

RALI Series: Promoting Solutions for Low Emission Development

Women's Leadership is Necessary for the Clean Energy Transition

The RALI Series is a collection of papers developed by the RALI project to share examples of low emission development in practice. The series features case studies, tools, and innovative new approaches in this space, highlighting user benefits and lessons learned. To learn more about the RALI project, visit <https://www.climatelinks.org/projects/rali>.

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INTRODUCTION

Clean energy has become a major growth sector as countries around the world have increasingly looked to transition to low emission energy systems. Clean energy is not only a means to reduce greenhouse gas (GHG) emissions, but also increases the resilience of critical infrastructure in the face of climate change impacts; reduces reliance on imported fossil fuels; creates jobs; lowers electricity prices; and improves energy access for off-grid communities. The clean energy transition presents a wide range of entrepreneurial and business opportunities. In 2018 alone, investment in clean energy topped \$332.1 billion.¹ As of 2017, the renewable energy sector employed 10.3 million individuals worldwide, and the number of jobs in the industry is expected to nearly triple, with a projection of 29 million jobs by 2050.² While the projected growth in the clean energy sector can be a positive catalyst for progress toward low emission development (LED) goals, to date, women have not been well represented in the sector.

This participation gap poses many pressing challenges for the clean energy transition. Without better gender representation, businesses and utilities face decreased performance and revenues, innovation will be stifled, and existing gender inequalities will be exacerbated. There are significant social and economic benefits that can be realized through women's leadership and participation in the clean energy sector; however, significant barriers to women's participation as entrepreneurs and business leaders in this sector remain.

This paper outlines the barriers faced by women leaders and makes the business case for their equitable participation in the clean energy sector. Interventions to support more equitable outcomes for women in the sector are discussed, with a focus on actions to support women business leaders and to engage potential supporters throughout the business pipeline.

THE UNDERREPRESENTATION OF WOMEN IN THE CLEAN ENERGY SECTOR

Energy industries, including the clean energy sector, have traditionally been dominated by men. Recent surveys show that women are underrepresented in both the clean energy workforce and among key decision-making bodies in both the public and private sector.

Gender Equity and a 'Just Transition'

The international community has increasingly sought to ensure that the transition to a low emission economy does not adversely impact communities that have historically been dependent on fossil fuel industries. Referred to as the 'Just Transition', this topic was a focus of the 2018 climate negotiations in Poland (COP 24). Enhancing gender equity can support the 'Just Transition' by creating more effective mitigation measures, driving productivity and innovation, and increasing financial stability and returns.

Opportunities to leverage these benefits were [discussed at COP 24](#), where the importance of advancing gender equity, together with a just transition, was highlighted.

¹ Bloomberg New Energy Finance (BNEF). 2019. Clean Energy Investment Exceeded \$300 Billion Once Again in 2018. Press Release. January 16, 2019. Available at <https://about.bnef.com/blog/clean-energy-investment-exceeded-300-billion-2018/>.

² International Renewable Energy Agency (IRENA). 2019. Renewable Energy: A Gender Perspective. Available at: https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2019/Jan/IRENA_Gender_perspective_2019.pdf.

A 2018 survey conducted by IRENA found that women made up 32 percent of the renewable energy workforce.³ This is greater than the traditional energy sector, but lower than the broader economy. Additionally, in its survey of utilities in 10 countries, the United States Agency for International Development’s (USAID) Engendering Utilities program found that women made up only 13 percent of the workforce.⁴ Women who do participate in the energy sector (both for public and private entities) are often limited to administrative, accounting, human resources, and marketing tasks. Decision-making positions in governance and business are also largely occupied by men. For example, a 2013 survey found that of 72 countries, only four had female ministers overseeing national energy policies and programs.⁵ In 2016, a survey of the world’s largest utilities found that women only made up 16 percent of power and utility board members.⁶



Clean energy will continue to be a major contributor to LED goals. Therefore, it is critical that the sector is inclusive and does not exacerbate existing gender inequalities.

The lack of women’s representation as leaders in the clean energy sector can lead to the following adverse effects, which may undermine LED goals:

- **Limited ability to influence decision-making in the sector.** Because women are less likely to be represented in public and private decision-making bodies, such as ministries and company boards, it can be difficult for them to influence activities in the clean energy sector. This can result in policy and project activities that fail to account for the needs and priorities of women and limits the ability of women to participate in the full energy value chain.⁷
- **Gender-blind clean energy and development policies.** Women’s limited involvement in decision-making can often result in gender-blind clean energy and development policies. For example, a 2017 global survey of national energy frameworks found that only one-third referenced women or gender.⁸ By failing to account for the existing inequalities faced by women, these policies can perpetuate existing barriers for women to access to educational and economic opportunities associated with clean energy projects and policies.⁹

Data Limitations to Assessing Engagement of Women in Clean Energy

Gender-disaggregated data is essential to fully identify barriers to women’s participation in the clean energy sector and to develop policies and programs that can address these barriers. However, to date, there is limited data on the clean energy and other male-dominated sectors globally.

Gender-blind energy value chains, which fail to recognize the role of women, make assessing the position of women business leaders in the clean energy sector of many countries a particular challenge.

EQUITABLE GENDER REPRESENTATION IMPROVES BUSINESS PERFORMANCE

Given the economic opportunities presented by this sector, it is essential to ensure that women business leaders and entrepreneurs are not left behind in the clean energy transition. More equitable gender participation has repeatedly been

³ Ibid.

⁴ United States Agency for International Development (USAID). 2016. Engendering Utilities: Improving Gender Diversity in Power Sector Utilities. Available at https://pdf.usaid.gov/pdf_docs/PBAAF230.pdf.

⁵ United States Agency for International Development (USAID) and International Union for Conservation of Nature (IUCN). 2014. Women at the Forefront of the Clean Energy Future Available at: https://pdf.usaid.gov/pdf_docs/PBAAB880.pdf.

⁶ IRENA. 2018.

⁷ International Network on Gender and Sustainable Energy (ENERGIA). 2015. A Regional Gender Assessment of Energy Policies and Programmes in South Asia. Available at: <https://www.adb.org/sites/default/files/project-document/182305/44135-012-dpta-02.pdf>.

⁸ Prebble, M., and A. Rojas. 2017. Energizing equality. The importance of integrating gender equality principles in national energy policies and frameworks. IUCN Global Gender Office. Available at: <http://genderandenvironment.org/resource/energizing-equality-the-importance-of-integrating-gender-equality-principles-in-national-energy-policies-andframeworks/>.

⁹ USAID and IUCN. 2014.

The Benefits of Equitable Gender Representation

Equitable gender representation for women in clean energy businesses and leadership positions helps:

- Businesses achieve higher performance on financial metrics and growth
- Promote greater innovation
- Improve performance on complex challenges
- Harness the full potential of the work force
- Design products and services to meet women's needs

shown to enhance development outcomes. Having more equitable gender representation in the clean energy sector is not just a social decision; it also represents an important business opportunity.

Examples outside the clean energy sector are indicative of potential benefits for greater women's participation as business leaders. Credit Suisse conducted a study of the performance of 2,400 companies with and without women on their board; the study found that shares for companies with at least some female board representation outperformed companies with no women by 17 to 26 percent over a six-year period.¹⁰ This performance premium extended to other financial metrics; companies with women on their board had higher return on equity, higher price/book value multiples, and better average growth.¹¹

Similar performance premiums have been found amongst startups—a key area of business where future market influencers in renewable energy could emerge—with women in founding roles. Although companies founded or co-founded by women tend to receive less capital from venture firms, they tend to generate better returns. Analyses have shown that startups with at least one female co-founder generate 10 percent more cumulative revenue over a five-year period.¹² As financial investments, startups with female cofounders generated 78 cents of revenue for every dollar invested, more than double the revenue generated by male-founded startups (31 cents of revenue for each dollar invested).¹³

EQUITABLE GENDER REPRESENTATION IMPROVES INNOVATION

Studies demonstrate that groups with greater diversity tend to be more innovative and make better decisions, particularly for tasks with higher complexity.¹⁴ Having better representation of women on teams provides greater perspective and points of view, which can support better brainstorming and decision-making. This finding is particularly relevant for nascent clean energy companies that need to respond to changing technological, political, and policy challenges to succeed. Studies show that companies with gender-diverse boards tended to have fewer governance-related controversies (i.e., bribery, corruption, fraud, and shareholder battles) as well.¹⁵ A 2012 study also found that women were more likely to advance energy efficiency (which can lower company costs) and renewable power generation.¹⁶

The presence of women in founder roles at startups can have an additive effect for increasing women in the sector. The FundersClub reviewed 100 U.S. technology startups and found that companies with at least one female founder had employee teams there were, on average, 48 percent women and executive teams that were 38 percent women.¹⁷ These metrics are more than twice as high as reported by startups with no female founders and higher than the percentages reported by large companies such as Google, Facebook, and AirBnB.¹⁸

¹⁰ Credit Suisse. 2012. Gender Diversity and Corporate Performance. Available at: https://www.calstrs.com/sites/main/files/file-attachments/csri_gender_diversity_and_corporate_performance.pdf.

¹¹ Eling Lee, L., R. Marshall, D. Rallis, and M. Moscardi. 2015. Women on Boards: Global Trends in Gender Diversity on Corporate Boards. MSCI. Available at: <https://www.msci.com/documents/10199/04b6f646-d638-4878-9c61-4eb91748a82b>.

¹² Abouzahr, K., F. Brooks Taplett, M. Krentz., and J. Harthorne. (June 6, 2018). Why Women-Owned Startups are a Better Bet. Boston Consulting Group. Available at: <https://www.bcg.com/publications/2018/why-women-owned-startups-are-better-bet.aspx>.

¹³ Ibid.

¹⁴ Ibid.

¹⁵ Ibid.

¹⁶ McElhaney K. A. and S. Mobasser. 2012. Women Create A Sustainable Future. UC Berkeley Haas School of Business. Available at: http://www.haas.berkeley.edu/groups/online_marketing/facultyCV/papers/Women_Create_Sustainable_Value_FINAL_10_2012.

¹⁷ Steiner, C. (June 14, 2017). The 2017 US Startup Team Gender Diversity Study. FundersClub. Available at: <https://fundersclub.com/blog/2017/06/14/2017-us-startup-team-gender-diversity-study/>.

¹⁸ Ibid.

EQUITABLE GENDER REPRESENTATION REDUCES LABOR SHORTAGES

In both developed and developing countries, the rapidly increasing demand for clean energy has increased the likelihood that companies will face skills gaps and labor shortages.¹⁹ By removing existing barriers to women's participation in the clean energy sector, support for equitable gender representation can provide a larger pool of talent and help mitigate some of this risk.²⁰

EQUITABLE GENDER REPRESENTATION ENABLES CLEAN ENERGY TO FIT WOMEN'S NEEDS

Women are often involved in the collection, purchase, or usage of energy. However, because women have limited opportunities to lead decisionmaking in the sector, energy products and services are often not targeted to meet their needs.²¹ By enabling women to fully participate as leaders in the clean energy sector, businesses will be able to provide products and services that better meet the needs of the whole population, rather than just the needs of men. This represents an opportunity for businesses, which can leverage improved women's participation in business decisionmaking to make their products more attractive to the women who are responsible for making purchase decisions.

BARRIERS TO WOMEN BECOMING ENERGY SECTOR BUSINESS LEADERS

Efforts to increase women's participation as business leaders in the clean energy sector are hindered by challenges that are both specific to the sector and those that are common impediments to greater gender equity more generally. Often these barriers are interrelated. For example, discriminatory gender norms emphasizing women's household responsibilities limit women's access to training and opportunities to participate in decisionmaking. While these barriers are common across many countries, they can vary due to specific country-level circumstances and will often impact women differently.

- **Limited access to information on clean energy technologies.** Compared to men, women often have limited access to new information on clean energy technologies, preventing them from fully engaging in emerging markets.²²
- **Discriminatory gender norms.** In many countries, women are responsible for household chores and other family duties (i.e., childcare). This can limit the time available for women to participate in entrepreneurial and business activities. For example, women from older generations still tend to prioritize their traditional family roles at the expense of career advancement.²³ Women may face restricted mobility in some countries, preventing them from attending conferences and trainings, and accessing other educational opportunities that could support their engagement in the clean energy sector. Discriminatory gender norms may also limit the ability of women to engage in business activities in certain sectors altogether. For example, women may be unable to engage in the selling, installation, or maintenance of renewable energy systems.²⁴
- **Inequitable legal systems.** Inequitable legal systems can often impede women entrepreneurs' ability to participate in the energy sector by limiting their rights to property and inheritance.²⁵
- **Inequitable workplace policies.** In many countries, pervasive inequities in the workplace can hinder women's participation and advancement to leadership positions. Workplaces often lack gender equitable recruiting and hiring policies. Companies may also fail to provide sufficient maternity and childcare resources and may have inequitable separation and retirement practices. Sexual harassment can also be common in the workplace. Many women also lack access to formal employment all together.²⁶

¹⁹ Ibid.

²⁰ Ibid.

²¹ ENERGI.A. 2015.

²² United Nations Industrial Development Organization (UNIDO). 2014. Guide on Gender Mainstreaming Energy and Climate Change Projects. Available at: https://www.unido.org/sites/default/files/2015-01/Guide_on_Gender_Mainstreaming_ECC_0.pdf.

²³ USAID. 2017. Gender Equality in Renewable Energy in the Lower Mekong: Assessment and Opportunities. Available at <https://www.climateinstitute.org/resources/gender-equality-renewable-energy-lower-mekong-assessment-and-opportunities>.

²⁴ Climate Investment Funds (CIF). 2017. Gender and Renewable Energy: Entry Points for Women's Livelihoods and Employment. Available at: https://www.climateinvestmentfunds.org/sites/cif_enc/files/gender_and_re_digital.pdf.

²⁵ ENERGI.A. 2015.

²⁶ CIF. 2017.

- **Limited access to financing opportunities.** Limited access to credit and other financial services necessary to start a business is a consistent challenge for women entrepreneurs. Many women are successfully operating micro or small businesses but lack resources to scale up these activities. Acquiring loans and maintaining consistent access to credit is a common challenge.²⁷ Existing lending conventions, which in some cases require women to have approval from their male counterpart when applying for loans, sometimes exist as well.²⁸ In some countries, many women do lead clean energy businesses; however, only those from high-income families have access to resources to expand their businesses.²⁹
- **Inequitable representation among start-up investors.** Within the start-up space, women often have to pitch their business proposals to male-dominated venture capital firms, which are more likely to support male-led businesses due to biases that favor men.³⁰ As of 2018, there were only 64 female partners out of the 752 partners (equivalent to 8.5 percent) at the top 100 investing firms worldwide.³¹ This disparity contributes to lower funding levels for women-led startups. Over the past six years, the percent of venture-funded companies with female founders has remained unchanged, plateauing at approximately 17 percent.³²
- **Limited access to business training opportunities.** A lack of education and training on business and financial management can also make it difficult for women entrepreneurs looking to scale up their businesses.³³
- **Limited support for STEM career pipeline.** Often it can be difficult for women to achieve higher education and enter science, technology, engineering, and mathematics (STEM) fields. This can be caused by cultural norms, state education systems that encourage gender stereotypes, and a lack of role models for women entrepreneurs and business leaders. This barrier can adversely affect women's participation in the clean energy sector.³⁴

PROMOTING WOMEN'S LEADERSHIP AND ENTREPRENEURSHIP

There are a breadth of actions that can be taken to support women as business leaders and entrepreneurs in the clean energy sector. These interventions can support women directly or encourage gender-conscious activities among stakeholders throughout the business pipeline, such as startup accelerators and incubators, investors, and peers in the clean energy sector. Many organizations are already supporting these types of interventions through research on best practices and case studies; trainings, conferences, and workshops; direct mentorship; business planning assistance; networking and professional development support; and other activities for increasing women's market access. However, given the entrenchment of existing gender inequities and the global scale of the challenge, more can be done. Examples of interventions include:

- **Training and professional development** to address sector-specific knowledge gaps, provide business management skills, and/or facilitate professional development for women business leaders and entrepreneurs. This could include trainings for refining pitches and presentation skills to help women participate in conferences and networking events, and effectively communicate with potential investors.

²⁷ UNIDO and United Nation's Entity for Gender Equality and the Empowerment of Women. 2013. Sustainable Energy for All. Available at: <http://www.unwomen.org/-/media/headquarters/attachments/sections/library/publications/2013/5/guidancenotefinalweb%2011.pdf?la=en&vs=4012>.

²⁸ USAID. 2015. Gender Lens Investing in Asia. Available at: <https://www.usaid.gov/sites/default/files/documents/1861/Advancing%20Gender%20Lens%20Investing%20in%20Asia%20%282015%29.pdf>.

²⁹ USAID. 2017.

³⁰ Ewens, M. and R. Townsend. 2017. Are Early Stage Investors Biased Against Women? *Journal of Financial Economics*. Forthcoming. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2953011.

³¹ Teare, Gené. (January 15, 2018). The portion of VC-backed startups founded by women stays stubbornly stagnant. TechCrunch. Available at: <https://techcrunch.com/2018/01/15/the-portion-of-vc-backed-startups-founded-by-women-stays-stubbornly-stagnant/>.

³² Ibid

³³ UNIDO. 2014.; Khan, S. 2018. Take Five: The opportunity for sustainable energy entrepreneurship is significant for women. UN Women. Available at: <http://www.unwomen.org/en/news/stories/2018/4/take-five---suhela-khan>.

³⁴ IRENA. 2013. Renewable Energy and Jobs. Available at: <https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2013/rejobs.pdf>.

- **Networking and mentorship opportunities** to facilitate networking for new entrepreneurs and to foster connections with potential role-models and investors.
- **Financial resources to support women’s participation** in business development activities, such as accelerator and incubator programs, and conferences. This could include stipends for travel, childcare, and other materials needed to enable women to participate more easily.
- **Human resource practices** to promote gender equity throughout the human resources life cycle from recruitment and retention through retirement.³⁵
- **Improved awareness** among employees, managers, business owners, and investors in the clean energy business pipeline that can support greater women’s participation.
- **Tracking progress by implementing evaluation frameworks on practices and strategies** for including gender considerations in business and/or investment decisions. This can include the development and implementation of metrics to help assess and track progress towards improved gender equity.
- **Developing targeted recruitment plans** for startup accelerators and incubators to encourage the recruitment of high-potential female entrepreneurs from previously untapped talent sources. This may require accelerators and incubators to modify recruitment outreach language and methods to be more gender inclusive, as well as evaluating and refining selection processes to reduce bias.
- **Workplace codes of conduct** that support an inclusive workplace, including equitable human resources policies from initial recruitment through separation and retirement benefits.
- **Gender-blind investing** through a gender-blind application requirements and to encourage more gender-inclusive investment decisions and mitigate the risk of unconscious bias by investors.



Interventions to promote women’s leadership in the renewable energy sector should support women business leaders and entrepreneurs directly and encourage more gender-conscious decision making among stakeholders throughout the business pipeline.

CONCLUSION

Recognizing both the barriers to women taking on leadership roles and the business returns of having greater diversity in the C-suite and on boards is an essential first step towards more inclusive participation in the clean energy sector. Addressing gender representation is a difficult but not insurmountable challenge; companies, accelerators, incubators, and investors can implement a range of measures that lower the barrier-to-entry for female entrepreneurs and increase the retention of talented women. Successfully addressing gender representation in clean energy businesses will support a multitude of climate, economic, and social goals.

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³⁵ For more information on gender equitable human resource policies see USAID. 2018. Increasing Women’s Participation in the Power Sector through Human Resources Interventions: A Best Practices Framework. Available at: <https://www.usaid.gov/sites/default/files/documents/1865/gender-equity-energy-sector-best-practices.pdf>.