THESIS

GENDER AND RENEWABLE ENERGY TRANSITIONS: DISCOURSES USED BY PROMINENT NGOS IN THE UNITED STATES

Submitted by

Hannah Pauley

Department of Political Science

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Master's Committee:

Advisor: Dimitris Stevis

Kristin Olofsson
KuoRay Mao

ABSTRACT

GENDER AND RENEWABLE ENERGY TRANSITIONS: DISCOURSES USED BY PROMINENT NGOS IN THE UNITED STATES

This master's thesis evaluates the discourses used by prominent non-governmental organizations (NGOs) in the United States when discussing gender in connection with renewable energy transitions. In the current political environment of the United States, with a presidential administration attempting to weaken the environmental state and reduce states' rights to address issues of justice, NGOs have become important actors in advancing gender equality within energy systems. NGOs can bring attention to the gendered dimensions of energy transitions and can push governments to respond to calls for justice, but their stances on the issue have not been extensively analyzed. Building on Paula Walk's (2024) study, "From parity to degrowth: Unpacking narratives of a gender-just transition", this thesis evaluates the discourses used by prominent NGOs in the United States to provide more specific insights into the current politics of the energy transition in the United States. The analysis finds that the most common discourse used by the NGOs in the study is the opportunity discourse, aimed at ensuring that women and men benefit equally from the opportunities associated with a renewable energy transition. While this discourse is needed to increase the representation of women within the energy sector, it represents a traditional approach to gender mainstreaming, rooted in technological optimism and based on an isolated view of the climate crisis that limits opportunities for justice.

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CHAPTER 1: INTRODUCTION

Many parts of the world are currently undergoing a transition away from fossil fuels towards decarbonized forms of energy (Asif, 2022). The International Energy Agency (2024) predicts that renewable energy consumption will increase by over 60% between 2024 and 2030. Decarbonized forms of energy often come from renewable sources. While renewable energy sources technically include wood, charcoal, and agricultural waste, transitions to renewable energy largely focus on carbon-free sources of renewable energy, such as hydro, solar, and wind. In the electricity sector, renewable energy is expected to make up 46% of production by 2030, with most growth coming in the form of solar and wind power (IEA, 2024). As the renewable energy sector quickly expands, social impacts must be considered and mitigated.

Gender issues are underexamined within transitions to renewable energy, with the energy sector, as well as associated research on energy and development, being male-dominated (Osunmuyiwa & Ahlborg, 2019). Most literature on environmental justice within energy transitions does not focus on gender, but rather issues related to communities, workers, and racial minorities. The literature on these commonly discussed themes provides a backdrop through which gender issues are situated but leaves out many complexities that result in gender inequality. While researchers such as Joy Clancy, Jenny Stephens, Paula Walk, and Theresia Sumarno make considerable advancements in researching gender and energy (Clancy, 2003, 2006, 2019, 2023; Stephens, 2016, 2019, 2021, 2024; Walk, 2022, 2024; Sumarno, 2023, 2024), scholars note a continued lack of integration of gender within the field of energy justice (Allen et al., 2019; Lieu et al., 2020). Policymakers need to understand structural gender inequality to address the justice concerns of energy transitions (Newell et al., 2021).

One fundamental issue when implementing climate change policy is the required speed and scale of transitioning away from fossil fuels. The transition away from fossil fuels must occur in the next twenty years, and the faster a transition happens, the more likely injustice is to occur (Resnik, 2022). Past and current energy systems have a record of producing vast social and environmental problems, including the reinforcement of gender inequality (Just Transition Finance Lab, 2024), with many electrification efforts exacerbating social injustice and economic inequality (Stephens, 2024). Many scholars view the gender gap in various aspects of society as a major impediment to sustainable development, as well as one of the most significant barriers to energy transitions (Bagdi et al., 2023). As the world moves away from fossil fuels to a new, renewable energy system, attention must be paid to how this transition could impact gender issues and inequality. The United Nations has integrated gender into efforts to address environmental issues because of the increased awareness of the issue. Despite these efforts, the renewable energy sector still experiences high levels of gender injustice, increasing the threat of climate change and the associated energy crisis by hampering the promotion of renewable energy sources (Bagdi et al., 2023; Md et al., 2022).

This thesis aims to identify, analyze, and categorize the various discourses used by a variety of prominent non-governmental organizations in the United States to address gender within renewable energy transitions. It does so by examining key reports and policy statements that the organizations publish regarding their work**.** The thesis begins with a discussion of the background context and drivers of the current transition to renewable energy, followed by an examination of the social impacts and concerns related to justice. Following the introductory chapters is a chapter discussing the various gendered impacts of renewable energy transitions and the benefits of a gender lens. I then explain the important role of NGOs in addressing the

gendered aspects of energy transitions and lay out the theoretical framework used in the analysis. This is followed by a description of the NGOs and sources employed, as well as my hypotheses and method for analyzing the documents, before a discussion of the data and results. The paper concludes with a discussion of the results and limitations of the study, as well as closing remarks.

Context of the Renewable Energy Transition

Various geopolitical factors drive the transition to renewable energy production within the U.S., including increased regionalization of global energy supply chains, concerns over supply chain resilience, reliance on China across the energy supply chain, and a desire to increase national competitiveness (Goldthau et al., 2022; Butollo et al., 2024; Riofrancos, 2023; Giuli, 2022; Bednarski et al., 2023). In recent years, governments and industries around the world have shifted the geographic patterns of production by promoting regionalization. Interventionist industrial policies aimed at strengthening national economies drove much of this shift. Increasing industrial policy in a country can lead to reshoring, which is the process of returning the production of goods to one's home country (Goldthau et al., 2022). In the United States, reshoring plays a central role in expanding renewable energy, as policymakers aim to build an independent, domestic renewable energy supply chain.

Explanations for the United States' reshoring of energy production processes vary, with some arguing that these policies stem from concerns over sovereignty or national competitiveness, while others argue that they stem from concerns over supply chain resilience and security (Riofrancos, 2023; Butollo et al., 2024). Both areas of concern are largely based on the idea that reliance on foreign resources is considered a vulnerability. Beginning around 2000, China's rapid industrialization drove a global commodity boom that significantly increased the price of raw materials and sparked concerns about access to them. In response, the Obama

administration began to utilize narratives surrounding energy sovereignty and the concept of energy independence to justify the expansion of fracking (Riofrancos, 2023). The COVID-19 pandemic exacerbated concerns over supply chain sovereignty, with the protectionist measures taken surrounding medical equipment prompting increased research on the supply chains of 'critical' goods (Bednarski et al., 2023) and beginning a race to attract investments in the electric vehicle supply chain (Butollo et al., 2024).

COVID, along with the war in Ukraine and uncertainty surrounding oil, justified increased interventionist energy policy for the United States (Butollo et al., 2024). During this time, President Trump used the term energy dominance to justify the energy policies of his first administration (Riofrancos, 2023). This agenda continued past the first Trump administration, with the policies of the Biden administration, beginning in 2021, reflecting the desire to create an electric vehicle supply chain in the United States. However, under Biden, leaders framed the move to create a U.S.-based energy supply chain as a solution to environmental problems, rather than as a geopolitical strategy (Preston et al., 2021). With Trump's return to office for his second term, leaders once again justify creating a U.S. energy supply chain as a way to achieve geopolitical dominance, rather than to address environmental issues by increasing renewable energy production. The administration uses the phrase 'unleashing American energy' (White House, 2025a) to represent its energy policies.

The government has enacted numerous executive orders related to energy production, including "Declaring a National Energy Emergency" and "Unleashing American Energy.". "Unleashing American Energy" and "Declaring a National Energy Emergency", announced on Trump's first day in office, aim to generally expand energy production in the United States by stripping back regulatory processes and eliminating electric vehicle mandates (The White House

2025a; The White House 2025b). The orders approve the use of emergency authorities in the procurement of energy infrastructure, expediting energy production processes, and decreasing regulatory burdens (The White House, 2025b).

A key component of these energy policies is increasing the domestic production of energy sources. Importantly, Trump's focus is on all energy types, rather than renewable energy sources specifically, which removes incentives for electric vehicles and renewable energy production through the elimination of the Energy and Infrastructure Provisions of the Inflation Reduction Act. This provision targeted renewable energy development, and associated infrastructure such as electric vehicle charging stations. Trump justifies these switches related to renewable energy within the order by arguing that the policies of the Biden administration, which promoted renewable energy, resulted in inadequate energy supplies and an unreliable grid, leaving the United States' national security at risk (The White House, 2025a), highlighting the supply chain security explanation to reshoring energy production previously discussed (Butollo et al., 2024). While the policies of the Trump administration do not advocate for renewable energy specifically to achieve increased energy production, they tend to take a neutral approach, viewing renewable energy as one of several options. This leaves space for renewable energy development in the United States but limits the chances of federal support. Outside factors, such as global climate policies, trends in electric vehicle sales, and geopolitical forces, have a large impact on efforts to increase renewable energy production, regardless of Presidential agendas (Hua et al., 2025).

The reduction of regulatory and permitting processes within Trump's policies related to electrification is concerning, as it can have numerous negative environmental and social impacts. Largely through executive orders, Trump has rolled back numerous environmental regulations in

an effort to weaken the environmental capacity of the state (Pauley, 2025). The order "Unleashing American Energy" states that all federal agencies must prioritize efficiency and certainty over the objectives of activist groups (The White House, 2025a), making clear that the energy policies of the Trump administration are not concerned with issues of justice.

The focus on efficiency and not activists' concerns have implications for addressing gender within energy transitions. The federal government will not prioritize the goals of activist groups advocating for the consideration of gender within energy production processes. This focus on efficiency is already reflected in policies in the Environmental Protection Agency, with the administrator beginning the "Powering the Great American Comeback Initiative," dedicated to deregulating the agency. This initiative states that streamlining regulatory processes, restoring American energy dominance, and protecting the U.S. auto industry are the main goals of the agency moving forward (EPA, 2025). The goals set out by the Environmental Protection Agency surrounding streamlining regulation are concerning, as the agency previously sought to address environmental justice concerns through the regulatory processes. With federal agencies reducing their focus on justice concerns, non-governmental organizations involved in energy transitions represent actors that are crucial in advocating for justice.

In addition to Trump's policies related to energy production, the administration has also enacted executive orders targeting national and state efforts to increase gender diversity. The executive order "Ending Illegal Discrimination and Restoring Merit-Based Opportunity" orders all agencies to end practices that promote diversity, equity, and inclusion. The order states that these policies are "dangerous, demeaning, and immoral race-and-sex-based preferences" (The White House, 2025d). The order moves beyond removing diversity, equity, and inclusion considerations from the government, stating that civil rights laws should be used to combat the

illegal use of DEI policies in the private sector (The White House, 2025d). This executive order limits the advancement of gender concerns within any sector, not just within transitions to renewable energy. The combination of policies that reduce regulations in energy production processes, as well as a general shift away from DEI concerns nationally, leaves gender related justice concerns in the periphery of the Trump administration's energy policies. This exclusion of DEI concerns at the national level increases the need for non-governmental organizations to take progressive stances and advocate for those left behind federally.

Path Dependency

Many researchers are concerned that expanding renewable energy will follow a similar path to traditional mining practices and energy systems (Hine et al., 2023; Scheer & Robins, 2024). The transition to renewable energy must avoid the mining industry's history of human rights violations, gendered violence, environmental harms, and colonialism (Sheer & Robins, 2024). Along with these concerns, the transition is being framed with urgency, which has the potential to compound these impacts. Hine et al. (2023) argue that urgency often demands that justice is given little attention, leaving issues of equity, gender, and Indigenous rights as an afterthought.

One of the driving factors behind the current transition to renewable energy is the desire to achieve supply chain sovereignty over strategic commodities. The gold rush used a similar rationale, which scholars describe as neoliberal environmentalism, where people accept sacrifice zones and companies use greenwashing to hide unethical practices in order to achieve the goal of sovereignty (Hine, 2023). The potential for sacrifice zones grows even more likely and concerning because most critical minerals lie near vulnerable communities (Sheer & Robins, 2024)

Despite the recent setbacks in advancing justice under the Trump administration, some of the same geopolitical factors that drove the United States to initiate a transition towards renewable energy are also driving a new social movement concerned with the intersection of gender and energy systems (Stephens, 2024). During the COVID-19 pandemic, many societies' responses led to extreme wealth accumulation for the already wealthiest individuals on earth. New social movements that embrace antiracism and feminist values exploited this reality, bringing attention to the gross inequalities associated with other current geopolitical issues, such as energy systems. The unequal distribution of wealth during the COVID pandemic highlighted other instances of distributional injustice, including the distribution of energy resources. These connections have allowed the social movement to gain footing in calling for "systemic, transformative changes that focus on diversifying and distributing power" (Stephens, 2024, p. 58), going against the idea that the next energy system will mirror the current one, and opening a space for gender concerns to be addressed. With much responsibility falling on NGOs to address gender within energy transitions, social movements advocating for just energy systems will be beneficial to their success by demonstrating that public concern for the issues persists despite decreased attention federally.

Along with the gender issues of renewable energy transitions I examine in this thesis, movements which address justice in energy transitions focus on a range of negative social impacts. The various social movements advocating for justice within energy transitions include environmental justice movements, climate and energy justice movements, and just transition movements. I discuss these movements, as well as the social issues they focus on and their connections to gender, in the following chapter.

CHAPTER 2: JUSTICE IN RENEWABLE ENERGY TRANSITIONS

Environmental justice and just transitions are at the forefront of addressing concerns of justice in connection with the environment. Marginalized communities have embraced the environmental justice movement for decades, using it as a framework to advocate for equal and fair environmental conditions. While the environmental justice movement does not typically address gender issues, often leaving them outside the scope of analysis (Sze, 2017), the movement and the issues it focuses on frame the concept of gender justice within energy transitions. Environmental justice is defined by the Environmental Protection Agency (EPA) as:

> The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. . . [that] will be achieved when everyone enjoys: the same degree of protection from environmental hazards, and equal access to the decision-making process to have a healthy environment in which to live, learn, and work. (US EPA, 2015a).

The environmental justice movement in the United States has roots in the Civil Rights Movement, as well as early coalitions between labor unions and environmental groups (Kashwan, 2022). The first large-scale study on environmental justice was completed by the United Church of Christ Commission for Racial Justice in 1987, demonstrating that hazardous waste sites are more likely to be sited in minority neighborhoods. Notably, the only mention of gender within this foundational document is the concept of Mother Earth, otherwise dismissing gender (Sze, 2017).

Despite the movement's historical lack of a gender focus, women have played an influential role in the environmental justice movement in the United States throughout history (Sze, 2017). The environmental justice movement challenged coal development in Appalachia in

the 1990s; during this time, 90% of those involved in the environmental justice movement were women (Braunger & Walk, 2022). These activists had goals beyond the Appalachian coalfields, advocating for alternative sustainable energy systems and attempting to educate the country on the social and environmental costs of coal production (Braunger & Walk, 2022). Women played a critical role in other aspects of the environmental justice movement by organizing Black women in the United States to fight against environmental health issues, Native American women to protect biodiversity, and white women to promote conservation practices (Allen et al., 2019).

In the last several decades, environmental justice concerns have materialized into policy, notably leaving out issues related to gender. Executive Order 12898: Federal Action to Address Environmental Justice in Minority Populations and Low-Income Populations is the first major piece of legislation created related to environmental justice. This order directed federal agencies to consider environmental justice in decisions, to promote nondiscrimination in federal programs, and to increase public participation. While the order did not specifically identify what classified a minority or low-income population, it specified that the categorization was based on race, national origin, and income level (Federal Register, 1994), not emphasizing gender (Sze, 2017). The government kept and used the order to promote environmental justice until President Trump revoked it in 2025 under executive order "Ending Illegal Discrimination and Restoring Merit-Based Opportunity." Executive Order 12898 and its recent revocation exemplify two things: that gender is considered important within policies addressing environmental justice, despite women's high levels of involvement in the movement, and that longstanding environmental justice policies are being revoked under President Trump.

Explanations for the lack of a gender focus within the environmental justice movement include the field's struggle to create definitions and parameters around key concepts. Sze (2017) argues that the field's difficulty in defining race and racism has limited opportunities to integrate concepts of gender and sexism. Additionally, many discussions of gender within environmental justice scholarship are reductionist, viewing gender and motherhood as synonymous, where women's political concerns surround threats to their children (Sze, 2017). Despite these difficulties, progress has been made in recent decades, with an increased focus on gender within the environmental justice movement since the late 1990s and early 2000s (Sze, 2017). Sze (2017) credits some of this success to the work of David Pellow, who refocused environmental justice scholarship towards issues of power and away from traditional quantitative questions. The result has been an increased focus on gender within environmental justice, especially related to intersectionality and the ways that gender and race are interconnected, as well as in connection to knowledge and risk production processes (Sze, 2017).

In recent years, the environmental justice movement has expanded into more specific movements of climate and energy justice, alongside other sector-specific movements, such as food and water justice (Coolsaet, 2020). Emerging in the early 2000s (Schlosberg & Collins, 2014), climate justice examines humanity's responsibility in addressing the climate crisis, emphasizing the need to address inequality through transformative approaches that benefit the most vulnerable (Newell et al., 2021). Climate justice works to connect systems of capitalism, industrialism, and extractivism, with inequalities based on race, gender, and class (Newell et al., 2021). The explicit mention of gender within conceptions of climate justice is not prevalent within traditional environmental justice literature and represents a step forward for the integration of gender concerns in the environmental justice movement.

Following the introduction of climate justice, the concept of energy justice emerged in 2010 (Dong et al., 2023), in an article titled "Energy Justice and Sustainable Development" (Guruswamy, 2010). The energy justice movement aims to achieve fair access to clean, affordable, and reliable energy sources while addressing the negative impacts of energy policy (Sen et al., 2024). Energy justice focuses on how different groups vary in access and impact from energy systems, utilizing the themes of distributional, procedural, and recognition justice (Allen et al., 2019; Heffron & McCauley, 2017; Jenkins et al., 2016). Distributive justice focuses on where energy injustices occur, examining both the location of energy infrastructure and the distributional burden of energy prices and access, and calling for the even distribution of the benefits and burdens associated with energy systems. Procedural justice is concerned with access to decision-making processes and calls for engagement with all community members. Recognition-based justice examines who is not being represented in energy systems and calls for equal and full political rights for all members of society (Jenkins et al., 2016).

Energy justice movements pay particular attention to the legacy of injustices associated with energy systems, especially the racialized impacts (Stephens, 2021). The concept of energy justice focuses not only on the benefits of energy systems but also on the burdens and externalities, as well as the decision-making procedures and the level of consideration of marginalized groups (Goldthau et al., 2022). For many involved in energy justice, achieving justice within energy systems has both normative and instrumental value, connecting justice and the necessary political support for transition efforts (Keady et al., 2021). According to researchers, negative externalities of energy developments, such as reduced well-being of the population, decrease levels of community acceptance (Dong et al., 2023). In this context, energy justice is a prerequisite for continuing transitions towards renewable energy.

According to Sovacool et al. (2017), energy justice is achieved when global energy systems fairly distribute the benefits and burdens of energy, and when these systems contribute to more inclusive and representative decision-making systems. Achieving energy justice can be difficult, as the relationship between attaining environmental imperatives and addressing the concerns of energy justice is complex (Sen et al., 2024). The basic principles associated with achieving energy justice include availability, affordability, due process, transparency and accountability, sustainability, intra-generational equity, inter-generational equity, and responsibility (Sovacool et al., 2016). Allen et al. (2019) expand on the concept of achieving energy justice by using the term "energy democracy" to describe energy systems that incorporate environmental sustainability, economic equity, community resilience, and social justice. Stephens (2021) believes that energy democracy is transformative and that electrification processes can revolutionize energy systems in socially just ways.

Energy justice has specific connections to the topic of this thesis- gender and renewable energy transitions. Studies of energy justice make explicit reference to gender issues such as equity, exclusion, and inclusion, not seen within traditional environmental justice literature (Allen et al., 2019). One of the most common connections made between gender issues and energy justice movements surrounds energy poverty and access (Sumarno et al., 2023), with women being at much higher risk of experiencing energy poverty (Lieu et al., 2020). Additional gender themes explored in the energy justice literature include women's low levels of employment in the energy sector, as well as low levels of participation within energy-related decision-making processes (Sumarno, et al., 2023). Although energy justice addresses a wide range of gender issues, Götzmann & Dicalou (2025) find that most literature connecting energy justice to gender focuses on the recognitional dimension of justice, with limited attention given

to distributional and procedural dimensions of justice. This finding demonstrates that while connections between gender and energy justice are being made, a deeper focus on power and the various forms of justice is needed.

Additionally, scholarship connecting renewable energy development and energy justice is fruitful. A general conception in the literature on energy justice within renewable energy systems is that a transition to renewable energy has the potential to create more equitable and democratic energy systems (Allen et al., 2019; Sen et al., 2024), but in practice, this is not always the case (Keady et al., 2021). Renewable energy systems have the capacity to achieve equity and democratic outcomes through the creation of small-scale, local energy systems that lack the inherent competition seen in fossil fuel-based energy systems, where resources are scarce (Sen et al., 2024). Additional connections made between renewable energy systems and increased energy justice include the ability of renewable energy to reduce financial strains on low-income families by reducing the cost of energy and to create job opportunities in rural communities (Sen et al., 2024). The low-cost benefit of renewable energy is not always present, making it an important aspect of achieving energy justice. Renewable energy systems also reduce greenhouse gas emissions within energy systems, reducing the chances of marginalized communities experiencing environmental injustices related to energy system emissions (Sen et al., 2024).

To evaluate connections between renewable energy development and levels of energy justice, Sen et al. (2024) analyzed data from member nations of the International Energy Agency. They found that greater shares of renewable energy enhance energy justice levels in all categories: distributive, procedural, recognition, and restorative justice. Additionally, the researchers found that wind and solar technological innovation are associated with the highest increases in energy justice (Sen et al., 2024). Other researchers have come to similar conclusions,

with a study done by Dong et al. (2023) in China also finding that innovations in renewable energy technology are correlated with increasing levels of energy justice. Achieving justice in these forms requires robust regulation, which is not seen in all renewable energy systems.

While the studies that Sen et al. (2024) and Dong et al. (2023) completed represent hope for justice within renewable energy systems, not all studies find as promising results. Keady et al. (2021) conducted a study on renewable energy policy in Vermont, a state seen as a leader in renewable energy transitions in the United States. They found that low-income and non-white residents have higher levels of energy vulnerability, defined as the lack of access to sufficient and affordable energy. Specifically, low-income citizens were three times as likely, and non-white citizens seven times as likely, to report going without heat (Keady et al., 2021). The researchers connected these disparities in energy vulnerability to various aspects of the renewable energy system, including that non-white residents were seven times less likely than white residents to have solar panels, and that non-white and low-income residents exhibited lower levels of knowledge regarding energy transition policies (Keady et al., 2021). This study highlights that issues of distributive and procedural justice are persistent within renewable energy systems, which will worsen without the proper regulation of renewable energy systems.

Just Transitions

A lens that is useful for conceptualizing justice within energy transitions is that of just transitions. The study of just transitions emerged from the U.S. labor movement of the late 1970s as workers lost their jobs due to the shutdown of hazardous industries and examines how inequality and power impact the justice implications of societal transitions (Sen et al., 2024). The concept of just transitions has since gained traction globally and is included in the preamble of the 2015 Paris Climate Accord (Stevis & Felli, 2020). While the just transition lens can be

applied to numerous types of transitions, today, the concept is often applied to environmental transitions that change what is produced, how things are produced, and by whom they are produced (Stevis, 2023).

Even with an emphasis on environmental transitions, the concept of just transitions has maintained its roots within labor organizations and continues to focus on efforts to create good jobs in light of environmental transitions (McCauley and Heffron, 2018). The concept has increasingly been associated with energy, with just energy transitions defined as "a fair and equitable process of moving towards a post-carbon society" (McCauley & Heffron, 2018, p.2). McCauley and Heffron (2018) argue that when applied to energy transitions, the just transition framework brings together environmental, climate, and energy justice. This comprehensive view of energy transitions integrates gender concerns that are seen within specific scholarship on climate and energy justice, including women's disproportionate vulnerability to climate change (Newell et al., 2021), and associated vulnerability to energy poverty (Sumarno et al., 2023), which are left out of traditional environmental justice literature.

Despite the prevalence of the just transition framework within energy transitions, Stevis (2023) notes that some actors support the energy transition but prioritize economic policy over issues of justice. With many actors ignoring the justice concerns of the current transition to renewable energy, an environmental justice and a just transition lens are critical in mitigating the unwanted effects of this transition. While the gender impacts of a transition to renewable energy are the topic of this thesis, most literature on justice within renewable energy transitions does not focus on gender, but rather issues related to communities, workers, and racial minorities. The literature on these commonly discussed themes within renewable energy transitions is synthesized below, providing a backdrop through which gender issues are situated.

Communities, Workers, and Racial Minorities

Communities surrounding new renewable energy supply chains are a central concern for just energy transition scholars, representing the distributive dimension of energy justice. Oftentimes, the public investments and associated benefits that allow for renewable energy development are captured by private actors, leaving impacted communities to fend for themselves. A facet of this issue is that much battery manufacturing in the U.S. is being developed in red states, where unions are discouraged and regulations are often ignored (Benner & Pastor, 2024). Along with many battery manufacturing plants being in red states, over half of all 'energy transition metals' are on or near Indigenous or agrarian communities (Just Transition Finance Lab, 2024). The concentration of metals around vulnerable communities heightens the need to address distributive issues of justice.

Oftentimes, there is a lack of legal protections requiring coordination with tribal governments on mining projects, which is concerning considering 79% of lithium deposits, a mineral critical to the energy transition, are within thirty-five miles of Indigenous reservations (Naimark, 2023). The lack of legal protection requiring coordination with tribal governments represents issues of both recognition and procedural justice, as the concerns of the tribes are not being recognized, and the tribes are not a part of decision-making processes. Additionally, mining has numerous detrimental impacts on Indigenous communities specifically, including the destruction of sacred land, displacement, infringement of tribal sovereignty, and increased gender-based violence (Naimark, 2023; IEA, 2023). The intersection of communities experiencing mining, also experiencing increased gender-based violence, represents an important connection between traditional environmental justice concerns and gender concerns that is underexplored.

Another common concern about the renewable energy transition is that of labor and workers. Many of the required minerals for a transition to renewable energy require the expansion of mining, and the mining industry has a history of violating human rights through labor violations and various forms of abuse. The most common forms of labor violations within the mining sector include child and forced labor, with common forms of abuse including torture, inhuman treatment, and sexual violence (IEA, 2023). Following the release of OECD Guidelines for Multinational Enterprises, the mining and manufacturing sectors have the most human rights complaints of all sectors. The mining industry is at high risk of corruption due to the state involvement, high levels of investment, extreme wealth generation, and creation of economic rents (IEA, 2023). The presence of sexual assault within the mining industry (IEA, 2023) represents another point of connection between gender, renewable energy transitions, and traditional environmental justice concerns.

In addition to labor violations within the mining industry, supply and demand can impact job security, where changes in prices can cause job insecurity in and around the mining sector. Some argue that unionization will play a large role in protecting workers, citing the fact that in the coal industry, unionization among miners decreases injuries and fatalities significantly (Scheer & Robins, 2024). While the past successes of unionization in the mining industry are promising, the rise of facility siting in red states, as well as the Anti-Union stance of Tesla, one of the leading companies in the EV transition (Benner & Pastor, 2024), calls into question whether this strategy can be successful again. Additionally, when looking at past transitions away from coal, researchers found that women had difficulty in gaining access to union structures, limiting protection from both injury and uncompensated job loss in times of structural

change (Walk et al., 2021), representing an important connection between gender and renewable energy transitions that needs to be addressed.

Along with a specific focus on communities and workers, a racial lens is common when analyzing the social impacts of energy transitions. A report published by the EPA in 2021 states that racial and ethnic minorities are more vulnerable to the risks of climate change, arguing that there is an urgent need for equitable action plans addressing climate change (US EPA, 2021). Along with having disproportionate vulnerabilities to climate change, people of color have experienced inequalities in energy access, with race being intricately connected to processes of energy production through the devaluing of people and their environments, both during times of plantation slavery and through current fossil fuel production processes (Sovacool et al., 2023).

Walk et al. (2021) find that most studies connecting gender and transitions away from fossil fuels are concerned with the experiences of white working-class women, leaving out important racial aspects of environmental justice. Additional studies have found that in the United States, negative stereotypes regarding race and gender in the STEM field interact, influencing outcomes in math for African American girls (Clancy, 2019). These finding highlights the need to integrate intersectional approaches into energy transition studies that recognize how gender inequality interacts with other inequalities based on race, class, and age (Johnson et al., 2020). The connections made between gender and the common themes of just energy transitions, communities, workers, and racial minorities highlight the need to integrate gender into discussions of energy transitions. Additional connections between gender and renewable energy transitions are discussed in the following chapter.

CHAPTER 3: GENDER IN RENEWABLE ENERGY TRANSITIONS

To understand how and why NGOs discuss gender in relation to renewable energy transitions, it is essential to analyze the various gendered impacts of energy systems. In 1992, at the United Nations Conference on Environment and Development, gender issues were at the forefront of the debate on how to tackle the climate crisis, but this emphasis has since declined greatly (Littig, 2017). Despite a decline in international attention, gender inequality within the energy sector has remained a persistent issue, characterized by gender gaps in energy access, employment, education, and decision-making (Clancy, 2019; Sumarno et al., 2024).

Researchers have identified ways in which socially constructed gender roles result in climate change impacting men and women differently, how gender identities influence perceptions of climate change, and how climate change policies can either reinforce or reduce gender inequality (Allen et al., 2019). In the field of environmental policy, gender is often used synonymously with women's issues, because environmental politics is traditionally focused on the biophysical world rather than on people. Treating gendered issues as synonymous with women's issues makes discussing gender more acceptable within policy debates but leaves out many of the complexities associated with gender in the real world (Arora-Jonsson, 2017; Morrow, 2017). To account for some of these complexities, gender, as used in this analysis, refers to "socially constructed roles and responsibilities" (Bagdi et al., 2023, p.2). While I am using a narrow conception of gender in this study, I want to note that these constructed roles are separate from biologically determined differences Lieu et al., 2020) and that sex and gender are not binary (Braunger & Walk, 2022). While acknowledging that this binary view is limiting, an analytical tool is needed that reflects common discourses surrounding gender and energy.

The social constructions surrounding gender have resulted in a hierarchy that values traits associated with masculinity, such as domination and aggression, over traits associated with femininity, such as cooperation and care, creating structural inequality between those who exhibit masculine traits and those who do not (Millerd, 2023). These hierarchies are also embedded within state institutions and corporations, providing what is typically white, upper-class men with status, privileges, and freedom (Braunger & Walk, 2022). Scholars note that issues of gender justice need to be articulated as issues of structural, ideological, and discursive power (Newell et al., 2021; Arora-Jonsson, 2017), as the hierarchies are embedded in all parts of society. Gender hierarchies and associated social norms determine who has access to resources, who is exposed to pollutants, and who can participate in energy management, policy, and science (Allen et al., 2019). These social norms interact in various ways to shape women's representation and participation within the energy sector.

Social Norms, Representation, and Participation

Research on the impact of social norms on women within energy systems, and in connection to climate change more generally, is fruitful. Research shows that social norms related to gender limit women's ability to participate in decision-making within energy systems and to assess and advocate for energy resources (Johnson et al., 2020; Lieu et al., 2020; Gaard, 2015). Connected is the de-prioritization of women's energy preferences that has resulted in the decreased promotion of renewable energy sources that often benefit women (Osunmuyiwa & Ahlborg, 2019; Bagdi et al., 2023). The de-prioritization of women in energy systems can be attributed to social norms that place women and men in different places within energy systems, with women being connected to household activities that use energy, and men being connected to the generation of energy knowledge and technology (Lieu et al., 2020; Capetillo-Ordaz et al.,

2024). The correlation between women and household activities is also reflected in the emphasis placed on women's vulnerability and role in protecting their families, drawing attention away from institutional power structures that leave women more vulnerable (Allen et al., 2019). These divisions create a narrative that men are responsible for solving the energy crisis, allowing women to perform care and household work in more sustainable ways, limiting the amount of agency attributed to women.

In addition to social norms limiting the agency of women within energy systems, researchers have found that social they exacerbate the impacts of climate change on women (Newell et al., 2021; Morrow, 2017; Md et al, 2022; Gaard, 2015). Women, including adolescent girls, are disproportionately impacted by climate catastrophes, representing over 75% of displaced people (Md et al., 2022), and are fourteen times more likely than men to die in ecological disasters (Gaard, 2015). Social norms compound vulnerability for some, with women within other marginalized groups, such as Indigenous peoples or refugees, being at heightened risk (Morrow, 2017). The social norms contributing to these inequalities include gendered social roles, discrimination, and poverty (Gaard, 2015).

Research also demonstrates that norms play a large role in issues of participation, employment, and education for women in the energy sector (Pearl-Martinez & Stephens, 2016; Sumarno et al., 2024; Carroll et al., 2024). Cultural views globally often hold that blue-collar work, such as the use of heavy machinery or infrastructure, is a male activity (Pearl-Martinez & Stephens, 2016), and work within STEM fields is often associated with men (Lieu et al., 2020). Within the job market, the use of gendered language in job advertisements associated with male stereotypes often discourages female applicants (Sumarno et al., 2024). In addition to the various norms that discourage females from working in the energy sector altogether, norms within the

workforce result in unsafe work environments for women. Many women in the energy sector are fearful of sexual harassment or are uncomfortable with the assumptions often made about women's sexuality when working in traditional occupations such as mining (Carroll et al., 2024). Extractive activities, needed for a transition to renewable energy, are correlated with gendered violence (Sovacool et al., 2019), yet limited literature discusses the gendered implications of a transition to renewable energy and critical minerals and metals in the Global North specifically (Johnson et al., 2020)

These social norms frame women's low levels of representation within the renewable energy workforce. According to Arias et al. (2023) the representation of women is even lower within the renewable energy field specifically, compared to the energy field as a whole. There are many reasons for this difference, including the remote location of most renewable energy construction projects, which do not have resources for families and workers (Baruah, 2017). For women taking care of their families, being away from home for extended periods may not be feasible. Other explanations for the lack of women's representation in the renewable energy workforce are similar to those cited throughout the rest of the energy sector, including perceptions about women's technical abilities (Baruah, 2017).

It is estimated that in the United States, women only hold 20-25% of jobs in the renewable energy sector, with most being in lower-paid, non-technical positions (Baruah, 2017). Along with women holding a limited number of technical positions within the sector, the energy industry has the lowest representation of women as board members than any sector in the U.S. economy, with 61% of energy companies in the United States having no female board members (Allen et al., 2019). In addition to an underrepresentation within the workforce, the gender wage gap is higher in the energy sector than in other fields (Sumarno et al., 2024).

Education plays an important role in advancing women's success within the renewable energy field, as without proper educational resources, such as targeted training and apprenticeships, transitions to renewable energy are likely to exacerbate gender inequality (Baruah, 2017). Science and engineering fields, despite efforts to diversify, are dominated by white men and continue to exclude women from access to science and engineering educations (Stephens, 2024). In the United States, the percentage of women receiving engineering degrees decreased between 2003 and 2008, going against global trends (Buruah, 2017). Educational differences between women and men in STEM-related fields give insight into why women's participation within the renewable energy workforce remains relatively limited and contributes to the limited connections made between science, technology, and society (Stephens, 2024). Increasing STEM education for women is therefore an important step in addressing distributional injustice within energy systems (Sumarno et al., 2023).

In addition to low levels of women's representation within renewable energy workforces and STEM education, women's low levels of participation and authority within decision-making processes can be considered as some of the most pressing gendered issues within renewable energy transitions. Within energy systems, participation can include making electricity-related decisions at both the household and enterprise level, and involvement in policy-making decisions (Osunmuyiwa & Ahlborg, 2019). Global studies find that women only represent 6% of ministerial positions tasked with creating national policies (Clancy, 2019). Many scholars view women's low levels of participation within the energy sector as puzzling because of "the contrast between women's affinity towards the goals of energy communities and their underrepresentation" (Vogel et al., 2024, p.2). One example of this puzzle is that women possess

greater scientific knowledge and concern about climate change than men, but underestimate their knowledge (Walk et al., 2019).

Similar to women's low levels of representation, women's levels of participation and authority are shaped by social norms, with gender dynamics determining who participates in decision-making processes regarding energy (Allen et al., 2019). Allen et al. (2019) emphasizes that disparities in who participates and holds authority within energy systems are not based on individual preferences, but rather a combination of social, political, and cultural contexts shaping agency within society. Studies on energy transitions globally have found that women's participation is not typically seen as a necessity, and women's role as decision makers is limited (Sumarno et al., 2023).

With recent efforts to increase women's participation in energy systems, including the United States' outreach to women to expand capacities in oil and gas extraction (Allen et al., 2019), scholars note that access to jobs, resources, and participatory processes does not mean automatic social change (Osunmuyiwa & Ahlborg, 2019; Newell et al., 2021). Oftentimes, the inclusion of women in energy management or decision-making bodies has little impact, with their decisions being undermined by men. Case studies of electrification projects aimed at increasing gender participation show that the projects result in short-term empowerment for women, before men in privileged positions exert their power over women (Osunmuyiwa & Ahlborg, 2019). Additionally, while women gaining influential positions within decision-making processes of the energy sector is important, the burden of creating policies that address gender inequalities should not be placed on individual women (Clancy, 2019). These short-term improvements are largely performative and should not be seen as true empowerment.

Benefits of a Gender Lens

Although countries and corporations often neglect the issue of integrating women into renewable energy systems, numerous positive impacts are cited in connection with doing so. Generally, elevating the role of women within energy systems can help to address the hegemony of male norms and gendered hierarchy seen in the energy sector (Vogel et al., 2024), and offers a tool to better understand why societies remain in unsustainable energy systems (Sumarno et al., 2024). More specifically, increasing women's role in energy systems allows for the integration of new perspectives, can address workforce shortages, and increases numerous performance metrics for companies (Sumarno et al., 2024; Stephens, 2021; EIGE, 2016; Bagdi et al., 2023; Pearl-Martinez & Stephens, 2016; Arias et al., 2023; Carroll et al., 2024). Increasing women's participation in the renewable energy sector would increase the number of perspectives considered, with research showing that diverse perspectives bring more attention to issues of sustainability and justice (Sumarno et al., 2024; Stephens, 2021). Integrating women's perspectives also allows for market opportunities that target female consumers of energy (Sumarno et al., 2024). With low levels of women's employment in the renewable energy field, as well as concerns over workforce shortages, integrating women into the sector offers a clear way forward (EIGE, 2016).

A highly compelling argument for integrating women into the renewable energy sector is evident when considering the numerous specific performance metrics associated with higher levels of women's employment. According to Bagdi et al. (2023) increasing women's participation in renewable energy systems improves energy quality, reduces diseases in rural areas, and helps influence people to switch to modern and clean energy technologies. Additionally, Sumarno et al. (2024) show that corporations that are gender-diverse have higher

financial performance than those with less gender diversity while Pearl-Martinez and Stephens (2016) find that companies with more women on their boards of directors are more likely to reduce carbon emissions throughout their value chain. Renewable energy generation companies with the highest levels of women's participation also have the highest relative efficiency in labor-capital ratios (Arias et al., 2023), and research teams' knowledge outcomes are enhanced by gender-diverse members (Carroll et al., 2024).

In addition to the benefit of gender diversity in corporations, having women in leadership positions increases firm value, financial performance, economic growth, innovation, and social responsiveness, and plays a significant role in accelerating change in energy systems and advancing issues of energy justice (Sumarno et al., 2024), demonstrating the value of integrating women into the renewable energy sector. These performance metrics show that integrating women into the energy sector and addressing gendered issues can achieve more than justice. Convincing corporations to change their behavior using pleas for justice is less likely to result in change than demonstrating how integrating women into their workforce will benefit their organization. In addition to corporations concerned with their bottom line, those with a desire to protect the environment will also see a clear benefit in integrating women based on these metrics. While concerns of justice should be the top priority for actors involved in energy transitions, as discussed in the previous chapter, not all are concerned with issues of justice, and other motivations are needed to achieve change.

The metrics discussed above highlight the benefits of integrating women into renewable energy systems, with recent trends creating opportunities that could allow for gender integration to occur. Currently, around 98% of licensed electricians in the U.S. are male. Although that statistic is discouraging for women entering the energy sector, an estimated 60% of electricians

are within five years of retirement, opening up opportunities for women and other minority groups to enter the field (Allen et al., 2019). Additional opportunities for women to enter the sector are seen in concerns over future skills shortages. If renewable energy companies do experience skills shortages, Clancy (2019) argues that they will not be able to afford to leave out previously underutilized talent, such as women. According to Clancy (2019) increasing the representation of women within STEM needs to start at a young age, with mothers and female STEM teachers playing a large role in motivating young girls to pursue math and science, demonstrating a compounding effect that will likely occur as women's participation continues to increase in the fields. Along with the global trends facilitating the inclusion of women within renewable energy systems, specific efforts, sometimes called gender-mainstreaming efforts, are also being established.

Gender-Mainstreaming

Osunmuyiwa and Ahlborg (2019) argue that ways to enable women's success in energy systems, despite the conditions previously discussed, include creating socio-technical systems that allow for the equal capacity of all genders through institutional, regulatory, and policy support. The process described by Osunmuyiwa and Ahlborg (2019) is known as gender mainstreaming and represents a dominant strategy within the literature on gender and energy systems. Gender mainstreaming is a process of "integrating a gender perspective into all aspects of policy and governance instruments" (Carroll et al., 2024, p.3) and occurs in response to gender blindness, or the lack of attention paid to gendered dimensions of energy transitions (Carroll et al., 2024; Capetillo-Ordaz et al., 2024). Mainstreaming is seen as evolutionary, rather than revolutionary, aiming to integrate gender into existing policy areas, rather than creating new policy agendas (Morrow, 2017). Despite this limitation, gender mainstreaming is still important

in that it explicitly considers gender in policy. Without using gender-specific interventions, policies often benefit those who are already in dominant positions, reinforcing male domination within the industry (Johnson et al., 2020) by failing to address social and institutional factors that prevent women's success in the sector (Baruah, 2017).

Efforts to mainstream gender within the renewable energy sector vary, with some efforts being successful and some being problematic. Oftentimes, solutions are based on neoliberal and market ideologies (Arora-Jonsson, 2017; Foster, 2017), failing to address issues of structural inequality. The neoliberal ideology of deregulation and decreased government spending works to dismantle welfare measures and government responsibility by emphasizing solutions based on participation, local responsibility, and women's agency (Arora-Jonsson, 2017). Foster (2017) connects this neoliberal ideology with masculinity, highlighting how past discourses of governance, limits, and citizen engagement reflect feminine models of good governance, while the new, neoliberal, and technocratic discourse reflects masculine models of good citizenship.

This shift in discourses not only represents a switch from feminine ideals to masculine ideals but also to an individualistic model of the climate crisis, rather than one that emphasizes community and joint action. This individualistic view of climate change is further reflected in gender mainstreaming efforts that treat gender issues as problems of individual women's exclusion, rather than viewing the issue in relation to male privilege and social structures (Arora-Jonsson, 2017). In addition to the neoliberal logics behind many mainstreaming efforts, other critiques include the lack of specific policy measures (Littig, 2017) and the ways it works to legitimize prior choices rather than truly considering new perspectives (Newell et al., 2021).

The success of gender mainstreaming efforts varies around the world. In the past, women's employment in the energy sector has been highly concentrated within developing

countries with emerging economies, through small-scale projects (Baruah, 2017). While there is a higher concentration of jobs for women in these areas, they are often poorly paid and unstable; within industrialized economies, most energy jobs have gone to men (Baruah, 2017; Littig, 2017). In advanced economies, renewable energy technology and financing are of high concern, with little attention paid to employment equity (Baruah, 2017). Despite some levels of increased participation of women in energy systems globally, it is not seen as a necessity for most countries or corporations (Sumarno et al., 2024).

CHAPTER 4: ROLE OF NGOS

With recent changes in the environmental goals of the United States, spaces outside of the state are becoming critical to future efforts to advance environmental justice. Many scholars analyze the efforts of nations to address environmental issues, such as energy transitions, through the concept of environmental states. Environmental states are defined differently by various scholars but can generally be seen as a state's efforts to address environmental issues (Mol, 2016; Duit, 2016). While offering definitions on environmental states, both Mol and Duit display uncertainty over environmental states' prospects and success. Mol believes that environmental states have failed to increase in capacity over the last fifteen years (Mol, 2016), and Duit argues that no current state can be considered a true environmental state (Duit, 2016). This lack of strong environmental states is seen within G7 countries, which consist of Canada, France, Germany, Italy, Japan, the United Kingdom, the European Union, and the United States, where there are no current efforts to promote the role of women within the renewable energy transition [or industry] (Sumarno et al., 2023). According to Duit (2016), the United States has a weak environmental state that has failed to respond to environmental issues.

As presidents take office in the United States, they can influence the environmental state capacity and can work to either strengthen or weaken it through their role in agenda-setting. Agenda setting can be described as the president's role in shaping the national agenda for policy deliberation, determining the scope of issues discussed, and the type of solutions considered (Eshbaugh-Soha, 2005; Hua et al., 2025.). Despite separations of powers and other limiting factors, scholars typically view the president as having significant influence over the agenda-setting stage of the policy process (Hua et al., 2025; Eshbaugh-Soha, 2005; Rutledge &

Larsen Price, 2014). Studies examining the influence that presidents have over environmental agendas in Congress find a statistically significant positive influence of the president over congressional environmental agendas, meaning that when the President focuses on environmental issues, congressional attention towards the environment increases (Rutledge & Larsen Price, 2014). The influence of the president can come in the form of budgets, reports to Congress, executive orders, instructions to agencies, speeches, and media communication (Hua et al., 2025)

Generally, there is a conception that the Republican party prefers a limited governmental role in environmental policy and that the Democratic party favors federal environmental regulation (Peterson & Zanocco, 2024). Based on these conceptions, and the ability of Presidents to influence Congressional environmental agendas, Trump's current second term as President limits the possibility of gendered energy concerns being integrated into government policy. Looking at Trump's past administration offers insights into what his next term could entail. During his first term, the Trump administration had numerous negative impacts on the progress of environmental justice, and in turn, gender justice, largely through attacks on science. These attacks on science included halting data collection, burying research, and censoring scientists (Desikan et al., 2023). Along with these attacks on science, the Trump administration attempted to cut the budget and staff of the EPA, creating a feeling of fear and censorship among EPA scientists, and in turn, leading to a reduction in focus on equity and environmental justice (Desikan et al., 2023). During the first one hundred days of his current presidency, Trump once again expressed a desire to weaken the environmental state, largely by cutting back regulatory processes (Pauley, 2025). The continuation of these changes in the upcoming four years is likely to reduce any potential focus on the gendered impacts of renewable energy transitions at the national level.

While states do have the ability to set their own agendas within transitions to renewable energy in spite of Trump's agenda, there are many complexities. With all fifty states potentially having unique transition plans, a complete analysis of their positions would be difficult within a thesis. Potoski and Woods (2002) find that state-level clean air programs differ in their set of empirical determinants, demonstrating diversity and uniqueness in environmental policies, making large-scale analysis difficult. Additionally, President Trump has enacted an executive order titled "Protecting American Energy from State Overreach," aimed at removing what Trump deems unlawful state-level impediments to U.S. energy production. The order specifically targets state policies addressing issues related to "climate change," "environmental, social, and governance," "environmental justice," "carbon emissions," and "greenhouse gas emissions." (The White House, 2025c). This order greatly limits states' ability to address gender issues within renewable energy transitions.

The current political environment of the United States, characterized by uncertainty, makes it unclear whether and how the gendered issues of a renewable energy transition will be addressed at the federal level or through federal programs. If federal policies were enacted, they would likely make it more difficult to solve gender issues, rather than work to address them. During Trump's last administration, organizations focused on energy justice framed their approaches in direct opposition to the goals of the Trump administration (Allen et al., 2019), demonstrating how NGOs can once again work to combat Trump's efforts to decrease the capacity of the U.S. environmental state. Some states will continue to promote gender justice within energy transitions, but complex systems of federalism and President Trump's desires to limit states' regulatory capacities will restrict progress. Non-governmental organizations, therefore, hold a large amount of responsibility in addressing this issue. Along with the role of NGOs in

addressing the gender issues of an energy transition, analyzing NGO discourses provides insight into how civil society, as well as business actors, view the problem.

Because the energy sector and various levels of government are unlikely to integrate gender concerns into energy systems, NGOs, or non-governmental organizations, provide a useful place to analyze existing and emerging attitudes on, and advance the concerns of, gender within renewable energy transitions. NGOs have become more prevalent in political processes in recent years, and scholars have recognized a global shift in the 21st century, where social issues are being addressed from a bottom-up approach characterized by non-governmental organizations, rather than a top-down approach characterized by states (Javed, 2023; Kamat, 2004). Utilizing various pathways to achieve justice is critical for a problem as complex as the climate crisis, where state action alone will never be sufficient (Marrow, 2017). In this light, NGOs act as representatives of civil society, demonstrating how gender and justice are viewed outside of the state.

NGOs can provide and advocate for marginalized groups through the interaction of civil groups and intergovernmental processes (Javed, 2023; Kamat, 2004). NGOs advocating for justice often challenge discriminatory practices and push for equality and equity in various realms of society, through their organizational ability to amplify voices that are typically silenced and to break down social barriers. Additionally, some NGOs often work to engage with marginalized communities, fostering grassroots participation and empowerment (Javed, 2023). Javed (2023) argues that the ability of NGOs to foster awareness and educate the public is essential to driving the levels of systemic change required to dismantle systems of racism, sexism, and inequality. Mainstream, powerful NGOs are able to achieve these changes not only by raising public awareness, but also by influencing larger policy processes.

NGOs are important in raising awareness on the need to integrate gender into the current energy transition (Sumarno et al., 2024) and provide 'working knowledge' on how the issue is being addressed (Baruah, 2017). NGOs go about achieving change through four phases of mobilization, including the framing of issues, followed by the analysis and design of new policies. The framing process in connection with gender is especially important, with NGOs having the opportunity to challenge the use of traditional gender categories (Rosa, 2014). NGOs often conduct policy analysis to illustrate how government decisions have gendered and intersectional implications. They then collaborate with academics, researchers, and legal experts to create evidence-based policy recommendations that can be used by governments to promote justice. NGOs are valuable in their ability to create context-specific knowledge on gender inequalities, acknowledging gender differences in a variety of fields and localities (Rosa, 2014). The last two phases of mobilization occur as NGOs engage in campaigning and advocacy work, followed by the monitoring and evaluation of success (Rosa, 2014).

NGOs influence policymakers by informing large segments of the population on critical issues, increasing the likelihood that policymakers respond to calls for justice (Javed, 2023), and in turn, calls for gender justice. These phases of mobilization are successful, with researchers finding that the work of NGOs is influential in bringing new issues to policy agendas, such as the intersection between gender and wider issues of distribution and privilege (Arora-Jonsson, 2017). NGOs began working to institutionalize the recognition of gender issues in the 1960s, and scholars recognize NGOs as fundamental to the introduction of national and international agendas on violence against women and reproductive rights. (Rosa, 2014). The value of NGOs in advancing climate and energy justice is recognized within international organizations, with the United Nations Framework Convention on Climate Change utilizing input from various NGOs in

their decision-making processes (Marrow, 2017). NGOs have successfully advocated for the inclusion of women's issues in official United Nations documents. In 2012, the United Nations created Agenda 21, which included women as key players in sustainable development due to persistent lobbying by international feminist NGOs (Littig, 2017), demonstrating how NGOs can influence governmental processes in connection with gender and the environment on a global scale.

Non-governmental organizations have the ability to play a prominent role in advocating for gender equality in renewable energy transitions, but their stances on the issue have not been extensively examined or analyzed. Because non-governmental organizations are crucial in increasing awareness of the need to integrate gender into energy systems, an evaluation of the ways that prominent NGOs in the U.S. discuss integrating gender into the renewable energy transition is needed. Prominent, powerful, and mainstream NGOs are important to analyze as they represent the intersection of traditional policy agendas and civil society's demands for justice. While more radical NGOs, based on feminist values, would likely have more robust discussions of gender within energy transitions, they do not represent mainstream and widespread opinions on the issue. In turn, analyzing powerful organizations provides insight into how the problem could be integrated into policy processes. To conduct this analysis, a gender-just discourse is used, discussed in detail in the following chapter.

CHAPTER 5: GENDER-JUST DISCOURSE FRAMEWORK

When conducting qualitative political science research, theory plays a crucial role. Theoretical frameworks, also referred to as conceptual frameworks, provide a map of past literature and inform research design processes (Collins & Stockton, 2018). The benefits of utilizing a theoretical framework include having predefined labels to use and generalizing findings beyond the scope of the study. Theoretical frameworks can connect findings to larger bodies of data and provide a broader perspective on how results may be applied. A common concern with qualitative research is the lack of methods that result in simple storytelling. Theoretical frameworks prevent this by connecting context-specific findings to a larger body of knowledge (Collins & Stockton, 2018).

Paula Walk's 2024 article "From parity to degrowth: Unpacking narratives of a gender-just transition" provides the starting point for my analytical framework (Walk, 2024). Additions are made to Walk's (2024) framework for this study, including an emphasized role of NGOs in the United States and an expansion beyond narrative analysis to the broader method of discourse analysis. Walk's (2024) gender-just narrative framework utilizes the policy narrative framework and combines feminist approaches and just transition approaches to categorize how gender is framed within transitions to renewable energy.

The policy narrative framework is the starting point for Walk's (2024) framework; policy narratives tell the story of policy problems and the proposed policy solutions for those problems. The narratives used to describe policy problems impact the actions of decision makers, creating real-world implications for the language used when discussing gender within renewable energy transitions. An important clarification is that narrative analysis does not aim to determine which

is the most accurate narrative, but rather to examine systematic differences between narratives (Walk, 2024). Examining these differences is important, as organizations vary in the ways they frame problems and goals for change (Allen et al., 2019).

Narrative analysis stems from the method of discourse analysis. Discourse analysis provides a slightly wider lens that can be useful in analyzing the language of non-governmental reports. Discourses consist of actors being recognized and constructed, agents and their motives, as well as key metaphors used. This differs from policy narrative analysis, which focuses explicitly on policy problems and solutions. While some NGOs may discuss gender in connection to specific policy, others may have the goal of bringing awareness to the issue, rather than creating policy solutions, making discourses a better source of analysis for this project than policy narratives.

Similar to narratives, discourses impact the ways that problems are defined, interpreted, discussed, and addressed (Dryzek, 2022; Johnstone, 2018), and therefore play a large role in addressing injustices. Discourses are based on the use of past knowledge and are used to exchange information, express feelings, and achieve change (Johnstone, 2018). The impacts of environmental discourses are far-reaching and can result in change even without interacting with formal institutions by changing how people think and behave (Dryzek, 2022). This ability is important when analyzing the impact of NGO's positions, as they may not directly impact policy, as implied in the policy narrative framework used by Walk (Walk, 2024).

The goal of discourse analysis is not to make quantitative claims about how often particular discourses are used, but rather to make qualitative claims on why and how certain discourses are used, and who they are used by (Johnstone, 2018). The goal of his discourse analysis is to determine what types of discourses are used by various categories of NGOs, and if

these discourses are consistent within NGO categories, based on the findings of Walk's 2024 study and additional hypotheses. The continuation or disjunction of discourses between groups of actors is important, as discourse can both enable and constrain communication. Decision systems are highly complex, with a wide variety of actors and viewpoints, and the ways that issues are addressed depend on the balancing of competing discourses (Dryzek, 2022). Disjunction in discourses between actors in similar categories thus increases the complexity of decision systems and constrains communication, making solutions for gender injustice more difficult to find.

Walk (2024) is not the first scholar to analyze the discourses used to connect energy transitions to gender. Prior to Walk's (2024) creation of the gender-just narratives framework, Lieu et al. (2020) used an alternative pathways framework to analyze various energy transition pathways in connection to gender. This framework categorizes pathways, or normative descriptions of how the world could look in light of energy transitions, into three categories: onstream pathways, off-stream pathways, and transformative pathways. These pathways are similar to the categories used in Walk's (2024) approach: using status quo, structural, and transformative transitions. The similarities between the two analytical approaches help to justify my continued work with the framework, as it represents a dominant approach to viewing the ways that gender can be framed within energy transitions.

A discussion of the specifics behind my gender-just discourse framework follows, specifying the use of just transition and feminist approaches to justice, and explaining the discourse categories used in my analysis.

Just Transition Approaches

One facet of a gender-just framework is the various approaches to just transitions and environmental justice. As previously discussed, just transitions refer to the fair transition from a fossil-fuel-based economy to a low-carbon world. The changes associated with this transition can vary in degree and often reflect actors' deeply held political and ideological beliefs (Just Transition Research Coolborative, 2018). The current status quo within social and economic systems consists of a development ideology that emphasizes technology, adaptation, and economic growth (Biely & Chakori, 2025). This approach has been criticized for being Eurocentric, and for being blindly focused on economic growth. This has resulted in calls to transform the current system, rather than to work within the status quo. Transformation can consist of various goals, including a focus on sufficiency rather than growth, the fostering of civil society environmental movements, and changing human-nature relationships to be more just (Biely & Chakori, 2025). These concepts are reflected within approaches to just energy transitions, with approaches including the status quo approach, managerial reform, structural reform, and the transformative approach.

The status quo approach to addressing just energy transitions focuses on workers who will lose their jobs due to the transition away from fossil fuels to a low-carbon economy and compensating them for these losses. These compensatory measures often overlook issues of distribution and access, frequently resulting in externalities associated with the creation of new jobs. Examples of methods used in status quo transitions include job retraining programs and pensions. This approach to just transitions does not aim to change any parts of the dominant economic system, but rather aims to 'green capitalism' through voluntary or market actions (JTRC, 2018).

The managerial reform approach also does not intend to change economic or power systems, but does advocate for improving the working conditions and standards associated with energy transitions and can be seen as a workforce-centered approach (JTRC, 2018). While changes are made under this approach, they are limited and work within the current system and include things such as increasing safety in the energy sector. The JTRC (2018) notes that this approach is common within business/liberal unions and liberal environmental organizations, categorizing the Sierra Club, an NGO used in this analysis, as representing a managerial reform approach. While managerial reform approaches aim to achieve more change than status quo approaches, they are still a part of the dominant gender mainstreaming ideology, where true changes to the system are not desired.

The structural reform approach takes a more radical step than the first two approaches by attempting to reform governance structures to achieve higher levels of distributive and procedural justice. This approach moves past the market-based solutions seen within the last two approaches, advocating for solutions that engage in democratic modes of participation and decision-making. Structural reform approaches compensate those impacted by transitions, while also aiming to alter institutional structures to facilitate higher levels of justice (JTRC, 2018)). The desire to alter institutional structures and the move beyond market-based instruments make the structural reform approach more radical than traditional gender mainstreaming approaches.

The last just transition approach is transformative, aiming to fundamentally change the economic and political systems that create social and environmental injustices. These systems can include racism, patriarchy, and classism (JTRC, 2018). Transformative approaches to just transitions center power in their analysis, looking at the various ways it can manifest (Newell et al., 2021). Transformative approaches work to integrate social justice, looking at the racial,

gender, and class-based origins of injustice, as well as how people are impacted differently across space and time (Newell, 2021). The Just Transition Collaborative (2018) highlights organizations that reflect transformative approaches to just transitions, mentioning the Climate Justice Alliance, an organization used in this analysis. The Climate Justice Alliance is seen as transformative because of its emphasis on energy democracy and allowing communities to make their own energy decision. Transformative approaches are greatly different than traditional gender mainstreaming approaches, aiming to fundamentally change current systems of oppression.

Along with various categories based on the level of change being strived for, there are also categories based on types of justice achieved within each type of transition (excluding status quo transitions, which do not address issues of justice). The approaches are based on the three facets of environmental justice previously mentioned: distributive justice, procedural justice, and justice as recognition. In the context of this research, distributive justice refers to the distribution of both the benefits and harms of energy systems and structures (Pandey & Sharma, 2021). Some aspects of distributive justice are present in managerial approaches to just transitions, surrounding the distribution of workforce burdens, but limited attention is paid to the power aspect of distributive justice within managerial approaches. Structural and transformative approaches to just transitions typically include a focus on addressing distributional justice and are more likely to address issues of power related to distributive patterns.

Procedural justice refers to decision-making processes and advocates for participation and fairness within energy system processes (Pandey & Sharma, 2021). Procedural justice is also concerned with equal access to information and the existence of legal procedures that citizens can utilize to advocate for themselves (Newell et al., 2021). Status quo and managerial

approaches to just transitions do not adequately address procedural justice, often utilizing performative procedural processes. Alternatively, structural and transformative approaches to transitions emphasize procedural justice's importance (JTRC, 2018).

Recognition-based justice is connected to the first two dimensions of justice, but instead of looking at the perceived fairness of processes through which decisions and distributions are made, it evaluates whose perspectives, identities, and knowledge are represented in processes and outcomes (Pandey & Sharma, 2021). Recognition justice typically emphasizes the differences that marginalized groups face in terms of cultural, social, and political discrimination (Newell et al., 2021). Issues of recognition justice, and who is left behind and ignored in energy transitions, are one of the main issues in connection to gender and energy systems, with the perspectives of non-male genders being marginalized (Sumarno et al., 2024). Structural systems of racism, patriarchy, and classism determine whose perspectives are valued, and without changing these systems, true recognition of marginalized groups is not possible. Because of these systems, issues of recognition justice cannot be adequately addressed in just transition approaches that do not aim to alter current systems, and therefore are not addressed in managerial efforts, but are seen within structural and transformative approaches.

Feminist Approaches

The second component of the gender-just narrative framework is various feminist approaches, including liberal feminism, socialist feminism, post-colonial feminism, and ecofeminism. Feminist scholarship is critical to advancing issues of climate justice, with the well-known phrase "no climate justice without gender justice" representing its importance (Stephens, 2024). Feminist values are important to achieving climate justice because of their focus on power, privilege, and marginalization, and the processes that perpetuate those

inequalities (Stephens, 2024). Radke et al. (2018) discuss various forms of feminist action, differentiating actions that challenge the status quo and actions that allow women to protect themselves from the status quo. Actions that allow individual women to protect themselves from the status quo are referred to as protective actions (Radke et al., 2018) and are represented within liberal feminist approaches.

Liberal feminism is the least radical of feminist approaches, focusing on the market. For advocates, the goal is to achieve gender neutrality in the labor market by increasing female participation in male-dominated fields (Walk, 2024). Liberal feminism is based on the assumption that women have equal capacity for rational thought and action, and therefore should be equal to men within the public sphere (Wilson, 2015). Most liberal feminist approaches acknowledge that there is inequality for women, but do not connect that inequality with deeper systems of power. This disconnection between larger systems of power is rooted in liberal theory's focus on the individual, emphasizing free will and self-interest (Wilson, 2015). This focus on the individual is a component of many gender-mainstreaming efforts (Arora-Jonsson, 2017), reflecting the connection between liberal feminist thought and mainstream efforts to address gender in renewable energy transitions. Wilson (2015) highlights how this framework is used by many large institutions, such as the World Bank, referencing their slogan "Gender Equality as Smart Economics". Because of the individualistic view of gender injustice, Wilson (2015) argues that many approaches to gender equality associated with liberal feminism are insufficient and often reinforce unequal gender structures.

Socialist feminists believe that gender should be understood as a structural category created by current economic systems that produce gendered distributive inequality through exploitation and marginalization. Rather than incorporating women into the current economic

system, socialist feminists hope to address the gendered implications of economic processes (Wilson, 2015). Socialist feminist thought engages with Marxism and the concept of exploitation, highlighting how some groups benefit from the labor of others, such as in household and care work (Gordon, 2016), and how the intensification of this type of labor is crucial in sustaining capital accumulation seen under neoliberal ideologies (Wilson, 2015). Socialist feminists do not attribute environmental issues to a single source, but rather analyze how systems of patriarchy and capitalism have interacted to create the current economic and social structure (Gordon, 2016). Socialist feminist approaches are more radical than traditional gender mainstreaming approaches because gender mainstreaming is evolutionary, aiming to integrate gender into existing policy areas, rather than creating new policy agendas (Morrow, 2017), while socialist feminism aims to create new policy agendas that address the gendered impacts of current economic systems.

More radical feminist approaches include post-colonial feminism and ecofeminism, both of which are outside the range of typical gender mainstreaming approaches. Post-colonial feminism, contrary to its name, does not focus only on post-colonial areas, but rather represents "an explicitly transnational and globally constructed form of critical race feminism" (Piedalue & Rishi, 2025, p. 549). This global view of feminism examines not only how colonial systems of the past continue to impact women, but also how the Global South and the Global North continue to co-constitute each other (Piedalue and Rishi, 2025). An important aspect of post-colonial feminism is the emphasis on challenging hegemonic perspectives based on the white male experience, advocating for the inclusion of diverse types of knowledge (Piedalue and Rishi, 2025). Post-colonial feminist ideology builds on ideas from socialist feminism, continuing to

examine systems of capitalism, exploitation, and marginalization, while adding colonialism to the analysis.

The last category, ecofeminism, combines ecological and feminist approaches (Gaard, 2015) to connect the domination of women to the domination of nature through processes of devaluation and oppression (Allen et al., 2019). The lens differs from traditional deep ecology, which is constrained by the political attitudes held by middle-class white-men (Salleh, 1993). Ecofeminism builds on the concepts present in socialist and post-colonial feminism, examining various social systems including capitalism and patriarchy. Ecofeminism has long argued that male domination plays a large role in current environmental issues, and shifts from viewing women as individuals to viewing gender as a system of power relations (Gaard, 2015). This approach to feminism seeks a fundamental change in social relationships that value both non-male genders and the environment (Walk, 2024) and has worked to elevate the value of women's knowledge within the environmental movement (Stephens, 2024). The ecofeminist movements focus on the need to respect and utilize non-male experiences in decision-making processes plays a role in the environmental justice movement's efforts to include women through participatory measures (Morrow, 2017), demonstrating the connections between the two movements and once again highlighting the idea that there is "no climate justice without gender justice" (Stephens, 2024).

Gender-Just Discourses

By combining just transition approaches and feminist approaches, nine different gender-just narrative categories are formed. Walk (2024) created five of these narrative categories, with additional categories added for the purpose of this research project. The narratives include compensation, care, opportunity, condition, policy design, protection, participation, global, and

nature. A summary of these categories is laid out in Table 1 below, as well as a more in-depth discussion of each narrative type following the table.

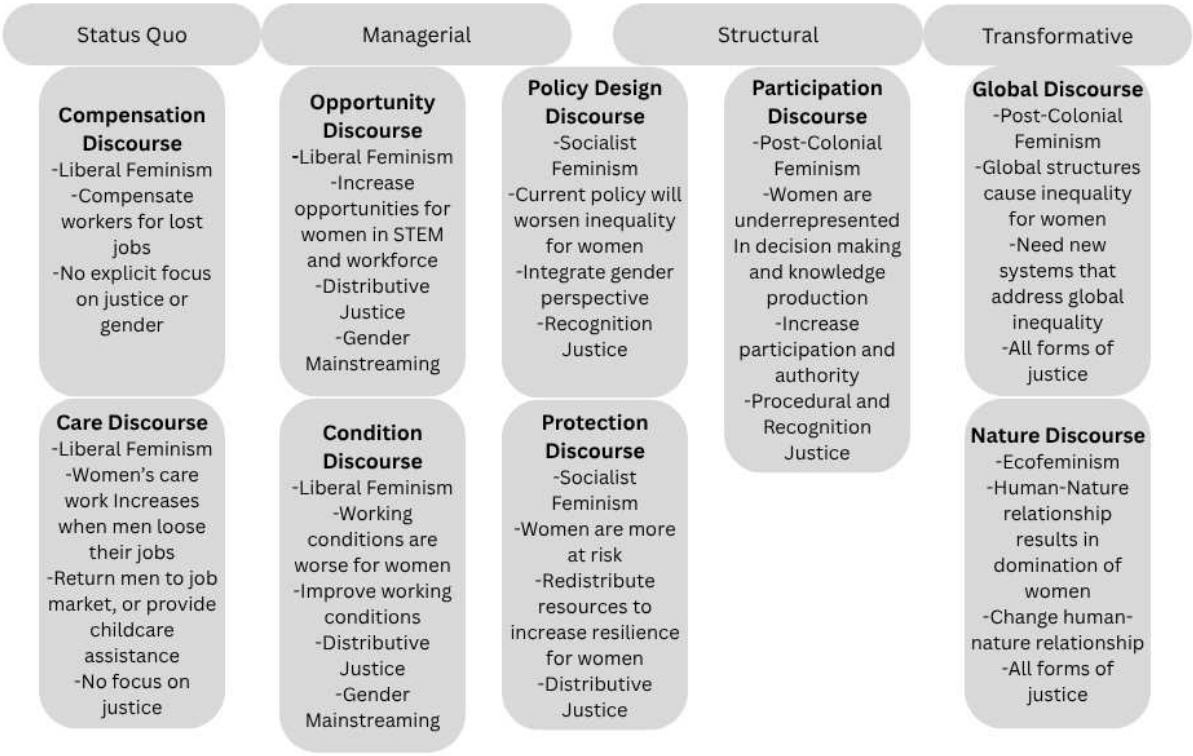

Figure 1: Gender-Just Discourses

Status Quo Approaches

Discourses falling under the status quo approach to just transitions are limited to those that rely on a liberal feminist framework. This is because status quo approaches to just transitions do not wish to change current systems, a sentiment shared by liberal feminists.

Compensation Discourse. Compensation discourses were added to the original categories created by Walk (2024) to address discourses that recognize women's presence in the energy sector but do not address any gender-specific issues. Many initiatives that address a transition away from fossil fuels focus on how those currently working in the energy sector may lose their jobs, advocating for compensatory measures for all workers impacted. The

acknowledgement that women will be affected by job losses and the advocacy for, or creation of, compensation for all workers, regardless of gender, would fall into the compensation discourse category. This discourse category represents the intersection of a status quo just transition approach and liberal feminist theories. These discourses do not call for any changes to the system and do not promote gender-specific solutions, while recognizing that women are a part of the energy transition.

Care Discourse. Care discourses were also added to the original categories created by Walk (2024) to represent another variation of the status quo, liberal approaches. This discourse category does not address women's presence in the energy sector, but rather analyzes how women's burden of care work increases when men lose their jobs in the energy sector. According to this discourse, the burden on women increases when job losses in the sector occur, because women must enter the job market to supplement lost income while still performing care work. Solutions presented in this discourse could include efforts to return men to the job market to reduce the work burden on women, or to provide assistance with childcare so that women can continue to supplement lost income.

Managerial Approaches

Discourses associated with managerial approaches to just transitions are connected to the feminist frameworks of liberal feminism, as well as socialist feminism. Managerial approaches to just transitions offer limited systemic changes while still attempting to address injustice. The level of change seen in managerial approaches to just transitions is dependent on the feminist framework used, with socialist feminism advocating for more change than liberal feminism.

Opportunity Discourse. Opportunity discourses address how women benefit less from the economic opportunities associated with a renewable energy transition. This discourse

category views the primary issue as the energy sector being male dominated. Solutions to gender inequity within energy transitions include removing barriers to education and the job market to increase women's employment in the sector (Walk, 2024). This discourse category represents the intersection of just transition managerial approaches and liberal feminist theories. The goal of the opportunity discourse is not to change the current system, but to increase opportunities for women within the system. The opportunity discourse addresses issues of distributive justice by increasing the number of women in the energy sector, as the current distribution of jobs and educational opportunities is unequal. This discourse is common within gender mainstreaming efforts and reflects an individualistic view of climate change, rather than viewing the issue in relation to male privilege and social structures (Arora-Jonsson, 2017).

Condition Discourse. Condition discourses address the working conditions for women within the renewable energy field and represent another connection between managerial just transition approaches and liberal feminism. I added this category to Walk's (2024) framework to address discourses highlighting that the working conditions in the energy sector are worse for women than for men. The condition discourse seeks to address the liberal feminist aim of achieving gender neutrality in the labor market through a managerial approach, by improving the working conditions of disadvantaged groups without challenging the underlying structures that create these unfair conditions. This discourse would likely include mentions of increasing the safety for women working in the energy sector or preventing harassment and assault.

Managerial-Structural Approaches

Discourses aiming for structural change include those using socialist feminism and post-colonial feminism. Liberal feminism cannot be applied to structural approaches, as structural approaches desire changes outside the scope of liberal ideology. Similarly, structural approaches

to just transitions are outside the range of changes typically advocated for in gender mainstreaming efforts. Many of the discourses in this category can be both managerial and structural, with each variation explained below.

Policy Design Discourse. The policy design discourse addresses how current policies related to climate issues may worsen gender inequality if they do not explicitly address gender issues. The goal of the policy design discourse is to advocate for policies that actively promote gender justice by recognizing the needs of women. This discourse represents the intersection of socialist feminism and managerial or structural approaches to just transitions. Policy design discourses advocating for managerial reform do not wish to change the power structures that cause disparities in policy design, but rather aim to integrate gender concerns without changing governance structures. Policy design discourses advocating for structural reform highlight that the perpetuation of gender inequality through policy represents issues within governance structures that cannot be solved by surface-level changes, aiming to change not only the view of gender within policy but also the power structures that create disparities (Walk, 2024). The socialist approach to feminism credits gender inequality to the current economic structure and other forms of marginalization, which is mitigated through policy, something that the policy design discourse wishes to address. By advocating for increased recognition of gender issues within policy, the policy design discourse addresses issues of recognition justice.

Protection Discourse. The protection discourse is based on the idea that women are disproportionately impacted by the climate crisis and thus must be given increased resources to protect themselves. One common argument is that women are impacted more than men because of their role as caregivers and food providers. Protection discourses represent managerial or structural reform and socialist feminist thought. Socialist feminist thought addresses issues of

exploitation, where women are exploited for unpaid care work, resulting in lower economic positions. Solving this problem from a structural approach requires deep-rooted change, where the redistribution of resources and power can address systemic inequalities. When applying this discourse to energy transitions, it would advocate for female ownership of energy production across the supply chain. The managerial approach to the protection discourse still focuses on redistributive energy resources but puts less emphasis on the power structures that cause the inequality in the first place. This discourse advocates for a form of distributive justice, where the distribution of energy resources toward women is increased.

Participation Discourse. The participation discourse focuses on women's underrepresentation in climate-related decision-making and knowledge production processes. Actors utilizing this discourse argue that women's perception of their ability to address climate crises, as well as their levels of participation and authority within decision-making spaces, must increase (Walk, 2024). This discourse category stems from the intersection of just transition structural reform approaches and post-colonial feminist theory. The participation discourse aims for structural reform by addressing issues of procedural and recognition justice; instead of simply focusing on the distribution of jobs, this discourse brings attention to the processes that result in unequal distribution. A major emphasis within the participation discourse is that the knowledge and experiences of women are not valued, bringing in post-colonial feminist critiques of the marginalization of knowledge and the need to diversify perspectives.

Transformative Approaches

Transformative gender-just discourses involve what Lieu et al. (2020) refer to as a double transformation, a socio-technological shift in energy systems, as well as a shift in gender hierarchies and the status of women. Transformative discourses include previously marginalized

groups, and at times move the discussion of gender beyond women to take an intersectional approach (Lieu et al., 2020). Because of the transformative desire for transformative approaches to just transitions, only post-colonial feminism and ecofeminism can be applied. In Walk's (2024) framework, transformative approaches are seen as a single discourse, but for the purposes of this project, they are categorized based on the feminist framework used.

Global Discourse. The global discourse represents the intersection of transformative approaches to transitions and post-colonial feminism. This discourse sees many environmental and social issues as being caused by colonialism and seeks to create new economic and social systems at a global level, addressing histories of colonialism and continued legacies of exploitation (Piedalue and Rishi, 2025). The global discourse highlights the interconnectedness of environmental issues around the world, as well as the connections between the domination of women globally. The global narrative does not view gender as an individual issue, but rather one fundamental to the current political and social system, requiring transformative change.

Nature Discourse. The nature discourse stems from the intersection of transformative approaches to transitions and ecofeminism and can be seen as the most radical of all discourses. The nature discourse seeks to harmonize social, economic, and environmental systems by changing the relationship between humans and nature, and in turn between humans themselves. As with the global discourse, the nature discourse does not take an individualistic view of gender, but rather one rooted in various social structures of domination, requiring transformative change.

CHAPTER 6: METHODOLOGY

The basis of this study comes from the selection of categories and associated NGOs used for analysis. King et al. note that the best intentional research designs are based on selecting cases that demonstrate variation in the explanatory variable, without attention to the value of the dependent variable (King et al., 1994). In this research design, the explanatory variables are the type of organization being analyzed- either labor organizations, think tanks, environmental groups, business associations, or philanthropic groups- and the dependent variable is the type of narrative being utilized, using the eight potential narrative categories laid out previously. When selecting cases, I did not focus on the type of narrative being used, as this will not be known until the data collection process is complete. The goal, therefore, is to select categories as well as organizations that represent both variety in the type of civil society represented and prominence within the NGO sector in order to get a holistic picture of the breadth of ways that gender is discussed in connection to renewable energy by non-governmental organizations.

When deciding which categories of NGOs to analyze, numerous dimensions of energy-related gender inequality that were highlighted in this thesis were considered. Issues constraining the advancement of gender within renewable energy transitions include a lack of funding, a lack of knowledge on the issue, the role of markets, and competing concerns within the energy transition. Additionally, energy transitions present a variety of potential negative impacts to workers, communities, corporations, and the environment. These issues resulted in the selection of five categories of NGOs that can work to address the problems: philanthropic organizations- with the ability to address funding issues, think tanks- with the ability to produce knowledge, business groups- with the ability to balance competing market concerns, labor groups- with the

ability to represent workers, and environmental groups- with the ability to represent the environment. Without understanding how each of these groups views the issue of gender integration in new energy systems, no clear consensus on ways to move forward can be found.

Along with the desire to have variety in the types of organizations and thus segments of civil society analyzed, prominence is important for specific actors. The categories previously mentioned are broad and encompass a variety of political and social ideologies, meaning viewing them as homogenous groups would be misleading. When selecting specific organizations within each category, the goal is to represent the range of viewpoints within the various categories of NGOs. Selecting NGOs that are prominent within their respective sector is important for the potential to create change in the future, as prominent NGOs are more likely to influence policy processes. Because issues of gender equality are more commonly associated with democratic political viewpoints, most of the organizations selected lean center or left. The goal of the research project is not to analyze all types of NGOs, but to analyze those that address gender within critical mineral transitions, making many right and far-right organizations incompatible with the study. With these goals in mind, two to four organizations were selected within each category, based on their prominence and the presence of a report that connects gender to renewable energy transitions within the organization. Based on these criteria, fourteen organizations were selected for analysis.

The environmental category consists of the Sierra Club, the Environmental Defense Fund, and the Climate Justice Alliance. The Sierra Club describes itself as the most historic grassroots environmental organization in the country. For 130 years, the organization has worked with activists and volunteers, taking part in thousands of events and gaining millions of petition signatures (Sierra Club, 2025). The Environmental Defense Fund represents another prominent

environmental organization, created in 1967 by a group of scientists and lawyers. The Environmental Defense Fund refers to itself as one of the world's top environmental organizations, focusing on scientific solutions to climate change (EDF, 2025). Formed in 2013, the Climate Justice Alliance is the newest of the environmental organizations being analyzed, with the goal of uniting organizations and frontline communities. The organization represents an alliance of 95 communities and organizations, and focuses on issues related to just transition, energy democracy, and education (CJA, 2025). Taken together, the organizations selected within the environmental organization represent some of the most prominent environmental organizations in the country, while also examining a newer and potentially more progressive organization.

The second category of labor organizations consists of the American Federation of Labor and Congress of Industrial Organizations (AFL-CIO), the Blue-Green Alliance, and the Climate Jobs National Resource Center. The AFL-CIO is a federation of 63 labor unions, representing almost 15 million workers and focusing on issues such as safe jobs and equal opportunities (AFL-CIO, 2025). Created in 2006 through the partnership of the Sierra Club and the United Steelworkers, the Blue-Green Alliance unifies labor and environmental groups. The goal of the group is to reject the false narrative that good jobs and environmental protection cannot go hand in hand (BGA, 2025). Founded in 2020, the Climate Jobs National Resource Center is a labor organization working to address climate change, create union jobs, and reverse inequality (CJNRC, 2025). Together, the labor group consists of prominent organizations, some of which have goals specific to the environment.

The philanthropy group only consists of two organizations, the Bloomberg Foundation and the Just Transition Finance Lab. The Bloomberg Foundation, a part of Bloomberg

Philanthropies, focuses on five issue areas: the arts, education, the environment, government innovation, and public health (Bloomberg Philanthropies, 2025). The Just Transition Finance Lab is a new organization, launched in 2024, aimed at transforming the global economic system to achieve environmental goals (Just Transition Finance Lab, 2025). The two organizations selected represent both a prominent and traditional philanthropic organization, as well as an emerging organization with more radical goals.

The third category, business organizations, consists of the American Clean Power Association and the American Council on Renewable Energy. The American Clean Power Association is a group of companies within the clean energy industry, including solar, wind, storage, clean hydrogen, and transmission companies, as well as manufacturers, developers, and corporate purchasers. The goal of the association is to expand clean energy throughout the United States (ACP, 2025). The American Council on Renewable Energy is another group of corporations, representing the entire clean energy value chain. The goal of the organization is to promote and defend policies needed for clean energy growth (ACORE, 2025). Together, the two organizations are representative of the variety of business interests involved in the transition to renewable energy.

The last category, think tanks, consists of the World Resources Institute, the Center for American Progress, Resources for the Future, and the Heritage Foundation. The World Resource Institute is an independent research organization founded in 1982 that aims to contribute to change across food, water, and energy systems (WRI, 2025). The Center for American Progress is another independent research institute, intending to improve lives through progressive ideas and a focus on the environment (CAP, 2025). Resources for the Future is also an independent research organization, focusing on the environment, energy, and natural resources (RFF, 2025).

The last organization, the Heritage Foundation, is included based on its recent increased prevalence within the policy creation process. The Heritage Foundation is a conservative policy research organization, advocating for free enterprise, limited government, and individual freedom (Heritage, 2025). This think tank category includes a variety of prominent research organizations, some of which have goals directly in line with just energy transitions, and others have goals fundamentally different than those of just transitions, creating insight into how the issue is framed within different ideological perspectives.

After selecting organizations based on their prevalence in each category of NGOs and their focus on gender within renewable energy transitions, I found specific sources within each. The criteria for including sources were based on whether they mentioned the terms 'gender' or 'women', in connection with renewable energy transitions. Because the topic of gender within renewable energy transitions is so nuanced, most organizations have only one document discussing the issue. In that case, the source selection process is simple, as there is only one option. In other cases, with multiple applicable reports, the one discussing the broadest range of issues is utilized, as the discourses used did not change between documents within the same organization but were rather expanded upon in lengthier documents.

The analysis of the sources selected from each organization is done by evaluating how the stories of women, or gender more broadly, are presented within energy transitions. The theoretical framework guiding this study identifies specific themes to examine within each document, as each discourse presents a unique account of the problem and its solution. Much of the methodology behind this study stems from the theoretical framework, as it provides guidance on what to look for while conducting the discourse analysis, as well as the backgrounds and implications of each type of discourse. The codebook below contains phrases and concepts to

look for within each discourse category. Assuming that different organizations use different types of language, the documents are read holistically to ensure that all context is understood, and no concepts are missed because of the use of different terms.

Additionally, reading the documents in their entirety is important because some of the terms in the codebook are present in various discourses, and context must be considered to determine which discourse is being used. For example, the term distribution is seen within both the opportunity and protection discourse, but it refers to different things. The term distribution, used within the opportunity discourse, refers to the distribution of educational and workforce opportunities for women, while in the protection discourse, distribution refers to energy resources. Reading the entirety of the documents ensures that the concepts are understood within the appropriate context. The presentation of the issue, as well as the solution, will be examined within each document. Examining the two as separate discourses is important, as organizations may not have a cohesive view of gender within renewable energy transitions, and issues and solutions may not align. Examples of terms seen in the codebook will be provided with each source, as well as a summary of the holistic story being told about women in renewable energy transitions.

Table 1: Codebook

	Issue	**Solution**
Compensation	**ALL types of workers will lose jobs** "all workers" • "job loss" • "coal industry" • "industry shutdown" • "displaced"	**Compensation for lost jobs** "compensation" • "job (re)training" • "job benefits" • "reskilling" • "financial assistance"
Care	**Women are burdened by male job loss- themes surround secondary impacts** "care work" • "increased burden" • "supplement income" • "repercussions" • "job loss (men)"	**Compensation for care work** "reduce burden" • "childcare assistance" • "all members" • "family" • "households" • "community"

Opportunity	**Women benefit less from opportunities associated with RET because of male domination- themes surround education and work** "benefits" • "burdens" • "unfair" • "employment levels" • "opportunities" • "(under)representation" • "male-dominated" • "barriers" • "distribution" • "discrimination" "pay gap" • "disparities" • "sector" • "market"	**Removing barriers to education and jobs** "increase opportunities" • "remove barriers" • "STEM" • "education" • "recruitment" • "training" • "advancing" • "loans" • "workforce development" • "equal distribution" • "promotion" • "number of jobs" • "bargaining" • "transparency" • "access" • "apprenticeship" • "hire"
Condition	**Women are marginalized and exploited, creating worse working conditions- themes surround work conditions** "unsafe" • "harassment" • "assault" • "work conditions" • "violence" • "hazardous"	**Better working conditions for women** "safety" • "labor rights" • "job quality" • "accommodations"
Policy Design	**Current policies worsen gender inequality- themes surround policy** "policies" • "policy design" • "reinforcing" • "structural" • "gender-neutral" • "neoliberal" "bias" • "regulation" • "tax" • "budget"	**Integrate and recognize the needs of women** "recognition" • "integrate" • "represent" • "identify" • "eliminate" • "address" • "incentivize"
Protection	**Women are disproportionately impacted by climate crisis as role as caregivers- themes surround climate change vulnerability** "disproportionate impact" • "caregivers" • "food providers" • "climate change" • "vulnerable" • "energy burden" • "energy poverty" • "resource managers"	**Redistribute energy resources to increase resilience** "protect" • "redistribute" • "resilience" • "decentralized" • "distributed" • "energy access"
Participation	**Women are underrepresented in energy decisions and knowledge production- themes surround participation** "underrepresentation in decision-making" • "participation" • "perceptions" • "authority" •	**Increase participation and perception of abilities** "increase participation" • "increase authority" • "diverse/unique perspectives" • "inclusion" • "participation" • "planning" • "engaging" • "leadership"

	"knowledge" • "experiences" • "viewpoints"	
Global	**Connections between domination of women globally and history of colonialism- themes surround global systems** "domination" • "exploitation" • "colonialism" • "global systems" • "oppression" • "economy" • "patriarchy" • "white supremacy" • "historic" • "profit-driven" • "immigration status" • "empire"	**New global social and economic systems** "transformation" • "decolonize" • "reclaim" • "liberate" • "relationships" • "community" • "cultures" • "reparations" • "localization"
Nature	**Women are dominated in similar ways to nature- themes surround nature** "domination" • "exploitation" • "nature" • "relationship" • "ecological" • "biodiversity" • "laws of nature"	**Change human nature relationship** "transformation" • "harmony" • "regeneration"

Hypotheses

Within environmental discourses, humans are often dealt with as an encompassing category, with few discourses further differentiating groups based on gender or social class (Dryzek, 2022). Discussing the gender-specific impacts of renewable energy transitions, therefore, represents an important step forward within environmental discourses. Even with increasing mentions of gender within environmental discourses, researchers must be cautious, as greenwashing and hollow commitments to sustainability and justice are common (Dryzek, 2022). With these caveats in mind, the results from Walk's 2024 study can help in the creation of hypotheses related to the discourses used by various types of NGOs.

In her study, Walk (2024) finds that the most common narratives used by *civil society actors* include (1) the participation narrative, (2) the policy design narrative, and (3) the protection narrative. According to Walk (2024) *researchers* most used (1) the participation narrative, (2) the policy design narrative, and (3) the opportunity narrative. *Business groups* most

commonly use (1) the opportunity narrative and (2) the participation as well as policy design narratives. The last applicable finding is that *union groups* utilized (1) the opportunity narrative and (2) the participation narrative. These findings can be applied to this study, as it could be expected that the groups analyzed by Walk would use consistent discourses among actors within that category. Walk's category of civil society represents both the groups of environmental NGOs and philanthropic organizations in this study. The category of researchers discussed by Walk represents the think tanks being analyzed in this study. The category of business groups is the same in Walk's study as in this study. Lastly, Walk's category of unions represents the group of labor organizations being analyzed in this study. I hypothesize that the discourses used by groups of actors remain consistent, meaning the top narratives found in Walk's study for each group would also be seen within this study.

Along with the hypothesis that Walk's findings will apply to the new cases in this study, I also hypothesize that the compensation and opportunity discourses will be most common. This hypothesis is based on the idea presented by Dryzek, that oftentimes groups will 'greenwash' their activities, which in this case would mean mentioning gender without proactively addressing the associated inequalities. Baruah (2017) presents a similar argument, stating that many policies advocating for gender equality are positivist and linear: "they do not seek any special privileges for women, and simply demand that everyone receive consideration without discrimination on the basis of gender". This suggests that most organizations would utilize the compensation and opportunity discourses, rather than more radical approaches.

CHAPTER 7: DATA AND RESULTS

To complete my analysis, each document is read in its entirety, looking for connections between gender and renewable energy. Not all sources have clear connections, but by reading the entire documents, gender-just discourses were found. The top discourse used across the various categories of actors is the opportunity discourse. The opportunity discourse is used by 8 of the 14 organizations and represents the top discourse for labor organizations, business organizations, and think tanks. This finding is in line with my hypothesis, as I hypothesized that the most common discourses would be the compensation and opportunity discourses, as they are the least radical. The opportunity discourse being the most common signifies that organizations are paying attention to the inequalities that women face and attempting to mitigate these inequalities in the job sector but are not pursuing deeper structural changes. The general results of the analysis are presented in Table 1.

Table 2: General Results

Category	**Top Discourses**
Environment	Protection
Labor	Opportunity
Philanthropy	Care/Condition
Business	Opportunity
Think Tanks	Opportunity

Along with the opportunity discourse being the most prevalent across categories, the protection discourse is the most common within environmental organizations. This signifies that of all the organization categories, environmental groups are striving for the most change and attempting to move beyond gender mainstreaming approaches. The philanthropy category is the most dissimilar from the other categories, with the top discourses including the care and

condition discourse. These discourses represent low levels of change, with the care discourse not being concerned with justice issues, and the condition discourse being considered a gender mainstreaming approach. These general results are presented below in Image 2, providing a visual representation of the range of discourses used most frequently by each type of organization.

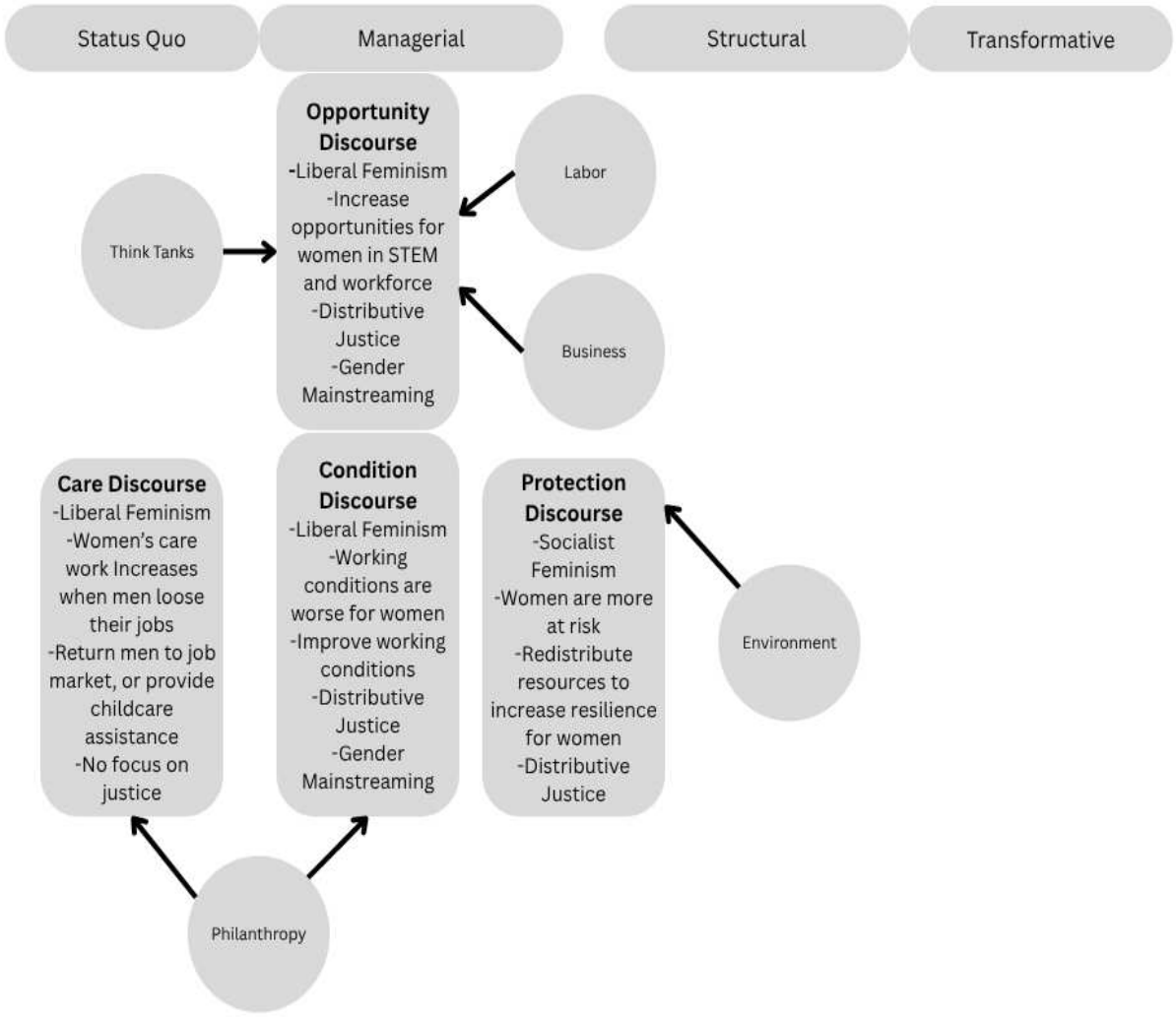

Figure 2: General Results Diagram

In the following sections, each category of NGOs, as well as each specific organization, is discussed in detail. Each hypothesis is discussed in its appropriate category, with a summary of the hypotheses and findings presented in Table 2.

Table 3: Hypotheses vs Findings

Hypotheses	**Finding**
Top Discourses Overall: Compensation and Opportunity	Top Discourse Overall: Opportunity
Environmentalists: 1) Participation 2) Policy design 3) Protection	Environment: Protection
Philanthropy: 1) Participation 2) Policy design 3) Protection	Philanthropy: Care/Condition
Researchers- Think Tanks: 1) Participation 2) Policy design 3) Opportunity	Think Tanks: Opportunity
Business: 1) Opportunity 2) Participation/ Policy Design	Business: Opportunity
Labor Unions: 1) Opportunity 2) Participation	Labor: Opportunity

Environmental Organizations

The top discourse used by environmental organizations is the protection discourse, with two of the three organizations utilizing it, demonstrating the most radicalism of any category of NGOs being analyzed. The focus on the protection narrative by environmental organizations is logical, as it addresses the disproportionate impacts of climate change specifically. Other discourses evident amongst environmental organizations are the opportunity discourse, the participation discourse, and the global discourse, demonstrating one of the most diverse groups being analyzed. Based on Walk's (2024) study, which found that the top discourses used by civil society include the participation discourse, the policy design discourse, and the protection

discourse, I hypothesized that environmental organizations would follow the same pattern. The protection narrative being the most common within environmental organizations falls in line with Walk's (2024) findings, demonstrating that this is a common discourse within civil society actors addressing gender in renewable energy transitions. The participation discourse, found by Walk (2024) to be prominent in this category of organizations, is also used in the sources I analyzed. The policy design discourse, on the other hand, is not used by the environmental organizations in this analysis. Rather, the remainder of the discourses used include the opportunity discourse and the global discourse. The lack of a policy design narrative is surprising, as Walk's (2024) study found that it is the second most common discourse used by civil society actors.

The discourses used by each organization will now be discussed in detail, with Table 3 summarizing the findings.

Table 4: Environmental NGO Results

Organization	Top Narratives	Example
Sierra Club	1) Protection	1) "1.3 billion people live without access to electricity. . . 70% are women" "Off-grid renewable energy technologies, such as solar, are already helping women become more resilient" pg. 1.
Environmental Defense Fund	1) Opportunity 2) Participation 3) Protection	1) "Promotion of equity initiatives- Minimum requirement: Gender equity in training programs and employment.- >90% stakeholder satisfaction with gender and racial equity in training programs and employment" p. 16 2) "Inclusion of previously marginalized groups: Share of women and other marginalized groups participating in decision-making forums/ platforms related to the just transition" p.20 3) "Distributive justice- equity and fairness: burdens and benefits of JT should be equitable distributed, taking gender equity into account" p.5
Climate Justice Alliance	1) Global	1) "The profit-driven industrial economy rooted in patriarchy and white supremacy

		is severely undermining the life support systems of this planet" p.3; "Just Transition must actively work against and transform current and historic social inequities based on race, class, gender, immigrant status and other forms of oppression" p.5

The Sierra Club

The Sierra Club, one of the most well-known environmental organizations in the United States, uses the protection discourse in its factsheet "Addressing Global Gender Equity and Clean Energy Access" (Sierra Club, 2017). Because of the organization's size and prominence, I am surprised to find that the organization has only one single-page document discussing gender in connection to renewable energy. The document starts by highlighting numerous statistics regarding gender and energy, such as the fact that 70% of people living without access to energy are women. The Sierra Club connects this lack of electricity to maternal mortality, as well as to the care work and household chores that many women are responsible for. According to the factsheet, the goal is to help women become more resilient in light of struggles to access energy. Solutions offered by the organization include decentralizing energy systems to fight energy poverty and increase resilience in women without access to grid-based electricity. The report lists several case studies highlighting the improvement of women's lives after receiving access to energy, citing improvements in earnings and time spent on chores.

The discourse used by the Sierra Club is a clear example of protection, citing the ways in which women are disproportionately impacted by the climate crisis, and aiming to increase their resilience through the equitable distribution of energy resources. Aspects of the participation discourse are seen within the report, discussing the inclusion of women in planning processes, but with the goal of gaining the unique perspective of "primary resource managers." This

distinction is in line with the protection discourse, rather than the participation discourse, as the goal is to gain the perspective of women based on their role as caregivers, not because of overall concerns over access to participatory processes.

Environmental Defense Fund

The Environmental Defense Fund utilizes a large range of discourses in its report "Just Transitions and Safeguards Framework" (EDF, 2024). These discourses include the opportunity discourse, the participation discourse, and the protection discourse, with the opportunity discourse being the most prevalent. The main connection between gender and renewable energy is that the burdens and benefits of transitions should be equitably distributed, taking gender equity into consideration (p.16). This represents both an opportunity and protection discourse, as the distribution of benefits falls under the opportunity discourse, while the distribution of burdens falls under the protection discourse. While the protection discourse and distribution of burdens are acknowledged when describing the problem, solutions are described within the opportunity discourse, as well as the participation discourse. Solutions presented in the report include the promotion of equity initiatives that require gender equity in training (p.16), as well as job creation, disaggregated by gender (p.20). Additionally, the report uses the participation discourse, suggesting that the share of women participating in decision-making processes related to just transitions should increase (p.20).

The Environmental Defense Fund utilizes a variety of discourses, with the most common being the opportunity discourse. Because the report is aimed at outlining just transition strategies, the goal is to advance all types of justice used within just transition approaches, and therefore requires the use of multiple discourses or a transformative discourse. With

transformative discourses advocating for profound changes in society, combining numerous other discourses may be more realistic for organizations hoping to achieve change.

Climate Justice Alliance

The Climate Justice Alliance utilizes the global discourse in its article "Just Transition Principles" (CJA, 2017). Connections made between gender and just renewable energy transitions surround global systems of inequality, arguing that "After centuries of global plunder, the profit-driven industrial economy rooted in patriarchy and white supremacy is severely undermining the life support systems of the planet. Transition is inevitable. Justice is not." (p.3). This statement connects current gender inequalities, as well as the current environmental crisis, as rooted in systemic, global processes of patriarchy, capitalism, and white supremacy. When discussing how to address this problem, the Climate Justice Alliance states that "Just Transition must actively work against and transform current and historic social inequities based on race, class, gender, immigrant status, and other forms of oppression" (p.5) More generally, the article argues that "to liberate the soil and to liberate our souls we must decolonize our imaginations, remember out way forward and divorce ourselves from the comforts of empire" (p.3), highlighting the radicalism of their vision.

Despite not expecting to see transformative discourses used by NGOs in this study, the discourse used by the Climate Justice Alliance is representative of the global discourse, where post-colonial feminism and transformative approaches to just transitions interact. The emphasis on global processes such as patriarchy, capitalism, colonialism, and white supremacy is representative of post-colonial feminist thought, and the goal of transforming these systems and combating oppression represents transformative just transitions. The Climate Justice Alliance is

the only organization within this analysis that utilized, or came close to utilizing, a transformative discourse.

Labor Organizations

The top discourse used by labor NGOs is the opportunity discourse, with all three labor organizations utilizing it. The use of this discourse by labor organizations is logical, as both the discourse and the organizations focus on workers and opportunities for good employment. The other discourses used in this category include the policy design narrative and the protection narrative. Based on Walk's (2024) study, which found that labor organizations most commonly used the opportunity the participation discourse, I hypothesized that the labor organizations in my analysis would do the same. The opportunity discourse being the most common supports Walk's findings, but the prevalence of the policy design and protection discourse is not seen in Walk's study. The participation discourse, found to be prominent within labor organizations by Walk, is not used by any of the organizations in this analysis.

The discourses used by each organization will now be discussed in detail, with Table 4 summarizing the findings.

Table 5: Labor NGO Results

Organization	Top Narratives	Example
AFL-CIO	1) Policy Design 2) Opportunity	1) "Traditional macroeconomic and trade policies ignore structural barriers that impact women's ability to enter and compete fairly in the labor market, reinforcing unequal outcomes" p.5. "Macroeconomic policy making must identify and eliminate gender biases" p.4. 2) Women particularly are underrepresented in the industrial sector, which accounts for more than a quarter of all male employment worldwide, but only 16% of female employment." p.7. "Governments, employers, unions and civil society

		organizations should all encourage more women in leadership positions" p. 15
Blue-Green Alliance	1) Opportunity	2) Women and people of color are significantly underrepresented in the infrastructure occupations most likely to face labor shortages" p. 10. "Demographic findings underscore a significant need to diversify the infrastructure workforce by recruiting, retaining, and advancing women and people of color who have been underrepresented in occupations facing labor shortages" p.11
Climate Jobs National Resource Center	1) Opportunity 2) Protection	1) "The Rhode Island Public Transit Authority should invest in expanding the total number of jobs and access to good jobs for women and workers of color, who are historically underrepresented in public sector employment" p.38 2) The disproportionate impact that these events have on the most vulnerable in our society -- women, children, the elderly, immigrants, low-income families, and communities of color -- is a reminder that our plans to address climate change must also lift working families and frontline communities to reverse growing social and economic inequality" p.1.

AFL-CIO

The top discourse used by the AFL-CIO in its report "Transforming Women's Work: Policies for an Inclusive Economic Agenda" (AFL-CIO, 2016) is the policy design discourse, followed by the opportunity discourse. While the report is not specific to renewable energy, it does focus on sustainable development and is related to the development of renewable energy systems. The majority of the discussion detailing the connection between gender and

development policies is related to various forms of policy, with the report referencing economic, trade, and employment policies that have negative impacts on women. Specifically, the report states that "Economic policy too often adheres to a vision of development that assumes maximizing economic performance through free-market capitalism automatically will result in equitable growth. That model ignores the structural barriers women face, and often works at cross-purposes with gender equality and other human rights." (p.4). Additionally, the report argues that traditional trade policies are drivers of precarious and unsafe employment opportunities for women (p.4), connecting the policy design discourse with the opportunity discourse also seen in the report.

The report goes on to highlight statistics demonstrating how women do not have the same opportunities as men within development processes, stating that women are underrepresented in the industrial sector, and that the gender wage gap is widening in the sector (p.7), again demonstrating the opportunity discourse. Solutions offered in the report within the policy design discourse include creating economic and microeconomic policies that "remove structural barriers to the realization of women's rights" (p.3), and that policy "must identify and eliminate gender biases" (p.4). Opportunity-discourse-based solutions presented in the article include worker organizing to allow women to fight against discrimination in the workplace (p.7), as well as addressing gender specific barriers within education and employment training programs (p.17). Based on the analysis of this report, the AFL-CIO largely frames gender within renewable energy transitions through the policy design discourse, emphasizing the structural inequalities created by current policies, while also utilizing the opportunity discourse, advocating for specific gender-inclusive changes in the job sector.

Blue-Green Alliance

The Blue-Green Alliance uses the opportunity discourse in its report "Unprecedented Opportunity: Meeting the Workforce Demands of New Clean Energy, Manufacturing, and Infrastructure Investments" (BGA, 2024). The issue is described as women being underrepresented in the infrastructure sector, making up only ten percent of the workforce in some occupations (p.10). Similarly, the solutions offered include increasing investments in training and educational programs for women, as well as increasing the recruitment and advancement of women in the workforce through industry partnerships and local hiring initiatives (p.11). The discourse categorization for this report is fairly straightforward, as the report itself is directed at meeting the workforce demands of a clean energy transition. Overall, this represents a weak version of the opportunity discourse, as many of the drivers behind increasing women's participation are meeting workforce demands, rather than increasing opportunities for women for the sake of justice.

Climate Jobs National Resource Center

The Climate Jobs National Resource Center's most-used discourses, based on its report "Building a Just Transition for a Resilient Future: A Climate Jobs Program for Rhode Island" (CJNRC, 2022) are the opportunity and protection discourses. When describing the problem, the Climate Jobs National Resource Center uses the protection discourse, stating that climate change has a disproportionate impact on women and that efforts to address climate change should work to reverse social and economic inequalities (p.1). While the protection discourse would emphasize increasing the resilience of women through the equitable distribution of energy resources, the Climate Jobs National Resource Center utilizes the opportunity discourse when framing solutions, emphasizing job opportunities for women. Solutions presented in the article

include investing in and expanding good jobs for women and workers of color within the public transit sector (p.38).

The Center utilizes a combination of discourses, presenting the problem through the protection discourse, emphasizing women's vulnerability, and presenting the solution through the opportunity discourse, increasing opportunities for women to obtain good jobs. The use of the protection narrative to describe the problem demonstrates a structural understanding of the issue. Despite this, the solutions offered are based on the opportunity narrative, no longer addressing the structural dynamics acknowledged by the protection discourse and returning to traditional gender mainstreaming approaches.

Philanthropic Organizations

The top discourses used by philanthropic organizations are the care and condition discourses. With only two organizations in this category, one discourse is used by each. Based on Walk's (2024) findings, I hypothesized that philanthropic organizations would utilize the participation, policy design, and protection discourses. The findings of this analysis were not in line with Walk's findings, as the care and condition discourses were added for this thesis. The utilization of the care and condition discourses makes the philanthropic NGO category the least radical of all organization groups in the analysis.

The discourses used by each organization will now be discussed in detail, with Table 5 summarizing the findings.

Table 6: Philanthropic NGO Results

Organization	Top Narratives	Example
Bloomberg Foundation	1) Care	1) Direct female employment in coal mining is low, but coal-related job losses have major repercussions for women in the community" p.186. "Historically, during and after coal transitions, more women have entered the labour market in order to

		supplement household income. . . Interviews also show that men losing jobs in coal mining are reluctant to take up domestic chores. . . In light of this there is a case during coal transitions for governments to provide additional childcare services" p.185
Just Transition Finance Lab	1) Condition	1) "Gendered violence against local communities has also been linked to extractive activities" p.8. "The labour rights of people working in the mining sector must be centered in a just transition which has the delivery of decent work at its heart. This includes. . . occupational health and safety. . . and exercising a cross-cutting imperative of gender equality and women's empowerment" p.9.

Bloomberg Foundation

The top discourse used by the Bloomberg Foundation in its report "Coal in Net Zero Transitions: Strategies for Rapid, Secure, and People-Centered Change" (International Energy Agency, 2022) is the care discourse, being the only organization in the analysis to use the care discourse. The report is published by the International Energy Agency, with the Bloomberg Foundation serving as the chair of the high-level advisory committee. Additionally, the report is found in the publication section of the Bloomberg Philanthropies website. When describing the connection between energy transitions and women, the Bloomberg Foundation discusses how, after men lose their jobs, women must enter the workforce into low-paying jobs while still maintaining responsibility for domestic chores (p.185). The report states that women represent a low percentage of those working in the coal sector, resulting in women being left out of other discussions. The solution offered for women whose husbands lose their jobs is for governments to provide additional childcare and career services for the members of coal miner households (p.185).

The care discourse used by the Bloomberg Foundation differs from the compensation discourse, another liberal-status quo approach, in that women are not being compensated for their own job losses, but rather for the increased care responsibilities associated with males in their family losing their jobs. This discourse does not see women as active participants in energy systems, but rather as caregivers, allowing men to participate in energy systems. While this report discusses coal transitions, renewable energy transitions are also likely to result in job losses in response to technological change, and it can be expected that the Bloomberg Foundation will have the same approach to women in various types of energy transitions, as women also represent a low percentage of workers in other energy sectors.

Just Transition Finance Lab

The top discourse used by the Just Transition Finance Lab, in its report "Unjust Minerals: investing in the changes needed for a just the changes needed for a just transition in the mining sector" (Just Transition Finance Lab, 2024) is the condition discourse, being the only organization to use the condition discourse. When framing the issue of gender within renewable energy transitions, the Just Transition Finance Lab discusses how extractive activities are linked to gendered violence (p.8). The solution for this gendered violence is presented as addressing labor rights, including "occupational health and safety, social protection and social dialogue, and exercising a cross-cutting imperative of gender equality and women's empowerment" (p.9).

The Just Transition Finance Lab is representative of the condition discourse, rather than the protection discourse, because of the focus on unequal working conditions associated with mining, rather than the unequal impacts of climate change itself. The gendered violence associated with the mining sector is representative of the marginalization and exploitation of

women, as described in the condition discourse. Addressing this issue through occupational health and safety initiatives is once again a direct reflection of the condition discourse.

Business Organizations

The top discourse used by business organizations is the opportunity discourse, with both organizations using it. Business organizations' use of the opportunity discourse is logical, as it focuses on market-based opportunities. I hypothesized, based on Walk's (2024) findings, that the business organizations would use the opportunity, participation, and policy design discourses. The prevalence of the opportunity narrative is therefore in line with Walk's findings, with the lack of a participation and policy design discourse going against Walk's previous findings.

The discourses used by each organization will now be discussed in detail, with Table 6 summarizing the findings.

Table 7: Business NGO Results

Organization	Top Narratives	Example
American Clean Power	1) Opportunity	2) In clean energy, and in the industry overall, women make up just 30% of the workforce" p.5 The clean power industry's commitment to doing better starts with building pipelines of diverse candidates through enhanced recruiting efforts. It will take a concerted and targeted approach to reach communities and groups that have been traditionally underrepresented — including all genders, ethnicities, sexual orientations, disability status, and veteran status." 20
American Council on Renewable Energy	1) Opportunity	2) MWBEs (minatory-and-women-owned business enterprises) are especially underrepresented at the manufacturing sector, with women-owned businesses (WBEs) representing less than seven prevent of U.S. manufacturing firms" p.7. "Enhance economic development grant and loan programs for business expansion and technical assistance to MWBEs looking to

		enter the renewable energy and battery storage markets" p.17

American Clean Power

The top discourse used by American Clean Power in its report "Energy Transitions for All" (ACP, 2022) is the opportunity discourse. When framing the connection between gender and renewable energy transitions, the report highlights statistics such as the fact that women only make up 30% of the clean energy industry, while only making up 22% of leadership teams, and 15% of corporate boards (p.5). The report also discusses how many women-owned businesses struggle to access capital and federal certifications (p.16). The solutions presented in the article are also in line with the opportunity narrative and include targeted recruiting efforts "including all genders" (p.20), as well as professional development programs to create pathways for diverse candidates to enter leadership positions.

The issues and solutions described in the American Clean Power report are representative of the opportunity discourse. However, there are instances in the report where the organization states that structural changes are needed. This signifies that the organization acknowledges the deep-rooted nature of the problem, but the solutions offered in the report do not reflect this view and are limited to traditional gender mainstreaming approaches.

American Council on Renewable Energy

The top discourse used by the American Council on Renewable Energy, in its report "Opportunities to Diversify the U.S. Renewable Energy Manufacturing Supply Chain: A Guide for the Utility Scale Solar, Wind, and Battery Storage Industries" (ACORE, 2022), is the opportunity discourse. When describing the problem, the report highlights how minority and

women-owned business enterprises are unrepresented in the manufacturing industry across various sectors of renewable energy, with women-owned businesses representing less than seven percent of U.S. manufacturing firms (p.7). The report discusses how these minority and women-owned businesses often face barriers in accessing capital. Solutions offered in the report include private sector initiatives to diversify the workforce, as well as increasing funding and certification programs for women-owned businesses (p.6). The report also discusses how many states already have financial incentives for renewable energy development, arguing that these should be targeted at minority and women-owned businesses (p.17).

Overall, the American Council on Renewable Energy offers a clear example of the opportunity discourse, targeting business enterprises, rather than individual women. The report highlights the current disparities in opportunity within the renewable energy sector, while also arguing that the expansion of the renewable energy sector can provide opportunities to advance careers for women.

Think Tank Organizations

The top discourse used by think tank organizations is the opportunity discourse. Other discourses used include the protection, policy design, and participation discourses, making think tanks, along with the environmental organizations, the two most diverse NGO groups. Based on Walk's (2024) findings, I hypothesized that think tank organizations would use the participation, policy design, and opportunity discourses. Therefore, the findings of this study are similar to Walk's (2024) findings, with the addition of the protection discourse.

The discourses used by each organization will now be discussed in detail, with Table 7 summarizing the findings.

Table 8: Think Tank NGO Results

Organization	Top Narratives	Example

World Resource Institute	1) Opportunity 2) Protection 3) Policy Design	1) "The share of women in the clean energy sector is consistently lower than the national average and a gender pay gap is reported" p.3. "Workforce development and training can help address the inequitable distribution of job growth and prepare disadvantaged workers to avail themselves of the influx of job opportunities that come with federal spending" p.18 2) "There is a dearth of information on the energy burden of female-headed households, while women across races and ethnicities face higher rates of poverty than their male counterparts. . . Together this suggests gender inequities should be considered in the context of high household energy burden" p.6 3) "Strategic spending and policy design can contribute to a more equitable clean energy transitions" p.2. "Within current systems and structures, there must be a refocusing in policy design and implementation on how investments can be more effective in addressing energy inequity" p.5
Center for American Progress	1) Opportunity	2) "There are also persistent disparities in workforce demographics across certain clean energy industry sectors. In manufacturing, for example, women and young workers are underrepresented, while Black and Latino or Hispanic workers are overrepresented in the lowest paying jobs." "Approach to prioritizing job quality and inclusive workforce practices at the state level, including. . . workforce development. . .embedding job quality, inclusion, and accountability."
Resources for the Future	1) Participation	1) In addition, the gender dimension of CBAs remains under-researched (Keenan et al. 2016). Female participation in agreement negotiation is a product of existing gender dynamics in the local context and culture of the organizations involved, both company and community" p.35. "Communicate regularly with the

		entire community, particularly underrepresented groups like women and youth, instead of only communicating with one person from the community or identifying a power leader and working with them" p.3
The Heritage Foundation	1) None	1) The only mention of gender is the connection to increased energy consumption and decreased maternal mortality rates.

World Resources Institute

The top discourse used by the World Resources Institute, in its report "Addressing Energy Equity in the United States: Policy Considerations for Federal Investments," (WRI, 2021) is the opportunity discourse, with the report also using the protection and policy design discourses. The problem is largely framed through the opportunity discourse, stating that without intervention, the "benefits of federal investment, particularly job creation and access to clean energy, will not be spread equitably across income groups, races, ethnicities, geographies, and gender identities" (p.2). Discussing gender more specifically, the report states that the share of women in the clean energy industry is consistently lower than the national average, and that a gender pay gap within the industry is persistent (p.3). The report lists several statistics regarding women's low levels of representation within the solar industry, as well as statistics on gender pay gaps (p.9, p.10). Bringing in the protection discourse, the report discusses how the energy burden for female-headed households is higher, highlighting the intersections between gender, race, and poverty (p.6).

Many solutions offered in the report stem from the policy design discourse, stating that various socioeconomic factors must be considered in the creation of federal policy (p.3). The report argues that "within current systems and structures, there must be a refocusing in policy design and implementation on how investments can be more effective in addressing energy

inequality (p.5). Solutions based on the opportunity discourse are also presented, including job creation targeted to women-owned businesses (p.4), and workforce development and training programs aimed at addressing inequitable job distribution (p.18). While the World Resource Institute uses the opportunity discourse the most, it utilizes a variety of discourses to address numerous aspects of gender within renewable energy transitions. Without moving into structural levels of change, the report attempts to integrate various forms of distributive justice.

Center for American Progress

In the article "Implementing America's Clean Energy Future" (CAP, 2023), the Center for American Progress uses the opportunity discourse. The report describes the problem as "persistent disparities in workforce demographics across certain clean energy industry sectors", highlighting how women are underrepresented in the manufacturing sector (p.1). The solution offered in the support is a "three-pronged approach to prioritizing job quality and inclusive workforce practices at the state level," including workforce development funding and a focus on inclusion (p.1). As the article is fairly short, those were the only discussions regarding gender and represent the use of the opportunity discourse.

Resources for the Future

The top discourse used by Resources for the Future, in its report "Community Engagement and Participatory Inclusion in Mining: Challenges, Barriers, and Opportunities," (RFF, 2024) is the participation discourse. When framing the problem, the report discusses women's exclusion from agreement processes between corporations and communities, stating that "female participation in agreement negotiation is a product of existing gender dynamics" (p.

35) that result in their exclusion. The solution offered for this problem is a suggestion to "communicate regularly with the entire community, particularly underrepresented groups like women and youth, instead of only communicating with one person from the community (p.3). The report defines participatory engagement, stating that effective and inclusive engagement is based on robust and positive relationships between communities and mining companies (p.1). The report, aimed at examining participatory inclusion in the mining sector, uses the participation discourse to discuss women and renewable energy transitions, with few instances of variation from this discourse.

The Heritage Foundation

The Heritage Foundation, included because of its recent prevalence within political processes, does not provide a comprehensive story when discussing gender and renewable energy. None of the gender-just discourses created in the framework for this thesis are present in the report "Powering Human Advancement: Why the World Needs Affordable and Reliable Energy" (The Heritage Foundation, 2023). The only mention of gender or women in the report is the connection between increased rates of energy consumption in a country and decreased rates of maternal mortality. Holistically, the report and the organization as a whole focus little on justice, emphasizing economic and development opportunities associated with energy development, rather than potential problems.

CHAPTER 8: DISCUSSION & CONCLUSION

The results of this thesis show that the most common discourse used by the NGOs analyzed is the opportunity discourse, representing a traditional gender mainstreaming approach to gender in renewable energy transitions. Jenny Stephens, a researcher who has greatly advanced knowledge on the connection between gender and renewable energy, describes the emphasis on gender mainstreaming solutions as a result of climate isolationism. Stephens' (2024) concept of climate isolationism provides insight into why organizations' efforts are often limited to inadequate gender mainstreaming approaches, connecting the limited view of the climate crisis to deeper systems of patriarchy and masculinity.

Climate isolationism stems from technological optimism (Stephens, 2024). Technological optimism, based in patriarchal systems, assumes that the climate crisis can be solved through technological innovation, limiting the need for wider social change. The technocratic perspective of climate change results in efforts to limit social issues to job opportunities and energy poverty (Lieu et al., 2020), a trend that is seen in this thesis. An example of this technological optimism on a broad scale is the case of the United States, as the U.S. is a leader in climate change technology, but a laggard in climate policy (Stephens, 2024). The result of technological optimism is a limited view of the climate crisis- climate isolationism, which emphasizes individual and technical solutions to address the symptoms rather than the causes of the climate crisis. The emphasis on individual solutions within an isolated view of the climate crisis is seen in this thesis, with the most common discourse being the opportunity discourse, which emphasizes increasing opportunities for individual women in the energy sector.

Climate isolationism ignores deeper structures of power, wealth, and inequality, meaning solutions often reinforce these systems. The limited view of the climate crisis associated with climate isolationism also restricts the possibility for transformative solutions, and limits opportunities for citizen engagement (Stephens, 2025), providing insight into why the participation and transformative gender-just discourses are not common within the organizations being analyzed in this thesis. Stephens (2024) argues that the disempowerment of communities created through climate isolationism is worsened through the continued male domination within STEM fields. The potential connection between the male domination of the STEM field and the prominence of climate isolation does represent a place of hope, as the emphasis on the opportunity narrative by NGOs works to address the male domination of the STEM and energy sectors, potentially also reducing climate isolationism.

When connecting the prominence of the opportunity discourse to the drivers behind the U.S. transition to renewable energy, the logic of its use becomes more apparent. As previously discussed, the drivers behind the U.S. transition to renewable energy are largely based on geopolitical opportunities- opportunities to fight against China's dominance, and opportunities to increase the domestic production of energy sources- rather than addressing issues related to the climate crisis. These motivations are reflected in the prominence of the opportunity discourse, addressing the equitable distribution of opportunities associated with the transition, rather than focusing on potential burdens.

While the limited scope of the opportunity narrative is not sufficient to address climate isolationism altogether, its role in diversifying the STEM fields and reducing climate isolationism as a result will be important. Additionally, the presence of some structural and transformative discourses within the organizations analyzed demonstrates that there are efforts to

move past traditional gender mainstreaming approaches. Still, the continued dominance of climate isolationism and associated policies continues to limit the possibility for the level of social change required to address gender inequality within renewable energy systems. Despite the prevalence of traditional gender mainstreaming approaches and the limited use of more radical discourses, NGOs are working to address gender within renewable energy systems, which represents important steps towards progress and provides an arena to pursue justice concerns beyond the state.

Limitations

The transition to renewable energy within the United States is a relatively new phenomenon, creating limitations for study. Most literature or initiatives are focused on issues of technological advancement or funding, with minimal attention paid to issues of gender justice. The result is that there is limited literature on the issue of gender within renewable energy transitions, and limited initiatives to address the issue. While NGO statements provide a good starting point for understanding how the issue is framed, these initiatives are new, and the organizations have yet to put many into practice. Further research on the topic will be needed once the organizations are able to act on their policy; questions of which discourses result in the most positive change will be important to address in the future. Additionally, while this thesis provides insight into the variety of discourses used by prominent NGOs, it does not examine how common each discourse is outside of the NGOs being examined. Future research would benefit from expanding the scale of analysis by including more NGOs. As the transition to renewable energy progresses, it is likely that more organizations will examine the connection between gender and renewable energy, making this thesis a strong starting point for future evaluations of NGO gender-just discourses.

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APPENDIX

Profile of Organizations

Environmental Organizations

Sierra Club- The Sierra Club describes itself as the most historic grassroots environmental organization in the country. For 130 years, the organization has worked with activists and volunteers, taking part in thousands of events and gaining millions of petition signatures. The organization consists of 64 local chapters around the country, and addresses issues of climate change, pollution, and powerful interests undermining the environment. Top priorities of the organization include retiring coal plants and protecting natural parks and monuments. The mission statement of the Sierra Club is "to explore, enjoy and protect the wild places of the earth; to practice and promote the responsible use of the earth's ecosystems and resources; to educate and enlist humanity to protect and restore the quality of the natural and human environment; and to use all lawful means to carry out these objectives." The core values of the Siera Club include anti-racism, balance, collaboration, justice, and transformation.

Website: https://www.sierraclub.org/

Document Analyzed:

Sierra Club. "Addressing Global Gender Equity and Clean Energy Access." Sierra Club, 2017. https://www.sierraclub.org/sites/default/files/program/documents/gender-equity-clean-energy-access.pdf.

Environmental Defense Fund (EDF)- The Environmental Defense Fund was created in 1967 by a group of scientists and lawyers fighting against the use of the pesticide DDT. The Environmental

Defense Fund now refers to itself as one of the world's top environmental organizations, focusing on scientific solutions to climate change. The organization's approach is based on six principles: scientific evidence, economic sustainability, powerful partnerships, climate justice, strong advocacy, and vibrant culture. The organization holds over 3.5 million members and works in over thirty countries. Current work in the United States includes advancing clean water, air, and energy in states through actions such as fighting against Trump's environmental agenda and addressing lead pipe contamination.

Website: https://www.edf.org

Document Analyzed:

EDF. (2024). *JUST TRANSITION AND SAFEGUARDS FRAMEWORK*. Environmental Defense Fund. https://library.edf.org/AssetLink/l8kw3kd8k7vjmygy4ek16m827xs0j2gw.pdf

Climate Justice Alliance (CJA)- Formed in 2013, the Climate Justice Alliance is the newest of the environmental organizations being analyzed, with the goal of uniting organizations and frontline communities. The organization represents an alliance of 95 communities and organizations, and focuses on issues related to just transition, energy democracy, and education. The main goal of the Climate Justice Alliance is to challenge the current system of extractive economies and political oppression, advocating for a just transition that considers race, gender, and class. The just transitions advocated for by the alliance are based on several principles, including zero waste, regional food systems, public transportation, clean community energy, efficient, affordable, and durable housing, and ecosystem restoration and stewardship.

Website: https://climatejusticealliance.org

Document Analyzed:

CJA. (2017). *Climate Justice Alliance Just Transition Principles*. Climate Justice Alliance.https://climatejusticealliance.org/wpcontent/uploads/2019/11/CJA_JustTransition_highres.pdf

Labor Organizations

American Federation of Labor and Congress of Industrial Organizations (AFL-CIO)- The AFL-CIO is a federation of 63 labor unions, representing almost 15 million workers and focusing on issues such as safe jobs and equal opportunities. Affiliated unions are diverse and include those for actors, pilots, government employees, teachers, farmers, electricians, athletes, nurses, and a variety of other sectors. The AFL-CIO focuses on a range of issues, advocating in eight general areas: better pay and benefits for workers, civil rights, corporate greed, gender equality, global workers' rights, immigration, infrastructure, and workplace health and safety. Currently, the AFL-CIO is advocating for the continuation of Medicaid in light of the new budget proposed by Trump.

Website: https://aflcio.org

Document Analyzed:

AFL-CIO. (2016). *Transforming Women's Work: Policies for an Inclusive Economic Agenda*. AFL-CIO. https://aflcio.org/sites/default/files/201703/1648_TransformingWomenWork_elec.pdf

Blue-Green Alliance (BGA)- Created in 2006 through the partnership of the Sierra Club and the United Steelworkers, the Blue-Green Alliance unifies labor and environmental groups. The goal of the group is to reject the false narrative that good jobs and environmental protection cannot go hand in hand, and to "fight climate change, protect the health of people and the environment,

stand against economic and racial inequality, and create and maintain good-paying, union jobs." The organization does work in nine states, including Washington, Oregon, California, Colorado, Minnesota, Iowa, Wisconsin, Michigan, and Ohio. Member organizations of the Blue-Green Alliance include the United Steelworkers, the National Resources Defense Council, the Service Employees International Union, the Union of Concerned Scientists, and other large groups.

Website: https://www.bluegreenalliance.org

Document Analyzed:

BGA. (2024). *UNPRECEDENTED OPPORTUNITY: MEETING THE WORKFORCE DEMANDS OF NEW CLEAN ENERGY, MANUFACTURING, AND INFRASTRUCTURE INVESTMENTS*. Blue-Green Alliance. https://www.bluegreenalliance.org/wp-content/uploads/2024/02/DataBrief_Infrastructure_NSC_BGA_022024.pdf

Climate Jobs National Resource Center (CJNRC)- Founded in 2020 in collaboration with Cornell University's Climate Jobs Institute, the Climate Jobs National Resource Center is a labor organization working to address climate change, create union jobs, and reverse inequality. The organization works to educate workers on and advocate for state-specific climate policies. The organization has coalitions in ten states, including Colorado, Connecticut, Illinois, Maine, Massachusetts, New York, Pennsylvania, Rhode Island, Texas, and Washington.

Website: https://www.cjnrc.orghb

Document Analyzed:

CJNRC. (2022). *BUILDING A JUST TRANSITION FOR A RESILIENT FUTURE A CLIMATE JOBS PROGRAM FOR RHODE ISLAND*. The Climate Jobs National Resource Center. https://www.cjnrc.org/wp-content/uploads/2022/02/Rhode-Island-Report-Final-2.3-Compressed.pdf

Philanthropic Organizations

Bloomberg Philanthropies- The Bloomberg Foundation, a part of Bloomberg Philanthropies, is a philanthropy group created by Mike Bloomberg that focuses on five issue areas: the arts, education, the environment, government innovation, and public health. The organization works with a variety of large organizations to conduct research and create reports, such as the World Health Organization and the International Energy Agency. The organization conducts work in 150 countries, investing billions of dollars a year in projects around the world.

Website: https://www.bloomberg.org

Document Analyzed:

International Energy Agency. (2022). *Coal in Net Zero Transitions: Strategies for Rapid, Secure and People-centred Change*. OECD. https://doi.org/10.1787/5873f7bb-en https://assets.bbhub.io/dotorg/sites/64/2022/11/CoalinNetZeroTransitions.pdf

Just Transition Finance Lab (JTFL)- The Just Transition Finance Lab is a new organization, launched in 2024, aimed at transforming the global economic system to achieve environmental goals. The lab is hosted by the London School of Economics and Political Science, and the Grantham Research Institute on Climate Change and the Environment. The goal of the organization is to create financial solutions for a just energy transition. The organization has four priorities that it addresses: financial instruments and strategies, policy and regulation, metrics, and case studies. Cutting across all these goals is a focus on stakeholder participation. The organization's focus on metrics stems from the idea that currently, there is no consensus on what 'good' looks like within transitions, addressing a underdiscussed dimension of energy transitions.

Website: https://justtransitionfinance.org

Document Analyzed:

Just Transition Finance Lab. (2024). Unjust minerals: Investing in the changes needed for a just transition in the mining sector. *The Just Transition Finance Lab & The Grantham Research Institute on Climate Change and the Envrionment*. https://justtransitionfinance.org/publication/unjust-minerals-investing-in-the-changes-needed-for-a-just-transition-in-the-mining-sector/ https://justtransitionfinance.org/wp-content/uploads/2024/08/Unjust-minerals_investing-in-the-changes-needed-for-a-just-transition-in-the-mining-sector.pdf

Business Organizations

American Clean Power Association (ACP)- The American Clean Power Association is a group of companies within the clean energy industry, including solar, wind, storage, clean hydrogen, and transmission companies, as well as manufacturers, developers, and corporate purchasers. The goal of the association is to expand clean energy throughout the United States. The associations action surround four principles: leverage- our larger geographic and economic footprint; respond- to external environment quickly; include- all sectors, business models, and aspects of the clean energy value chain; and, integrate- 501(c)(3), (c)(4), and (c)(6) for maximum impact. Partners of the association include the Clean Power Institute, American Energy Action, and state organizations from Nebraska, Iowa, California, and Texas.

Website: https://cleanpower.org

Document Analyzed: https://cleanpower.org/wp-content/uploads/gateway/2022/03/Energy_Transition_For_All_ACP_Report.pdf

American Council on Renewable Energy (ACORE)- The American Council on Renewable Energy was founded in 2001 and represents corporations across the clean energy value chain. Members of the American Council on Renewable Energy make up 90% of utility-scale clean energy growth in the U.S. The goal of the organization is to promote and defend policies needed for clean energy growth by uniting finance, policy, and technology. Currently, the organization is undergoing two initiatives, one focused on expanding the U.S. macro grid and one focused on empowering small and mid-sized clean energy companies.

Website: https://acore.org

Document Analyzed:

ACORE. (2022). *U.S. Manufacturer Diversity in the Renewable Energy industry*. American Council on Renewable Energy. https://acore.org/wp-content/uploads/2022/12/ACORE-Opportunities-to-Diversify-the-U.S.-Renewable-Energy-Manufacturing-Supply-Chain.pdf

Think Tank Organizations

World Resources Institute (WRI)- The World Resources Institute is an independent research organization founded in 1982 that aims to contribute to change across food, water, and energy systems. The organization also focuses on issues related to business, economics, equity, and finance. The organization has offices around the world, with partners in more than 50 nations. The organization lists five core values: impact, integrity, independence, partnership, and care.

Website: https://www.wri.org

Document Analyzed:

WRI. (2021). *ADDRESSING ENERGY EQUITY IN THE UNITED STATES: Policy Considerations for Federal Investment*. World Resource Institute.

https://files.wri.org/d8/s3fs-public/2021-11/energy-equity-united-states.pdf?VersionId=dIWzPo.M0qXoKLDixuPAohcv70.kcTYJ&_gl=1*551mi9*_gcl_au*OTQzMTc4Mjk4LjE3NTAwMjU2ODM.

Center for American Progress (CAP)- The Center for American Progress is an independent research institute, intending to improve lives through progressive ideas and a focus on the environment. Priorities for the Center for American Progress include building an economy for all, restoring social trust in democracy, advancing racial equity and justice, tackling climate change and environmental injustice, and strengthening health. Additionally, the organization addresses issues by state, providing context-specific information and advice.

Website: https://www.americanprogress.org

Document Analyzed: CAP. (2023). *Implementing America's Clean Energy Future*. Center for American Progress. https://www.americanprogress.org/article/implementing-americas-clean-energy-future/

Resources for the Future (RFF)- Resources for the Future was founded in 1952 and was the first think tank created to exclusively research natural resources and environmental issues. It is an independent research organization, focusing on the environment, energy, and natural resources. Topics researched by the organization include climate risks and resilience, data and decision tools, electric power, environmental justice, and equity in energy transitions. The organization holds five core values: balance, rigor, independence, respect, and results.

Website: https://www.rff.org https://www.rff.org

Document Analyzed:

RFF. (2024). *Community Engagement and Participatory Inclusion in Mining: Challenges, Barriers, and Opportunities*. Resources for the Future. https://media.rff.org/documents/WP_25-08_PHBFNYf.pdf

Heritage Foundation- The Heritage Foundation is a conservative policy research organization, advocating for free enterprise, limited government, individual freedom, traditional American values, and strong national defense. The goals of the organization include providing solutions, mobilizing conservatives, and training leaders. The organization holds thousands of meetings with Congress and administration officials each year, working directly with lawmakers. The top issues that the organization is currently addressing include China's dominance, election integrity, border security, abortion, and big tech.

Website: https://www.heritage.org

Document Analyzed:

The Heritage Foundation. (2023). *Powering Human Advancement: Why the World Needs Affordable and Reliable Energy*. The Heritage Foundation. https://www.heritage.org/sites/default/files/2023-12/SR277.pdf