



**WORLD BIOGAS
ASSOCIATION**

WOMEN IN BIOGAS



SURVEY ANALYSIS REPORT 2024



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Executive Summary

This report explores the current state of gender representation in the biogas sector and highlights initiatives and policies needed to enhance female participation and leadership. In 2015 McKinsey published a report pointing to the positive business outcomes that can be delivered with a diverse workforce¹. The report found that gender-diverse senior management in the UK represented the most significant business performance gains. In general, it was shown that these benefits likely include enhanced creativity, better decision-making, improved employee satisfaction, and a stronger company reputation. These business benefits are potentially substantial to delivering value to both shareholders and communities.

To see how well the biogas industry is placed in gender diversity and opportunity context, WBA conducted two different surveys: Baseline Survey in 2022 and Current Status Survey in 2024. In this report, the 2024 survey will be the main focus unless a comparison of the survey results illustrates a significant change in the position of women in the biogas sector.

Survey Analysis Report explores how women interact with the biogas sector as participants. Specifically, it analyses the progress and current place of women in the biogas industry relative similar industries. The analysis of survey data reveals a mixed landscape of gender representation in the biogas sector. While there is a growing commitment to gender equality policies, significant gaps remain in achieving equal representation in both general and senior management roles. Despite these challenges, numerous organisations are making strides by implementing equality and diversity policies, establishing formal groups to promote gender equality, and collecting gender-disaggregated data.

Our Survey Analysis Report underscores the significant benefits of promoting women's participation in the biogas sector. By increasing female involvement, the biogas industry leverages unique perspectives that enhance innovation and operational efficiency. The integration of women into biogas initiatives is crucial for driving sustainable development and achieving a more equitable and inclusive energy future. Continued support and development of gender-inclusive strategies within the biogas sector are essential for realising its full potential as a key component of the renewable energy landscape.

Acknowledgements

We gratefully acknowledge the invaluable initiative and contributions of the WBA Women in Biogas Working Group to the production of this report.



¹Why diversity matters | McKinsey www.mckinsey.com/capabilities/people-and-organizational-performance/our-insights/why-diversity-matters

Survey Overview

The “Women in Biogas” surveys were conducted to understand the status and challenges faced by women in the biogas sector. The survey was performed twice in 2022 and 2024. The same 27 questions were asked both times to draw a comparison between responses. These surveys were conducted online and were voluntary, targeting a diverse group of professionals, including both women and men, from industry veterans to newcomers, ensuring a wide range of insights. The primary objective was to establish the current situation and challenges faced by women in the biogas industry.

The initial “Women in Biogas: Baseline Survey” took place in 2022 to collect foundational data on involvement and experiences in this field. With 184 responses, the survey revealed that 65% were not members of the WBA, 22% were members, and 13% were unsure. In 2024, the “Women in Biogas: Current Status” survey was conducted to assess changes since 2022. With 140 responses, the survey found that 64% were not WBA members, 27% were members, and 9% were unsure. These surveys provide valuable insights into the progress and ongoing challenges for women in the biogas industry, highlighting areas for continued support and improvement.

1. Employment Statistics

According to analysis of OECD and IEA on women in senior management roles in energy and non-energy sectors, women are underrepresented in senior management, comprising less than 14% in the energy sector compared to 15.5% in non-energy sectors². The biogas sector, while essential in the transition to sustainable energy solutions, mirrors many of the gender disparities common in other fields of science and engineering. WBA’s survey reveals crucial insights into the participation levels and roles of women within the biogas industry.

The percentage of female employees in the biogas sector was asked as an indicator of gender equality, alongside other metrics. This metric is used to assess the representation and involvement of women in the industry, which is crucial for understanding and promoting gender equality within the sector.

1.1. Percentage of Female Employees

Respondents were asked to specify the percentage of their employees who are women, providing insight into the representation of women in the biogas sector.

What percentage of your biogas employees are women?

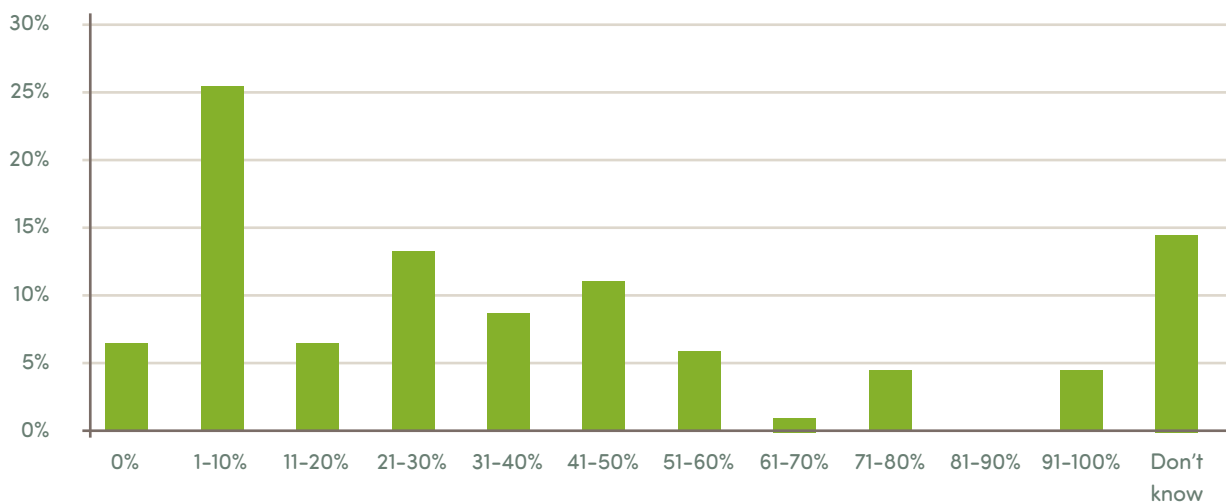


Figure 1: Percentage of women employed in respondents’ organisations

² OECD/IEA Analysis, 2021. Commentary: Women in senior management roles at energy firms remains stubbornly low, but efforts to improve gender diversity are moving apace.

Responses to this question indicate that women constitute a significant but variable proportion of the workforce in the biogas sector. While 25% of organisations report a low percentage of female employees (1-10%), 15% have a more balanced representation (50% or higher). If the criteria to claim women are not subject to gender bias is defined as having 50-100% women in the workforce, the chart shows that only 15% of organisations could reach gender equality. This disparity also suggests that while some companies are making progress towards gender inclusion, there remains a substantial gap in achieving gender representation across the sector.

Only 32% of the renewable energy workforce globally is comprised of women³. This percentage drops to 28% in STEM jobs. To find the overall percentage of women in biogas in Figure 1, 'Don't know' responses were excluded from the total answers. The mean was taken across all definitive responses, showing the final value of 28%.

1.2. Percentage of Female Employees in Senior Management

Respondents were asked to specify the percentage of their employees who are women in senior management, providing insight into the representation of women in the biogas sector.

What percentage of the biogas section of your organisation's senior management team are women?

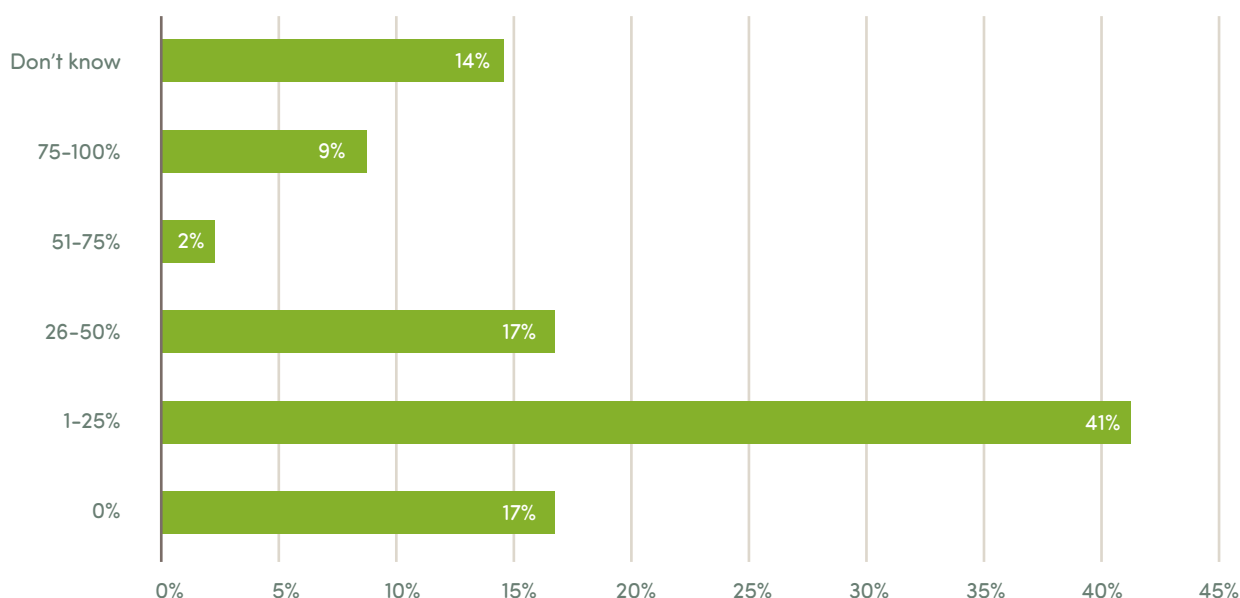


Figure 2 Percentage of women in senior leadership in respondents' organisations

A large proportion of respondents highlighted that women are underrepresented in senior management roles within the biogas sector. 41% of organisations reported having 1-25% women in their senior management teams. As above where 50% or more of management are women these are not considered subject to gender bias, the chart shows that only 11% of organisations could achieve gender equality.

To find the overall percentage of women in biogas in Figure 1, 'Don't know' responses were excluded from the total answers. The mean across all definitive responses gives the final value of 24%.

³IRENA Renewable Energy: A Gender Perspective, 2019. Available at: www.irena.org/-/media/Files/IRENA/Agency/Publication/2019/Jan/IRENA_Gender_perspective_2019.pdf

2. Gender Diversity and Equality Policy Statistics

The presence of gender diversity and equality policies in the biogas sector was assessed as a key indicator of organisational commitment to gender equality. This metric is used to evaluate the extent to which companies have implemented formal strategies to promote an inclusive work environment.

2.1. Equality and Diversity (E&D) or Equality and Inclusion (E&I) Policy

This survey question aims to gather information on whether organisations have implemented an Equality and Diversity or an Equality and Inclusion policy. Respondents are asked to indicate the presence of such policies within their organisation, providing insight into their commitment to fostering an inclusive and equitable work environment.

Figure 3 shows that majority 71% reported having an E&D or E&I policy in place. This indicates a strong commitment to promoting inclusivity and diversity within their workplaces. There has been an increase in the proportion of organisations implementing E&D or E&I policies in 2 years, rising from 60% in our 2022 survey to 71% in 2024. This is a positive trend towards greater commitment to equality and inclusivity in the workplace.

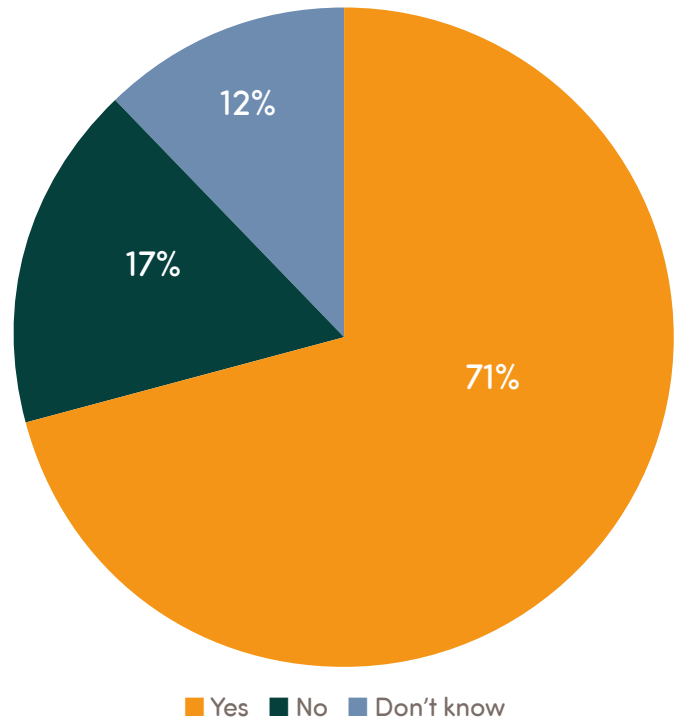


Figure 3

2.2. Formal Group to Promote Gender Equality & Diversity

This question seeks to determine whether organisations have established a formal group dedicated to promoting Equality and Diversity. Respondents are asked to indicate if such a group exists within their organisation, which aims to implement best practices and procedures to foster an inclusive and equitable work environment.

45% of respondents reported that their organisations have a formal group to promote gender equality and diversity. This indicates a substantial commitment among nearly half of the organisations towards structured efforts in advancing gender equality. These formal groups often play a crucial role in developing and implementing policies, raising awareness, and fostering an inclusive work environment.

There is an increase in the percentage of organisations with a formal group established to promote Equality and Diversity between 2022 and 2024. The "Yes" responses rose from 37% in the Baseline Survey in 2022 to 45% in the Current Status Survey in 2024. This shows an improvement in the establishment of formal groups dedicated to these causes.

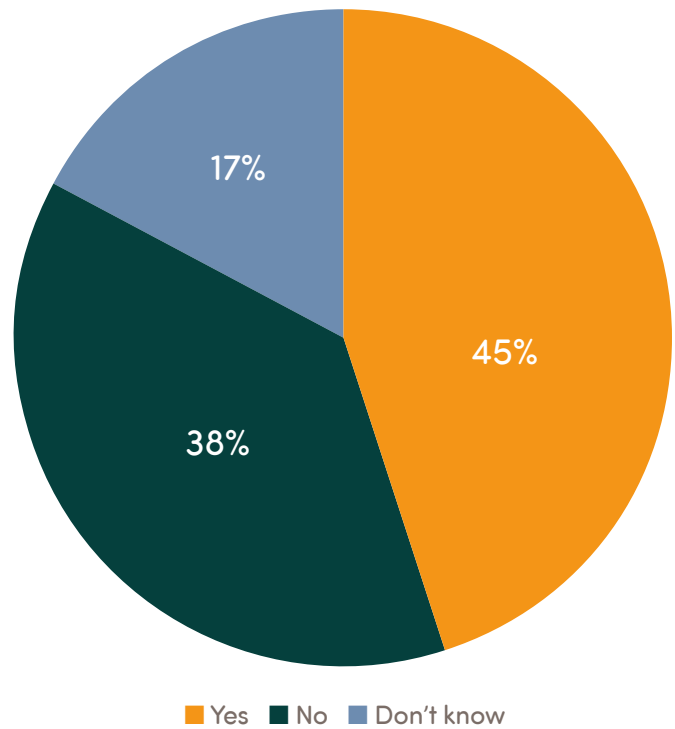


Figure 4

The percentage of organisations without formal groups decreased from 49% to 38%. While it is a welcome reduction, it is certain that many organisations still need to establish dedicated groups or committees to actively address gender-related issues. These groups can assist in the progress towards achieving gender balance and inclusivity in the sector.

2.3. Gender Equality Data Collection

This question aimed to determine whether companies collect gender equality data. Respondents are asked to indicate if their organisation gathers this type of data such as gender-disaggregated data, providing insight into their efforts to monitor and promote gender equality within the workplace.

Figure 5 shows that 35% of respondents reported that their organisations collect gender equality data. This practice is essential for understanding the gender dynamics within the workforce and identifying areas where gender disparities exist. Collecting this data allows organisations to track progress, measure the impact of their gender equality initiatives, and develop targeted strategies to address any gaps.

The survey results reveal that gender equality data collection practices in the biogas sector are evenly divided, with about one-third of organisations collecting data, one-third not collecting, and one-third of respondents unsure. This distribution underscores the need for better communication and awareness within organisations. By enhancing data collection efforts and ensuring employees are informed and engaged, the biogas industry can advance towards greater gender equality and inclusivity.

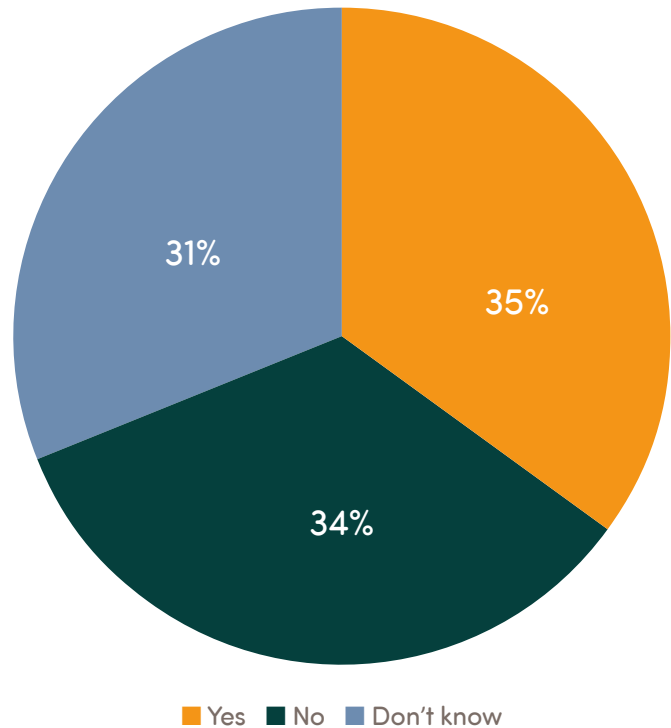


Figure 5

2.4. Intention to Collect Gender Equality Data

This survey question seeks to understand future plans regarding gender equality data collection. If respondents indicated that their company currently does not collect such data, they are asked whether there are intentions to begin collecting gender equality data in the near future.

Figure 6 reveals that while there is a commendable portion of organisations that are proactive in collecting gender equality data, 60% of respondents are either unsure if they collect equality data or have no plans to do so. The high percentage of uncertainty suggests that many organisations may not have fully established or communicated their policies on gender equality. This points to an opportunity for industry leaders and stakeholders to promote the benefits of collecting and using gender-disaggregated data to improve gender equality outcomes in the biogas sector.

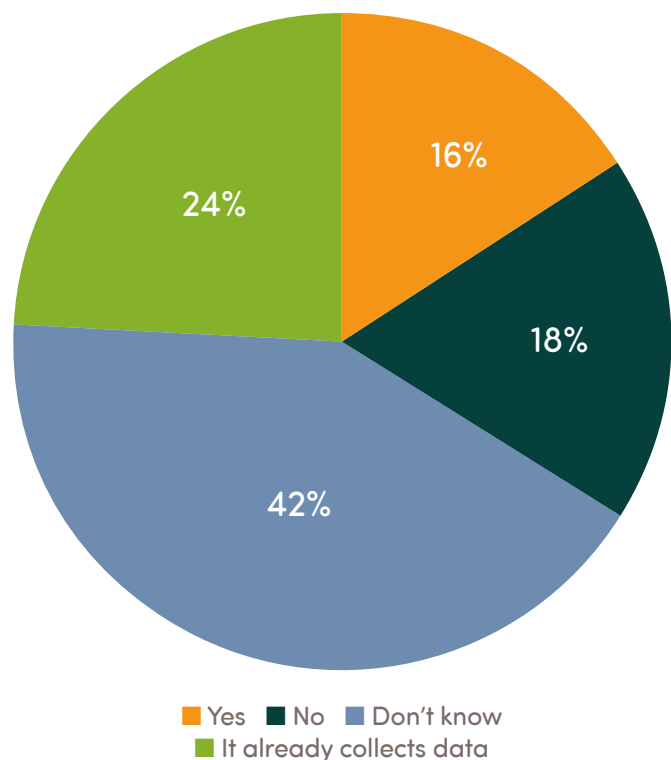


Figure 6

3. Advancing Women

Advancing women in the biogas sector involves creating strategies to promote their representation in technical and leadership roles, addressing barriers like cultural norms and lack of mentorship, and implementing inclusive policies. The survey analysis highlights the need for targeted initiatives and better communication about gender equality practices.

3.1. Prevalence of Women

This question aims to identify the measures organisations have implemented to promote the presence and advancement of women in the industry. Respondents were asked to select all applicable initiatives from a provided list, offering insight into the strategies used to enhance gender diversity within their organisation.

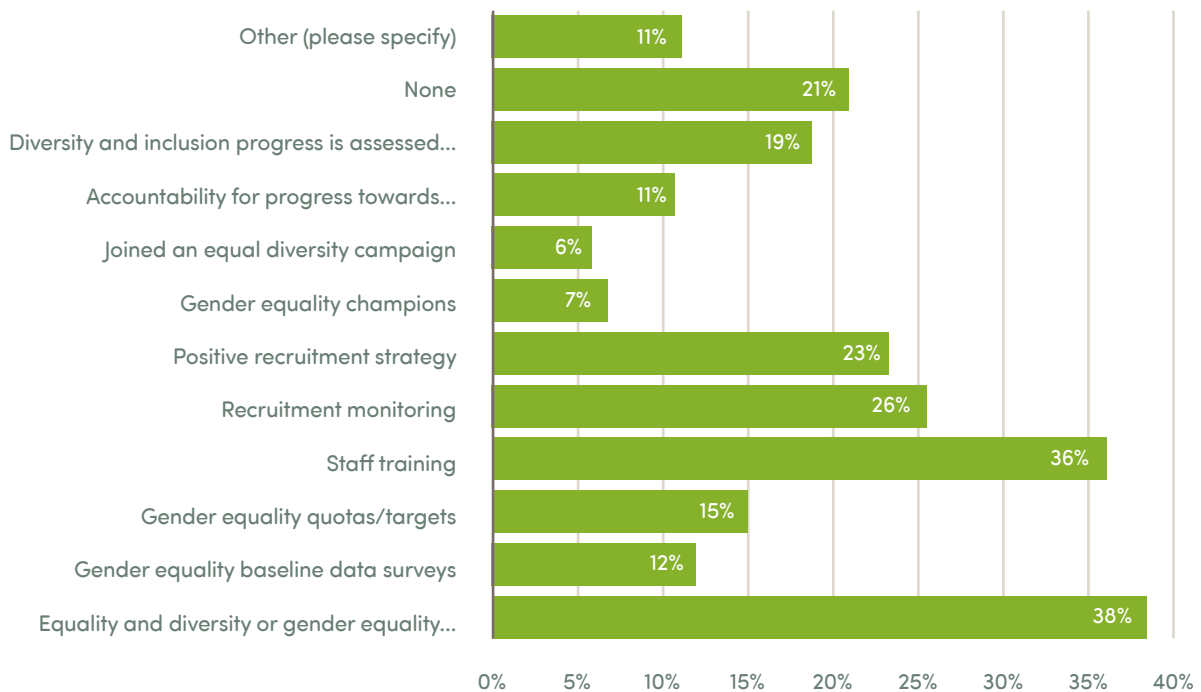


Figure 7

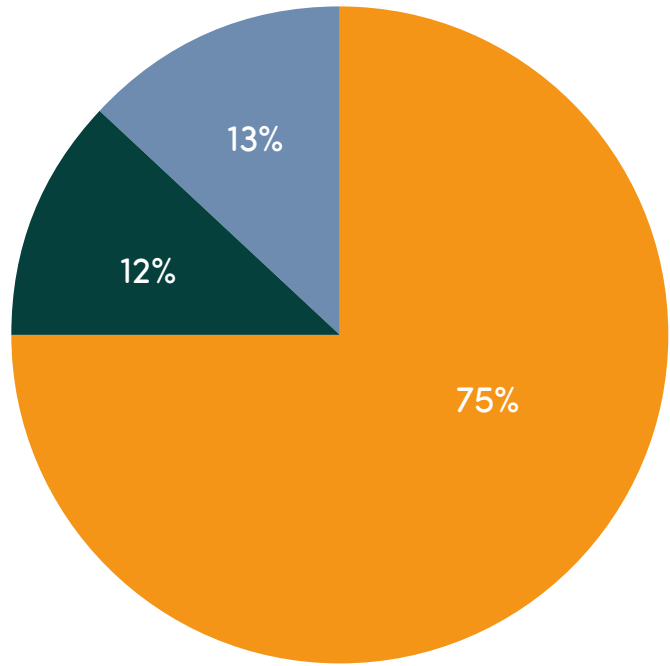
Figure 7 shows that the most implemented initiative to promote gender equality in the biogas sector is the establishment of equality and diversity working groups, as reported by 38% of organisations, reflecting a strong preference for structured efforts. Staff training is also common, with 36% of organisations prioritising education on gender equality. Recruitment monitoring and positive recruitment strategies are employed by 26% and 23% of organisations, respectively, indicating active efforts to attract and retain women in the sector.

The data reveals a mixed landscape of efforts to promote gender equality within the biogas sector. While there are promising signs of commitment through working groups and staff training, the relatively high percentage of organisations not participating in any initiatives highlights the need for broader and more consistent adoption of gender equality measures. Enhancing awareness and providing resources for implementing effective strategies could help increase the prevalence of women in this industry, ultimately leading to a more diverse and inclusive workforce.

3.2. Opportunities for Women

This question seeks to gather opinions on whether respondents feel their company provides adequate opportunities for women in the biogas sector. Respondents were asked to evaluate their company's efforts in supporting and advancing women's roles within the industry.

Figure 8 indicates that while 75% of companies in the biogas sector are perceived as providing adequate opportunities for women, there are still a notable percentage of organisations that need to improve. The feedback points to the importance of continuous evaluation and enhancement of gender equality measures. Companies should focus on clear communication about their initiatives, actively seek feedback from their employees, and address any gaps in providing equal opportunities for women.



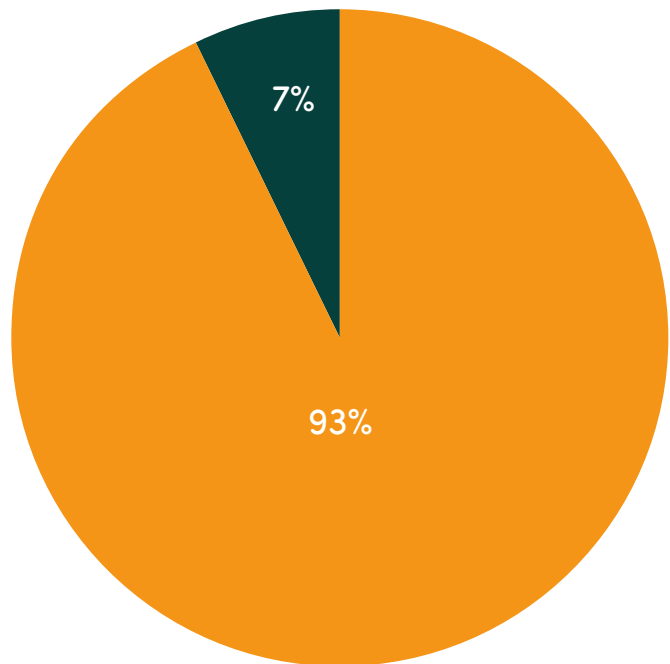
■ Yes ■ No ■ Don't know

Figure 8

3.3. Diversity Impact on Business

This survey question aims to understand respondents' views on the impact of diversity on business performance. Respondents are asked whether they believe that diversity positively influences their company's performance, providing insight into perceptions of diversity's benefits in the workplace.

An overwhelming 93% of respondents believe that diversity has a positive impact on their business performance. This high percentage indicates a widespread recognition of the benefits that diversity brings to the workplace. These benefits may include enhanced creativity, better decision-making, improved employee satisfaction, and a stronger company reputation.



■ Yes ■ No

Figure 9

3.4. Barriers to Women Being Promoted

This question aimed to identify perceived obstacles to the promotion of women within the biogas industry. Respondents were asked whether they believe there are barriers that hinder women's career advancement, providing insight into challenges faced by women in this sector.

Figure 10 shows that, 49% of the respondents believe there are barriers to women being promoted in the biogas industry. This suggests that a substantial portion of the workforce perceives challenges in achieving gender equality in career advancement.

51% of the respondents do not believe there are barriers to women's promotion. This optimistic view indicates that some organisations may have successfully implemented policies and practices that promote gender equality and support women's career progression in their respective companies.

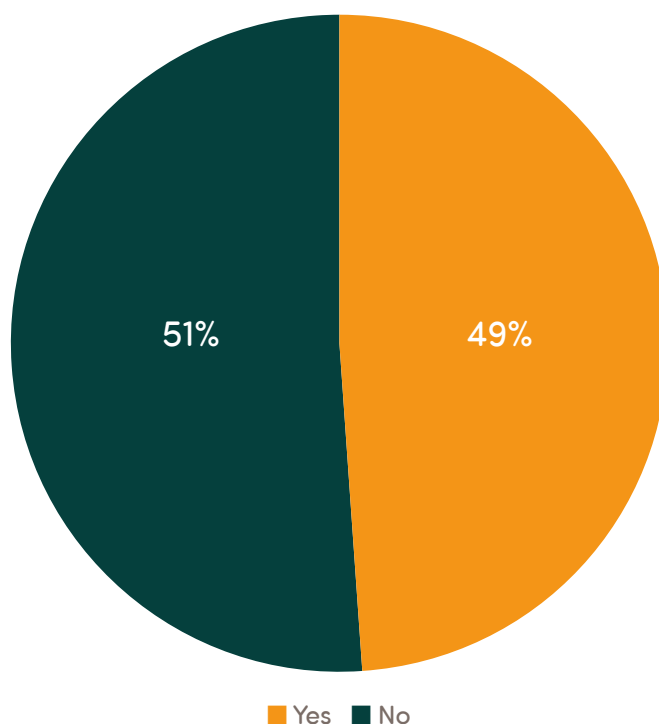


Figure 10

4. Policy Recommendations

Given that the gender employment rate gap is 65% in the energy sector, compared to 26% in the non-energy sector⁴, it is evident that women are significantly underrepresented in this field. This substantial disparity highlights the urgent need for targeted and effective measures to promote gender equality within the energy sector. Women in Biogas survey results, along with respondents' comments and observations, provide examples of good practices and inform the following policy recommendations.

4.1. Gender Equality Policy proposals

- Launch pilot programs or showcase examples of good practices to set a standard for the rest of the industry to follow
 - For example, anonymising applications until interviews take place and/or interviewers are trained on how to deal with inherent bias.
- Develop a comprehensive gender equality and diversity plan, making it publicly accessible to promote transparency and accountability for example like that published by UKRI⁵.
- Regularly review and report on the implementation of gender equality initiatives to ensure continuous improvement and compliance with best practices.

⁴IEA, 2022. Report: Understanding Gender Gaps in Wages, Employment and Career Trajectories in the Energy Sector. Available at: www.iea.org/articles/understanding-gender-gaps-in-wages-employment-and-career-trajectories-in-the-energy-sector

⁵UKRI gender equality plan www.ukri.org/publications/ukri-gender-equality-plan/gender-equality-plan-2022-to-2026

4.2. Leadership and Role Models

- Actively encourage and support women in advancing to senior positions within their organisation.
- Implement structured mentorship schemes to guide and support women's career development.
- Challenge and change the perception of the biogas industry as a male-dominated field, for example by emphasising women already in leadership positions and establishing industry groups for women.
- Highlight successful women as role models and feature them in industry events.
- Provide equal opportunities for women to undertake diverse and challenging tasks, moving away from traditional gender roles.
- Actively promote careers in STEM (Science, Technology, Engineering, and Mathematics) to young women, highlighting the opportunities available in the biogas sector. This can include school outreach programs, scholarships, and partnerships with educational institutions. The underrepresentation of women in the energy sector is partially attributed to a pipeline problem. According to IEA, there are significantly fewer women with STEM degrees, which limits the number of potential female candidates available for specific companies and positions.

4.3. Inclusive Recruitment

- Ensure that recruitment panels include diverse gender representation to mitigate biases and promote inclusivity during job interviews.
- Focus on skills and qualifications rather than gender during the hiring process to ensure equal opportunities for all candidates.
- Encourage gender diversity in leadership roles across all departments, including engineering, finance, and management.
- Implement policies that ensure equal pay for equal work, eliminating gender-based wage disparities. According to the IEA, wages for female employees in the energy sector are almost 20% lower than those for male employees⁶, highlighting the need for such policies.
- Provide equal access to training and development opportunities, ensuring all employees have the chance to advance their skills.

4.4. Workplace Culture

A significant concern expressed by respondents is related to maternity issues. Women are often perceived as employees who may resign or be unavailable once they become pregnant, forcing many into a no-choice situation if they wish to start a family. Addressing these issues is crucial for creating a more inclusive environment. Suggestions made to address this include:

- Implement flexible working arrangements and family-friendly policies, such as maternity leave that does not impact career progression.
- Unequal parental leave policies disproportionately place the responsibility of newborn care onto mothers, perpetuating traditional gender roles. To address this, existing policies must be reformed to facilitate and encourage fathers to take paternity leave. This change will promote shared parental responsibility and help dismantle the stigma that women are the primary caretakers. Reducing this stigma can lead to fairer hiring practices and career advancement opportunities, as employers may no longer favour men over women due to anticipated parental leave.
- Help both mothers and fathers manage personal commitments while thriving professionally through supportive initiatives. These can include flexible working hours, remote work options, and comprehensive childcare support. Ensuring that both men and women have access to these benefits can foster a more inclusive and supportive work environment.

⁶When measured in five developed European countries France, Germany, Austria and Portugal, this should be a more positive picture compared to less developed economies.

4.5. Community Engagement and Awareness

- Encourage and support women's participation in biogas-related conferences, workshops, and seminars. These events provide valuable networking opportunities and allow women to share their knowledge and experiences.
- Involve women in community biogas management projects, empowering them to take active roles in local sustainability efforts. This can include training programs for women to manage biogas plants and lead community energy initiatives.
- Develop outreach programs that educate communities about the benefits of biogas and the important roles women can play in its implementation and management.
- Create and support professional networks for women in the biogas sector. These networks provide platforms for women to connect, share resources, and support each other's career advancement.
- Establish online forums and social media groups where women in the biogas industry can engage with peers, discuss challenges, and share success stories.

Our survey results show that the disparity in gender representation in the biogas sector has improved, but there is still more work to be done. There is a general support for the positive benefits of proper gender representation within the industry, so the landscape seems set to support further improvements.

Key themes of proposed solutions to this continuing gap are;

- removing obstacles to female recruitment and career advancement;
- levelling benefits and workplace cultures to reduce the parenthood career penalty mainly falling on women;
- facilitating visible and aspirational career models;
- mentoring and support networks for women in the biogas industry.

All companies can make simple internal policy changes to accelerate positive change and industry associations like ADBA and WBA can support and share best cases for the advancement of women in the biogas sector. Given the research backed benefits of gender balanced decision makers, the under representation in the industry is both an indication of under-performance and an opportunity. By properly addressing the gender balanced recruitment and workplace equality the biogas industry has an opportunity to drive faster development and improve performance.

Conclusion

The biogas sector has made progress in recognising and supporting women's contributions, but significant challenges remain. To address the gender employment gap and promote women's participation, comprehensive strategies are needed. These should include implementing and enforcing concrete gender equality policies, developing leadership programmes specifically targeting women, adopting inclusive recruitment practices, and fostering inclusive workplace cultures. The path forward requires sustained commitment, ongoing evaluation, and adaptive strategies to ensure that women's potential is fully realised in the biogas sector, ultimately leading to a more sustainable and inclusive future.



We're only a phone call, e-mail or meeting away...

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