

Mapping Methodology

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1 Introduction

Technical fields such as the energy sector are still influenced by a male-dominated view, leaving out the perspective and specific experiences of women as producers, consumers, prosumers of energy, and users of energy appliances. One explanatory factor for this missing gender-just perspective is the underrepresentation of women (and female-socialised groups) in decision-making and economic positions.

According to the International Energy Agency (IEA), despite making up 39% of the global workforce, women make up only 16% of the workforce in the traditional energy sector, with a Gender Pay Gap of 20%¹. Recent data also shows that, despite spending more time at home and using more energy services, women have limited participation in domestic energy decision-making and are known to be more vulnerable to energy poverty.

One of the main objectives of the project *Empowering underrepresented women in the energy sector (EUWES)* is to raise awareness about and contribute to closing the gender gap in management and leadership positions across the energy sector. Through a comprehensive multi-level analysis and mapping of national policies and strategies, the EUWES project partners will identify and understand the barriers that hinder women's progress in the energy sector. Based on this data, the project will develop policy recommendations tailored to each national context as well as develop training targeting decision-makers, stakeholders, female STEM students and women already working in the energy sector.

This Deliverable 1.1 *Mapping Methodology* aims to direct the multi-level analysis by providing instructions for the mapping process, explaining tools and templates created for the procedure. On the one hand, chapter 2 will present some background information about the gender-energy-nexus. With this, a common understanding about the methodological point of view shall be created to allow a gender-just mapping process. The following chapters will present the different steps of the mapping process – policy mapping, stakeholder mapping, and target group mapping. The policy mapping will be based on publicly available data and documents, aiming to assess the status quo of each national situation in terms of energy and gender policies. The stakeholder mapping shall serve to identify contact points for networking and entry points for advocacy and policy work, as well as for the possibility of conducting interviews to generate more in-depth data about the national situations. On the other hand, the target group mapping will be geared towards identifying specific target groups for (gender) training in EUWES Working Package 2, and for receiving consulting services or policy recommendations.

Providing this methodology for all partners aims to generate comparable data. The mapping process will result in 4 reports by all partner organisations, afterwards reviewed in a comparative analysis. Depending on the data available for each country (e.g., the number of already existing gender policies), the partner organisations might vary their use of the methods and explore additional ways to get access

¹ IEA (2019): *Energy and gender. A critical issue in energy sector employment and access to energy*, source: <https://www.iea.org/topics/energy-and-gender> (last accessed 30.05.2023).

to the information needed.

2 Background information/Gender-energy-nexus

At the core of the nexus between gender and energy are differences between women and men in terms of access to (clean and renewable) energy, energy poverty, representation and participation in the energy sector in political and economic positions, as well as gender-specific energy consumption at the household level².

Furthermore, statistics show that women in European countries seem to have a smaller carbon footprint than men, and that they engage more in climate or environmental justice topics³. For example, in the climate justice movement Fridays For Future, mainly young women are in front positions as well as attending the climate strikes⁴.

Academic/scholarly research often concentrates on household level where mainly women are affected by energy poverty⁵. The interlinkage between energy poverty and gender can be explained by cultural and economic factors. For example, because mainly female-socialised people take on care activities such as nurture of children or caring for older people, they involve less in paid labor and are at higher risk of energy poverty⁶. The economic dimension unfolds for example in the Gender Pay Gap and Gender Pension Gap: women have less access to financial resources, hence less ability to invest in energy-saving measures (e.g., renovations) or to decide about their energy supply⁷. The COVID-19 crisis further exacerbated these inequalities: Stereotypical gender roles were reinforced since many women stayed at home to nurture or home-school their children. Women experienced greater job losses and income reductions during the crisis, particularly within precarious sectors.

But when it comes to the gender-energy nexus, it is important to analyse not only the micro-level (household, private sphere) but also the macro-level to face the systemic inequalities and to develop systemic solutions. Gender-specific structures and power dynamics can be analysed on political decision-making and on economic levels, hence the energy market. This would allow considering women, and other genders, as active agents in the energy supply chain, not only as consumers but also as producers and prosumers. For example, women have a gender-specific perspective in designing and adapting energy technologies⁸.

² See also Feenstra, Marielle/Özerol, Gül (2021): Energy justice as a search light for gender-energy nexus: Towards a conceptual framework. In: *Renewable and Sustainable Energy Reviews*, No. 138, DOI: <https://doi.org/10.1016/j.rser.2020.110668>.

³ Ergas, Christina and York, Richard (2021): Women's status and carbon dioxide emissions: A quantitative cross-national analysis, *Elsevier* 41:4; DOI: <https://doi.org/10.1016/j.rser.2020.110668>.

⁴ See also OSF (2020): *Surveys of participants in Fridays For Future climate protests on 20-28 September, 2019, in 19 cities around the world*, source: <https://osf.io/asruw/> (last accessed 30.05.2023).

⁵ Feenstra/Özerol (2021): Energy justice as a search light for gender-energy nexus. Towards a conceptual framework.

⁶ EmpowerMed (2021): *Energy poverty and gender – Facts and Arguments*, <https://www.empowermed.eu/resource/energy-poverty-and-gender-facts-and-arguments/> (last accessed 30.05.2023).

⁷ Ibid.

⁸ Feenstra /Özerol (2021): Energy justice as a search light for gender-energy nexus: Towards a conceptual framework.

For the project EUWES, such a macro-level analysis is essential. In addition to the statistics of IEA about the global labor force (mentioned in the introduction), some statistics show that the share of women in the energy sector workforce in the four EUWES partner countries is below 30% (e.g., 23% for Croatia and 29% for Slovenia)⁹. Consequently, increasing women's representation in the workforce and in leadership positions of renewable energy companies or cooperatives is one important gender-specific goal.

However, the entanglement of gender and energy can be analyzed from different gender perspectives (e.g., feminist standpoint, gender mainstreaming), by different gender dimensions (e.g., reproductive work, infrastructure) and on different levels (micro-, meso-, macro-level).

Important to strengthen is that gender will be regarded as a social or cultural construct¹⁰ throughout this deliverable. When implementing a methodology for project partners in distinct countries, the respective national and cultural context must be considered. The aim of conducting the mapping is to carve out the Status Quo of gender in each country's energy sector. Hence, amongst others, gender policies and strategies will be searched and mapped. Some countries might pursue more progressive gender policies than others.

To allow for a comparative analysis of all four EUWES partner countries at a later stage, a mutual understanding of gender, gender codes/factors, the research subjects and objects must be generated. Hence, some guidelines for mapping from a gender lens and some gender factors will be proposed.

3 Mapping from a gender-just point of view

As mentioned before, there are several feminist streams and gender perspectives that can be applied to a project and which then determine the research design.

The mapping methodology will be conducted by applying a gender-just point of view. Gender justice as a concept seems to be used in contexts where terms like "gender equity", "gender equality" or "gender

⁹ Boston Consulting Group/Women in Energy (2018): *Gender Diversity in the CEE-SEE Energy Sector*. Budapest: A Boston Consulting Group Szolgáltató Kft.

¹⁰ In the past, several Eurocentric feminist streams and theories – liberal, radical but also Marxist feminism – were based on a binary gender conception (men/women). Postmodern or poststructuralist perspectives such as queefeminism challenged this perception; prominent for a (de-)constructivist position with regard to gender is the scholar Judith Butler. According to this, women and men conform to the roles prescribed by cultural norms and the political context, or rather they *perform* their gender roles. This resulted in acknowledging a multiplicity of (fluid) gender identities and sexualities besides men/woman and heteronormativity; see Butler, Judith (1991): *Das Unbehagen der Geschlechter*. Berlin: Suhrkamp.

mainstreaming”¹¹ do not take hold to grasp, explain or solve gender-based injustices¹². Debates about justice mainly originate in political theory or political practice; they go hand in hand with normative questions about equality, the anchoring of self-determination, (human) rights and capabilities in societal life¹³.

Following Nancy Fraser, gender justice can be regarded a multidimensional approach that addresses aspects of redistribution, recognition, and representation¹⁴. Recognition refers to strengthening the acceptance of distinct 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.

Recognition is linked to representation. Here, representation goes beyond bringing women to the table or giving them a seat during a panel session. Since the promotion of women does not yet result in gender-just policies, gender parity, for example in political positions or energy companies, should be more than just an indication of numbers¹⁵. In terms of representation within the energy sector, it would mean not to integrate women into already existing patriarchal structures, but rather breaking down patriarchal structures and collaborating with them to reach a social and gender-just transformation of the energy sector¹⁶. In accordance with representation and recognition, redistribution would focus on economic justice among genders. From a gender perspective, redistribution justice means recognising that the capitalist and patriarchal system has created and reinforced material injustices in the distribution of the costs and benefits of production systems, impacting not only the economic relationship between the global North and the global South but also on a small scale the relationship between different genders. The division of labor in the patriarchal system relegated women to the private sphere of

¹¹ Gender mainstreaming (GM) is a strategy for implementing gender equality in political practice. GM challenges the entire policy cycle by imposing a gender-sensitive perspective on all cycle phases; see Stratigaki, Maria (2005): Gender Mainstreaming vs. Positive Action. An Ongoing Conflict in EU Gender Equality Policy, in: *European Journal on Women's Studies*, 12(2), 165-186. (Stratigaki 2005: 169).

¹² Goetz, Anne Marie (2017): Gender justice, citizenship and entitlements: Core concepts, central debates and new directions for research, in: Mukhopadhyay M./ Singh, N. (Hrsg.): Gender justice, citizenship and development. New Delhi: Zubaan, 15-57.

¹³ *ibid.*; Schnebel, Karin B. (2015): Selbstbestimmung oder Geschlechtergerechtigkeit. Wiesbaden: Springer VS Verlag für Sozialwissenschaften.

¹⁴ Fraser, Nancy/ Dahl, Hanne Marlene/ Stoltz, Pauline/ Willig, Rasmus (2004): Recognition, Redistribution and Representation in Capitalist Global Society: An Interview with Nancy Fraser, in: *Acta Sociologica*, 47 (4), 374-382.

¹⁵ See also 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.

¹⁶ See also Alwan, Christine/ Weldon, Laurel (2017): What is Feminist Foreign Policy? An Exploratory Evaluation of Foreign Policy in OECD Countries. *Paper for the 2017 European Conference on Politics and Gender an der Universität Lausanne*, 8.-10.June 2017.

household work and childcare while men entered the public sphere of politics and the market. Although women are increasingly entering the public and economic spheres, the roots of the system persist by still limiting women's access to material and financial resources. In response, redistributive justice aims to restructure the economic system, e.g., by creating equal pay, changing ownership structures (i.e., more commons instead of privatized property) and democratising the market, as well as respecting sustainability and resource limits.

Gender justice is quite an abstract concept which is difficult to measure in all its goals and dimensions. Nevertheless, the following chapters will give instructions about how to transfer such a concept and find the necessary information and gender-disaggregated data.

4 Mapping Policies

Policy here refers to public policies mainly led by public bodies (i.e., national ministries, local authorities, and municipalities). Policy mapping is a systematic content analysis technique whereby researchers track and analyse policy content in a topical area. As a methodology, researchers can use policy mapping to evaluate the policy responses to a particular problem or issue, and advocates can use it to inform policy change efforts.

The project will assess the current national status quo of each partner country, identify the main gender policies, and legal frameworks at the national (and the local) level. Hence, the main aim is to get an overview of already existing gender policies. In addition, the mapping shall explore to which degree energy policy objectives and priorities are considering gender equality and if there are even coherent and joint policies from different bodies, i.e., from the energy and social ministry.

The policy mapping helps identifying opportunities to engage with and influence decision-makers at a later stage of the EUWES project.

4.1 Criteria for selecting relevant policies

Following factors shall be considered to direct the policy mapping and narrow the research:

- I. **Time frame:** The main interest is to explore the current Status Quo. Hence policies written and laws adopted within the time frame of 2005-2023 shall be taken into account. The partner organisations will identify three phases of discussion during this time frame: the initial phase of discussing policy recommendations, the phase of implementing policies related to women in the energy sector, and lastly, the post-implementation phase. Each partner shall decide about the exact time period according to their specific national context.

II. Different types or forms of policies: As a result of a political process, public policy can take various forms, such as law, regulation, strategy, or programme¹⁷. Some of these policies are legally binding, and some have a normative approach, which will be considered during the policy mapping process. For example, EU Directives leave open to Member States what measures to transpose the Directive into national law¹⁸. In terms of gender, either specific gender policies are designed, or gender is integrated as part of other thematic policies (welfare, social policies, etc.). For the policy mapping, the partners can look out for the following gender policies:

- a. **Gender Equality Policy Initiatives:** This would include looking out for national strategies on gender equity and equality. Often such strategies focus on the equality between women and men, e.g., equal pay for women and men, or combatting all forms of discrimination.

One possibility is to search for the Gender Equality Index of each country which also offers insight into different strategies pursued on national levels. The Gender Equality Index, created by European Institute for Gender Equality (EIGE) in 2013, is a tool for tracking the advancement of gender equality in the EU¹⁹. It raises awareness of problem areas and ultimately helps policymakers create gender equality policies that are more successful. The Index also analyses better ways to take advantage of possibilities for change and highlights both advancements and disappointments. Specifically, the Index looks at how factors including age, education level and place of birth can interact with gender to shape a variety of life trajectories²⁰.

Examples of policies at EU level are Article 2 and 3 of the Treaty on European Union (TEU)²¹, in which the EU has committed its Member States to promote equality between women and men. Thus, during the policy mapping process, the partner organisations can look out for national strategies to implement distinct gender-related EU Directives on national level. For example, the *Directive 2006/54/EC on equal treatment for men and women in employment and occupation, including social security schemes* or *Directive 2004/113/EC equal treatment between men and women in the access to and supply of goods and services*.

¹⁷ Parejo, Vanesa Hervías/Radulović, Branko (2023): Public Policies on Gender Equality. In: Fröhlich, Mareike et al. (2023): *Gender-Competent Legal Education*. Wiesbaden: Springer VS.

¹⁸ European Commission (n.d.): *Types of EU law*, source: [Types of EU law \(europa.eu\)](https://eige.europa.eu/types-of-eu-law) (last derived 16.06.2023).

¹⁹ EIGE (n.d.): *Gender Equality Index*. Available at: <https://eige.europa.eu/gender-equality-index/2022>. (Last accessed 16.6.2023).

²⁰ EIGE (n.d.): *Gender Equality Index*. Available at: <https://eige.europa.eu/gender-equality-index/about>. (Last accessed 16.6.2023).

²¹ Parejo, Vanesa Hervías/Radulović, Branko (2023): Public Policies on Gender Equality.

b. Gender mainstreaming in basic national law: Gender mainstreaming (GM) is one of the most widely used approaches to ensure integrating gender issues in policy development²². Such a concept was promoted by several international organisations such as the UN, EU, or OECD²³. The project partners can assess if gender mainstreaming is considered in basic national law or rather in what way GM is mentioned in distinct political programs.

c. Gender Action Plans: Different national or federal ministries adopt medium- to- long-term vision statements to set measures for reducing gender inequality. So, such Gender Action Plans are a set of objectives and measures, addressing different legal actions and considering different governmental bodies and stakeholders. Furthermore, there are National Action Plans (NAP) reacting on international frameworks, i.e., on the UN Resolution 1325 'Women, Peace and Security' or on Gender-Based Violence.

d. Gender in energy policies and directives: A first step is to identify the different energy programmes such as renewable energy concepts, national energy and climate plans, national action plans on energy efficiency, renovation and building directives linked to energy efficiency, as well as policies focusing on different forms of renewable energy, i.e., solar strategies or hydrogen strategies. These programs shall first be collected and then skimmed broadly with a lexical search, explained in chapter 4.2. If too much data is found, a maximum of 10 policies/directives shall be analysed in more detail in terms of gender aspects. This can be done by applying a relational analysis and gender codes, as proposed in chapters 4.4.1 and 4.4.2.

e. Gender equality plans at institutional level (e.g., at universities): Besides policies and directives on national level, the partners will search for gender equality strategies of institutions that are main important for this project, so, plans of universities, academic institutions, foundations relevant for the energy sector.

III. Extending the search and including other documents such as academic papers

While mapping policies, national policies will come first in the search hierarchy, then regional policies, and finally strategy documents. The search can be extended to include academic and scientific papers, e.g., to collect quantitative data/numbers of women working in the energy sector or the gender pay gap. Additionally, partners could include statements of academics, experts, and politicians about gender equality in the national energy sector, if they assess that these statements will provide some important extra information.

²² Parejo, Vanesa Hervías/Radulović, Branko (2023): Public Policies on Gender Equality.

²³ Ibid.

4.2 Lexical search

The lexical search can be applied in the first step to collect the data and to get a broad overview of which documents include gender aspects. Lexical search is a method of data retrieval which allows researchers to look for exact matches in documents without coding them first²⁴. It is a keyword-based search which aims to find relevant information from large databases. Relevant policies will be identified by searching with the aid of keywords.

These phrases will be operationalised according to the national discourse on women and energy. Finding relevant texts will be in the discretion of individual partners, although we recommend combining the name of the country or region with terms such as 'energy' or 'gender equality' and similar.

When not finding national policies, the search can be extended to find the necessary information in academic papers, scientific works, and political speeches. Relevant documents will also be searched in the governmental portals of each partner country, as well as on the web pages of NGOs that have dealt with similar issues in the past. Identifying documents and policies requires some degree of imagination on the part of researchers. For instance, to search for Croatian energy policies mentioning women, one could type the following keywords given into the search machine: <žene i energetske politike Hrvatska>. Lexical search is a fast and efficient method that ignores any variations in spelling, which is why words need to be precisely defined before conducting a search. Words and strings that will be searched for while mapping national policies include two main categories:

1. **Women and gender:** 'woman', 'women', 'female', 'gender', 'equal', 'equality', 'gender equality', 'gender justice',
2. **Energy and sustainability:** 'energy', 'energy sector', 'energy transition', 'renewable energy', 'sustainable', 'sustainability', 'sustainable development', 'climate', 'climate justice', 'just transition', 'environment', 'environmental'²⁵.

Depending on the partner organization, the words and strings will need to be translated into each respective official language, so into German, Spanish, Croatian and Slovenian. While translating, it will be essential to search for those words in different variations due to grammar, for instance, suffixes because of different cases. For instance, while searching for the word 'women' in the Croatian language, we need to include multiple variations due to grammatical changes: žene, žena, ženama, etc.

²⁴ Brugger, Fritz et al. (2023): *Analysing Sustainability Reports Using Machine Learning*. Available at: https://www.digital-public-services-switzerland.ch/application/files/8316/8129/0720/ReportDVSJan2023_AnalysingSustainabilityReportsUsingML.pdf. (last accessed 8.6.2023.)

²⁵ Odrowaz-Coates, Anna (2021): *Definitions of Sustainability in the Context of Gender*. *Sustainability*. Available at: <https://www.mdpi.com/2071-1050/13/12/6862>, (last accessed 5.6.2023.)

4.3 Storing the information: General excel on gender and energy policies

Policy analysis is a process through which policy solutions to social problems are assessed and identified²⁶. It includes evaluating policy implementation, its barriers, and contradictions, as well as identifying where new policies are required. In addition, policy analysis involves conducting data analysis, assessing strengths and weaknesses, identifying new and revised policy approaches and opportunities for advocacy²⁷. Policy analysis of national policies related to gender and energy will be conducted by using evaluation criteria in the following Excel file: [Policy Analysis Template](#).

Firstly, the analysis begins with stating a title and type of document, which may be a national policy, political programme or an academic paper, and an institution or a government body which has created the legislation.

Then, it must be determined whether the focus of the policy is energy, gender, or both, before describing the policy and its main components. Prior to analyzing the content related to gender and energy, it should be noted what the duration and time frame of the policy is, as well as its geographical coverage, i.e., where activities would take place. The partners should then mention specific actions and measures that need to be put in place for the policy implementation. Financial information, such as the predicted budget or cost of implementation of the policies, in addition to the budget source, i.e., where the funding will come from, should also be clearly stated. Next, short-term and long-term objectives, along with overall aims, need to be explained and then followed by the expected impact and the current status of the policy. Moreover, partners need to examine the policy environment to see if the implementation of the policy has operational, political, and administrative feasibility to be translated into practice. It is crucial to state who is responsible for the action and to assess the language used in the policy.

Evaluation of policy performance also incorporates assessing gaps and challenges of the policy, along with giving suggestions on how to make policy more effective and complete by making necessary changes and improvements. Problem identification includes policy shortcomings and barriers to policy implementation, which could range from political opposition to the lack of knowledge about gender issues. Once the context, nature and extent of the problem have been identified, partners can suggest policy solutions and alternative policies and therefore offer preliminary recommendations to strengthen the policy and make it more innovative. After explaining the benefits of policy reform, the analysis ends with identifying the limitations of the analysis and questions that can be addressed in further research.

The Excel file on gender and energy policies also contains a separate table for policy analysis based on gender codes. The codes will be explained in the following chapters, especially in chapter 4.3.2., and they include gender identities and gender concepts in energy policy, such as gender mainstreaming and women's empowerment. Furthermore, project partners will search for qualitative and quantitative factors

²⁶ Walt, Gill, & Gilson, Lucy (1994): Reforming the health sector in developing countries: The central role of policy analysis. *Health Policy and Planning*, 9: 353-70.

²⁷ Bardach, Eugene (2011): *A Practical Guide for Policy Analysis: The Eightfold Path to More Effective Problem Solving*, Fourth Edition, Washington D.C.: CQ Press College.

of political and economic representation as a part of the representation and participation of different genders in the energy sector. Some of those factors are the gender pay gap in energy companies and the numbers and quotas of distinct genders in energy and climate ministries. Resource distribution in favour of women and groups in marginalised situations is another factor, which encompasses access to renewable energy supply created for women through political measures and entry points for energy price stabilisation that favour distinct social groups, among others. Women in the energy sector is the final category of gender codes. It includes energy companies with female participation in ownership, and employment of women in senior and middle management positions in energy companies.

4.4 In-depth analysis of policies and directives

After having found the main documents and clustered them with the general Excel table on gender and energy policies, the next step is to analyze some documents in more detail. On the one hand, the next chapters will propose some methods for in-depth-analysis as well as a specific tool that the partners can use. According to the partner's experiences and preferences, these methods can be used, but it is possible also to use other tools and instruments that are a better fit for the own working style.

4.4.1 Relational content analysis

Relational analysis involves exploring the relationships between concepts, and this method will be used only for in-depth analysis of policies. It is a type of content analysis which determines the presence of words and themes in qualitative data before analysing the meaning of the text and making inferences²⁸. This method has previously been used to examine the relationships between 'women' with various concepts, such as household labor²⁹. In this case, we will investigate the relationship between concepts 'gender' and 'energy'.

Analyzing texts and data requires first to find a direction and guidance. To what end shall the document be elaborated? For this, specific research questions can help. As mentioned in Chapter 3, the mapping and then the in-depth analysis will be conducted from a gender-just point of view. Hence, research questions related to national energy and gender policies can include the following:

- *How do national 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 representation, rights and redistribution aspects aligned to gender?*

²⁸ Columbia University. *Content Analysis*. Available at: <https://www.publichealth.columbia.edu/research/population-health-methods/content-analysis> (last accessed 7.6.2023.)

²⁹ Derado, Augustin, Petrić, Mirko and Tomić-Koludrović, Inga (2020): Relational Gender Strategies in the Division of Household Labour. *Croatian Sociological Review*. 50, 3: 321–351. DOI: 10.5613/rzs.50.3.1. Available at: <https://hrcak.srce.hr/file/362721> (Last accessed 6.6.2023.)

- Which sectors are pushing gender equality in the energy sector beyond the energy sector itself?
Is there a cross-sectoral strategy?

Once research questions have been defined, it is time to choose samples for the analysis. For example, a sample could be a specific article of a Gender Equality Act that is mainly concerned with the question of promotion in the workplace. After identifying the sample, a subcategory of relational analysis called proximity analysis will be used to examine the co-occurrence of explicit concepts (e.g., ‘women’s rights’ and ‘energy transition’) in the text, meaning that the analysis will explore strictly hard facts of what exactly is written, instead of looking for hidden meaning and emotional states of the author underlying the text³⁰. In the next step of the analysis, partners will reduce the text to categories and code for words or patterns. Table No. 1 gives an example of categories and codes related to the issue of women being a minority in board member positions in energy companies.

TABLE N°1: EXAMPLE OF CODING GRID

Category	Code	Subcode
Exclusion of women in board member positions	Employment opportunities	Employment
		Male-dominated industry

The following step includes reducing text to categories and coding for words and patterns. There are three concepts which play a crucial role in exploring the relationship between concepts in relational analysis, and those are strength, sign, and direction of the relationship³¹.

1. The strength of the relationship refers to what degree two concepts are related. It provides a greater degree of the details found in the text by looking, for instance, if the concept of ‘gender justice’ is associated with a particular section, such as ‘climate action’.
2. The sign of the relationship explores whether the concepts are positively or negatively related. Analysing the signs includes, for example, examining if the concept of ‘equality’ is positively related to the concept of ‘energy transition’.
3. The direction of the relationship explains the type of relationship among concepts. Directional relationships may include implications, such as the concept of ‘women’ occurring before mentioning the concept of ‘climate justice’, whereas the concept of ‘men’ occurs before the concept of ‘energy sector’.

Once the coding of the relationships has finished, statistical analysis of data can be performed to explore the differences or look for relationships among identified variables in the relational analysis. In addition

³⁰ Columbia University. *Content Analysis*.

³¹ Colorado State University. *Using Content Analysis*. Available at: <https://writing.colostate.edu/guides/guide.cfm?guideid=81> (last accessed 15.6.2023).

to statistical analysis, relational analysis often leads to viewing the representations of the concepts and their associations in a text in a graphical or map form³².

Relational analysis provides not only valuable historical and cultural insights but also insights into the complexity of human thought and language. Additionally, it was chosen as a method for policy mapping because it allows for both qualitative and quantitative analysis, and it can be combined with other research methods, such as interviews. However, it is important to be aware of possible errors while making inferences about the relationship between concepts, as well as to remain careful with bias and interpretation of national policies.

Relational concept analysis remains an *optional* method for partners to use in case they require a more in-depth policy examination. **Trainings can be provided to those partners who decide to use this method in policy analysis.**

4.4.2 Gender codes & indicators

Gender or statistical indicators are criteria against which changes and impacts can be assessed. They are designed to directly or indirectly measure progress toward gender equality over time, including gender roles and relations in the social, political and economic sphere³³. Gender-responsive indicators can refer to qualitative or quantitative indicators based on increases in women's levels of empowerment and on gender-disaggregated statistical data, respectively³⁴. The indicators, therefore, allow for comparison in gender equality across different geographical areas, within companies, institutions and organisations, as well as between different groups³⁵.

For in-depth content analysis, such as the proposed relational concept analysis, one would rather speak about gender categories and codes. In this regard, some codes are proposed in a deductive matter. This means developing specific categories based on a scientific position and deriving them from theoretical concepts/texts. These categories, e.g. women as a category, are then 'coded' in a written document. This allows for getting a better overview of a document, structuring the information in the document and finding the necessary information about gender aspects. Each partner organisation will read through the documents and mark all parts that belong to a specific category, hence 'code' them. Important to mention is that in some languages, no difference is made in terms of 'sex' and 'gender' and that 'sex' is often a more commonly used term, or both words are used interchangeably. Regarding the position of gender as a social construct, one would rather use the term 'gender-disaggregated data'. This might be challenging for all project partners to find a way to deal with different concepts proposed

³² Carley, Kathleen (1990): Content Analysis. In R. E. Asher et al. (eds): *The Encyclopedia of Language and Linguistics*. Edinburgh, UK: Pergamon VPress. Vol. 2, 725-730. Available at: http://www.casos.cs.cmu.edu/publications/papers/carley_1990_contentanalysis.PDF (last accessed 15.6.2023).

³³ OECD (n.d.) *Indicators for Gender Equality and Women's Empowerment – An Introduction*. Available at: <https://www.oecd.org/dac/gender-development/43041409.pdf>. (Last accessed 7.6.2023.)

³⁴ UNESCAP (2013): *Gender, Statistics and Gender Indicators*. Available at: <https://www.unescap.org/sites/default/files/Framework-and-Indicator-set.pdf>. (Last accessed 4.6.2023.)

³⁵ EIGE. (2019): *Gender Statistics and Indicators*.

or considered in national law. It must be mentioned that **the absence of gender-disaggregated data** is also possible and a result during the mapping process (as stated in Chapter 7 in terms of challenges).

However, the partners are encouraged to search in detail for such existing data. In accordance with mapping from a gender-just point of view, the following indicators and codes are proposed:

- **Mentioning different gender identities (women, men, other genders), maybe even sexual orientation in gender and energy policies**
 - Often, energy topics are considered something technical; hence they leave the social dimension out. To see how energy policies relate to gender and social topics, one possibility is to search for all hints about gender identities mentioned in written text (laws or legal acts).

- **Mentioning of gender concepts in energy policies:**
 - The partners can search if energy policies are highlighting concepts such as gender mainstreaming, gender equality, gender equity, and referring to women's rights or women's empowerment.
 - Mentioning of intersectionality: Are women seen as one category in the policies, or are intersecting aspects listed, e.g. young women, women of colour, etc.

- **Representation and participation of different genders in the energy sector**
 - Political representation:
 - Quantitative indicators:
 - Numbers and quotas of distinct genders in energy and climate ministries/governments
 - Qualitative indicators:
 - Equal access to parliamentary committees related to climate and energy; equal access to voting procedures
 - Visibility of role models in political positions
 - Gender awareness in ministries and the public discourse
 - Plans to bring institutional participation closer to other less formal forms of participation
 - Economic representation
 - Quantitative indicators:
 - Number of women holding leadership and board member positions in energy companies
 - Number of employed women in senior and middle-management positions in energy companies
 - Number of women participating in training programmes in the energy sector
 - Percentage of self-employed women in the energy sector
 - Gender Pay Gap in energy companies, wages of female employees in energy companies³⁶
 - Gender Pension Gap in the energy sector
 - Gender Care Gap in the energy sector

³⁶ The World Bank (n.d.): *Gender Data Portal*. Available at: <https://genderdata.worldbank.org/indicators/>, (last accessed 9.6.2023.)

- Share of students enrolled by field of science as well as percentage of female graduates with energy-related degrees or in the field of energy, sustainability and climate
- Share of female students that abandon technical-related degrees
- Students enrolled on postgraduate doctoral studies (related to energy), doctors and university specialists by field of science
- Qualitative
 - Equal access to training programmes and career development in the energy sector
 - Feminist statutes or gender action plans within energy companies and education institutions
 - Gender-friendly working environment in energy communities
 - Opportunities created for female entrepreneurship and ownership of houses/buildings for women
- **(Material) resource distribution in favour of women or other groups in marginalised situations**
 - Gender budgeting plans for energy policies
 - Are energy policies mentioning financial measures specifically targeted to women or other groups in marginalised situations?
 - Support for women and other target groups in the energy crisis
 - What kind of long-term and short-term measures to help in the energy crisis are planned for women and other marginalised groups? What are the entry points for the stabilisation of energy prices which would favour distinct social groups?
 - Not in the focus of the EUWES project, but: access to clean/renewable energy supply created for women through political measures, e.g. for women affected by energy poverty

4.4.3 Useful Tools: MAXQDA

As presented in Chapter 4.2, for the in-depth analysis, the partners can also use the Excel template to store data on gender aspects. However, using a software for qualitative data analysis, such as MAXQDA, is recommended. The partners can decide to use it depending on how familiar they are with the program and regarding budget availability. MAXQDA is a software programme for computer-assisted qualitative and mixed methods data. It is designed to deal with large amounts of text and interviews relatively quickly. Features of the programme include reading, editing, and coding data, visualisation options, analysis of code combinations, importing online surveys and analyzing responses to survey questions, as well as statistical analysis of qualitative data. One of MAXQDA's features is lexical search, where the search engine counts keywords and looks for literal query inputs or their variations. The search function serves for semiautomatic identification of recurring themes, and search strings can be used together to optimise searches³⁷. This software was recommended by the project partner WECF in

³⁷ Adasa (2022): *Water and the Environment*. 8th World Water Forum Results and Discussions. Volume 1. Available at: https://portalhomolog.adasa.df.gov.br/images/storage/publicidade_propaganda/2022/8_forum_agua/1E_water_and_environment_ADASA.pdf, (last accessed 9.6.2023.)

other projects, i.e., while researching the gender-just and socially-just energy transition³⁸, as well as gender implications on renewable energy cooperatives³⁹. It will be used for an in-depth analysis of policies, interviews, and surveys for the EUWES project at a later stage.

5 Mapping Stakeholders

The actors who influence or are impacted by a particular project or policy are known as stakeholders⁴⁰. Stakeholders are parties with interest and can be made up of individuals, networks, public authorities, government agencies, and employees within corporations and organisations. Stakeholders in the EUWES project are individuals and organisations with a vested interest and concern about gender and energy. Conducting stakeholder analysis will help identify the behavior, intentions, and interrelations of stakeholders regarding the EUWES project with an aim to evaluate and ascertain their influence on decision-making and implementation⁴¹.

Part of the stakeholder analysis process is a technique called stakeholder mapping which uses visual tools to categorise various stakeholders by depicting stakeholder groups, the interests they represent, as well as power and influence they hold⁴². The mapping is necessary to determine which groups are active and involved in the energy sphere.

The first step, Level 1, is identifying the stakeholders and the necessary contact information. The identification will be done by desk research, brainstorming, and skimming through already-existing contact lists of each organization. An initial list to look out for stakeholders is the following:

- Political decision-makers, policymakers (government agencies on national and regional levels, individual politicians)
- The private energy sector, energy technology companies, industries, energy utilities, small and medium-sized enterprises (SMEs),
- Non-governmental organisations (NGOs), civil society organisations (CSOs), energy communities, trade unions,
- Academic and research institutions, professors and graduate, post-graduate, and PhD students.
- Actors working on women's rights and gender institutions

³⁸ Kuschan, Marika, Burghard, Uta, Groneweg, Kiara, and Strebel, Annika (2022): *Is the German energy transition perceived as gender- and socially-just?* Karlsruhe: Fraunhofer Institute for Systems and Innovation Research ISI (ed.). Available at: <https://publica-rest.fraunhofer.de/server/api/core/bitstreams/e78a555b-eed3-4ec3-831c-0c6db56f81d2/content>, (last accessed 5.6.2023).

³⁹ Karakislak, Irmak, Sadat-Razavi, Pantea, and Schweizer-Ries, Petra (2023): A cooperative of their own: Gender implications on renewable energy cooperatives in Germany. *Energy Research & Social Science*. Available at: <https://www.globalwomennet.org/wp-content/uploads/2023/01/gender-implications-on-renewable-energy-cooperatives-in-Germany.pdf>, (last accessed 10.6.2023).

⁴⁰ EIGE, (2020): *Gender Stakeholder Consultation*. Available at: <https://eige.europa.eu/gender-mainstreaming/methods-tools/gender-stakeholderconsultation>, (last accessed 9.6.2023.)

⁴¹ Brugha, Ruairí and Varvasovszky, Zsuzsa (2000): Stakeholder analysis: a review, *Health Policy and Planning*, 15(3), 239–246. Available at: <https://doi.org/10.1093/heapol/15.3.239>, (last accessed 11.6.2023.)

⁴² Demmelbauer, Verena, Habersbrunner, Katharina, Ireland, Anja, Mirembe, Agnes, and Noreña Ospina, Marcela (2022): *Women's Empowerment in the Energy Sector*. Available at: <https://www.wecf.org/wp-content/uploads/2018/10/Womens-Empowerment-Manual.pdf>, (last accessed 12.6.2023.)

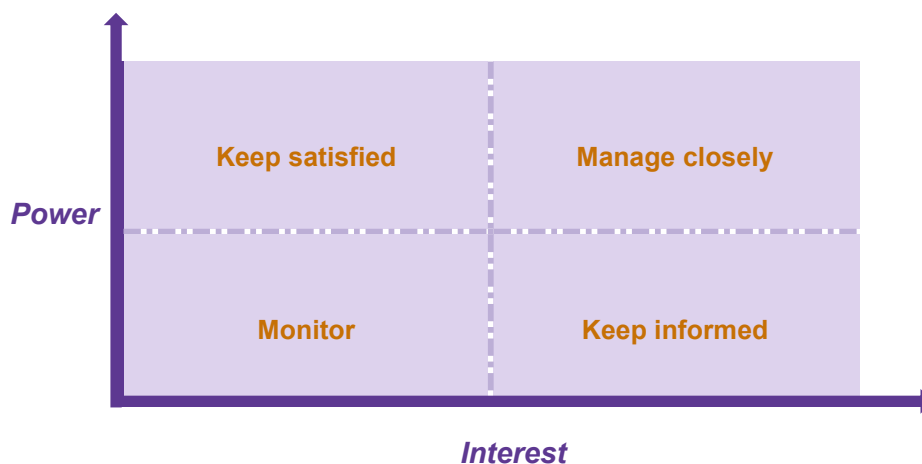
- Producers of energy technologies regarding gendered technologies, e.g., heat pumps, PV, etc.

In the second step, Level 2, Stakeholders relevance will be estimated based on their experience, perspective, and values. The partner organisations will look for stakeholder's possibility to contribute to the project with their knowledge and expertise about the subject matter. Next, stakeholder's willingness or motivation to engage and participate in the project will be examined to see how they are affected by these issues. In addition, the stakeholder's influence and power to make a difference and affect policymaking will be assessed. This assessment will give information about the potential change and impact the stakeholders could have on the status of women in the energy sector.

The power-interest matrix can help develop an understanding of the engagement level. This means identifying who has the highest power in decision-making relevant to gender and energy and who would be most interested in supporting the goals of the EUWES project. Such stakeholders are to be kept or managed closely. Stakeholders, who have high power but low interest, can be informed about the Status Quo of the project and be kept satisfied. They might not be interested in the outcomes of the EUWES project, but the partner organisations must ensure that they do not oppose the interests of EUWES. Such stakeholders are, for example, decision-makers with high power who have opposing political values (no interest in gender politics, but interest in renewable energy transition) or opposing players such as fossil fuel industries.

Actors with a high interest but low power can be kept informed about the project. They might help with details of the EUWES project, in disseminating news, and outcomes of the project or support in networking. Actors with low power and low interest will be monitored or contacted for specific project issues, but the project partners can spend only a little bit of time on excessive communication or reaching out to these actors.

FIGURE N°1: POWER-INTEREST MATRIX BY A.L. MENDELOW⁴³



⁴³ Mendelow, Aubrey 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).

The next step, Level 3, will be an in-depth analysis of the stakeholder engagement. At least one to two stakeholders for each stakeholder group (1 – political decision-makers, 2 – private energy sector, 3 – civil society sphere, 4 – academic/educational sector) shall be identified and then contacted. Once the stakeholders have been prioritised and contacted, the project partners will create a plan for managing their needs and interests, including how much and what kind of attention to pay to them. The stakeholders can be contacted via E-Mail, social media, telephone, or direct communication.

For virtual or in-person meetings, a small template for minutes is prepared (see ANNEX 2). Furthermore, semi-structured interviews can be conducted since they guarantee comparability between several interviews conducted and, at the same time, openness to the specific perspective of each interviewee⁴⁴. The format has a conversational tone and encourages two-way communication by allowing the interviewee to ask questions. The interviewer asks questions within a predetermined thematic framework, but the questions are not set in a particular order. Guiding questions are proposed in ANNEX 1.

The interviews will allow for gaining more information about the gender situation in each national energy sector, the current barriers for women and entry points to transform the sector to a more gender-just one. The main results of Level 3, the engagement with stakeholders, will be presented in Deliverable 1.3.

The above steps shall result in Level 4 giving information for advocacy campaigns and policy recommendations, so the campaigns are tailored for each stakeholder group.

5.1 Excel template

The EUWES project partners will carry out the stakeholder identification through the use of the stakeholder grid ([Excel Spreadsheets](#)). In addition to the template for minutes and a guide for semi-structured interviews, a stakeholder grid will be made available to the partners at the beginning of July 2023. The purpose of the grid is to collect and categorize stakeholders.

The grid will give an overview of the overarching procedure as well as for each Level 1-4, a separate sheet is prepared.

Level 1: The sheet prepared for level 1 helps to cluster the stakeholders into the proposed group and to store the contact information such as E-Mail, Social Media links, telephone etc., as well as the institutional background and professional experience.

Level 2: Power-Interest-Matrix. The sheet prepared for level 2 provides some questions to estimate the power and interests of each stakeholder and how they might support the EUWES project goals. This includes assessing the role of stakeholders employing women in the energy sector as well as in policy and system change. The project partners are asked to rate, for example, the motivation, gender experience and influence each stakeholder has.

⁴⁴ Lamont, Christopher (2015): *Research Methods In International Relations*. London: Sage Publications Ltd.

Level 3: the design of this sheet in the stakeholder grid is only rudimentary since Level 3 will be built upon the questionnaire for semi-structured interviews and the template for minutes. Each partner organization might have their own method to get in closer contact with stakeholders and to gain the necessary information.

Level 4: This sheet also has a basic design since formulating policy recommendations will happen at a later stage of the EUWES project after having conducted the training.

6 Mapping Target Groups

6.1 Objective of mapping target groups

EUWES will contribute to the removal of gender stereotypes in the energy sector and to empowering women working and studying in the energy sector to become future leaders and reposition themselves in the existing structures. The project partners are working with the quadruple helix of existing structures, Academia, Government, Industry, and Civil Society. These are mentioned already in terms of the stakeholder groups. A focus is on identifying underrepresented women, especially young women, to carve out their gender-specific challenges, address their needs, and find opportunities to strengthen their capacities, build their careers and promote leadership opportunities.

Based on these identifications, training materials will be developed which could be used and replicated in other countries. The goal is to reach a total number of 600 women already working in the energy sector, as well as female students to support them in overcoming the gender gap in the energy sector. 'Women working in the energy sector' is meant broadly, also including positions in politics/government, academia and civil society. The training focuses on strengthening women's participation and representation in each national energy sector. So, more specifically, women will be trained to find entry points to renewable energy companies, address gender-specific injustices in their daily or work life and receive gender-just tools and instruments. Furthermore, they will benefit from an increased network of women in the energy sector, from consulting services and policy recommendations.

6.2 Defining target groups: user's persona

A. Presumption – identification of relevant target groups and creation of user's persona

The information gathered via policy and stakeholder mapping will also help identify the relevant target groups. For example, that kind of mapping will already give insight into existing gaps in terms of decision-making and the workforce in the energy sector.

However, this mapping provides an initial presumption about who the target groups might be, based on the understanding of the project and the problem it solves. This presumption will serve as a starting point for further investigation.

The initial presumed target groups are the following:

- EU female politicians

- National female politicians
- Women in municipalities/local governments
- Female managers and employees in energy companies
- Women in research and education organisations
- Female students in STEM
- Project partners
- Male co-workers, colleagues, etc.

Mapping the target group is an iterative process. As the project progresses, the understanding of the target group will be refined to ensure that the project remains aligned with the needs of the target group, as well as the EUWES overall objective.

However, as gender justice is a matter of society overall, all genders, especially male counterparts shall be attracted during training and capacity-building activities. This is relevant when it comes to finding allies in transforming the energy sector or when building gender-friendly and gender-just work environments in energy companies. As mentioned in Chapter 3, increasing the representation of women in the energy sector means not only integrating them into existing structures but rather transforming them. Hence, common awareness and understanding of gender-specific challenges and solutions is needed. We need to raise general and common awareness and understanding of the challenges and solutions, and for that, we need everyone on board.

How to define the target groups?

In alliance with the presumption about target groups, a template for user's persona has been created (see Annex 3). Personas are fictional representations of our target groups, encompassing their characteristics, goals, challenges, and motivations. These personas are created based on former experience with gender gaps in the energy sector or other gender-related energy projects. They will help empathize with the audience and design material that suits the target group needs (see §E.). These user personas can be adapted and changed throughout the process of finding and then reaching out to target groups. The personas are one proposition and a cut-out of specific target groups. However, within the process of mapping target groups, the project partners can aim for diversity within the target groups (e.g. by taking into account different age groups, ethnicities, etc.).

Some of the project partners can refer to contact lists which had already been developed for other organization's projects. The main contacts can be defined, or the list can be searched for more contacts.

B. Develop guiding questions

On the one hand, the main target groups shall be contacted to build a network among women in the energy sector, and on the other hand, they will be invited to a series of trainings. While reaching out to the main target groups, a short survey will be shared to assess their needs. For example, questions about the gender expertise of the target groups, the barriers they experience as well as concrete wishes and topics will be asked. Based on this, the training materials can be fine-tuned, and training modules chosen. Also, the need assessment will give insight into fracture points of the current energy transition and help formulate advocacy campaigns and policy recommendations at a later stage. Policy

recommendations can only be formulated when considering the needs of the parties concerned. Hence, the questions will focus on understanding the potential target group's characteristics, preferences, behaviors, and needs.

Such questions have been crafted to guide data collection efforts (see Annex 4).

C. Gathering of data

As previously mentioned, some partner organisations can build upon existing contact lists and use these as a basis for data collection.

Besides assessing the needs, the partners can consider using other methods for getting more in-depth knowledge and information about the needs of the target groups. For example, semi-structured interviews, as mentioned in Chapter 5, focus group discussions or separate workshops could be used. Partners will choose the methods most appropriate for their own national or local context, as well as for the project activities and budget situation.

Especially the data of the target group might be sensitive. The partners must consider data protection rights when sharing contact details with others, especially when this data is not publicly available. Also, it must be considered which platform to use for sharing the questionnaire, i.e., SurveyMonkey or Google Forms. The data gathered through the needs assessment should be anonymised for further elaboration. Furthermore, a declaration of consent can be sent out to inform the target group how the data will be used.

The project partners will ensure that the sample size is representative of the distinct target groups, as well as that diversity among target groups is created. For example, that specific age groups or women from different regions or with distinct ethnic backgrounds are equally considered.

D. Analyse the data:

The next step is to thoroughly analyse the collected data to identify the respondents' patterns, trends, and commonalities. If the partners share their questionnaire via Google Forms or Survey Monkey, they can immediately create a data overview via Excel. This allows for the comparability of the data. The partners will compare some demographic information (i.e., age, gender, ethnicity, education, home ownership), barriers or pain points related to gender (accessibility of training programs, financing, safe spaces, etc.), motivation and interest in trainings.

E. Validate and refine

The needs assessment will also revalidate the user's personas and above-stated presumptions about the target groups. Considering factors like gender, age, location, interest and other criteria will help to tailor the training modules and to design modules for distinct subgroups. Furthermore, the understanding of the target group can be challenged, and maybe even new target groups might appear.

Mapping the target group is an iterative process. As we progress with our project, we will continue to collect feedback, monitor policy and market changes, and refine our understanding of the target group to ensure our project remains aligned with their needs.

7 Challenges

Challenges refer to the difficulties that partners might face during the mapping process of the EUWES project.

One challenge is the inability to find policies at the national level related to gender aspects or women in the energy sector because they do not exist in that form, especially in more right-leaning partner countries, such as Croatia and Slovenia. These countries are yet to start implementing a gender-just perspective and a feminist approach to their policies.

Another potential difficulty is that there will be little reference when it comes to gender mainstreaming in energy-related policies and legislation. Although there are some evolved gender policies on one hand and energy policies on the other, the entanglement of both fields or cross-sectoral strategy is often lacking in policy processes. The possible lack of focus on women in the energy sector, including any correlation between them, within the national policies and actions dealing with gender equality might be a consequence of both the lack of knowledge and the understanding of gender equality and energy interrelation⁴⁵. Understanding the interrelationship between gender and energy is essential to the overall design and execution of any policy measure or action response since energy is not a technical field only. In case such national policies are not found, it is recommended searching through regional policies, academic papers, and political programmes and statements.

Another challenge might be the lack of qualitative data about women working in the energy sector. Although it can be assumed that information about economic participation in terms of workforce or annual salaries can be found, more in-depth data about the challenges or satisfaction of women working in the sector might be missing. Especially when gender as a concept is not that promoted in partner countries, the accessibility to public data will be limited. More attention should be placed on improving gender-disaggregated data collection (administrative data and specific surveys by INSTAT, e.g., income, employment, job promotion, and decision-making positions) to ensure gender mainstreaming within the energy sector. Gender-based analysis in the energy sector should be promoted and supported at all phases of policy and action, including design, implementation, monitoring, and evaluation. It helps assess how various gender identity factors impact or are impacted by government initiatives. The analysis should involve examining gender-disaggregated data and considering social, economic, and cultural situation and norms.

The third difficulty relates to the trainings, specifically stakeholder and target group training. In the more conservative partner countries, Croatia and Slovenia, there is a chance that the number of training applications will be significantly lower than in Germany and Spain due to the hostility towards feminism. This might be particularly true for male stakeholders working in the energy sector. The chances of this

⁴⁵ Jiménez, Mariana and Canals, Luc (2021): Comparative analysis of implemented practical measures. In: *EmpowerMed*.

happening might be reduced if the trainings are promoted as 'women empowerment' activities instead of 'feminist'. However, the feminist approach and a gender-just perspective should not be lost (or ignored) only because it might take longer to find the right stakeholders and participants.

A fourth and concluding challenge is the comparability of the partner countries. Although the methodology shall allow for comparability, each partner organisation will have their own way of generating and interpreting data. This relates to the scientific bias each partner organisation might have. The partner organisations should keep each other updated about the current status quo of the mapping process as well as discuss difficulties to find mutual solutions.

8 Conclusion

Eliminating the gender gap in management and leadership roles in the energy sector is one of the key goals of the *Empowering Underrepresented Women in the Energy Sector* (EUWES) project. Project partner countries, Germany, Croatia, Spain and Slovenia, will identify obstacles that prevent women from advancing in the energy sector through a thorough multi-level analysis and mapping of national policies and political programmes. Based on this information, the project will create policy suggestions specific to each national setting and train decision-makers, stakeholders, female STEM students, and women already employed in the energy sector.

By outlining the mapping process, tools and templates made for the process, Deliverable 1.1 Mapping Methodology seeks to guide the multi-level analysis. The Gender-energy nexus chapter has provided some background data on the relationship between gender and energy. With this, a shared understanding of the methodological point of view has been established, enabling a gender-just mapping process. The following chapters have covered the three phases of the mapping process: policy mapping, stakeholder mapping, and target group mapping.

Policy mapping, which aims to examine the current state of each country scenario in terms of energy and gender policies, will be based on publicly available data and documents. Diverse types of gender policies are described before explaining how lexical search can be used to analyze them with the help of predetermined keywords. The Policy Analysis template will guide project partners in analysing policies based on qualitative and quantitative gender codes and indicators. Relational content analysis and MAXQDA are presented as optional tools for partners to use in case they require an in-depth analysis of gender and energy policies.

Stakeholder mapping will help pinpoint networking opportunities, policy work entry points, and potential interview subjects to gather more detailed information on the local conditions. Stakeholders include government agencies, individual policymakers, energy technology companies, NGOs, and academic institutions. They will be evaluated based on their knowledge, expertise, motivation, and influence with the help of the power-interest matrix. Stakeholders will then be grouped into core, primary and secondary stakeholders, i.e., those with high power and high interest, low power and high interest, and thirdly, high power and low interest. Once stakeholders have been mapped, partners can engage with them through an in-depth interview to gain more information about the gender situation in each national

energy sector.

Target group mapping will focus on identifying particular target groups for gender trainings, as well as on giving policy suggestions for strengthening the capacity and providing leadership opportunities for women in the energy sector. The objective is to connect with 600 female students and women already employed in the energy sector to help them close the gender gap in the industry. The trainings aim to increase women's participation and representation in each country's energy sector. Women will be trained to identify entry points into renewable energy enterprises, address gender-specific inequities in their everyday or professional lives and receive gender-just tools.

Challenges that partners might face during the mapping process are discussed at the end of Deliverable 1.1. Those challenges include the inability to locate national policies concerning women in the energy sector due to the lack of such policies. Additionally, the absence of data related to women working in the energy sector might also potentially pose a challenge during the mapping process. Another difficulty relates to finding stakeholders and target group participants due to the hostility to the feminist approach in more conservative partner countries.

The purpose of this methodology is to produce comparable data. All partner organisations will provide four reports after completing the mapping process, which will then be compared. Partner organisations may utilise different approaches depending on the data available for each country.

9 Bibliography

Adasa (2022): *Water and the Environment*. 8th World Water Forum Results and Discussions. Volume 1, https://portalhomolog.adasa.df.gov.br/images/storage/publicidade_propaganda/2022/8_forum_agua/1_E_water_and_environment_ADASA.pdf, (last accessed 9.6.2023.)

Alwan, Christine/ Weldon, Laurel (2017): What is Feminist Foreign Policy? An Exploratory Evaluation of Foreign Policy in OECD Countries. *Paper for the 2017 European Conference on Politics and Gender an der Universität Lausanne*, 8.-10. June 2017.

Bardach, Eugene (2011): *A Practical Guide for Policy Analysis: The Eightfold Path to More Effective Problem Solving*, Fourth Edition, Washington D.C.: CQ Press College.

Boston Consulting Group/Women in Energy (2018): *Gender Diversity in the CEE-SEE Energy Sector*. Budapest: A Boston Consulting Group Szolgáltató Kft.

Brugger, Fritz et al. (2023): *Analysing Sustainability Reports Using Machine Learning*. Available at: https://www.digital-public-services-switzerland.ch/application/files/8316/8129/0720/ReportDVSJan2023_AnalysingSustainabilityReportsUsingML.pdf (last accessed 8.6.2023.)

Brugha, Ruairí and Varvasovszky, Zsuzsa (2000): Stakeholder analysis: a review, *Health Policy and Planning*, 15: 3, 239-246. Available at: <https://doi.org/10.1093/heapol/15.3.239>, (last accessed 11.6.2023.)

Butler, Judith (1991): *Das Unbehagen der Geschlechter*. Berlin: Suhrkamp.

Carley, Kathleen (1990): Content Analysis. In R. E. Asher et al. (eds) *The Encyclopedia of Language and Linguistics*. Edinburgh, UK: Pergamon Press. Vol. 2, 725-730. Available at: http://www.casos.cs.cmu.edu/publications/papers/carley_1990_contentanalysis.PDF. (Last accessed

15.6.2023.)

Colorado State University. *Using Content Analysis*. Available at: <https://writing.colostate.edu/guides/guide.cfm?guideid=61>, (last accessed 15.6.2023).

Columbia University. *Content Analysis*. Available at: <https://www.publichealth.columbia.edu/research/population-health-methods/content-analysis> (last accessed 7.6.2023).

Demmelbauer, Verena, Habersbrunner, Katharina, Ireland, Anja, Mirembe, Agnes, and Noreña Ospina, Marcela (2022): *Women's Empowerment in the Energy Sector*. Available at: <https://www.wecf.org/wp-content/uploads/2018/10/Womens-Empowerment-Manual.pdf>, (last accessed 12.6.2023).

Derado, Augustin, Petrić, Mirko and Tomić-Koludrović, Inga (2020): Relational Gender Strategies in the Division of Household Labour. *Croatian Sociological Review*. 50, 3: 321-351. DOI: 10.5613/rzs.50.3.1. Available at: <https://hrcak.srce.hr/file/362721>, (last accessed 6.6.2023).

EIGE (n.d.): *Gender Equality Index*. Available at: <https://eige.europa.eu/gender-equality-index/2022>, (last accessed 16.6.2023).

EIGE (n.d.): *Gender Equality Index*. Available at: <https://eige.europa.eu/gender-equality-index/about>. (Last accessed 16.6.2023).

EIGE (2019): *Gender Statistics and Indicators*. Available at: <https://eige.europa.eu/sites/default/files/indicators.pdf>. (Last accessed 6.6.2023.)

EIGE (2020): *Gender Stakeholder Consultation*. Available at: <https://eige.europa.eu/gender-mainstreaming/methods-tools/gender-stakeholderconsultation>. (Last accessed 9.6.2023.)

EmpowerMed (2021): *Energy poverty and gender – Facts and Arguments*, <https://www.empowermed.eu/resource/energy-poverty-and-gender-facts-and-arguments/>, (last accessed 30.05.2023).

Ergas, Christina and York, Richard (2021): Women's status and carbon dioxide emissions: A quantitative cross-national analysis, *Elsevier* 41:4; DOI: <https://doi.org/10.1016/j.rser.2020.110668>.

European Commission (n.d.): *Types of EU law*, source: [Types of EU law \(europa.eu\)](https://european-council.europa.eu/media/e300042c-1230-4f20-9f1e-942c00000000/asset/document/12304f209f1e942c0000000000000000/Types_of_EU_law_(europa.eu)), (last accessed 16.06.2023).

Feenstra, Marielle/Özerol, Gül (2021): Energy justice as a search light for gender-energy nexus: Towards a conceptual framework. In: *Renewable and Sustainable Energy Reviews*, No. 138, DOI: <https://doi.org/10.1016/j.rser.2020.110668>

Fraser 2002: Soziale Gerechtigkeit in der Wissensgesellschaft: Umverteilung, Anerkennung und Teilhabe; aus: Heinrich-Böll-Stiftung (Hg.): *Gut zu Wissen – Links zur Wissensgesellschaft*, Verlag Westfälisches Dampfboot.

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.

Fraser, Nancy/ Dahl, Hanne Marlene/ Stoltz, Pauline/ Willig, Rasmus (2004): Recognition, Redistribution and Representation in Capitalist Global Society: An Interview with Nancy Fraser, in: *Acta Sociologica*, 47: 4, 374-382.

Goetz, Anne Marie (2017): Gender justice, citizenship and entitlements: Core concepts, central debates and new directions for research, in: Mukhopadhyay M./ Singh, N. (eds): *Gender justice, citizenship and development*. New Delhi: Zubaan, 15-57.

IEA (2019): *Energy and gender. A critical issue in energy sector employment and access to energy*,

source: <https://www.iea.org/topics/energy-and-gender>, last retrieved 30.05.2023.

Jiménez, Mariana and Canals, Luc (2021): Comparative analysis of implemented practical measures. In: *EmpowerMed*.

Karakislak, Irmak, Sadat-Razavi, Pantea, and Schweizer-Ries, Petra (2023): A cooperative of their own: Gender implications on renewable energy cooperatives in Germany. *Energy Research & Social Science*. Available at: <https://www.globalwomennet.org/wp-content/uploads/2023/01/gender-implications-on-renewable-energy-cooperatives-in-Germany.pdf>, (last accessed 10.6.2023).

Kuschan, Marika, Burghard, Uta, Groneweg, Kiara, and Strebels, Annika (2022): *Is the German energy transition perceived as gender- and socially-just?* Karlsruhe: Fraunhofer Institute for Systems and Innovation Research ISI (ed.). Available at: <https://publica-rest.fraunhofer.de/server/api/core/bitstreams/e78a555b-eed3-4ec3-831c-0c6db56f81d2/content>, (last accessed 5.6.2023).

Lamont, Christopher (2015): *Research Methods in International Relations*. London: Sage Publications Ltd.

Mendelow, Aubrey 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.)

Odrowaz-Coates, Anna (2021): Definitions of Sustainability in the Context of Gender. *Sustainability*. Available at: <https://www.mdpi.com/2071-1050/13/12/6862>, (last accessed 5.6.2023.)

OECD (n.d.): *Indicators for Gender Equality and Women's Empowerment – An Introduction*. Available at: <https://www.oecd.org/dac/gender-development/43041409.pdf>. (Last accessed 7.6.2023.)

OSF (2020): Surveys of participants in Fridays For Future climate protests on 20-28 September, 2019, in 19 cities around the world, source: <https://osf.io/asruw/> (last accessed 30.05.2023).

Parejo, Vanesa Hervías/Radulović, Branko (2023): Public Policies on Gender Equality. In: Fröhlich, Mareike et al. (2023): *Gender-Competent Legal Education*. Wiesbaden: Springer VS.

Schnebel, Karin B. (2015): *Selbstbestimmung oder Geschlechtergerechtigkeit*. Wiesbaden: Springer VS Verlag für Sozialwissenschaften.

Stratigaki, Maria (2005): Gender Mainstreaming vs. Positive Action. An Ongoing Conflict in EU Gender Equality Policy, in: *European Journal on Women's Studies*, 12:2, 165-186.

The World Bank (n.d.): *Gender Data Portal*. Available at: <https://genderdata.worldbank.org/indicators/>. (Last accessed 9.6.2023.)

UNESCAP (2013): *Gender, Statistics and Gender Indicators*. Available at: <https://www.unescap.org/sites/default/files/Framework-and-Indicator-set.pdf>, (last accessed 4.6.2023).

Walt, Gill and Gibson, Lucy (1994): Reforming the health sector in developing countries: The central role of policy analysis. *Health Policy and Planning*, 9: 353-70.

W4RES (2021): *Inventorying and studying successful cases of women driving market uptake in business, policy and society*, Deliverable 1.3. Case studies of women leading RHC market uptake WP1. Assessing RHC market uptake challenges and developing case studies of women-driven solutions. Available at: https://w4resobservatory.eu/wp-content/uploads/2021/11/D1.3_CaseStudiesWomen_v1.pdf, (last accessed 20.6.2023).

W4RES (2021): *Needs, perceptions and challenges in the RHC landscape: Evidence from 8 regions*, Deliverable 1.2 WP1. Assessing RHC market uptake challenges and developing case studies of women-driven solutions. Available at: https://w4resobservatory.eu/wp-content/uploads/2021/04/D1.2_NeedsPerceptionsChallenges_v1.pdf, (last accessed 20.6.2023).

W4RES (2022): *Capacity building program for women empowerment in RHC sector*, Deliverable 4.2 Report on capacity building activities WP4. Raising awareness, building capacity and catalysing women-led opportunities for the uptake of RHC. Available at: https://w4resobservatory.eu/wp-content/uploads/2023/03/D4.2_ReportCapacityBuildingFirst_v.1.pdf, (last accessed 20.6.2023).

ANNEX

ANNEX I: Stakeholder Mapping: Guiding questions for semi-structured interviews

1. Contact details (Name, name of organization/institution/company, expertise)
2. City, county, country
3. Institutional background
4. Field of expertise
5. After having presented the main goals of EUWES project, ask the stakeholder which of these goals they could agree on.

For political decision-makers

1. In your opinion, what are the current most important gender strategies on national level?
2. Are there any gender mainstreaming measures considered in the most important energy policies?
3. Are there any gender-budgeting measures planned to increase the involvement of women in the energy trainings (e.g., investment decisions, changing ownership structures, measures for balancing energy prices, etc.)?
4. Who are the main actors in your/our country working on gender topics?
5. In your opinion, what role do women play in the decision-making authorities regulating energy transition issues? Have you noticed a change in this regard during the last months (since the beginning of the energy crisis)?
6. What is hindering women from participating in energy-related fields in your country? Do you see a difference between regions, between age groups, academic disciplines, etc.?
7. What is the share of women in leading or management positions in your institution?
8. Does your workplace pursue gender-related policies?
 - a. Do you have an equal opportunities programme?
 - b. Do you have a Diversity-Equity-Inclusion (DEI) approach when recruiting employees?
 - c. Do you have an Equal Opportunity Officer?

For stakeholders of the private energy sector

1. What is the share of women employed or involved in your workplace?
2. How many technical positions are occupied by women?
3. What is the share of women in leading or management positions?
4. Does your workplace pursue gender-related policies?
 - a. Do you have an equal opportunities programme?
 - b. Do you have a Diversity-Equity-Inclusion (DEI) approach when recruiting employees?
 - c. Do you have an Equal Opportunity Officer?
5. Would you describe your company as gender-friendly?
6. Would you describe your company as family-friendly? (e.g. are there child-care services, paid parental leave, etc.)?
7. Do women have equal access to training and empowerment as part of career progression? Can you name specific program examples?
8. Do you consider gendered differences in product development?

For academic institutions/researchers

1. Do you know any explanatory factors for the lack of gender-disaggregated data in energy-related fields?
2. Do you pay specific attention to gender or feminism as an academic subject throughout your research?
3. What is the share of women in leading or management positions at your institution?

4. Are talented women within your organization making it to top leadership positions? Why/why not?
5. How can the academic sector contribute to reducing the gender gap in the energy sector? What research must be provided, in your point of view?
6. Does your institution offer specific training programs for female STEM students?

For civil society

Here it really depends on the actor/stakeholder. Trade unions are different than energy cooperatives for example. The partner organisations will need to specify what kind of information they would like to gather from the specific stakeholder.

1. Please describe the work of your organization in your own words.
2. If so, what do you do to advocate on women's promotion in the energy sector? Or rather, what actions should the energy and electricity sector be focused on to accelerate change, increase diversity, and foster a better gender balance?
3. Do you have a network with other women's rights or feminist organization? If so, can you share main names of the organisations with us?
4. In your point of view, how can renewable energy concepts strengthen the participation and representation of women in the energy transition? Which specific concepts are you referring to?

ANNEX II: Stakeholder Interview: Template for transcripts/minutes

Interview Transcript „Direct contacts“

Name of person contacted:

Please check:

- High power – high interest (HH)
- High power – low interest (HL)
- Low power – high interest (LH)

Be aware: every event is a good opportunity to place goals and messages!

date

recorded by

interlocutor

organisation

position

contact details

Key messages (Selection depending on the interlocutor):

1.

2.

3.

4.

Communication materials:

Which communication means were used (direct in-person contact, phone, video call):

Which communication material was spread (postcards, flyers, publications):

Conclusion/ agreement/ follow-up:

[Redacted]

[Redacted]

Evaluation:

Did calls to action lead to actions with reference to EUWES:

[Redacted]

Was awareness and information created on the (national) energy sector and gender, EUWES, WECF/ESF/FOCUS/DOOR?

[Redacted]

[Redacted]

ANNEX III: Target Group Mapping: User persona

Categories to take into account in users persona, and needs		Characteristics	Goals	Challenges	Motivations/drivers to take the position occupied now and/or to participate to the energy transition	Methodologies on how to reach them
Target groups						
Female politicians	EU level	<p>Nationality: Various European Union member countries</p> <p>Political affiliation: Diverse political parties within the EU</p> <p>Professional background:</p> <ul style="list-style-type: none"> - <i>Political experience:</i> Some prior experience in local or national politics - <i>Sector-specific knowledge:</i> Familiarity with renewable energy (RE) policies, climate change mitigation, and energy transition strategies - Active in advocating and promoting renewable energy and sustainability <p>Communication and engagement:</p> <ul style="list-style-type: none"> - Proficient in delivering speeches, engaging with the media, and effectively communicating policy objectives 	<p>Personal level:</p> <ul style="list-style-type: none"> - Seeking career advancement opportunities in the decision-making process - Feeling empowered to speak up and negotiations skills <p>Sectoral level:</p> <ul style="list-style-type: none"> - Integrating gender perspectives into renewable energy policies, programs, and decision-making processes - Advocating for the development and 	<ul style="list-style-type: none"> - <i>Facing cultural and institutional barriers</i>, glass ceilings - <i>Lacking safe spaces</i> and awareness spaces - <i>Confronting gender-based stereotypes</i> and biases that undermine credibility and influence that influence biased hiring practices - <i>Needing access</i> to supportive 	<ul style="list-style-type: none"> - Motivations: Committed to addressing climate change, promoting clean energy sources, and achieving carbon neutrality goals - Values: Environmental sustainability, social justice, gender equality, and inclusive policy-making 	<ul style="list-style-type: none"> - Internal partners contact lists - Public EU members contact lists (Parliament, Committees, EC, DG, etc.) - Sister projects - In public spaces, - At events - analogue or digital - In social media - Through

		<ul style="list-style-type: none"> - Building relationships with industry stakeholders, environmental organisations, and community groups to foster collaboration and support for RE initiatives - Actively utilizing social media platforms and online channels to connect with constituents, raise awareness, and drive engagement 	<p>implementation of supportive policies, regulations to drive renewable energy adoption and incentives to support renewable energy development, including feed-in</p>	<p>networks, mentorship, and resources to overcome barriers and advance their careers</p> <p>- <i>Facing stereotypes</i>, bias, and systemic</p>		<p>direct contact</p> <ul style="list-style-type: none"> - by telephone, by mail
	<p><i>National level</i></p>	<p><i>Nationality:</i> Specific country or countries</p> <p><i>Political party:</i> Affiliation with a particular political party or coalition</p> <p>Political background:</p> <p><i>Political experience:</i> Previous experience as a local or regional politician or involvement in political activism</p> <p><i>Committee assignments:</i> Membership in relevant committees or working groups related to energy, environment, or sustainable development</p> <p><i>Legislative accomplishments:</i> Track record of advocating for RE policies or supporting related initiatives</p> <p><i>Sector-specific knowledge:</i></p>	<p>tariffs, grants, or tax incentives</p> <ul style="list-style-type: none"> - Encouraging citizen involvement, education, and awareness campaigns related to renewable energy and climate action - Engaging with industry representatives, community organisations, and academia to gather insights, build alliances, and foster 	<p>barriers that limit opportunities for female politicians in the renewable energy sector</p> <p>- <i>Managing multiple roles</i> and expectations, such as family commitments, constituency needs, and party obligations</p>	<p>-<i>Motivations:</i> Committed to promoting renewable energy as a mean to mitigate climate change, achieve energy independence, and create green jobs</p> <p>-<i>Values:</i> Sustainability, social responsibility, economic development, and equal access to clean energy opportunities</p>	<ul style="list-style-type: none"> - Internal partners contact lists - Public EU members contact lists (Parliament, Committees, ministries, GA, etc.) - Sister projects - In public spaces, - At events - analogue or digital

		<p>-RE expertise: Familiarity with RE technologies, policies, and market dynamics</p> <p>-Climate change awareness: Understanding the urgency of addressing climate change and the role of RE in achieving environmental sustainability</p> <p>Public speaking and persuasion skills: Proficient in delivering compelling speeches, presentations, and engaging with the public to promote RE adoption</p> <p><i>Media relations:</i> Effectively communicating RE policies and initiatives to the media and managing public perception</p> <p><i>Grassroots engagement:</i> Connecting with constituents, organizing town halls, workshops, and engaging in public consultations to gather feedback and support for RE initiatives.</p>	collaboration.			<p>-In social media</p> <p>-Through direct contact</p> <p>- by telephone, by mail</p>
Female in municipalities / local governments	<p><i>Geographic location:</i> Specific municipalities or local government areas, urban, rural.</p> <p><i>Political party:</i> Particular political party or independent candidate</p> <p>Political background:</p>	<p>- <i>Advocating for local policies and incentives</i> to promote</p>	<p>-<i>Facing cultural and institutional barriers</i>, glass ceilings</p> <p>-<i>Lacking safe spaces</i> and</p>	<p>-<i>Motivations:</i> Committed to promoting renewable energy as a mean to</p>		

	<p><i>Political experience:</i> Previous experience as a local community leader, engagement in grassroots activism, or involvement in local governance</p> <p><i>Committee assignments:</i> Membership in committees or working groups related to energy, environment, or sustainable development within the municipality or local government</p> <p><i>Local community ties:</i> Strong connections and understanding of local community needs, dynamics, and priorities</p> <p>Sector-specific knowledge:</p> <p>Renewable energy understanding:</p> <p><i>Familiarity with renewable energy technologies,</i> their benefits, and their integration into the local energy system</p> <p><i>Local energy resources:</i> Awareness of the renewable energy potential in the municipality (solar, wind, hydro, geothermal)</p> <p><i>Sustainable development:</i> Knowledge of the relationship between renewable energy, environmental sustainability, economic growth, and community well-being</p>	<p>the adoption of renewable energy technologies, such as solar panels on public buildings or community energy projects</p> <p><i>- Facilitating public participation and involvement</i> in renewable energy decision-making processes, including public consultations and education campaigns</p> <p><i>- Promoting green job opportunities, local entrepreneurship,</i> and the growth of renewable energy businesses within the municipality</p>	<p>awareness spaces</p> <p><i>- Facing gender-based barriers and stereotypes</i> that may undermine credibility or influence within the local political landscapes</p> <p><i>- Seeking access</i> to funding, technical expertise, and capacity-building programs to support renewable energy initiatives at the local level</p> <p><i>- Balancing local priorities:</i> Navigating competing demands, such as</p>	<p>reduce carbon emissions, improve local air quality, and foster energy resilience</p> <p><i>-Values:</i> Environmental stewardship, community empowerment, economic development, and quality of life enhancement for residents</p>	
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	<p>Communication and public engagement: Community outreach ;Engagement with citizens, community organisations, and local businesses. ; Collaboration with stakeholders ; Education and awareness workshop and trainings about renewable energy options and opportunities.</p>		affordable energy, job creation, environmental protection, and community engagement.		
<p>Female managers and employees in energy companies</p>	<p><i>Educational background:</i> Relevant degrees in engineering, environmental sciences, business, or related fields <i>Professional experience:</i> Varied experience in the RE sector or related industries <i>RE knowledge:</i> Proficient in the technical aspects of renewable energy systems, such as solar, wind, hydro, or geothermal technologies <i>Industry expertise:</i> Familiarity with market trends, regulations, policy frameworks, and emerging technologies in the RE sector <i>Project management skills:</i> Experience in managing RE projects, including planning, implementation, and evaluation Workplace preferences and values: <i>Inclusive work environment:</i> Valuing</p>	<p>-<i>Striving for leadership</i> positions. - <i>Promoting gender equality, diversity, and inclusion</i> within the workplace and advocating for policies that support equal opportunities - <i>Seeking professional development</i> opportunities, training programs, and certifications to expand knowledge and stay updated with industry advancements</p>	<p>Gender bias and stereotypes: Facing biases, stereotypes, and unequal opportunities that affect career progression, recognition, and leadership roles Research funding: Encountering challenges in securing research funding, grants, or resources for renewable energy research projects Work-life balance:</p>	<p>Intrinsic motivations: - sustainability context of the energy sector - belief that renewable energy technologies and concepts are urgently necessary and will shape our future Personal reasons: - Family moving to a new city External driver: - National legal framework - Political support - Rising demand for green technologies - funding schemes</p>	

	<p>workplaces that foster diversity, equality, and inclusive practices</p> <p><i>Flexible work arrangements:</i> Preferring flexibility in working hours or remote work options to balance personal and professional commitments</p> <p><i>Career support and recognition:</i> Desiring fair recognition, promotions, and advancement opportunities based on merit and contributions</p>	<p><i>-Accessing mentorship or coaching</i></p> <p>relationships to receive guidance, feedback, and support in career progression.</p>	<p>Balancing research demands, teaching responsibilities, and personal commitments, often with limited support systems</p>	<p><i>Values:</i> Innovation, sustainability, diversity, equal opportunities, and corporate social responsibility</p>	
<p>Female in research and education organisations</p>	<p><i>Educational background:</i> Advanced degrees in engineering, environmental sciences, RE, or related fields</p> <p><i>Professional experience:</i> Various experience in research, academia, or educational institutions</p> <p>Research and academic interests:</p> <p><i>Renewable energy focus:</i> Specialization in specific areas of RE research (solar photovoltaics, wind energy, bioenergy, or energy storage)</p> <p><i>Applied research:</i> Conducting research with a practical focus on addressing real-world challenges and advancing renewable energy technologies and solutions</p>	<p>-Engaging in educational outreach programs to promote renewable energy awareness, sustainability, and inspire future generations</p> <p>-Providing mentorship, guidance, and support to aspiring female researchers and students pursuing careers in renewable energy</p>	<p>-Facing biases, stereotypes, and unequal opportunities that affect career progression, recognition, and leadership roles</p> <p>-Encountering challenges in securing research funding, grants, or resources for renewable energy research projects</p> <p>- Balancing</p>	<p><i>-Motivations:</i> Driven by the desire to contribute to the advancement of renewable energy, mitigate climate change, and promote sustainable development</p> <p><i>-Values:</i> Knowledge sharing, innovation, environmental stewardship, and empowering the next generation of researchers and professionals</p>	<p>-Internal network</p> <p>- Sister projects</p> <p>- In public spaces,</p> <p>- At events - analogue or digital</p> <p>-In social media</p> <p>-Through direct contact</p> <p>- by telephone, by mail</p>

	<p><i>Collaboration:</i> Engaging in interdisciplinary research collaborations</p> <p>Teaching and curriculum development: <i>RE courses:</i> Developing and teaching courses related to renewable energy technologies, policy, and sustainable energy systems <i>Curriculum enhancement:</i> Integrating renewable energy concepts and practical applications into existing educational programs to equip students with relevant knowledge and skills</p> <p>Networking and collaboration: -Participating in professional associations, conferences, and industry events -Engaging in cross-institutional or international research collaborations to foster knowledge exchange and accelerate advancements in renewable energy</p> <p>Advocacy and policy influence: <i>Policy engagement:</i> Contributing expertise and research findings to inform RE policy development at the local, national, or</p>		<p>research demands, teaching responsibilities, and personal commitments, often with limited support systems</p>		
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	<p>international level</p> <p><i>Gender equity in academia:</i> Advocating for gender equality, diversity, and inclusion in research and academic environments, including promoting fair representation and opportunities for women.</p>				
<p>Female students in STEM</p>	<p>- <i>Educational background:</i> Pursuing or completed STEM degrees, such as engineering, physics, environmental sciences, or renewable energy studies</p> <p><i>Early career stage:</i> Limited professional experience or in the early stages of their careers</p> <p>Technical skills and knowledge:</p> <p><i>STEM proficiency:</i> Possessing strong technical skills and knowledge in areas relevant to renewable energy, such as physics, mathematics, computer programming, or engineering principles</p> <p><i>RE understanding:</i> Familiarity with different renewable energy technologies, such as solar, wind, hydro, geothermal, or bioenergy, and their applications</p>	<p>Professional development:</p> <ul style="list-style-type: none"> - Seeking opportunities for skill development, training, and certifications in RE - Accessing mentorship and networking opportunities - Looking for guidance and support in career paths, job opportunities, and advancement prospects. <p>Community</p>	<ul style="list-style-type: none"> - Feeling isolated or undervalued due to underrepresentation in the sector - Unfriendly job market - Facing gender stereotypes and biases that can create obstacles and undermine confidence in pursuing STEM education and careers - Lacking role models or mentors in the renewable energy 	<p>Intrinsic motivations:</p> <ul style="list-style-type: none"> - Driven by a passion for environmental conservation, climate change mitigation, and the potential of renewable energy to address these issues <p>Personal reasons:</p> <ul style="list-style-type: none"> - Family influence - Eager to explore new technologies, research opportunities, and innovative solutions in the renewable energy sector - Motivated to contribute to a greener future and be part of the transition to 	<ul style="list-style-type: none"> - Social media - University email list - Sister project (e.g., High5girl, Femtec E.v, etc.) - Partners' network - University department email list

		<p>engagement and outreach:</p> <ul style="list-style-type: none"> -Participating in inspiring young girls and promote STEM education, particularly in the context of RE -Engaging with communities, organisations, or online platforms that provide support, mentorship, and networking. <p>Advocacy and leadership:</p> <p>Advocacy for diversity and inclusion:</p> <ul style="list-style-type: none"> -Promoting gender equality, diversity, and inclusion within the STEM field, including actively 	<p>sector, particularly among women</p> <p>Access to resources:</p> <p>Dealing with limited access to educational resources, networking opportunities, and internships or work experience in the field</p>	<p>sustainable energy systems</p> <p>External driver:</p> <ul style="list-style-type: none"> - Educational framework and support - Political support - rising demand for green technologies - funding schemes 	
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		<p>participating in initiatives to address underrepresentation</p> <p>-Aspiring to leadership positions to drive change, influence policy, and shape the future of renewable energy</p>			
Project partners	<ul style="list-style-type: none"> - Previous expertise on nexus between Gender and energy - Coming from different national context, can learn from each other 	<ul style="list-style-type: none"> - Enriching internal knowledge and skills on tools, methodologies, barriers, challenges and opportunities, existing for women empowerment in the RES sector 	<ul style="list-style-type: none"> - New stakeholder groups to work with - New target groups to work with 	<ul style="list-style-type: none"> - Internal vision and strategy of each partner - Empower women in all their diversity in the energy transition 	<ul style="list-style-type: none"> -Internal email list
Male co-workers, colleagues, etc.	<p>Open to diversity and inclusion: Embrace the value of diversity and recognize the importance of creating an inclusive work environment.</p> <p>Supportive of gender equality: Believe in equal opportunities and are committed to breaking down gender barriers within the energy sector.</p>	<p>Awareness of gender disparities:</p> <p>Recognition of underrepresentation:</p> <p>Acknowledge the underrepresentation of women in the energy sector and</p>	<p><i>-Unfamiliarity with gender issues:</i></p> <p>limited understanding or awareness of the specific challenges and experiences.</p>	<p><i>- Collaborative mindset:</i> Value teamwork and foster a collaborative work environment where all team members can contribute and thrive.</p> <p><i>-Encourage diverse</i></p>	<ul style="list-style-type: none"> -Through other female target groups - Social media

	<p>Mentorship and sponsorship:</p> <ul style="list-style-type: none"> -Willingness to mentor -Advocate for women's career advancement, including recommending deserving women for promotions, leadership roles, or high-profile projects. 	<p>the need for initiatives to address this imbalance.</p> <p>Understanding of challenges: Have an awareness of the specific challenges and biases that women may face in their professional growth and advancement.</p> <p>Allyship and advocacy:</p> <p>Ally mindset: Actively seek to be an ally to underrepresented colleagues and support their career development.</p> <p>Advocacy for women empowerment:</p> <p>Willingness to use their influence to advocate for equal</p>	<p><i>-Unconscious biases</i> can impact perceptions and behaviour, even among well-intentioned individuals.</p> <p><i>-Resistance from others:</i> may face resistance or pushback from colleagues who are skeptical of or resistant to initiatives focused on women empowerment.</p> <p><i>-Fear of exclusion or backlash:</i> Male co-workers may worry about inadvertently saying or doing something wrong during the training, leading</p>	<p><i>perspectives:</i></p> <p>Encourage and appreciate diverse viewpoints and contributions, recognizing that diversity enhances creativity and innovation.</p> <p><i>-Accelerate energy transition:</i></p> <p>mainstreaming gender equality to bring more actors with equal opportunities to the energy transition</p>	
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		opportunities, fair treatment, and gender diversity in the workplace.	to their exclusion or backlash from female colleagues.		
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based on:

W4RES (2021): *Inventoring and studying successful cases of women driving market uptake in business, policy and society*, Deliverable 1.3. Case studies of women leading RHC market uptake WP1. Assessing RHC market uptake challenges and developing case studies of women-driven solutions. Available at: https://w4resobservatory.eu/wp-content/uploads/2021/11/D1.3_CaseStudiesWomen_v1_.pdf, (last accessed 20.6.2023).

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ANNEX IV: Target Group Mapping: Questionnaire for needs assessment

Background

1. Are you a:

- EU politician
- National politician
- Municipalities/ local governments
- Managers and/or employees in energy companies/ community
- Civil society representant
- Researcher or other education organisations
- Young women in STEM (or future)
- Other

2. With gender do you identify with?

- Female
- Male
- Intersex
- Non-binary
- Prefer to not state
- Other

3. What is your age range?

- 18-25
- 26-35
- 35-50
- 50-70
- 70+

4. What is your educational background?

[open answer]

5. What is your employment status?

Open answer

- not employed
- Care duties
- Employed part time
- Multiple job
- Full time
- Long term contract
- Temporary contract

6. What position do you occupy?

[open answer]

7. What are the primary duties and responsibilities of your position?

[open answer]

Gender

8. Have you undertaken any training in gender or women's promotion before?

- a. Yes
- b. No
- c. I don't know

9. How would you rate your knowledge about gender, gender equality, women's rights, women's promotion [1 to 5, 5 the highest]?
[1 to 5]

10. Do you know of any women's rights/gender equality institutions or networks in your region?
[open answer]

11. Does your workplace consider gender equality in its policies?
a. Yes
b. No
c. I don't know

12. Which topic(s) would you like to learn more about?
a. Gender-just communication
b. Self-confidence training for women
c. Women's entrepreneurship
d. Anti-discrimination policies, equal rights policies
e. Gender Self-Assessment, Gender Action Plan
f. Gender indicators
g. Sex- and gender-disaggregated data
h. Networking methodologies
i. Diversity recruitment methodologies
j. Women leadership and representation in the decision-making process
k. Gender-Energy-Nexus
l. Other _____

General

13. What is your main motivation for taking part in the proposed training?
a. Increasing my knowledge of gender-related topics
b. Connecting with gender experts within the region
c. Strengthening my own network on an international level
d. Other _____

14. What kind of support are you interested to receive and provide in EUWES?
[open answer]

15. What are your/the attitudes, perceptions and beliefs that you support and would like to see in terms of gender equality in the renewable energy sector?
[open answer]

Barriers

16. What kind of barriers did you ever encounter in the progress of your career in the energy sector as being a woman? (E.g., seeking flexible work arrangements and supportive workplaces policies, culture and institutions, etc.)
[open answer]

17. Did you ever feel isolated or undervalued due to underrepresentation in the sector?

- Yes
- No
- Other

18. Did you ever feel like lacking access to knowledge creation and networking?

- Yes
- No

19. Does the market conditions along with demand and supply are hindering your participation in the energy sector, as woman?

- Yes
- No

20. If yes, how?

[open answer]

21. Are structures, access to finance, tax and regulations, infrastructure and political support, barriers that you are experiencing, if yes how?

- No
- [open answer]

22. How would you use your newfound skills after participating in the project?

[open answer]



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