

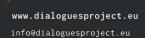
Literature Review on Gender and Energy

Key Words

Energy, gender, care labor, E.U, queerness, non-binary, just transition, renewable energy, energy consumption, queer ecologies, feminist ecologies, energy poverty

GenderCC- Women for Climate Justice e.V.







Abstract

This research was conducted by GenderCC- Women for Climate Justice e.V. as a part of the DIALOGUES Horizon 2020 project, in collaboration with Sam Ayala and Flavia Lopes under the supervision of Elena Georgiadi, a GenderCC project coordinator part of the DIALOGUES consortium. The DIALOGUES project seeks to compile research on citizen engagement with the sustainable energy transition as a key facet of the EU's commitment to the 2015 Paris Agreement to make Europe the first carbon neutral continent by 2050. This paper seeks to explore the ways in which gender and energy are interconnected. Existing gender inequalities, which are perpetuated by the same systems that have created the climate crisis, exacerbate energy injustices, specifically within the context of the European Union. The climate crisis has led energy systems to be rethought with the purpose of transitioning into cleaner energy systems to mitigate climate change. However, these discussions and reimaginations have failed to consider that the climate crisis is experienced differently by marginalized people, like women, people who are part of the LGBTIQ+ community, and people of color (POC). Until recently, existing research failed to examine the role of gender within existing energy systems, an oversight that has led to reimagined energy systems simply perpetuating existing inequalities under the guise of sustainability. Within this report, literature exploring the gender-energy nexus is used to examine the energy sector in its current form, as well as looking to queer and feminist ecologies for reimaginings towards a just energy transition that places gender at the forefront.

Key Words: Energy, gender, care labor, E.U, queerness, non-binary, just transition, renewable energy, energy consumption, queer ecologies, feminist ecologies, energy poverty



Introduction

The ongoing and impending threat that the climate crisis has posed on society has further exposed the existence of other societal crises and has revealed to us one common threat – the planet and people are in danger. Many of the solutions to the climate crisis center energy and energy systems. This includes things such as transitions to renewable sources of energy such as wind and solar (Binder 2021). However, many of these solutions fail to take into consideration that the systemic issues that have brought us to this point in the climate crisis, such as colonialism, capitalism, heteropatriarchy, and racism, are being used to develop these new systems. The link between European settler colonialism and climate change has indicated that understanding climate change and the ways to address it requires looking at socially constructed oppressive systems and how they affect the Earth and its systems (Dietz et al. 2020).

Gender and nature, including energy systems, are seen as inextricably linked in the West. According to Sze and Chau, "nature was associated with the body, the feminine, the nonwhite, and the primitive. Culture was associated with the mind, the masculine, the white, and the civilized" (Sze and Chau 2020, p. 178). This created a hierarchical form of thinking that persists to this day, associating nature with the feminine and therefore below civilized masculinity. These dualisms of the feminine/masculine and nature/culture have created systems that continue to perpetuate injustices over those deemed as "others", such as people of color, queer people, and women. Associating the feminine with nature has created power dynamics that allow for the continued subjugation of nature through the extraction of resources by corporations and governments. Hegemonic world powers, such as the United Nations, have failed to address the way proposed energy systems will continue to perpetuate inequalities for those in both the Global North and the Global South (Binder 2021). Gender-based inequalities continue to persist throughout environmental injustices faced by those least culpable, with women and girls under more stress due to heteropatriarchal gender roles that typically place them under the role of caregivers. Gaard states that "...women are indeed the ones most severely affected by climate change and natural disasters, but their vulnerability is not innate; rather it is a result of inequities produced through gendered social roles, discrimination, and poverty" (Gaard 2015). Solutions that are proposed to mitigate and adapt to climate change must take gender into consideration. The current focus on sustainable energy transitions is one that requires that gender not be an afterthought, but a key facet of the reimagining of existing energy systems. Reimagining energy systems must consider care and reciprocity of resources. Such ideas can be found within and be guided by feminist and queer ecologies, as well as by decolonial and anti-racist practices.

This paper seeks to explore the gender-energy nexus, specifically as it pertains to the European Union. Firstly, the research will commence by delineating the inherent nature of the study. Subsequently, the guiding questions for the research will be laid out. The research question will be followed by an extensive literature review, conducting an overview of the literature surrounding energy poverty and the gendered nature of care





labor as it intersects with energy to highlight the ways in which women and girls are affected by energy. Furthermore, the intersectional perspectives within energy will be highlighted, examining which role queerness plays within energy, and ending with literature surrounding a feminist just transition as it pertains to energy. Followed by an analysis of the previously laid out literature the questions "How do existing gender inequalities, such as those present within care dynamics, perpetuate and exacerbate energy injustices within the EU? How can research surrounding energy and gender expand to transcend the gender binary? How can a just energy transition center women and gender queer individuals?" will be raised. This report will conclude with a section on findings and conclusions, including recommendations for further research.



Background

The literature review seeks to explore the intersections between energy and gender, with the goal of highlighting a path towards a just energy transition that weaves gender as a foundational facet, not simply as a secondary piece. GenderCC hopes to integrate an intersectional lens and a perspective that subverts the gender binary. The literature report will be focused on the Global North and the EU specifically, with the goal of informing their ongoing collaboration with the DIALOGUES project. The goal of the DIALOGUES project is to compile research on citizen engagement with the sustainable energy transition as a key facet of the EU's commitment to the Paris Agreement to make Europe the first carbon neutral continent by 2050. GenderCC's role is to integrate information on gender to better inform research on energy transitions for Europe. This work builds off of GenderCC's existing Gender and Energy Literature Review.

Gender is a socially constructed concept that is performed by members of society in their day to day lives and was created as a way of organizing the world into a predictable manner (Lorber 1994). Gender boundaries are fluid, meaning that individuals who navigate through the fluidity of gender are viewed as dissenting from the mainstream Western perspective of gender referring to being either a "woman" or "man." Lorber states that "for human beings, there is no essential femaleness or maleness, femininity or masculinity, womanhood or manhood, but once gender is ascribed, the social order constructs and holds individuals to strongly gendered norms and expectations" (Lorber 1994, p. 58). For the purposes of this paper, gender will refer to not only men and women, but to the overall fluid spectrum of gender, including but not limited to non-binary, two-spirit, gender fluid, and transgender people. Non-binary is a term used for people who are "(a) an individual whose gender identity falls between or outside male and female identities, (b) an individual who can experience being a man or woman at separate times, or (c) an individual who does not experience having a gender identity or rejects having a gender identity" (Matsuno and Budge 2017). Two-spirit is a term used by Indigenous peoples and is generally used "to describe identities that define, describe, and complicate gender, sexuality, and sex;" however, it is important to note that Two-Spirit identity is fluid and multi-faceted, varying from community to community (Carrier et al. 2020). Gender fluidity is an umbrella term that is used to describe different possibilities for gender identities that go beyond the binary "woman" or "man" (Parker 2016). Transgender people are people whose gender assignment does not match their internal gender identity, and their gender identity and/or expression falls outside of stereotypical gender roles (Rands 2009). These terms are all difficult to concretely define and it is acknowledged that these words can hold various meanings in different spaces, times, and to different people; however, all challenge current societal heteropatriarchal norms and binaries. The role that gendering society plays within the energy sector is evident in the subsequent examination of how energy poverty, energy consumption, and energy transitions affect people of different genders.



The root causes of energy injustices are the same as the root causes of other crises the world is facing, especially the climate crisis. Our society has been built off heteropatriarchal, colonial, capitalist, racist systems that have embedded inequality into every facet of society. Gaard makes the mention that "...climate change may be described as white industrial-capitalist heteromale supremacy on steroids, boosted by widespread injustices of gender and race, sexuality and species" (Gaard 2015, p. 27). Therefore, there is a need to look deeper into current inequalities to ensure that future energy systems do not continue to perpetrate injustices (Sovacool et al. 2023). Within energy research "...a basic treatment of gender and sex leads to questions of how to increase inclusion of women in decision-making roles but not why women and other minorities have been marginalized in the first place..." (Cannon and Chu 2021, p. 3). Existing societal gender inequalities are prevalent throughout EU society and are especially visible within care dynamics. This paper seeks to interconnect gender and energy in multiple ways, looking at energy in its domestic usages and energy as a solution to climate change, with a focus on energy transitions as they pertain to gender. This research looks not only within the binary of man/woman but works to expand to include gender gueer identities as well to encompass the fluidity of gender.

Research Questions

The research conducted was shaped by the following broad research questions:

- How do existing gender inequalities present within society, such as through care dynamics, perpetuate and exacerbate energy injustices within the EU?
 - What role do gender dynamics play in energy poverty within households within the EU?
 - o What role does gender play within energy transitions?
- How can research surrounding energy and gender expand to transcend the gender binary?
- How can a just energy transition center women and gender queer individuals?



Literature Review

Energy Poverty

Fuel poverty, or energy poverty, is a term coined by Brenda Boardman (1991). Broadman's definition positions fuel poverty as "...arising in contexts where a household spends more than 10% of their income to afford adequate domestic energy services, particularly heat (though electricity for other energy uses such as lighting was also incorporated)" (Butler 2022). According to Middlemiss, energy poverty "is experienced when people do not have adequate access to energy services (light, heat, warmth, and cooling) to live a decent life" in their homes (Middlemiss 2022). In the Global North, energy poverty mainly comes from lack of access to affordable energy services (Petrova and Simcock 2019). In Europe, it has been seen that energy poverty is more prevalent in some countries than in others, and "...the risk of experiencing the condition varies according to factors such as household income, energy efficiency, energy prices, and the particular (physiological, material, cultural) energy needs and requirements of individual households" (Petrova and Simcock 2019). Having a low income is one of the main drivers of energy poverty. The gender pay gap is one of the contributing factors as to why women are affected by energy poverty more than men. According to the European Commission, women in the EU earn on average 13% less per hour than men in 2020, and this figure has changed minimally over time (European Commission 2020). This can in part be explained by women working part-time in low-paid jobs, and not having access to and/or making the same career advancements as men (Carroll 2022). Additionally, it's crucial to note that the disparity in earnings between men and women for equivalent work is another significant factor to consider in this context (European Foundation for the Improvement of Living and Working Conditions 2022, p. 4). Women are also typically those who disproportionately carry the majority of the burden of unpaid care labor, including cooking, cleaning, and child and elder care (Folbre 2006). Research has revealed that women tend to be more sensitive to extreme weather temperatures, putting them at a heightened risk when experiencing energy poverty (European Foundation for the Improvement of Living and Working Conditions 2022, p.5). Consequences can be a negative effect on women's mental health like depression, on their physiological health like respiratory and cardiovascular diseases, and on their social health like stigmatization and social isolation (European Foundation for the Improvement of Living and Working Conditions 2022, p.5-6).



The Gendered Nature of Care Labor and Energy

Care Labor and Low Wages

The 'home' as a space is one that is inherently gendered, with women typically falling into care roles (Petrova and Simcock 2019). Care labor, or social reproductive labor, describes "the activities that nurture future workers, regenerate the current workforce, and maintain those who cannot work – that is, the set of tasks that together maintain and reproduce life, both daily and generationally" (Hester 2018, p. 345). This includes, but is not limited to, childcare, healthcare, eldercare, cooking, cleaning, shopping (Folbre 2006, p. 186). As the care tasks are energy intensive and the majority of the care work is on the shoulders of the women, they are typically the most effected by energy poverty due to their responsibility to perform the care-centered tasks (Clancy et al. 2020, pp. 178).

Care labor can be both paid and unpaid; however, because care labor is an undervalued aspect of the economy, it has traditionally been an underpaid one (Fernandes and Navarra 2022). In a briefing for the European Parliament, it is stated that "about 9 out of 10 paid care workers are women, and that about one in four paid care workers is a migrant" (European Parliament 2022). "A recent analysis of the EU Labour Force Survey showed that migrants from outside the European Union were more likely to be in temporary employment, to earn lower wages and to have jobs that were less amenable to teleworking, than native-born workers" (Reid et al. 2020, p. 73). Women, especially women of color, are those who are most impacted by society's undervaluation of care labor. Much of this stems from cultural stereotypes. According to Duffy, "...racialethnic women are significantly overrepresented in both the private household and institutional incarnations of cooking and cleaning work" (Duffy 2007, p. 331). Fernandes and Navarra state that "care workers are more likely to be in the bottom third of the wage distribution, work part-time, and have a temporary contract," showing that women face job insecurity and low wages within the paid care labor field. Backing this are England and Folbre, who highlight that "cultural stereotypes of women of color as more emotional, more "loving," and less skilled than Whites help rationalize lower pay" (England and Folbre 2022, p. 140). Due to the difference in average wages between women and men, energy poverty disproportionately affects women more severely than men (European Foundation for the Improvement of Living and Working Conditions 2022, p. 1).



Care Labor in the Home

Connecting back to the concept of energy poverty is the role of energy in the home. Women have been found to work towards adapting to reduce the burden of energy costs by, for example, doing energy-intensive tasks at times when energy costs decrease (Petrova and Simcock 2021, p. 856). This reflects the reality that the energy transition encompasses various domestic practices such as cooking, washing, etc., consequently requiring changes in the organization of daily routines. Given prevailing gender roles and emerging responsibilities, women predominantly bear the responsibility for adapting to these changes (Mechlenborg and Gram-Hanssen, 2020, p. 1). According to Petrova and Simcock, "it appears that energy saving measures that involve everyday behavioural adaptations are often considered a form of home 'reproduction' and so legitimately 'feminine' undertakings, whilst energy efficiency retrofits fall into the male realm of home 'maintenance'", showing yet another dimension to the gendered nature of energy consumption and care labor within homes and society as a whole (Petrova and Simcock 2021, p. 857). This is reflected in a study conducted by Standal et al. (2020) in households in Norway and the UK, which finds that women often were not part of the process in deciding whether or not to purchase and use solar panels.

Another aspect of this comes from the use of renewable energy and "smart" technologies within homes. According to Strengers et al., researchers surveying Danish households found that "masculinity is a part of the process of buying and getting the PV [photovoltaic] installed, as well as part of the process of tracking the electricity produced" (2022, p. 847). However, the unconscious tendency to address male recipients through gendered differentiation could result in communication failures, particularly as women are the primary users of practices related to new technologies (Mechelenborg and Gram-Hanssen 2020, p. 1). Standal et al. find that gendered differences within households regarding things such as women's care of household activities and lack of financial resources has left them often as bystanders when it comes to decisions to adapt renewables in households (Standal et al. 2020, p.5). They state that "women are thus positively affected if energy technology reduces time and labor spent on domestic work, but are negatively affected if new energy practices, such as energy conservation, lead to heavier workloads", meaning caretakers have to adapt to using energy when solar PV systems are producing the most energy (Standal et al. 2020, p. 6). These changes highlight the gendered nature of care labor within households and how any energy transition needs to take gender into account and how it will affect the burden of labor placed on women. Because women are typically those performing most care labor tasks within households, switching to smart and/or energy efficient products may lead to women ending up with "extra mental considerations in terms of orchestrating the energy labor with the everyday household labor and other obligations such as work commitments and their role as carers," both as unpaid and paid care laborers (Aggeli 2022, p. 716). Consequently, there is a necessity for policy reform to encompass a wider array of stakeholders like women, including adjustments to subsidies and feed-in tariffs. This broader inclusivity is crucial because currently the gendered nature of various





domains such as energy politics, institutional perceptions, and discourses can impede the transition to sustainable energy consumption due to the consequences of gender inequality (Mechlenborg and Gram-Hanssen 2020, p. 2).

Intersectional Perspectives Within Energy

Intersectionality is defined by Kimberlé Crenshaw (1989) as "...a metaphor for understanding the ways that multiple forms of inequality or disadvantage sometimes compound themselves and create obstacles that often are not understood among conventional ways of thinking.". María Lugones states that "it is only when we perceive gender and race as intermeshed or fused that we actually see women of color" (2008, p. 193). Within the scope of the energy sector, including but not limited to energy poverty, energy justice, and energy transitions, an intersectional perspective provides more depth to policy and decision making by examining the ways in which a persons' identity can play a role in how they are or are not affected by certain issues. Simply looking at gender alone is not enough.

Crenshaw (1991) states that "the failure of feminism to interrogate race means that the resistance strategies of feminism will often replicate and reinforce the subordination of people of color, and the failure of antiracism to interrogate the patriarchy means that antiracism will frequently reproduce the subordination of women". Intersectional perspectives are therefore necessary to take into account all the injustices faced by people of overlapping identities.

To continue using the example of care labor, we can see the intersectionality of race and gender play out very clearly as it pertains to energy. Just as there are gender related inequalities inherent in care labor, it's further segmented by racial inequalities as well. As white women have had increased access to the job market and education, their access to opportunities that elevate their financial situation and allow them to outsource care work to other people, typically women of color. Gündüz (2013) states that "uppermiddle-class, professional women of the rich countries, who can afford to do so, use their class privilege to buy themselves out of their gender subordination" - in their case by hiring foreign housekeepers. The labor supply that supports this outsourcing of care work done by upper-middle class women largely comes from the Global South. There has been an increase of women of color, especially women who have immigrated from their countries of origin, within care occupations (Hartmann et al. 2018, p. 6). Gündüz cites Selmin Kaska (2013), who lists out several drivers for the escalation of demand for domestic work globally, some of which include "the transformation in the socioeconomic role of women with the feminization of labor leads to a need for help to cope with the accomplishment of both family career; the further commercialization and commodification of domestic work, which used to be (and often still is) unpaid labor and when not is almost always very poorly paid labor; and the fact that in some countries, especially in the Middle East "taking and having foreigners" for domestic work is a status symbol that many women, whether they are part of the paid labor force or not desire". These drivers are a large part of the reason why there has been an increase in migrant



women of color within care labor. Outsourcing labor can lead to a phenomenon known as "care drain." Care drain describes how systems of care in the Global South have been "drained" because care laborers have migrated to the Global North, leaving children, elderly, and the sick uncared for (Gündüz 2013, p. 34). According to Gündüz, studies have found that the children of migrants tend to be ill more often than other children (2013, p. 37). This shows the way in which outsourcing of care has negative impacts on care workers and their loved ones, despite that outsourcing care allows for upper-middle class women to buy themselves out of unpaid care work.

The disproportionate effect of energy injustices on people of color is apparent. Take, for example, energy injustices in the UK, specifically within ethnic minorities. The housing crisis in the UK has placed mainly ethnic minorities and migrants at risk of housing inequalities, much of which ties back to poor access to energy and energy efficient domestic conditions (Bouzarovski et al. 2022). Minority communities face higher rates of unemployment and are disproportionately those faced with low incomes and job insecurity (Bouzarovski et al. 2022, p. 8). As previously mentioned in the "Care Labor and Gender section," low income is one of the key reasons for energy poverty. Women of color are disproportionately affected by underpayment in care work, showing that care labor is a racialized and gendered field (England and Folbre 2022). This represents a linkage between race, gender, and energy poverty.

In interviews conducted with energy professionals, Bouzarovski et al. (2022) found that ethnic minority households are overrepresented among those who seek help in dealing with billing queries, tariff checks, fuel debt and arrears, disconnections, price comparisons and government support. Intersectionality is necessary within every aspect of energy systems in order to ensure that reimaginings for energy systems do not continue to perpetuate the same systemic inequalities that have led to the injustices that are seen today. Lennon explains that "...the transition to fossil fuels institutionalized racial hierarchies in ways that intersected with regimes of capitalist exploitation" (Lennon 2017, p. 19). As Ryder states, "...utilizing process-focused intersectional methodologies for studying energy and climate issues provides the tools for examining and critically analyzing the underlying social factors that create and reproduce inequality and injustice across multiple socio-political scales," highlighting why intersectional approaches to energy are critical (Ryder 2018, p. 273).



Queerness Within Energy

As previously discussed, gender has been constructed by society to exist in binaries as a way of organizing labor, a side effect of which is the continued subjugation of women and gender queer people. Gender is typically an overlooked concept within energy research. Most research that has been conducted focuses on gender in a binary sense, looking only at men and women. Listo makes note that queer and transgender identities are not mentioned within energy poverty discourse (Listo 2017, p. 12). This is seen not only throughout energy poverty research but throughout energy research as a whole. Fathallah and Pyakurel emphasize that current research surrounding energy and gender focuses on biological sex or on a feminine/masculine binary (2020, p. 3). They highlight the necessity for research that looks at what effects gender, not biological sex, has on lifestyle as it pertains to energy, such as energy consumption and energy saving actions. They state that "...empirical studies on energy behaviors of families where gender is constructed non-traditionally (such as same sex couples, single parents raising children) need to be conducted" (Fathallah and Pyakurel 2020, p. 3). Looking beyond binary concepts of masculine/feminine will allow for research to inform gender-just energy policy.

Queer ecologies and perspectives can also provide deeper understanding to the social dynamics at play that lead to inequalities within the energy sector for people of different genders. Sandilands defines queer ecology as "a loose, interdisciplinary constellation of practices that aim, in different ways, to disrupt prevailing heterosexist discursive and institutional articulations of sexuality and nature, and also to reimagine evolutionary processes, ecological interactions, and environmental politics in light of gueer theory" (Sandilands 2016, p.169). According to Bauhardt, "queer ecologies enable us to suspend natural materiality and social reproduction over the female body. The concept of 'naturecultures' allows an understanding of human life embedded in material and discursive processes—without putting the potential (re)productivity of the female body on the ideological pedestal of heterosexual maternity" (Bauhardt 2013, p. 371). Suliman acknowledges that patriarchy as a system specifically governs social relations pertaining to the binary genders of man and woman within societies, further upholding feminine/masculine dualisms (Suliman 2019, p. 4). Arvin, Tuck, and Morrill bring another realm to this with the use of the term "heteropatriarchy," defining it as "...the social systems in which heterosexuality and patriarchy are perceived as normal and natural, and in which other configurations are perceived as abnormal, aberrant, and abhorrent" (Arvin et. al., 2013, p.13). Subverting gender binaries to look at non-binary, two-spirit, gender fluid, and transgender people can therefore provide a lens to examine energy issues, such as energy consumption, transitions, and injustices, in a way that removes imposed oppressive dualisms from energy issues.



Just Feminist Transition¹

Feminist scholars challenge the conventional understanding of climate change science, which aligns with the traditional masculine logic of objective and value-free knowledge. As Seager (2009) puts it, the idea to control nature and to stop climate change is rooted in masculinist notions of domination. This perspective also highlights that the approach to climate change governance is often informed by disembodied and masculine ideologies, which in turn not only perpetuates power imbalances and injustices but also reinforces the framing of climate change itself.

Braunger and Walk (2022) echo a similar sentiment, asserting that historical energy transition policies, similarly, reflected the entrenched masculinity present in the broader energy sector. They argue that these policies continue to reinforce existing gender norms and power imbalances, emphasizing that the failure to acknowledge gender within these policies perpetuates inherently unjust power dynamics.

However, in the realm of energy studies, gender-related research often narrowly focuses on women's issues. While this research is crucial, it only scratches the surface of what feminism can contribute to the study of energy. The literature tends to confine itself to the binary of men versus women, often portraying women solely as victims, vulnerable beings, or caretakers of nature (Hawley 2015). Despite a growing body of work on gender and its connection to climate change impacts, the intersectional aspects are frequently overlooked (Allwood 2020).

As Sheena Wilson (2018, p. 398, 401) argues, "energy transition is a feminist issue" and that "the work of energy transition demands that we begin to care about how we live and whose interests daily-lived realities and "habits of mind" serve." A feminist perspective in energy research extends beyond understanding gender inequalities within energy contexts; it provides a framework to comprehend broader power dynamics.

While acknowledging that systems of domination encompass various identities beyond just the man-woman axis, feminist critiques of masculinity remain crucial for achieving an equitable energy transition. For instance, Cara Daggett (2018, p. 28) introduces the concept of "petro-masculinity" to illustrate the close link between fossil fuels and patriarchal structures. This perspective unveils the intertwining of gender anxiety, climate denial, and misogynistic violence, emphasizing that they are interrelated rather than distinct dimensions of authoritarian movements.

Cock (2018) argues that to reclaim feminism in just transition, it is necessary to challenge capitalism's reliance on women's unpaid labor in sustaining social production. In a similar vein, Bell et al. (2020) advocate for a feminist approach to energy systems that prioritizes care and dependency relations in energy distribution schemes. They propose an approach that aims to provide sufficient energy for well-being rather than solely adhering to profit or productivity metrics. They emphasize that feminist energy systems should be diverse, reflecting the unique ecologies and needs of various communities, rather than adhering to a singular, top-down model or scale.



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Research Design and Methods Methods and Methodologies

Research for this report was conducted from September 2023-December 2023. Databases such as Google Scholar, JSTOR, and the New School Library were used to access resources to inform our literature review, which is the foundation on which our analysis occurs. The following key terms were used to compile sources: energy, gender, energy poverty, care labor, queer ecologies, feminist just transitions, energy transitions, the EU, and other related terms. Additionally used was compiled research provided by GenderCC. Research focused on work published from 2018 to 2023 to ensure that new research was centered in the literature review. Sources from before this outlined period were used only to provide foundational information. The majority of the information accessed to inform this report was sourced from scholarly articles, government reports, and reports from credible organizations.

Feminist research methodologies were used to conduct this research. This does not simply mean looking at gender but looking at systems of power and the role power plays within energy systems. This includes looking at those most affected by harmful energy practices, including but not limited to women. An intersectional perspective was taken to consider a vast number of experiences and allow our research to encompass the ways in which gender intersects with race as well.

Limitations to Research

There is an overwhelming lack of the research and data on energy that goes beyond the gender binary. This was a hindrance to looking at the gender-energy nexus, as gender is not a binary concept that involves cisgender men and women only, but also includes those outside of the binary as well. The interconnections of gender and energy are under researched as it pertains to the Global North. This lack of research limits the amount of data available for the exploratory research that was conducted. Additionally, it meant that many of the authors and sources that were found were repeated and cited several times.



Conclusion

The reimagination of the EU's current energy systems into sustainable energy systems provides us the opportunity to center the voices of typically marginalized people, such as women and gender queer people. Much of this requires dismantling current reinforcing hegemonic systems of governance imposed by governments and corporations that perpetuate heteropatriarchy, colonialism, capitalism, and racism. Without the dismantling of these oppressive systems, reimagined energy systems will and are continuing to perpetuate injustices against marginalized people, including women and gender queer people. GenderCC's perspective that there is no climate justice without gender justice is one that must be adopted by governments and institutions of global governance; any path forward must place gender at the forefront. A feminist just transition can help provide the framework for this path forward. Policy and research surrounding energy must center the needs of women within their respective communities in order to empower them and return to them the autonomy that has been taken from them over time by oppressive, hierarchical systems grounded in inequalities. We must ensure that the diverse needs of historically marginalized groups are moved from the periphery to the forefront.



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