experts, such as policy makers, industry leaders and professors and role models, to connect to and encourage women and girls interested in pursuing a career in the technical field. It focuses on addressing gender-related barriers and empowering young women to reflect on and develop their technical skills.[147]

Another good practice is the *Female Engineer of the Year* award, an annual event in Slovenia which aims to inspire young girls to pursue engineering careers by highlighting female engineer role models and their achievements. The project promotes diversity among the nominees in education, age, organisation, field of work, previous appearance and professional orientation. It is not a competition but rather an award that addresses and counteracts the invisibility of female engineers in society.[148]

In **Croatia**, the Gender Equality Plans (GEPs) are established in almost every technical faculty, except for the University of Applied Sciences in Zagreb, on either faculty or university level. The GEPs are an eligibility criterion for certain categories of legal entities from EU countries and non-EU countries. Universities that have a GEP are eligible for certain funding opportunities[149]. The plans have been found to be useful and mostly well-developed among the Croatian technical faculties. They usually identify strategic areas of improvement, contain solid and ambitious objectives, measures, indicators responsible positions, implementation bodies and timelines. Moreover, a Committee, a Commission or a working group is founded to implement and monitor the measures.

The Faculty of Electrical Engineering and Computing (FER) has been a member of the project CALIPER funded by the HORIZON 2020 programme, aiming to increase the number of female researchers in STEM, improve their career prospects, and integrate a gender dimension in research. Within the project, FER has adopted in September 2021 one of the earliest GEPs among Croatian higher education institutions[150]. Furthermore, they launched a web page *Ravnopravnost@FER*[151] dedicated to gender equality and a podcast *ŽensCast* offering future female student's stories of women who started their professional careers at the faculty.

[147] Women and Girls in STEM Forum (2024). About the forum, https://eit-girlsgocircular.eu/women-and-girls-in-stem-forum/ (last accessed 22.01.2024).
[148] Female Engineer of the Year (2024). Od nevidnosti k navdihu. https://inzenirka-leta.si/ (last accessed 22.01.2024).
[149] European Commission (2023).
[150] University of Zagreb, Faculty of Electrical Engineering and Computing (2021). Gender Equality Plan 2021 – 2025, https://www.fer.unizg.hr/_download/repository/UNIZG-FER-Gender-Equality-Plan-2021-2025[2].pdf (last accessed 17.01.2024).
[151] University of Zagreb, Faculty of Electrical Engineering and Computing (2023). Ravnopravnost @FER. https://www.fer.unizg.hr/jednake_mogucnosti (last accessed 17.01.2024).

Learnings and Recommendations

In the scope of the research in the four EUWES countries, the partner organisations have identified some key factors in the education and academia sector to advance women's representation in the STEM sphere and consequently in the energy sector.

Spain, Germany, and Slovenia stressed the necessity of tackling the problem of underrepresentation at the root, which is an overall gender inequality that has been reproduced over generations and originates from gender roles, stereotypes, the burden of care work and bias. The energy transition therefore must be approached beyond the technicalities and tackle the social and care spheres already occupied by women. **Slovenia** recommends funding in this field to counteract inequality actively by educating about it. In **Germany,** there is a public discourse about the shortage of skilled workers, which, on the one hand, clearly shows the need for women and thereby specific programmes to support them. On the other hand, female students at technical universities mostly do not engage for gender topics, since they would have to spend extra time on it and are afraid these programmes might be a form of positive discrimination, and thus question their competency. To tackle this issue and to include the social dimension into the STEM subjects, gender, social aspects and energy politics should be incorporated compulsory in the energy curricula. By that, working towards a gender-just and non-discriminatory study atmosphere would become obligatory for everyone and consequently the engagement for gender topics would not be doomed to leisure time and organised by people who are already affected by gender discrimination.

Both, **Spain and Germany** emphasise that an integrated energy culture should be promoted at all levels of education to advocate career perspectives in STEM subjects and the energy sector to students of all ages and genders. **Germany and Slovenia** moreover suggest that teachers and professors at all education levels should be trained in awareness about gender stereotypes. Taking this one step further, it would be effective to appoint coordinators for equal opportunities as experts, specialised and trained in methodologies for gender mainstreaming. This should be a proper job position and not just an additional task for an already occupied and busy employee.

8. Conclusion & Recommendations

Policy design and implementation needs to be gender-transformative, recognising the diverse needs and experiences of all genders and social groups. The European Parliament has called

for the inclusion of gender equality in energy policies[152].

These recommendations emphasise the importance of integrating gender considerations across all phases of the energy policy cycle to ensure a more inclusive and equitable energy transition and considering work, health, and infrastructure policies. National gender and energy policies are analysed and compared in the EUWES project, including policies of Croatia, Slovenia, Spain, and Germany. The gender policies in the energy sector involve addressing persistent gender inequalities such as gender gaps in energy access, the energy labour market, energy-related education, and decision-making. In the following, the recommendations proposed by each EUWES partner organisation in their respective D1.2 reports will be presented shortly. The comparison and relevance of gender-transformative policies are presented in the concluding chapter.

Table 9: Recommendations for Policy, Business and Educational/Academic Institutions for Each EUWES country (retrieved from D1.2 Reports)

	Policy	Business	Education/Academic
Croatia	• Work-life balance • (Financial) support for women-led business	• Recruitment process • Promotion and leadership • Ethical codex • Mentorship programmes	• Promotion of women in leadership • Combating gender stereotypes in education system • Awareness campaigns
Germany	Different genders in different roles		
	• Information, definition and awareness on energy poverty • Cross-sectoral strategy, including gender- and energy-related sectors such as mobility and building sector, as well as social, care and welfare policies • Include civil society, e.g. in NECP process	• Regular gender self-assessment to check and improve the current status quo of gender equality in the company • Training on gender-just communication • Training on anti-discriminatory working atmosphere (i.e., feminist moderation, awareness person, safer spaces)	• Gender-disaggregated data on the gender-energy-nexus • Include modules on gender, energy politics and social aspects in their energy curricula (mainly for the technical disciplines)

[152] FEMM Committee (2023). International Women´s Day, "Gender Aspects of Energy Poverty", https://www.europarl.europa.eu/RegData/etudes/BRIE/2023/744256/IPOL_BRI(2023)744256_EN.pdf (last accessed 01.02.2024).

Slovenia	• Chapter in national programme on gender equality for energy and climate issues, including energy poverty • Strengthening of Coordinators for equal opportunities • Raising awareness about gender / intersectional aspects and energy issues • Development of gender and intersectionality sensitive indicators • Participation of women at all levels of designing operationalisation plans for the implementation of the energy related directives and laws. • Protecting women against rising rents or other costs due to renovation or deployment of renewables • Holistic approach	• Chapter in national programme on gender equality for energy and climate issues • Increased support for women in management positions • Raising awareness about gender / intersectional aspects and energy issues • Prioritising women in training and jobs related to building renovation and renewables • Holistic approach	• Tools to decrease inequalities in education and research • Further research to establish the nexus between gender and energy • Raising awareness about gender / intersectional aspects and energy issues • Collecting sex-disaggregated data with an intersectional perspective (race, age, class, ability...) on energy aspects • Holistic approach
Spain	• Improve acceptance of the energy transition and mobilise more citizens to actively participate in this transition. • Adopt definitive and structural measures to put an end to energy poverty	• Integrate professionals from other areas into the energy sector • Conduct specific training for men in the private sector that addresses gender issues, feminism or power analysis	• Generate information, data and reports segregated by sex/gender • Broaden curricula in all energy-related studies to be transformative

	• Include a gender and social justice perspective as a priority in all transformative energy transition initiatives, such as energy communities • Make gender policies more cross-cutting and permeate other ministries • Include women's expertise in legislative processes to make them more responsive to real diversity • Promote the real democratisation of the energy model towards a distributed, socially and environmentally just one		

Table 9 shows the analysed recommendations of the EUWES project countries.

Croatia presents recommendations in three spheres: policy, business sector and educational sphere. Bringing these spheres together, thinking about them together, will allow for a multi-sector and multi-stakeholder approach, thus, to create a comprehensive framework for mainstreaming gender in the energy sector and beyond. It allows for driving societal change by reflecting on the different perspectives of stakeholder groups, and by addressing awareness and policy gaps in key areas. Synergies that need to be created for all of spheres are the following:

- Salary transparency measures
- Addressing gender pay gaps by conducting regular pay equity audits, identifying salary difference, and implementing corrective measures.

The synergy of the recommendations of the educational and business sector focus on:

- Implementation of mentorship and sponsorship programmes in companies
- Building partnerships with educational sector to create pathways for women to enter the energy sector.

- Networking opportunities for women to connect with mentors, peers, and industry.

The cooperation of the society and the educational sector has immense potential to trigger societal changes:

- Raising awareness about gender roles, and social and cultural norms from an early age on.
- Promoting STEM (Science, Technology, Engineering, and Math) among girls and women
- Share best practices in all sectors.

Germany still lacks gender aspects and gender mainstreaming in the political, economic, and academic spheres of the energy sector. The representation of women is considered by authorities, primarily through the share of women in different political or economic positions. Barriers about hindering women from entering the energy sector are manifold with women being the primary caretakers of children and other family members, the Gender Pay Gap, the male-dominated perspective in STEM subjects and gender stereotypes and a chauvinistic working atmosphere or girls' underestimation.
Such barriers are partially considered in gender recommendations, the main message of the D1.2 report of WECF was that 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. These recommendations build 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.

Slovenia shows Gender equality policies and gender in the energy policies. In light of increasing environmental degradation and climate change, and the urgent need for a green transition, D1.2 report of Slovenia recommended to devote a chapter in the National programme on gender equality to the nexus between gender and environmental issues, with a focus on energy, and special attention to be paid to the issue of energy poverty. It is also recommended to decrease inequalities in the field of growing up and education. The latest National programme has a whole section dedicated to decreasing inequalities in the field of upbringing, education, science, and culture and overcoming gender stereotypes. It is also important to understand to a larger extent the gender stereotypes and roles of men and women when it comes to environmental issues, as the research in this field is relatively new. The increased support for women in decision-making positions need to be strengthened. Research for D1.2 and D1.4 made clear that women in positions of power in energy do acknowledge

differences between women and men, including the fact that it was not easy for them to be accepted by their predominantly male colleagues, or the more difficult role in terms of work-life balance, but at the same time they tend to be sceptical of positive measures such as quotas, as they are often perceived as the reason that they obtained their position and not the fact that they are highly qualified for the managerial position. However, it needs further research for mainstreaming gender in energy policies and how to establish the nexus between gender and energy.

Coordinators for equal opportunities are responsible for mainstreaming gender into a specific field of work at the level of ministries. EUWES project partner FOCUS recommends that the job of a coordinator be the sole responsibility of an employee and not just an additional task that they carry out after completing their primary responsibilities. This would include additional training for the coordinators, implemented on one hand by MDDSZSEM to improve the more general skills and knowledge, and methodologies for gender mainstreaming.

Historically, energy policies focused on supply, assuming uniform and universal needs between different genders. However, for an effective energy transition, policies must recognise and address differences between genders and difference between social groups in an intersectional way, regarding energy use and production. Currently, there´s a significant lack of awareness and expertise among policymakers, so that one recommendation is to increase the capacity of policymakers in mainstreaming gender in their energy policies.

Highlighted by Slovenian partner FOCUS was to integrate profound gender indicators and to strengthen women's diverse participation as a crucial element in planning and implementing energy directives. Furthermore, the perspective of those in vulnerable situations must be acknowledged. For example, prioritising women in training for building renovation and renewables addresses their needs, preventing disproportionate impacts from rising costs. A comprehensive approach is essential to implement gender-transformative energy policies, ensuring holistic consideration in policy design and implementation.

The Spanish partner organisation ESF highlighted the necessity and urgency to address the gender perspective from a transversal and structural approach in the energy sector (in their D1.2 report). This includes to:

- Generate information, data and reports segregated by sex/gender. It is necessary to increase knowledge on equality and equity in a key sector such as the energy sector, whether in the field of employment and salaries, education, politics, or the impacts of the model in the form of energy poverty. It should be borne in mind that although the disaggregation of data by sex/gender is necessary, it is not sufficient.

- Integrate the gender perspective in the processes of assessing energy demand and in the configuration of the most appropriate energy technologies and their territorial implementation and management. It is necessary to improve acceptance of the energy transition and mobilise more citizens to actively participate in this transition.
- Adopt definitive and structural measures to put an end to energy poverty, such as a ban on cuts, debt cancellation or a social tariff. Energy poverty has a strong impact on women and devastating consequences on their mental and physical health.
- Include a gender and social justice perspective as a priority in all transformative energy transition initiatives, such as energy communities, prioritising issues such as care, decision-making processes, availability of time for participation, technical inclusiveness, or economic capacities.
- Broaden curricula in all energy-related studies to be transformative, situating energy as essential to life and therefore in care, and recognising its social and environmental impacts. While policies to promote parity in STEM studies are necessary, it is also essential to rethink and broaden energy education beyond the technical and/or economic spheres.
- Integrate professionals from other areas into the energy sector, beyond technology and economics, recognising the value of care and social issues in the sector. It is necessary to promote diversity in all areas of energy, beyond the gender gap.
- Conduct specific training for men in the private sector that addresses gender issues, feminism, or power analysis. Also promote segregated spaces that strengthen the situation of women working in the sector.
- Make gender policies more cross-cutting and permeate other ministries such as the Ministry for Ecological Transition (MITECO). Raise public awareness of the need to include the gender perspective in the sector, beyond parity, within the framework of ecofeminism and environmental and social justice.
- Given that organisations and social movements in the field of energy, environmental justice and the defence of energy rights are highly feminised, include them in the definition of energy policies and plans. In general, include women's expertise in legislative processes to make them more responsive to real diversity.
- Promote the real democratisation of the energy model towards a distributed, socially and environmentally just one. The representation of a feminist agenda goes beyond the presence of women; it is necessary to change the patriarchal decision-making structures themselves to integrate a real gender perspective.

Summary

To mainstream gender in policy, business and educational institutions, various recommendations are presented. These recommendations are based on the EUWES analysis and are also confirmed by numerous studies by EIGE, WECF, FEMM committee, etc. It needs transparency and monitoring, leadership commitment, education and trainings, research and data generation, linking gender and energy curricula in schools and universities, and increase the representation of WLINTA throughout all political, economic, and academic spheres.

The previous chapters showed the current status quo of the gender-energy-nexus in all of these spheres. Going back to the research questions which guided the analyses for each EUWES partner country and which were listed in chapter 2, this summary will provide short resulting answers to them.

In terms of the question ***how national and federal strategies promote gender equality***, it was carved out in chapter 3 that all EUWES partner countries pursue gender equality strategies on international and national level. On international level, all four countries committed to the implementation of CEDAW, the Istanbul Convention, and the Agenda 2030 by implementing measures for SDG 5. Furthermore, besides Croatia, all other countries have announced a feminist foreign policy in 2023 – this can be regarded a milestone in applying feminist approaches to governmental strategies. On national level, all partner countries pursue similar gender equality acts as anti-discrimination laws, laws to create equal opportunities between men and women and to strengthen the representation of women in the economic sphere, hence in the labour market.

Regarding the question ***Which measures ensure equal opportunities for women to participate in the energy sector, especially in leadership positions?***, it can be highlighted that these measures are not yet implemented on juridical level, i.e., through coherent laws. Laws such as the German FüPoG I and II can be transferred to energy companies so that these companies are obliged to fulfil a gender quota. With the Labour Law in Croatia and the regulation of Spain obliging larger companies to carry out an Equality Act, measures to allow for equal pay are created, which are also valid for the energy sector.

One other research question treated during each country analysis was the question of representation: **What barriers do women (or WLINTA) face in terms of their representation in the political, economic, and academic spheres of the energy sector?** This question has been discussed in the chapters 5 to 7 for each of these spheres. The main barriers identified were burdens of care work, gender stereotypes and gender roles which lead

to an underrepresentation of women in STEM studies, masculine working atmosphere in universities and companies (i.e., sexist jokes), no role models and a communication gap (i.e., not having access to information about networks and trainings).

Representation is a major part of gender justice, but it needs more dimensions. Equal rights (legal and political), economic empowerment (equal participation and opportunities in the workforce, including equal pay, and access to resources and economic assets), elimination of gender-based violence (e.g., sexual harassment), political empowerment (equal participation in decision-making, including representation in elected bodies and leadership positions), social and cultural norms (challenging and changing harmful social and cultural norms that reinforce gender inequalities, such as stereotypes, gender roles, and expectations) are other pillars of gender justice that need to be assessed and taken into account. A low level of representation can both be a gift and an obstacle – A gift, as if you start implementing strategies to increase the representation of women, this can only get better and bring positive results. An obstacle, as if it is a male-dominated workplace, has often been a reason for women to hesitate before accepting a position. Keeping in mind that diverse teams have shown to increase profitability, reduce both risk-taking and environmental damage, and promote sustainable and innovation-friendly structures, we are assuming that your goal is the increase of diverse employees. So, the question is here where are your obstacles, and why are those in place?

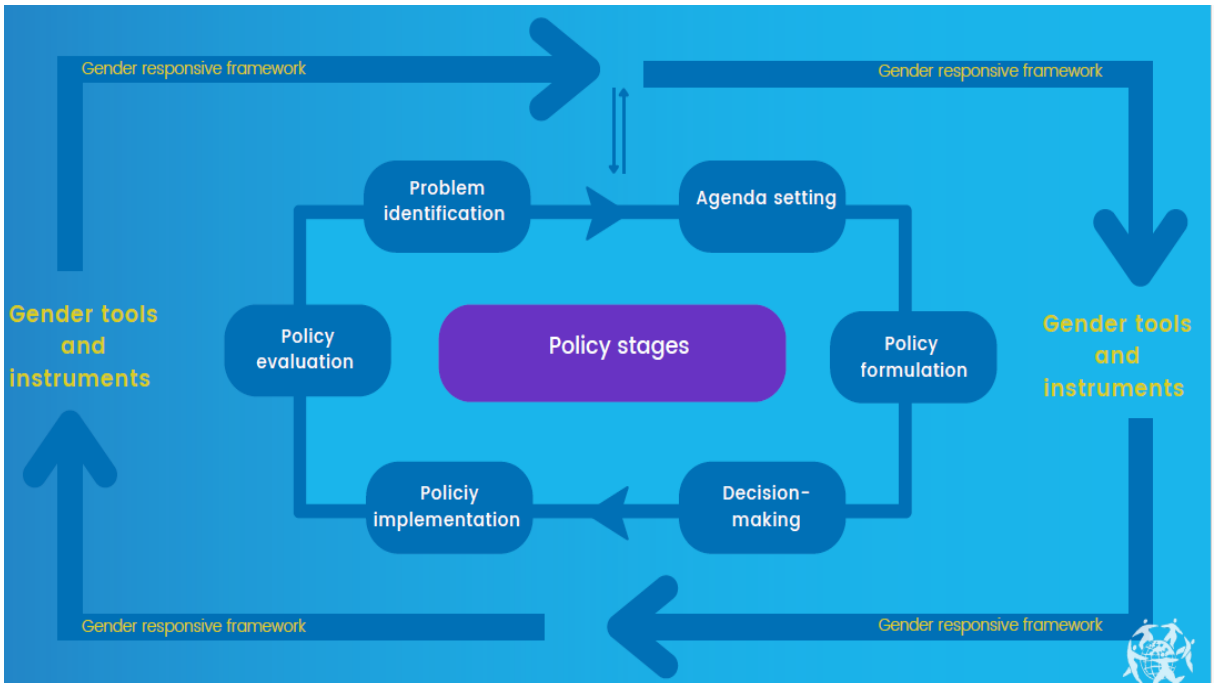


Figure 3: Illustration of Gender-Responsive Policy Stages, Source: WECF, 2022

While progress has been made in enhancing women's representation in politics across the

four EUWES countries, challenges remain, such as persistent gender imbalances in certain ministries and the need for deeper transformation in institutional structures. This leads to the answer to one remaining research question: **Do the strategies and measures go further, and address aspects of representation, rights, and redistribution from a gender perspective?**

So far, they do not. The success of programmes often hinges on the intersectionality of gender, education, and societal expectations. Comprehensive, intersectional approaches are essential for achieving lasting gender justice and fostering inclusive political landscapes.

Holistic gender-transformative energy policies are relevant, and studies show, what needs to be implemented. Considering the long operational life of energy infrastructure (e.g., public transport, energy efficiency), not mainstreaming gender will reinforce inequalities for decades, wasting limited financial, social, and human resources and missing ecological chances. The European Green Deal points out the role of citizens and needs: “the clean energy transition should involve and benefit consumers, but lacks diversity and equality, neglecting the voices of women. Including the needs, rights, and talents of all genders would be a great instrument to realise a gender-transformative energy transition”[153]. Figure 3 shows the relevance of gender-transformative policy setting. It allows to imagine where to put all the gender tools and instruments that are available, and which have already been highlighted throughout the chapters 5 to 7, such as Gender Action Plans, mentoring programs or female-led energy studies.

The comparative analysis has shown that all EUWES countries are already on track with institutionalising gender equality in their legislative mechanisms –

however, it has also detected which gaps need to be filled to be more gender-transformative and gender-just and how to bring these approaches into the energy transition.

9. Bibliography

BDO Global (2019). SPAIN – Changes to employment law regulation on gender equality and working time in Spain, June 2019, SPAIN - Changes to employment law regulation on gender equality and working time in Spain - BDO (last accessed 31.01.2024).

Bittmann, B. & Völkerding, L. M. (2022). Frauen in Führungspositionen – mehr als nur gute Vorsätze fürs neue Jahr. Available at: https://www.cmshs-bloggt.de/arbeitsrecht/frauen-in-fuehrungspositionen-mehr-als-nur-gute-

[153] WECF (2021). Why the European Green Deal needs ecofeminism. Moving from gender-blind to gender-transformative environmental policies, https://www.wecf.org/report-why-the-european-green-deal-needs-ecofeminism/ (last accessed 01.02.2024).

vorsaetze-fuers-neue-jahr/ (last accessed: 23.8.2023).

BMFSFJ (2017). Das Entgelttransparenzgesetz: Informationen zum Gesetz zur Förderung der Entgelttransparenz. Available at: https://www.bmfsfj.de/resource/blob/117322/c9ef7c4bbe4822e644c94821b09aa88f/dasentgelttransparenzgesetz-informationen-zum-gesetz-zur-foerderung-der-entgelttransparenz-data.pdf (last accessed: 23.8.2023).

BMFSFJ (2022). Die Gleichstellungsstrategie der Bundesregierung, 30.12.2022, BMFSFJ - Die Gleichstellungsstrategie der Bundesregierung (last accessed 10.01.2024).

BMWK (2022). Für mehr Geschlechtergerechtigkeit im Energiesektor, BMWK - Für mehr Geschlechtergerechtigkeit und Diversität im Energiesektor (last accessed 12.01.2024).

CA-EED (2022). Poverty - Energy Efficiency Measures in Germany, https://www.ca-eed.eu/ia_document/poverty-energy-efficiency-measures-in-germany/ (last accessed 23.01.2024).

Cabrera, C. G. (2023). Victory in Fight for Gender Recognition in Spain. Law Expands Protections for LGBTI People in Various Areas, 16th of February 2023, Victory in Fight for Gender Recognition in Spain | Human Rights Watch (hrw.org) (last accessed 31.01.2024).

CEDAW (2023). Concluding observations on the ninth periodic report of Spain, CEDAW/C/ESP/CO/R.9 (igualdad.gob.es) (last accessed 16.01.2024).

Clancy, J., & Roehr, U. (2003). Gender and energy: is there a Northern perspective?. *Energy for Sustainable Development*, *7*(3), 44-49.

CMS (n.d.). CMS Expert Guide on Discrimination in the Workplace in Slovenia, Laws on discrimination in the workplace in Slovenia (cms.law) (last accessed 31. January 2024).

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).

Council of Europe (2020). GREVIO publishes its first baseline report on Spain, 25.11.2020, GREVIO publishes its first baseline report on Spain - Istanbul Convention Action against violence against women and domestic violence (coe.int) (last accessed 16.01.2024).

Council of Europe (2023). GREVIO publishes its baseline evaluation report on Croatia, 6.09.2023, GREVIO publishes its baseline evaluation report on Croatia - Istanbul Convention Action against violence against women and domestic violence (coe.int) (last accessed 17.01.2024).

Covington & Burlington LLP (2022). FüPoG II - The gender quota on the Executive Board. Available at: https://www.cov.com/en/news-and-insights/insights/2022/07/fupog-ii--the-gender-quota-on-the-executive-board (last accessed: 23.8.2023).

Croatian Agency for Science and Higher Education (AZVO). Statistike. https://www.azvo.hr/hr/visoko-obrazovanje/statistike (lastly accessed 17.01.2024).

Croatian Government (n.d.). Labour Law, Art.91., (Official Gazette, number: 93/14, 127/17, 98/19, 151/22, 64/23).

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-konventionvorbehaltslos-nun-auf-zur-vollstaendigen-umsetzung-wenn-nicht-jetzt-wann-dann/ (last accessed: 23.8.2023).

DESTATIS (2023a). Statistisches Bundesamt. Von Verdienste. Gender Pay Gap: https://www.destatis.de/DE/Themen/Arbeit/Verdienste/Verdienste-GenderPayGap/_inhalt.html (last accessed 31.01.2024).

DESTATIS (2023b). Statistisches Bundesamt. Von Einkommen, Konsum und Lebensbedingungen. Zeitverwendung: https://www.destatis.de/DE/Themen/GesellschaftUmwelt/Einkommen-Konsum-Lebensbedingungen/Zeitverwendung/_inhalt.html (last accessed 31.04.2024).

DESTATIS (2023c). 6,5% weniger Studienanfängerinnen und anfänger in MINT Fächern im Studienjahr 2021, Pressemitteilung Nr. N004 vom 23.Janaur 2023, 6,5 % weniger Studienanfängerinnen und anfänger in MINT Fächern im Studienjahr 2021 Statistisches Bundesamt (destatis.de) (last accessed 23.10.2023).

Deputy Directorate General for University Research Activity of the Ministry of Universities (2023). "Datos y cifras

del Sistema Universitario Español" (Spanish University System Facts and Figures). Ministry of Universities. Available at: https://www.universidades.gob.es/wp-content/uploads/2023/04/DyC_2023_web_v2.pdf (last accessed 17.01.2024).

EIGE (2022a). Gender Mainstreaming Approach, Spain, Gender Mainstreaming Approach - Spain (europa.eu) (last accessed 15.01.2024).

EIGE (2022b). How Spain and the EU can take steps forward for gender equality, 23. August 2022, How Spain and the EU can take steps forward for gender equality | European Institute for Gender Equality (europa.eu) (last accessed 31.01.2024).

EIGE (2022c). Croatia country information, https://eige.europa.eu/gender-mainstreaming/countries/croatia (last accessed 23.01.2024).

EIGE (2023a). Gender Statistics Database, National Parliaments: presidents and members, Spain, 4th quarter 2023, https://eige.europa.eu/gender-statistics/dgs/indicator/wmidm_pol_parl__wmid_natparl/datatable?sex=W&UNIT=PC&POSITION=MEMB_PARL&EGROUP=PARL_SINGLOW&col=time&row=geo (last accessed 25.01.2024).

EIGE (2023b). Gender Statistics Database, National Parliaments: presidents and members, Slovenia, 4th quarter 2023, https://eige.europa.eu/gender-statistics/dgs/indicator/wmidm_pol_parl__wmid_natparl/datatable?sex=W&UNIT=PC&POSITION=MEMB_PARL&EGROUP=PARL_SINGLOW&col=time&row=geo (last accessed 25.01.2024).

EIGE (2023c). Gender Statistics Database, National Parliaments: presidents and members, Spain, Croatia, Slovenia, Germany, 4th quarter 2023, https://eige.europa.eu/gender-statistics/dgs/indicator/wmidm_pol_parl__wmid_natparl/datatable?sex=W&UNIT=PC&POSITION=MEMB_PARL&EGROUP=PARL_SINGLOW&col=time&row=geo (last accessed 25.01.2024).

EIGE (2023d). Gender Statistics Database, National governments: ministers by seniority and function of government, Spain, Croatia, Slovenia, Germany, 4th quarter 2023 https://eige.europa.eu/gender-statistics/dgs/indicator/wmidm_pol_gov__wmid_natgov_minis/datatable?sex=W&UNIT=PC&POSITION=MEMB_GOV&BEIS=TOT&col=time&row=geo (last accessed 25.01.2024).

EIGE (n.d.). *women's triple role*, European Institute for Gender Equality, viewed 31 May *2023*, https://*eige*.europa.eu/thesaurus/terms/1442 (last accessed 31.01.2024).

EIGE (n.d.). Gender Mainstreaming Approach, Germany, Gender Mainstreaming Approach - Germany (europa.eu) (last accessed 01.02.2024).

EIGE (n.d.). Gender Equality Index: Green Deal in “each country”, https://eige.europa.eu/gender-equality-index/thematic-focus/green-deal/country (last accessed, 23.01.2024).

EIGE (n.d.). Economic Benefits of Gender Equality in the European Union, https://eige.europa.eu/newsroom/economic-benefits-gender-equality?language_content_entity=en (last accessed 31.01.2024).

EmpowerMed (2023). Energy poverty and gender publications, https://www.empowermed.eu/material/reports/ (last accessed 24.01.2024).

Energy Community Secretariat (2022). Policy Paper on Collecting Gender-Disaggregated Data in the Energy Sector, https://www.energy-community.org/dam/jcr:002983b8-8c9f-40ad-86c6-5c8e931dcd01/PP-04/2021%20ECS_Gender_0422.pdf (last accessed: 31.01.2024).

Ertl, B., Luttenberger, S. & Paechter, M. (2017). The Impact of Gender Stereotypes on the Self-Concept of Female Students in STEM Subjects with an Under-Representation of Females https://www.frontiersin.org/articles/10.3389/fpsyg.2017.00703/full (last accessed 23.01.2024).

EUWES, ESF (2023). Mapeo de las políticas de energía y género en el Estado español, Spain. Publications | EUWES (door.hr), (last accessed 29.01.2024).

EUWES, DOOR (2023). D1.2 Report on the mapping of national gender policies in energy sector – Croatia, Publications | EUWES (door.hr) (last accessed 29.01.2024).

EUWES, FOCUS (2023). D1.2 Report on the mapping of national gender policies in energy sector, Slovenia, Publications | EUWES (door.hr), (last accessed 29.01.2024).

EUWES, WECF (2023). D1.2. Report on the mapping of national gender policies in energy sector, Germany, Publications | EUWES (door.hr), (last accessed 29.01.2024).

European Commission (2022). 2022 report on gender equality in the EU, https://op.europa.eu/en/publication-detail/-/publication/0fb69c07-e79d-11ec-a534-01aa75ed71a1 (last accessed, 12.01.2024).

European Commission (2023). Gender Equality Plans as an eligibility criterion in Horizon Europe, https://research-and-innovation.ec.europa.eu/strategy/strategy-2020-2024/democracy-and-rights/gender-equality-research-and-innovation_en#gender-equality-plans-as-an-eligibility-criterion-in-horizon-europe (last accessed 17.01.2024).

European Network of Equality Bodies (2022). New Spanish comprehensive anti-discrimination law, New-Spanish-Comprehensive-Anti-Discrimination-Law-summary.pdf (equineteurope.org) (last accessed 05.12.2023).

European Network of Equality Bodies (n.d.). Advocate of the Principle of Equality, Advocate of the Principle of Equality – Equinet (equineteurope.org).

Eurostat (2023a). Gender pension gap by age group,https://ec.europa.eu/eurostat/databrowser/view/ILC_PNP13__custom_470372/bookmark/table?lang=en&bookmarkId=ca6425d8-bd3e-4a09-b6d8-c181ea76bc6a (last accessed 23.01.2024).

Eurostat (2023b). More women than men held tertiary degrees in 2022. Eurostat. Available at: https://ec.europa.eu/eurostat/web/products-eurostat-news/w/ddn-20230530-3 (lastly accessed 17.01.2024).

Eurostat (2023c). Graduates in tertiary education, in science, math., computing, engineering, manufacturing, construction, by sex - per 1000 of population aged 20-29. https://ec.europa.eu/eurostat/databrowser/view/EDUC_UOE_GRAD04__custom_9394485/default/table?lang=en&page=time:2021 (lastly accessed 17.01.2024) (last accessed 01.02.2024).

Eurostat (2023d). Graduates at doctoral level, in science, math., computing, engineering, manufacturing, construction, by sex - per 1000 of population aged 25-34. https://ec.europa.eu/eurostat/databrowser/view/EDUC_UOE_GRAD07__custom_6593758/default/table?lang=en (lastly accessed 17.01.2024).

Federal Anti-Discrimination Agency (2019). Guide to the General Equal Treatment Act. Available at: https://www.antidiskriminierungsstelle.de/SharedDocs/downloads/EN/publikationen/agg_wegweiser_engl_guide_to_the_general_equal_treatment_act.pdf?__blob=publicationFile (last accessed: 23.8.2023.)

Federal Anti-Discrimination Agency (n.d.). Frau-Mann-Divers: Die „Dritte Option“ und das Allgemeine Gleichbehandlugnsgesetz (AGG), Antidiskriminierungsstelle - Dritte Option - Frau – Mann - Divers: Die „Dritte Option“ und das AGG (last accessed 31.01.2024).

Federal Anti-Discrimination Agency (n.d.). Was ist Diskriminierung, Antidiskriminierungsstelle - Startseite (last accessed 12th of January 2024).

Federal Foreign Office of Germany (2023). Guidelines for Feminist Foreign Policy: a foreign policy for all, 01.03.2023, Guidelines for Feminist Foreign Policy: a foreign policy for all - Federal Foreign Office (auswaertiges-amt.de) (last accessed 29.01.2024).

Federal Ministry for Economic Affairs and Climate Action (2015). Energy Efficiency Strategy for Buildings. Available at: https://www.bmwk.de/Redaktion/EN/Artikel/Energy/energy-efficiency-strategy-for-buildings.html (last accessed: 22.8.2023).

Feenstra, M., & Clancy, J. (2020). A view from the north: Gender and energy poverty in the European Union. In Engendering the energy transition, 163-187. Palgrave Macmillan.

Female Engineer of the Year (2024). Od nevidnosti k navdihu. https://inzenirka-leta.si/ (last accessed 22.01.2024).

FEMM Committee (2023). International Women´s Day, “Gender Aspects of Energy Poverty”, https://www.europarl.europa.eu/RegData/etudes/BRIE/2023/744256/IPOL_BRI(2023)744256_EN.pdf (last accessed 01.02.2024).

FeSTEM (2024). The project, https://festemproject.eu/the-project/ (last accessed 22.01.2024).

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.

García-Baños, C. et al. (2023). Employment of women in the Just Energy Transition in Spain. Summary of the analysis and opinions of expert voices. In: Naturgy Foundation, Employement-of-Women-in-the-Just-Energy.pdf (transicionjusta.gob.es) (last accessed 21.02.2024).

Gender Security Project (2023). FFP Countries, Slovenia, Slovenia — The Gender Security Project (last accessed 29.01.2024).

Global Energy Alliance for People and Planet (2023). Empowering Women for a Sustainable Energy Future, https://energyalliance.org/empowering-women-for-a-sustainable-energy-future/ (last accessed, 31.01.2024).

Grañeras Pastrana, M. et al. (2022). "Radiography of the gender gap in STEAM training". In: Ministry of Education and Vocational Training, https://alianzasteam.educacionyfp.gob.es/publicaciones/informes-alianza-steam.html (last accessed 17.01.2024).

GREVIO (2021). Baseline Evaluation Report on legislative and other measures giving effect to the provisions of the Council of Europe Convention on Preventing and Combating Violence against Women and Domestic Violence (Istanbul Convention), 12 October 2021, 1680a4208b (coe.int), (last accessed 16.01.2024).

GREVIO (2022). Comments submitted by Germany on GREVIO's final report on implementing the Council of Europe Convention on preventing and combating violence against women and domestic violence. Available at: https://rm.coe.int/germany-comments-to-the-grevio-report/1680a86939 (last accessed: 23.8.2023).

Hochschule Ruhr West (2023). Frauenstudiengang Maschinenbau, https://www.hochschule-ruhr-west.de/studium-lehre/studienangebot/bachelor/frauenstudiengang-maschinenbau/ (last accessed 17.01.2024).

Iberdrola Group (n.d.). Women at Iberdrola Group: Acting for effective gender equality, https://www.iberdrola.com/social-commitment/importance-women-iberdrola-group (last accessed, 23.01.2024).

IEA (2018). Gender and Energy Data Explorer, Gender wage gap conditional on skills for the selected sectors (Energy, non-energy), https://www.iea.org/data-and-statistics/data-tools/gender-and-energy-data-explorer (last accessed 01.02.2024).

IEA (2023). 3rd Relief Package, https://www.cleanenergywire.org/news/german-govt-should-combat-energy-poverty-targeted-support-low-income-households-report, (last accessed, 23.01.2024).

IEA (n.d.). Energy and gender, https://www.iea.org/topics/energy-and-gender (last accessed 16.01.2023).

International Renewable Energy Agency (IRENA) (2019). Renewable Energy. A Gender Perspektive, https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2019/Jan/IRENA_Gender_perspective_2019.pdf?rev=bed1c40882e54e4da21002e3e1939e3d Renewable Energy A Gender Perspective (irena.org) (last accessed 26.10.2023).

IRENA (2022). Solar PV: A Gender Perspective, https://www.irena.org/publications/2022/Sep/Solar-PV-Gender-Perspective (last accessed: 31.01.2024).

IRENA (2023). Women as Key Players in the Decentralised Renewable Energy Sector: Beneficiairies, Leaders, Innovators (https://www.irena.org/Events/2023/Mar/Women-as-Key-Players-in-the-Decentralised-Renewable-Energy-Sector) (last accessed: 31.01.2024)

Jakovou, N. (n.d.). Second Act on Equal Participation of Men and Women in Management Positions (Zweites Führungspositionen-Gesetz - FüPoG II). Available at: https://www2.deloitte.com/dl/en/pages/legal/articles/frauenquote-fuehrungspositionen-gesetz-2.html (last accessed: 23.8.2023).

Klammer, U. (2019). Gleichstellungspolitik: wo Geschlechterforschung ihre praktische Umsetzung erfährt. In: Kortendiek, B.; Riegraf, B. & Sabisch, K. (eds.): Handbuch Interdisziplinäre Geschlechterforschung, 983-992.

Komm, mach MINT (2023). FIT in MINT - Frauen.Innovation.Technik. https://www.komm-mach-mint.de/schuelerinnen/mint-karte/projekte/fit-in-mint-frauen.innovation.technik (last accessed 17.01.2024).

Mendelow, A. L. (1981): Environmental Scanning - The Impact of the Stakeholder Concept. ICIS 1981 Proceedings. 20. Available at: http://aisel.aisnet.org/icis1981/20, (last accessed 14.6.2023).

Lembke, U. (2017). Statute on the Ratification of the Istanbul Convention. Available at: https://www.equalitylaw.eu/downloads/4313-germany-statute-on-the-ratification-of-the-istanbul-convention-pdf134-kb (last accessed: 23.8.2023).

Ministry of Ecological Transition and Demographic Challenge (2019). *National Strategy against Energy Poverty 2019-2024.* Government of Spain. https://www.miteco.gob.es/content/dam/miteco/es/prensa/estrategianacionalcontralapobrezaenergetica2019-2024_tcm30-496282.pdf (last accessed 25.01.2024)
OECD (2015). Why a push for gender equality makes sound economic sense, https://www.oecd.org/social/push-gender-equality-economic-sense.htm (last accessed 31.01.2024)

OECD (2021). Slovenia has the highest share of women in senior positions in the public sector, 2021, https://www.gov.si/en/news/2023-07-07-oecd-study-slovenia-has-the-highest-share-of-women-in-senior-positions-in-the-public-sector/ (last accessed 22.01.2024).

OECD (n.d.). Integrating Environmental and Climate Action into Development Co-operation: Reporting on DAC Members´ High-Level Meeting Commitments, Slovenia | Integrating Environmental and Climate Action into Development Co-operation : Reporting on DAC Members' High-Level Meeting Commitments | OECD iLibrary (oecd-ilibrary.org) (last accessed 23rd of January 2024).

Petrova, S. & Simcock, N. (2021). Gender and energy: domestic inequities reconsidered. *Social & Cultural Geography*, 22(6), 849-867.

Pfaffenberger, B. (n.d.). Pay Transparency in Germany: The Company's Size is Decisive. Available at: https://www.primerus.com/international-business-articles/pay-transparency-in-germany-the-companys-size-is-decisive.htm (last accessed: 23.8.2023).

PIS (n.d.). Zakon o enakih možnostih žensk in moških (ZEMŽM), http://pisrs.si/Pis.web/pregledPredpisa?id=ZAKO3418 (last accessed 01.02.2024).

PISA (2019). Why don't more girls choose to pursue a science career?, https://www.oecd-ilibrary.org/education/why-don-t-more-girls-choose-to-pursue-a-science-career_02bd2b68-en (last accessed 17.01.2024).

PwC (2021). Frauen in der Energiewirtschaft, frauen-in-der-energiewirtschaft-warum-die-branche-mehr-frauenpower-braucht.pdf (pwc.de) (last accessed 26.10.2023).

RatedPower, (2023). The role of women in the energy sector in Spain, https://ratedpower.com/blog/women-in-the-energy-sector/ (last accessed 23.01.2024).

Republic of Slovenia (2021). Decision: Advocate of the Principle of Equality, Decision-Advocate-of-the-Principle-of-Equality.pdf (equineteurope.org) (last accessed 31.01.2024).

RENAC (2023). Empowering women, https://www.renac.de/trainings-services/market-development-and-consulting/empowering-women (lastly accessed 17.01.2024).

Rodenberg, B. (2023). CEDAW Committee: German climate policy is not gender just. In: Heinrich Böll Foundation, CEDAW Committee: German climate policy is not gender just | Heinrich Böll Stiftung (boell.de) (last accessed 15.01.2024).

Spain, Spanish Government (2021). Law 7/2021, of 20 May, on climate change and energy transition. Official State Gazette. 21 May 2021, no. 121. Available at: https://www.boe.es/diario_boe/txt.php?id=BOE-A-2021-8447 (last accessed 01.02.2024).

Spanish Presidency. Council of the European Union (2023). International Conference on the Future of Girls in STEAM, International Conference on the Future of Girls in STEAM (europa.eu) (last accessed 01.02.2024).

Statista (2021). Gender pay gap of average gross hourly earnings in selected European countries in 2021, https://www.statista.com/statistics/1203135/gender-pay-gap-in-europe-by-country/ (last accessed 23.01.2024).

Stoet, G. & Geary, D.C. (2018). "The Gender-Equality Paradox in Science, Technology, Engineering, and Mathematics Education", Psychological Science, 29/4, 581–593, https://doi.org/10.1177/0956797617741719 (lastly accessed 17.01.2024).

Sustainable Development Report (n.d.). Country Profiles. Track progress and trends on achieving the Sustainable Development Goals for all 193 UN Member States, Sustainable Development Report 2023 (sdgindex.org) (last accessed 17.01.2024).

The Federal Government (2021). Report on implementing the 2030 Agenda for sustainable development. Available at: https://sustainabledevelopment.un.org/content/documents/279522021_VNR_Report_Germany.pdf

(last accessed: 23.8.2023).

UN (2023a). Experts of the Committee on the Elimination of Discrimination against Women Commend Slovenia on Women´s Political and Economic Participation, Ask about Roma Women and the Representation of Girls in Science Subjects, 17th of February 2023, Experts of the Committee on the Elimination of Discrimination against Women Commend Slovenia on Women's Political and Economic Participation, Ask about Roma Women and the Representation of Girls in Science Subjects | OHCHR (last accessed 16.01.2024).

UN (2023b). Convention on the Elimination of All Forms of Discrimination against Women, CEDAW/C/DEU/9, 31st of May 2023.

UN (2023c). Goal 5: Achieve gender equality and empower all women and girls. Available at: https://www.un.org/sustainabledevelopment/gender-equality/ (last accessed: 23.8.2023).

United Nations Human Rights Office of the High Commissioner (OHCHR) (2023). Experts of the Committee on the Elimination of Discrimination against Women Commend Slovenia on Women´s Political and Economic Participation, Ask about Roma Women and the Representation of Girls in Science Subjects, 17.02.2023, Experts of the Committee on the Elimination of Discrimination against Women Commend Slovenia on Women's Political and Economic Participation, Ask about Roma Women and the Representation of Girls in Science Subjects | OHCHR, (last accessed 31.01.2023).

UNWOMEN (2019). Slovenia, inputs for SG report on "Women in Development", https://www.unwomen.org/sites/default/files/Headquarters/Attachments/Sections/Library/Publications/2019/A-74-279-Submission-Slovenia-en.pdf (last accessed 30.01.2024).

UNWOMEN (n.d.). Facts and Figures: Economic Empowerment, https://www.unwomen.org/en/what-we-do/economic-empowerment/facts-and-figures (last accessed 22.12.2023).

University of Zagreb, Faculty of Electrical Engineering and Computing (2021). Gender Equality Plan 2021-2025, https://www.fer.unizg.hr/_download/repository/UNIZG-FER-Gender-Equality-Plan-2021-2025[2].pdf (last accessed 17.01.2024).

University of Zagreb, Faculty of Electrical Engineering and Computing (2023). Ravnopravnost @FER. https://www.fer.unizg.hr/jednake_mogucnosti (last accessed 17.01.2024).

WECF (2021). Why the European Green Deal needs ecofeminism. Moving from gender-blind to gender-transformative environmental policies, https://www.wecf.org/report-why-the-european-green-deal-needs-ecofeminism/ (last accessed 01.02.2024).

W4RES (2023). WECF: Capacity building programme for women empowerment in RHC sector, https://w4res.eu/wp-content/uploads/2023/09/Capacity-building-program_shortenedversion.pdf (last accessed 16.01.2024).

WILPF (n.d.). 1325 NAPS, Croatia, Croatia – 1325 National Action Plans (peacewomen.org) (last accessed 15.01.2024).

Women and Girls in STEM Forum (2024). About the forum, https://eit-girlsgocircular.eu/women-and-girls-in-stem-forum/ (last accessed 22.01.2024).

DOOR
Enginyeria Sense Fronteres
focus
wecf
Funded by the European Union