

# WOMEN IN ENERGY

A World Energy Council Dialogue hosted on the occasion of  
International Women's Day 2025: A Call for Inclusive Energy Transitions

Women make up half of the world's population – but remain underrepresented in shaping energy transitions. Despite making up 39% of the global labour force, women represented less than 20% of the energy workforce in 2023 (IEA). Gender bias in hiring, unequal pay, and inflexible workplace policies remain major barriers for women in energy.

While “women in energy” initiatives have gained momentum, they often focus narrowly on clean cooking or workplace diversity – without addressing deeper, systemic barriers to equal opportunity, leadership, and influence.



This spotlight brief outlines action priorities, critical uncertainties, and opportunities to accelerate gender equity in energy transitions. By turning blind spots into bright spots, we can unlock diverse leadership, innovative solutions, and a more inclusive energy future.

To truly drive transformation, we must humanise energy transitions – ensuring they are not just technical or economic shifts, but also human-centred transformations that recognize the diverse needs, contributions, and leadership of women in shaping a just and sustainable future.



## ACTION PRIORITIES FOR INCLUSION, EQUITY, AND EMPOWERMENT

### Addressing Gender Bias and Stereotypes

- Bias shows up in how women's **technical competence and leadership styles** are judged—often labelled as ‘too emotional’ or ‘too aggressive.’

-  **Fact:** Women accounted for less than 12% of leadership roles in energy firms in 2021, falling to just 10.8% in renewables (IEA).
- **Bias impacts promotions.** Women feel pressure to “work twice as hard” to prove their capability.
-  **Fact:** In Africa, reports suggest that up to 42% of **women in STEM fields report experiencing gender-based discrimination** (African Union Gender Equality Index).

### Increasing Representation in Leadership & STEM Careers

- Women remain **significantly underrepresented** in senior leadership and technical roles.
- **STEM engagement starts too late.**  
 **Example:** In Chile, only 23% of STEM students are women, dropping to 10-15% in electrical engineering.
- **Move beyond passive diversity.** Companies must invest in active recruitment, retention, and promotion.  
 **Example:** UAE mandates 50% female representation in government roles.



### Building Mentorship & Support Networks

- The **imposter syndrome** holds many **women back** from pursuing leadership roles.
- **Mentorship programs are vital** for retention, career growth, and navigating workplace bias.
- **Visibility matters.** Women leaders should be more prominent in media,

conferences, and decision-making bodies.




- **Collaboration drives impact.** Stronger connections between women in energy and other sectors lead to more coordinated and lasting solutions.

### Closing Gender Data Gaps

- **Gender-disaggregated data is lacking.**  **Fact:** Less than 50% of global energy data includes gender breakdowns (UN Women).
- Women's roles are often **reduced to household energy use**, reinforcing outdated stereotypes.
- **Gender impact tracking must be integrated** into global energy reporting tools.  **Fact:** Only 2% of global energy policies take a gender-transformative approach (UNIDO, SE4ALL).

## ACTION PRIORITIES FOR INCLUSION, EQUITY, AND EMPOWERMENT




### Navigating Pushback and Policy Rollbacks

- Some governments and corporations are **rolling back diversity and inclusion targets**.  **Example:** In New Zealand, legislation was proposed to remove diversity hiring targets from the public sector.
-  **Fact:** Twenty-four countries still impose legal restrictions on women's employment in energy, particularly in electricity-related jobs. (World Bank, ESMAP)
- **Economic framing can help.**  **Example:** Women's participation contributes **\$128 billion annually** to the Australian economy.

### Climate Adaptation and Resilience

- Women are **disproportionately affected by climate change** but often **excluded from decision-making**.  **Fact:** Up to 80% of people displaced by climate disasters are women (UNDP).
-  **Fact:** Women make up 70% of Africa's agricultural labour force but lack access to energy resources (World Bank, ESMAP).
- **Gender-sensitive policies are needed** to link energy, water, and food security solutions.

### Equal Pay and Financial Access Barriers

- **Women in energy are paid less than men for the same work.**  **Fact:** In 2023, median full-time female workers earned 83% of what their male counterparts made (Axios).
- **Women-led startups face funding challenges.**  **Fact:** Only 2% of venture capital funding goes to women-led startups, despite delivering 10% higher returns (Reuters).
- **Structural Barriers to Leadership** Women are overrepresented in administrative roles but remain underrepresented in decision-making, funding, and innovation.  **Fact:** Women hold over 50% of administrative positions in energy, but only 11% of energy startup founder roles—compared to 18% in other sectors (IEA, Orennia).

### The Risk of Women Being Left Out of AI & Digital Energy Innovations

- **Biases in AI and digital tools** could **exclude women** from future energy solutions. Only **17% of Wikipedia biographies** are about women, influencing AI models' gender perceptions.

## BLIND SPOTS: WHAT'S HOLDING WOMEN IN ENERGY BACK?

- ❌ **Narrow Definitions of Women's Roles:** Focus often remains on household energy, not leadership and decision-making.
- ❌ **Lack of Data & Monitoring Mechanisms:** Only 2% of global energy commitments are gender-transformative, limiting progress tracking.
- ❌ **Exclusion from AI & Digital Energy Innovation:** Male-led teams dominate AI-driven energy innovations, increasing the risk of gender-biased energy solutions.
- ❌ **Unpaid Care Work:** Women remain primary caregivers, and workplace policies often fail to accommodate flexible, inclusive career growth.
- ❌ **Need for Male Allies:** Engaging men as partners, mentors and advocates is essential to shifting workplace culture and supporting leadership journeys.
- ❌ **Barriers to Leadership Networks:** Expanding access to decision-making, funding and professional networks essential for advancing careers in energy.

## BRIGHT SPOTS: WHAT'S WORKING FOR WOMEN IN ENERGY?

- ✅ **Legislative Successes:** UAE and the EU mandate gender reporting and representation in leadership.
- ✅ **Women-Led Startups:** Female entrepreneurs in distributed solar and battery storage are driving clean energy innovation.
- ✅ **Growing Networks & Mentorship:** Future Energy Leaders (FEL) programs are building visibility for young women. Women's energy advocacy groups are gaining traction within Council community and beyond.
- ✅ **Tackling Gender-based violence:** Countries such as Zambia have developed strict policies to address gender-based violence in the workplace.

## CONCLUSION

The energy sector is undergoing a profound transformation – but without gender-inclusive leadership, progress will remain uneven. **Women must not only be included but positioned as leaders, decision-makers, and innovators** in the energy transition.

👉 **The time to act is now – let's turn blind spots into bright spots!**

### Recognising the Gendered Nature of Demand-Side Energy Use

- **Transport:** Women are more likely to rely on public transport due to lower car ownership and caregiving roles. Many engage in 'trip stacking' or 'trip chaining' – combining childcare, errands, and work in one outing. Safety concerns, especially at night, further limit mobility, restricting access to jobs and reinforcing dependence on costlier or less efficient options.
- **Household Energy:** Traditional gender roles place a disproportionate share of domestic and caregiving duties on women, shaping their energy needs for cooking, heating, and lighting. Limited access to clean or affordable fuels increases health risks and deepens time poverty.
- **Agriculture & Productive Uses:** In many developing countries, women make up a large share of the agricultural labour force but often lack access to electrified irrigation, mechanised equipment, and cold storage. This reduces productivity and limits women's ability to adapt to climate change and economic shocks.
- **Implications:** When gendered energy use is overlooked, policies and infrastructure risk reinforcing inequality – missing the opportunity to meet real needs and to unlock women's