



## **POLICY PAPER**

*by the Energy Community Secretariat*

### **on Collecting Gender-Disaggregated Data in the Energy Sector**

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## 1. Definitions

**Gender** refers to the “social attributes and opportunities associated with being male and female and the relationships between women and men, and girls and boys, as well as the relations between women and those between men. These attributes, opportunities and relationships are socially constructed and are learned through socialization processes. They are context/ time- specific and changeable. Gender determines what is expected, allowed and valued in a women or a man in a given context. In most societies there are differences and inequalities between women and men in responsibilities assigned, activities undertaken, access to and control over resources, as well as decision-making opportunities” (UN, 2002).

**Gender equality** refers to the “equal rights, responsibilities and opportunities of women and men and girls and boys” (UN, 2022a). This means that “women’s and men’s rights, responsibilities and opportunities will not depend on whether they are born female or male. Gender equality implies that the interests, needs and priorities of both women and men are taken into consideration, thereby recognizing the diversity of different groups of women and men. [...] Equality between women and men is seen both as a human rights issue and as a precondition for, and indicator of, sustainable people-centred development” (UN, 2022b).

**Disaggregated data** refers to breaking down data into subcategories to reveal patterns that cannot be fully reflected by larger, aggregate data. Disaggregating a large dataset provides an opportunity to most efficiently target financial or other resources to disadvantaged groups.

**Energy labour market** refers to the supply of and demand for labour in the energy market, with the scope of this report being limited to energy companies, ministries, regulators and transmission system operators (TSOs).

## 2. Abbreviations

<i>CPs</i>	Contracting Parties
<i>DG ENER</i>	Directorate General for Energy in the European Commission
<i>EC</i>	European Commission
<i>EIGE</i>	European Institute for Gender Equality
<i>EnC</i>	Energy Community
<i>EU LFS</i>	European Labour Force Survey
<i>EU LFSA</i>	European Labour Force Survey Annually
<i>GEPs</i>	Gender Equality Plans
<i>IRENA</i>	International Renewable Energy Agency
<i>NDCs</i>	Nationally Determined Contributions
<i>OECD</i>	Organisation for Economic Co-operation and Development
<i>SDGs</i>	Sustainable Development Goals
<i>TSO</i>	Transmission System Operator

### 3. Introduction

Energy is imperative for our daily life and the driving force for all economic activities, including transport, agriculture, industry and the residential sector. However, climate change and the urgent need to reduce carbon emissions, as set out by the Paris Agreement, the European Green Deal and the “Fit for 55” package, are increasingly calling into question the way energy-related activities are traditionally performed and the lack of gender diversification. In the EU, for example, the total workforce in the conventional energy sectors is for its 80% represented by male workers, with little improvement in recent years (Ouziaux, et al., 2021).

According to the International Renewable Energy Agency (IRENA), the renewable energy job market will grow from 11.5 million jobs in 2019 to 42 million in 2050 (IRENA, 2019). This calls for a well-trained, ambitious and diverse talent pool, including women and men (Ferroukhi, 2021). However, recent studies have repeatedly shown that women's participation in the energy sector is underutilised and far from balanced (Clancy & Marielle, 2019; Ouziaux, et al., 2021; IEA, 2022). While innovative solutions are needed to ensure a low-carbon energy transition and renewables are expected to grow enormously in the coming years, this should necessarily go hand in hand with addressing the inequalities embedded in the energy sector. Women's full participation in the energy system is essential to shift away from power games, and towards values that matter, such as the environment, health care, education and well-being (EC, 2022).

Not much is known about the exact structure of gender inequality in the energy labour market of the Energy Community (EnC) Contracting Parties (CPs). However, preliminary evidence indicates that the current situation may be at odds with the European Commission's (ECs) gender targets and the growing recognition of gender differences in energy markets. Studies have repeatedly shown that overall female employment rates are below the EU average in all South-eastern non-European countries and are particularly low in Kosovo\*<sup>1</sup> and Bosnia and Herzegovina (Atoyán & Rahman, 2017; OECD, 2020). Although exact figures for the energy labour market are not available for all CPs, an OECD study indicates that the overall female employment rate in South-eastern non-European countries is only 35.4%, compared to 43.9% in the EU27 (OECD, 2020). Since the energy market has traditionally been dominated by men, this inequality is most likely greater in the energy market compared to the overall labour market.

Also, the Gender Equality Index by the European Institute for Gender Equality (EIGE), which tracks gender inequalities in money, knowledge, time, power, health, intersecting inequalities, and violence, shows that the overall situation of gender inequalities is worse in the Western Balkans compared to the EU27 countries (EIGE, 2021). Nonetheless, positive examples of embedding gender equality and social inclusion considerations in energy action plans are increasingly emerging in some CPs (e.g. North Macedonia); also, many of the revised Nationally Determined Contributions (NDC2)<sup>2</sup> submitted by CPs ahead of COP26 include policies, measures or considerations for gender equality.

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<sup>1</sup> Throughout this brief, this designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo declaration of independence.

<sup>2</sup> For further information, please refer to <https://unfccc.int/process-and-meetings/the-paris-agreement/nationally-determined-contributions-ndcs/nationally-determined-contributions-ndcs>.

The EC is committed to promote gender equality as a cross-cutting objective of all EU policies and in research and innovation (European Commission, 2022). In 2006, the European Institute for Gender Equality (EIGE) was established in Vilnius, with the ambition to mainstream equal opportunities between women and men in all policies and activities within the EU. Also the Horizon 2020<sup>3</sup>, Horizon Europe<sup>4</sup> and the European Research Area address gender inequality, both through Gender Equality Plans (GEPs) and a female/male quota. Furthermore, the Commission's Gender Equality Strategy for 2020-2025 highlights a set of key actions to ensure equal participation of women and men in the labour market as well as gender balance in decision-making processes. Finally, the full and non-discriminatory participation of the female workforce in all economic sectors is enshrined in the global United Nations Sustainable Development Goals (SDG) (Goal 5, 7 and 8) and clearly recognized by the Paris Agreement, which calls for "gender equality, empowerment of women and intergenerational equity".

Improving gender equality in the rapidly growing energy sector is of utmost importance for several reasons:

**Firstly**, the existing gender gaps in the energy labour market hinders the full potential of the available talent pool in an industry that must undergo a series of innovations and restructurings on its path towards carbon neutrality;

**Secondly**, ensuring gender equality in the energy sector is key to social, political, environmental and economic development (IEA, 2022; EIGE, 2016) and brings co-benefits for organisations and countries;

**Thirdly**, the gender gap in the energy labour market is not in line with the international and national strategy plans (e.g. Commission's Gender Equality Strategy 2020-2025, NECPs), global goals (e.g. SDG 5, 7 and 8) and human rights (Clancy & Marielle, 2019);

**Fourthly**, a greater participation of women in the energy sector is crucial because they are disproportionally affected by energy poverty (EIHP & DOOR, 2021; EIGE, 2016; IRENA, 2019);

**Lastly**, it is expected that gender mainstreaming and the resulting need for gender-disaggregated data will be an important prerequisite for the distribution of key EC funding instruments. For example, as part of the EC Gender Equality Strategy 2020-2025, the EC commits to gender mainstreaming in its research and innovation programme Horizon Europe (budget of €95.5 billion). In this regard, certain categories of legal entities from EU countries and associated countries must prepare Gender Equality Plans (GEPs). The GEPs, in turn, must be rooted in an evidence-based, gender-disaggregated baseline, with data collected for all staff categories. The need for collecting gender-disaggregated data becomes even more evident.

<sup>3</sup> For further information, please refer to: [https://ec.europa.eu/info/research-and-innovation/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-2020\\_en?msckid=bffb38e5bb3211ec8d758b331afbd770](https://ec.europa.eu/info/research-and-innovation/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-2020_en?msckid=bffb38e5bb3211ec8d758b331afbd770).

<sup>4</sup> For further information, please refer to: [https://ec.europa.eu/info/research-and-innovation/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe\\_en?msckid=ebd17063bb3211eca4693d4589313544](https://ec.europa.eu/info/research-and-innovation/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe_en?msckid=ebd17063bb3211eca4693d4589313544).

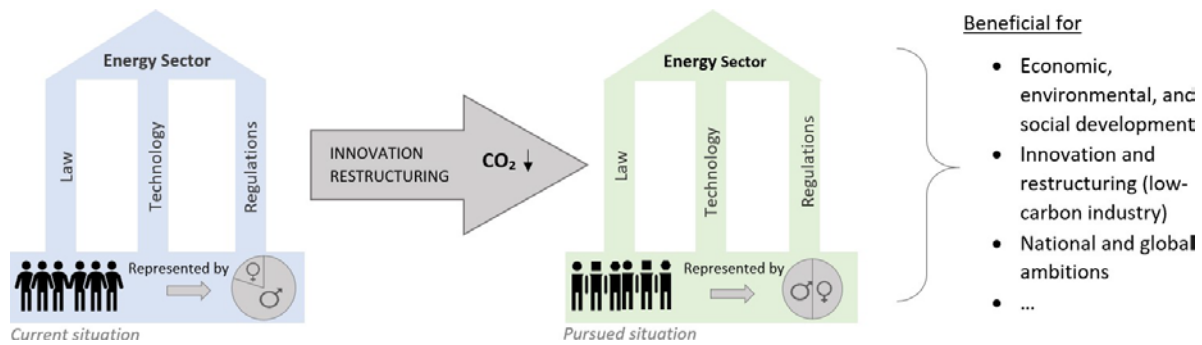


Figure 1: The current state of the energy sector on the left and the desired situation on the right. The foundation for all relevant technical, political and legal bodies is the workforce. Innovation and restructuring processes are seen as critical to a low-carbon path in the energy sector. On the right, selected benefits of gender equality in the energy labour market are outlined (Energy Community Secretariat, 2022 based on (IEA, 2022; EIGE, 2016)).

#### 4. Objectives

Given that not much is known about the root causes or actual extent of gender inequalities in the energy labour market, one of the biggest challenges is the lack of gender-disaggregated data. Without adequate statistics, neither barriers to women's access to energy sector jobs nor progress toward gender equality can be identified or monitored. This policy brief aims to identify **data gaps** in terms of gender-disaggregated data in the energy sector and to **raise awareness** within the EnC on the need for a future, comprehensive study of women's participation in the energy labour market and corresponding **data collection** in CPs.

It provides recommendations for possible standardization of data collection processes related to gender data in the energy sector across the CPs. For doing so, relevant EC datasets are used as a baseline to discuss two things. First, where data is generally not collected in the CPs, and second, what additional indicators should be included in the datasets. The relevant datasets are defined in accordance with the recently published EC Asset Study (Ouziaux, et al., 2021), which specifically targets the need for gender-specific data collection in the energy job market in EU Member States (discussed in Section 6).

Finally, Section 8 summarizes the EC's step-by-step guidance for collecting gender-disaggregated data from energy ministries, regulators, and transmission system operators, as presented in the EC Asset study. This brief was developed in accordance with the EC Asset Study to reflect how CPs could potentially benefit from similar data collection processes. In a broader perspective, this report aims to draw attention to the benefits of gender equality in the energy sector and ensure the participation of a diverse talent pool in the energy sector.

#### 5. Existing database and gap analysis

The most relevant database that reveals standardized insights on gender and employment in the energy sector is the European Labour Force Survey (EU LFS), including the LFSA

database (Eurostat, 2019). Additionally, the Directorate General for Energy (DG ENER) provides a database on employment in the energy sector (Table 1).

Table 1| Datasets relevant to the study of gender inequalities in the energy labour market with brief description. Data gaps for all nine EnC CPs are marked as not available (NA) (Energy Community, based on (Ouziaux, et al., 2021)).

Database	Dataset	Description	NACE level	Availability for CPs
Eurostat EU LFS	"raw_database_sec"	Age categories by country and over the years	2 and 3	Available for ME, MK, RS
Eurostat LFSA	"raw_database_agg"	Employment rate, professional status, and education degree by country and over the years	2 and 3	NA
DG ENER	"raw_database_ener"	Employment rate by country and over the years	2 and 3	NA
DG ENER	"raw_database_sec"	Employment by sex, part-time/full-time by country and over the years	2 and 3	NA
European Commission ASSET Study	Questionnaire "Database Asset"	Employment data for ministries, companies regulators and TSOs	Microlevel (different categories)	NA
European Commission ASSET Study	Data collection on policies	Data on policies in ministries, companies, regulators and TSOs	Microlevel (different categories)	NA

The EU LFS database provides gender-disaggregated employment data at the two-digit level, with a focus on age categories. The dataset provides insights into the age structure of employed women in all seven energy sectors (NACE Code 2 and 3).

Employed people include employees, self-employed persons, and family workers aged 15 years<sup>5</sup> and over (Eurostat, 2021a). The LFSA database is also derived from the LFS database and contains additional information on employment rates, occupational status, and educational attainment in the main industrial sectors and in the sub-sectors of the energy sector (NACE codes 2 and 3).

The DG ENER database disaggregates gender data in the energy sector across general employment structures (share of women, full-time/part-time) to energy subsectors (NACE Code 2 and 3). Data includes again individuals that fall into the category “employed” within energy NACE Codes.

In addition, the EC Asset study conducted both a survey and secondary research (top-level approach) to gain comprehensive insights into employment patterns and gender targeted policies in energy ministries, regulators, and TSOs (Ouziaux, et al., 2021). The questionnaire explores the root causes of gender inequality in the energy sector by

<sup>5</sup> Exceptions to the standard age group in Spain, Italy, Sweden (until 2001) and United Kingdom.



disaggregating data on, for example, family status, working hours, and place of work. Focus is placed on differences in the attractiveness between public and private sector. Except for

the Eurostat EU LFS data, which is available for Montenegro, North Macedonia and Serbia, none of the listed datasets include the EnC CPs.

In general, EC data is provided at the so-called NACE level. NACE codes are used as a standardized European nomenclature to break down economic sectors into smaller statistical units. As shown in Table 2, the energy sector can be divided into seven energy sectors (NACE Code 2) and five sub-sectors (NACE Code 3). The seven energy sectors include “Mining of coal and lignite”, “Extraction of crude petroleum and natural gas”, “Manufacture of coke and refines petroleum products”, “Electricity, gas, steam and air conditioning supply, manufacture and distribution”, “Construction of buildings”, “Civil engineering” and “Specialized construction activities”.

Table 2| NACE codes for all energy sectors and sub-sectors (Energy Community Secretariat, based on (Eurostat, 2021b)).

Code	Sub-Code	Explanation
2	B05	Mining of coal and lignite
2	B06	Extraction of crude petroleum and natural gas
3	<i>B06.1</i>	<i>Extraction of crude petroleum</i>
3	<i>B06.2</i>	<i>Extraction of natural gas</i>
2	C19	Manufacture of coke and refined petroleum products
2	D35	Electricity, gas, steam and air conditioning supply, manufacture and distribution
3	<i>D35.1</i>	<i>Electric power generation, transmission and distribution</i>
3	<i>D35.2</i>	<i>Manufacture and distribution of gaseous fuel</i>
3	<i>D35.3</i>	<i>Steam and air conditioning supply</i>
2	F41	Construction of buildings
2	F42	Civil engineering
2	F43	Specialized construction activities

## 6. Relevant indicators for collecting gender-disaggregated data

This section examines the databases in more detail and points to indicators of interest that shed light on the situation of women's participation in the energy sector. Table 3 presents an initial proposal for relevant indicators from EC datasets and the most recent EC Asset survey to collect gender-disaggregated data on employment in the energy sector for all CPs (Ouziaux, et al., 2021).

The indicators include information on general information, the attractiveness of the workplace and outcome-based data. Indicators concerning general information provide insights on, for example, age (EU LFS) and educational attainment (LFS dataset). These indicators include, for example, the share of women per age category across NACE codes 2 and 3, per country

and year (EU LFS) or the share of women per educational degree working across NACE codes 2 and 3, per year and country (LFSA).

The attractiveness of the workplace is analysed using, for example, working hours (LFSA dataset) and contract type (DG ENER). This incorporates indicators such as the share of women working in total/full-time/part-time across all economic NACE sectors, per country and year (DG ENER) or the average number of actual weekly working hours, by sex, professional status (full-time/part-time) and across NACE sectors, per country and year. Finally, outcome-based indicators include the share of women in the energy sector and sub-sector (DG ENER).

In addition to standardized datasets used by the EC, the recently published EC Asset study proposes to collect additional information from ministries, regulators and TSOs. The proposed indicators provide information on the structural differences between the various energy sectors and their attractiveness (e.g. between private and public). This includes a general identification of the percentage of women working at different levels of the hierarchy (e.g. senior minister, junior minister, secretary general, etc.) and an examination of policies that reflect the attractiveness of a job, such as paid maternity leave, flexible working hours as well as training and career development for women. This policy brief proposes CPs to include energy companies in the EU Asset survey, in addition to ministries, regulators and TSOs, as this would allow for a more complete picture of the energy sector.

Table 3| Relevant indicators for analysing gender inequality in the energy labour marked coming from various databases (Energy Community Secretariat, based on (Ouziaux, et al., 2021).

Database	Indicators	NACE level
Eurostat EU LFS "raw_database"	· Share of women per age category (15-24, 25-49 and 50-74) by NACE codes 2 and 3, per country and year	2 and 3
Eurostat LFS "raw_database_agg"	· Share of women per educational degree working in total/full-time/part-time by NACE codes 2 and 3, per year and country · Trend analysis of the share of women working in total/full-time/part-time by NACE codes 2 and 3, for each education degree, per country and year	2 and 3
Eurostat LFS "raw_database_agg"	· Employment by sex, age, duration of employment, and industry by NACE codes 2 and 3, per country and year (LFSA_EGDN2) · Self-employment by sex, age and economic activity by NACE code 2 and 3, per country and year (LFSA_ESGAN2) · Temporary employees by sex, age and economic activity by NACE code 2 and 3, per country and year (LFSA_ETGAN2) · Average number of usual weekly hours of work in main job, by sex, professional status (full-time/part-time) and economic activity by NACE code 2 and 3, by country and year (LFSA_EWHUN2) · Average number of actual weekly hours of work in main job, by sex, professional status (full-time/part-time) and economic activity by NACE code 2 and 3, per country and year (LFSA_EWHAN2) · Average number of actual weekly hours of work in the second job, by sex, professional status (full-time/part-time), economic activity in the first job by NACE code, per country and year (LFSA_EWH2N2)	2 and 3
DG ENER "raw_database_ener"	· Share of women by NACE code 2 and 3, per country and year · Trend analysis of the share of women by NACE code 2 and 3, per country (regression trend analysis)	2 and 3
DG ENER "raw_database_sec"	· Share of women working in total/full-time/part-time by NACE code 2 and 3, per country and year · Share of women working in total/full-time/part-time by all economic NACE sectors (comparison with non-energy sectors), per country and year	2 and 3
European Commission ASSET Study	· Share of women in ministries per job position (e.g., top four hierarchical positions) and by NACE code 2 and 3, per country and year · Share of women in companies, TSOs and regulators per seniority level by NACE code 2 and 3, per country and year · Data on women's citizenship, education, work time, number of children, disabilities and employment by job positions in	not relevant
European Commission ASSET Study	· Gender targets and quotas · Paid maternity leave, weeks · Paid paternity leave, weeks · Flexible working hours · Flexible work locations (e.g., home office policies) · Training and career development targeting women · Networks and mentorship programmes targeting women · Anti-sexual harassment, anti-gender violence policy, or equivalent · Equality policy or strategy ensuring the non-discrimination of any demographic group, including women	not relevant

## 7. Barriers for women's employment and targeted energy indicators

The EC Asset study identifies **perceptions of gender roles** as the biggest barrier to women's participation in the energy sector (Ouziaux, et al., 2021). This includes, for example, women's perception of the energy sector as traditionally made by and for male workers. In addition to perceptions of gender roles, Ferroukhi et al, (2021) considers **cultural and social norms** and **prevailing hiring practices** as barriers to women entering the energy sector.

For removing barriers, an IRENA online survey identifies key issues that need to be addressed (IRENA, 2018). Among other things, there appears to be a **lack of self-awareness** among women to enter the energy market, as well as a **lack of awareness of opportunities** in the sector. Both of these issues could be addressed through educational programs that encourage women to enter the energy market or promote STEM studies (Science, Technology, Engineering and Metals). For example, targeted workshops, scholarships, internships, and vocational training could improve women's access to jobs in the energy

sector. In terms of policy, IRENA found that having **no gender-specific targets**, along with **discouraging workplace policies and limited mobility**, prevents further improvements in gender equality in the energy sector.

For improving and removing barriers to women’s entry, retention, and advancement in the energy sector in all CPs, a picture of the current situation must be drawn. For doing so, CPs are suggested to analyse indicators that examine the dynamics of **perceived gender roles, recruitment/retention/advancement dynamics and gender-targeted policies**. It is proposed to include additional barrier-focused indicators in the Asset survey questionnaire, as for Table 4.

Table 4| Indicators for collecting information on barriers to women's entry, retention, and advancement in the energy sector. (Energy Community Secretariat, based on (Ouziaux, et al., 2021)). In the framework of this policy brief, it is suggested that additional indicators on the barriers of women's entry into the energy market are included in the Asset survey questionnaire and an additional survey (in orange).

Database	Dataset	Indicators	NACE level
European Commission ASSET Study	Questionnaire "Database Asset"	<ul style="list-style-type: none"> <li>· Share of women in ministries per job position (e.g., top four hierarchical positions) and across NACE code 2 and 3, per country and year</li> <li>· Share of women in companies, TSOs and regulators per seniority level across NACE code 2 and 3, per country and year</li> <li>· Data on women's country of birth, citizenship, education, work time, number of children, age of youngest children, caring responsibilities, household composition, type of contract (temporary or permanently), disabilities and employment across job positions in ministries, regulators, companies and TSOs</li> <li>· Perception of gender roles</li> <li>· Perception of the importance of diversity and inclusion policies</li> </ul>	2 and 3
European Commission ASSET Study	Questionnaire and secondary research on policies "Database Asset"	<ul style="list-style-type: none"> <li>· Gender targets and quotas</li> <li>· Paid maternity leave, weeks</li> <li>· Availability of childcare facilities</li> <li>· Flexible working hours</li> <li>· Flexible work locations (e.g., home office policies)</li> <li>· Training and career development targeting women</li> <li>· Promotional events for job seekers (targeting women)</li> <li>· Anti-sexual harassment, anti-gender violence policy, or equivalent</li> <li>· Equality policy or strategy ensuring the non-discrimination of any demographic group, including women</li> </ul>	2 and 3
NA	Survey on barriers of market entry	<ul style="list-style-type: none"> <li>· Perception of gender roles</li> <li>· Perception of the importance of diversity and inclusion policies</li> </ul>	2 and 3

The table provides an overview of the indicators already discussed (black) and suggestions for additional barrier-oriented indicators (orange). This would include the collection of information regarding, for example, women’s education, the number of children, caring responsibilities and the type of contract. Information regarding gender policies are already embedded in the EC Asset study and include, for example, the existence of workplace policies and training opportunities for women.

It is proposed to include an additional survey on the perception of gender roles and the perception of the importance of diversity and inclusion policies (Table 4, survey on barriers of

market entry). For example, perceptions of gender roles could be revealed through a survey and questions such as the division of housework between female and male family members, the expectation of equal education for daughters and sons, the perceived burden of working women on the family, the perceived ability of women to get a job with responsibility and competition<sup>6</sup>.

The relevant agencies (e.g. national statistical offices) in all CPs could provide annual reports on trends in identified barriers, which subsequently could serve as a basis for CPs to develop strategies to address them.

## 8. Step-by-step to gender-disaggregated data

For the collection of gender-disaggregated data in energy ministries, regulators, and TSOs, the EC Asset study proposes a detailed step-by-step guide, which is summarized in the following section (Ouziaux, et al., 2021). The main steps can be differentiated into **preparation, distribution of survey, analysing data, data processing, additional desk research and post-study activities** (Figure 2).

With regard to the aggregation of all relevant datasets, including the EC Asset survey (see Table 2), it is recommended that the national statistical offices of CPs work closely with the Eurostat data management and support team. It must be said, however, that the Eurostat data team mainly supports EU candidate and potential candidate countries.

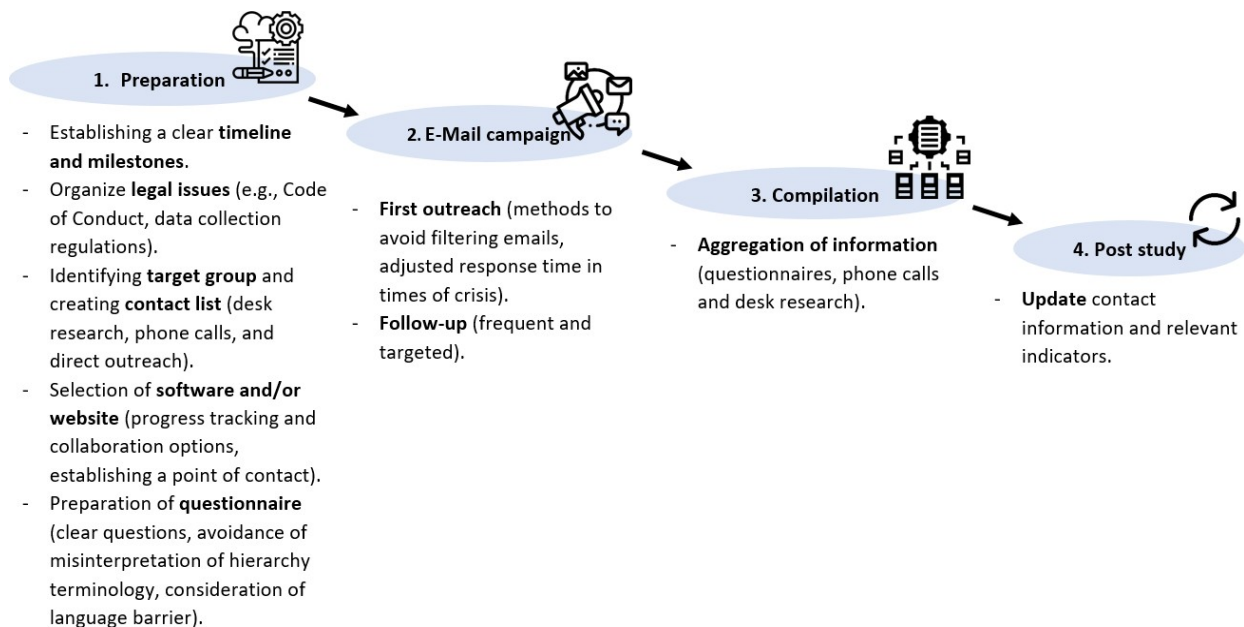


Figure 2| Step-by-step guide to the questionnaire for collecting gender-disaggregated data in energy ministries, companies, regulators, and TSOs (Energy Community, based on (Ouziaux, et al., 2021)).

<sup>6</sup> For further actions, the literature about gender-biased public perception of STEM fields, focusing on the influence of egalitarian attitudes toward gender roles by Ikkatai, et al., (2020) is recommended.

Before starting the survey, the **right target group** should be identified and a contact list with the right representatives from energy-related ministries, regulators, and TSOs should be established. This could be done using a variety of channels, including desk research, phone calls, and direct outreach. Early engagement with relevant energy divisions could be beneficial to build relationships, identify the target group and distribution channels, and increase the response rate to the questionnaire.

As part of the secondary research, the organizational structures and organizational charts of all CPs should be examined and reviewed with their respective representatives. In addition, all legal aspects such as the code of conduct and data collection compliance should be prepared. **Specific data collection policies for sensitive categories** should be considered (e.g. education, ethnicity, etc.). A clear and concise summary of how sensitive data will be handled should be included with each email sent to the respondents or mentioned during relevant phone calls. Most importantly, a questionnaire should be set-up and published on a selected software or webpage.

Time efforts should be limited through applications such as progress tracking and opportunities for collaboration between relevant stakeholders. As proposed in the EC's Asset study, a strong focus must be put on **avoiding misinterpretations** regarding hierarchy terminology used for job positions (desk research and verification through respective representatives) and due to language barriers (e.g. providing translations). After an initial email outreach, it is important to send frequent targeted follow-up emails and, if necessary, invite respondents for in-person phone interviews. Leveraging on their experience with the Asset survey, the team of Ouziaux et al., (2021) has identified the following **best practices** for conducting the survey:

#### Best practices

1. **Active follow-up** through phone calls, targeted emails and secondary research;
2. **Early and close contact** with the respondents and recording of telephone contacts from all respondents;
3. **Preparing** contact persons and especially TSOs for the collection of sex-disaggregated data on nationality, marital status, and origin (guidelines, seminars, reminders, etc.).

## 9. Conclusion and recommendations

This policy brief aims to **raise awareness** of the need for a comprehensive analysis of women's participation in the energy labour market and other inequalities in the energy market. The collection of **gender-disaggregated employment indicators** in all CPs would not only provide the opportunity to assess the current statistical situation regarding employment and gender in the energy sector, but also to identify barriers to women's entry into the energy labour market or advancement to higher job position.

In addition, **annual monitoring of data** would provide a **better understanding of trends** in overall employment dynamics and barriers to women's entry into the energy sector. Sufficient data is the fundament for making successful gender targeted policy decisions and tracking progress towards gender equality. Targeted actions could subsequently be developed on top of such data insight to ensure the gradual elimination of gender inequalities and best practices in the energy sector across CPs. Thus, the collection of gender-disaggregated data is critical to reducing the gender gap in the energy sector.

As noted in this policy brief, the majority of CPs are not included in the data collection processes of relevant EC databases related to the energy job market. It is therefore **recommended to prepare and organize data aggregation for these databases in all CPs**. For doing so, CPs should begin monitoring gender inequalities in the energy sector at the national level using relevant indicators used by Eurostat (LFS and LFSE), EC's Directorate General for Energy, and those recently discussed in the EC's Asset Study (Ouziaux, et al., 2021).

As suggested in the EC Asset study, CPs are recommended to **develop questionnaires** for energy ministries, regulators, TSOs and companies that provide insights into the current situation of gender inequality as well as valuable information on the barriers to women's entry, retention, and advancement in the energy labour market (incorporating the indicators from Table 3).

In the framework of this brief, **additional indicators** were proposed that reveal insights into the barriers of women to enter the energy job market. Including the proposed indicators in the gender-disaggregated data collection would shed light on how women perceive gender roles in the energy labour market and how important they consider inclusion measures such as educational programs, maternity leave, and flexible work schedules to the attractiveness of the workplace. To this end, the **national statistical institutes of CPs** are recommended to **connect with Eurostat's data management**, which provides country-specific questionnaires and guidance based on the methodological guidelines published annually.

## 10. Limitations of the research and elements for further investigation

This policy brief focuses on gender-disaggregated data in the energy sector looking at institutions such as energy ministries, regulators, TSOs and companies. However, the scope of this research has necessarily been limited by **time constraints, lack of budget** earmarked for this assignment, and the **restrictions to travel** imposed by the measures to control the Covid-19 pandemic, making on-site observation and direct interviews with stakeholders in CPs not possible.

It is important to note that **other gender gaps exist** in the energy sector, such as gender inequalities in energy access, energy poverty, energy-related education, and decision-making (EIGE, 2016) and could be further explored. Thus, other needs for collection and improvement of gender-disaggregated data exist. For example, data revealing the situation regarding energy-related education, policies, or financing opportunities should not be forgotten. Within the scope of this policy brief, however, it was not possible to cover all dimensions, but only to provide a small glimpse of the **importance to improve the collection of gender-disaggregated data** in the energy labour market.

The **need of a more comprehensive study on women's participation in the energy sector is evident**. Such a study could provide CPs with legal and technical recommendations for collecting gender-disaggregated data across the entire energy sector, including the labour market, education and financial opportunities.

**Reducing gender inequality** in the energy sector labour market is paramount to successful social, environmental, and economic development. It increases the opportunities for advancing innovation in low-carbon technologies and has a positive impact on the achievement of national and international goals such as those enshrined in the Commission's Gender Equality Strategy, NDCs and SDGs.



## 11. References

Atoyan, R. & Rahman, J., 2017. Western Balkans: Increasing Women's Role in the Economy, s.l.: IMF Working Paper.

Clancy, J. & Marielle, F., 2019. Women, Gender Equality and the Energy Transition in the EU, Brussels: European Parliament's Committee on Women's Rights and Gender Equality.

EIGE, 2016. Gender and Energy, Luxembourg: Publications Office of the European Union.

EIGE, 2021. Gender equality indices in the Western Balkans and Turkey. [Online] Available at: <https://eige.europa.eu/gender-equality-indices-western-balkans-and-turkey>. [25 03 2022].

EIHP & DOOR, 2021. Study on addressing energy poverty in the Energy Community Contracting, Zagreb: DOOR & EIHP.

European Commission, 2010. List of NACE codes. [Online] Available at: [https://ec.europa.eu/competition/mergers/cases/index/nace\\_all.html](https://ec.europa.eu/competition/mergers/cases/index/nace_all.html). [Accessed 08 March 2022].

European Commission, 2022. Gender equality in research and innovation. [Online] Available at: [https://ec.europa.eu/info/research-and-innovation/strategy/strategy-2020-2024/democracy-and-rights/gender-equality-research-and-innovation\\_en](https://ec.europa.eu/info/research-and-innovation/strategy/strategy-2020-2024/democracy-and-rights/gender-equality-research-and-innovation_en). [Accessed 22 02 2022].

European Commission, 2022. Women's full participation in renewables is essential for a fair and green future. [Online] Available at: <https://ec.europa.eu/research-and-innovation/en/horizon-magazine/womens-full-participation-renewables-essential-fair-and-green-future>. [Accessed 10 04 2022].

European Institute for Gender Equality, n.d. Gender Statistics Database, s.l.: s.n. Eurostat, 2019. Labour Force Survey, database: Eurostat.

Eurostat, 2021a. EU labour force survey - methodology. [Online] Available at: [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=EU\\_labour\\_force\\_survey\\_-\\_methodology#EU-LFS\\_concept\\_of\\_labour\\_force\\_status](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=EU_labour_force_survey_-_methodology#EU-LFS_concept_of_labour_force_status). [Accessed 30 03 2022].

Eurostat, 2021b. International Standard Classification of Education (ISCE). [Online] Available at: [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=International\\_Standard\\_Classification\\_of\\_Education\\_\(ISCE\)](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=International_Standard_Classification_of_Education_(ISCE)). [Accessed 31 03 2022].

Ferroukhi, R., 2021. Energy Transition through the lens of gender equality. s.l.: IRENA. IEA, 2022. Energy and gender. [Online] Available at: <https://www.iea.org/topics/energy-and-gender>. [Accessed 31 03 2022].

Ikkatai, Y. et al., 2020. Gender-biased public perception of STEM fields, focusing on the influence of egalitarian attitudes toward gender roles, s.l.: Journal of Science Communication.

IRENA, 2018. Global Energy Transformation: A Roadmap to 2050, Abu Dhabi: IRENA. IRENA, 2019. Renewable Energy: A Gender Perspective, Abu Dhabi: IRENA.

OECD, 2020. Government at a Glance: Western Balkans, Paris: OECD Publishing.

Ouziaux, S., Mouffe, M. & Fragkos, P., 2021. Asset study: Collection of gender-disaggregated data on the employment and participation of women and men in the energy sector, Brussels: European Commission.

UN, 2002. Gender Mainstreaming, New York: Office of the Special Adviser on Gender Issues.

UN, 2022a. UN women. [Online] Available at: <https://www.unwomen.org/en>. [Accessed 31 03 2022].

UN, 2022b. UN women. [Online] Available at:

<https://www.un.org/womenwatch/osagi/conceptsanddefinitions.htm>. [Accessed 31 03 2022].