



STATUS REPORT ON

Gender Equality

IN THE

Energy Sector



C3E INTERNATIONAL

ADVANCING GENDER EQUALITY TOGETHER

AN INITIATIVE OF THE CLEAN ENERGY MINISTERIAL





STATUS REPORT ON GENDER EQUALITY IN THE ENERGY SECTOR



ABOUT THE C3E INITIATIVE

The Clean Energy, Education, and Empowerment (C3E) initiative was launched in 2010 by the Clean Energy Ministerial (CEM) to enhance collaboration and promote the participation of women in the clean energy transformation. In June 2017, the C3E activities were organized as an International Energy Agency (IEA) Technology Collaboration Programme (TCP), making it a joint initiative of the IEA and CEM, boosting international visibility, and increasing international collaboration.

The barriers women face in the energy sector are similar to those they face in other non-traditional occupations in industrialized countries. Yet, many studies have shown greater gender equality in such sectors of the economy will bring economic and social benefits to all. Thus, it is necessary to engage decision-makers in both the public and private sectors to work toward removing obstacles in the way of gender equality. This must include the identification of best practices and the sharing of experiences in specific areas, including employment data, career programs, and awards programs.

Within two years the number of countries involved in C3E TCP has tripled; in addition to the founding members (Canada, Italy and Sweden) new partners have joined (Australia, Austria, Chile, Czech Republic, Finland and the United States) and a growing number of countries are interested in membership.



The C3E TCP wishes to recognize the International Energy Agency's (IEA) contribution to the development of this report. In particular, Bipasha Baruah and Aksornchan Chaianong each provided input. Specific contributions are noted throughout the report.



MAPPING GENDER DIVERSITY IN THE ENERGY SECTOR

The first important step to change is having a solid understanding of the current landscape. At present, there is limited gender-disaggregated data regarding the energy sector and inadequate knowledge about how to make the sector more gender balanced.

It is critical for countries and organizations to join efforts to improve systematic data collection in order to understand trends and identify actions aimed at increasing women's presence and participation in the energy sector.

This is the C3E's second annual status report. This report includes a greater number of countries and indications, providing more insight from the data. The C3E TCP intends to play an active role by providing the necessary support for the implementation of an information system to monitor the current state of the sector, implement actions, and track progress.

In this document, you will find the most recent data we have gathered from member countries. This knowledge could support the development of policies and actions that may accelerate gender equality and enable equal opportunities for men and women in the future.



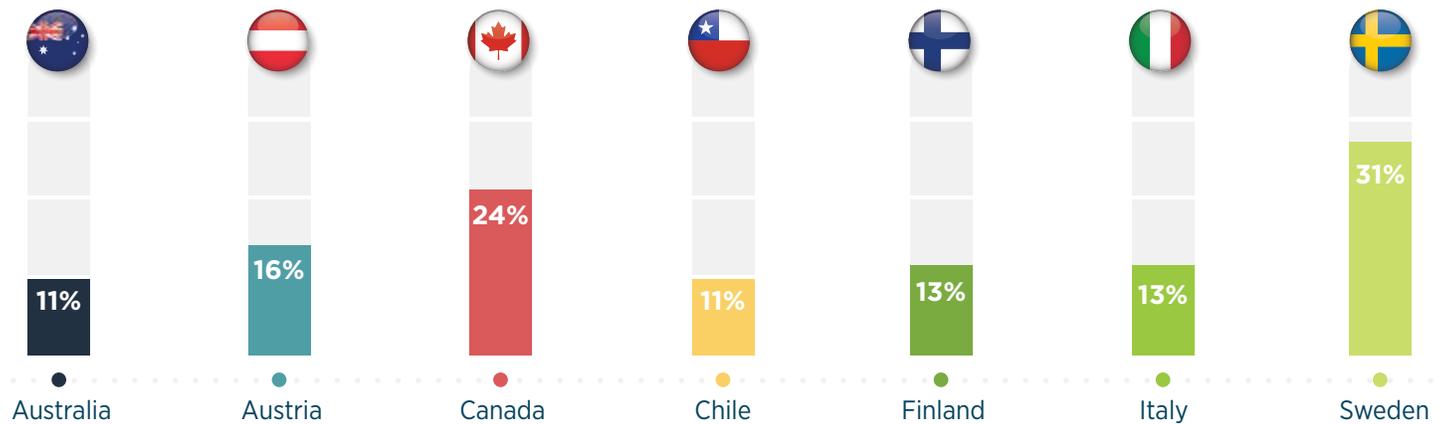
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MAPPING GENDER DIVERSITY IN THE ENERGY SECTOR - PUBLIC SECTOR

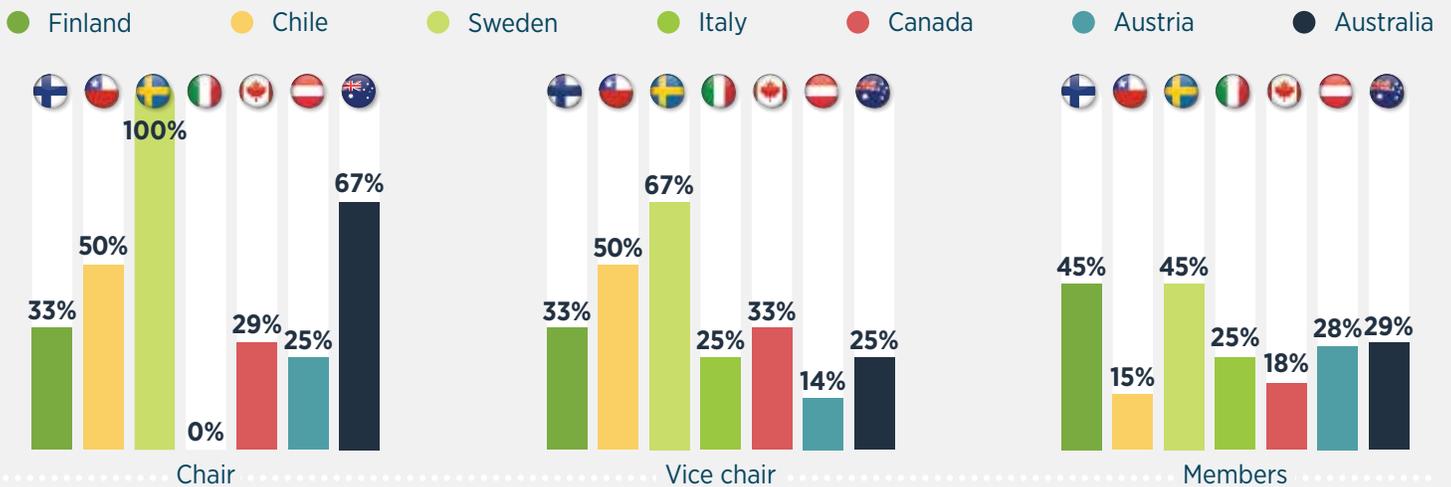
In order to make strides in gender equality, women must be able to attain positions of power and influence in the decision-making process. C3E collected data on top positions in the public sector involved in energy-related decision-making roles at a national level.

Female energy-related ministers (1980-2017)



[Sources: data compiled by C3E TCP countries]

Parliamentary committees related to the energy sector



[Sources: data compiled by C3E TCP countries]



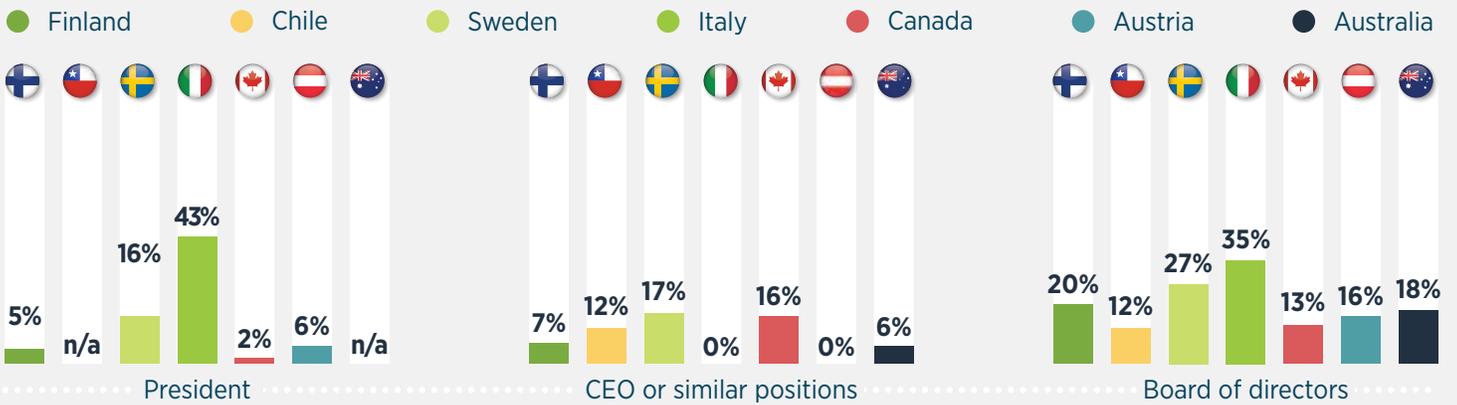
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MAPPING GENDER DIVERSITY IN THE ENERGY SECTOR – PRIVATE SECTOR

Across the economy, the percentage of women corporate officers is positively linked to better financial performance.¹ However, women remain underrepresented in C-suite positions and on boards of directors.

Energy companies



[Sources: data compiled by C3E TCP countries]

Industry associations play a fundamental role in guiding policy choices by providing a collective voice for stakeholders. Here too, women are often poorly represented.

Industry associations



[Sources: data compiled by C3E TCP countries]

[¹ (Noland et collab., 2016)]



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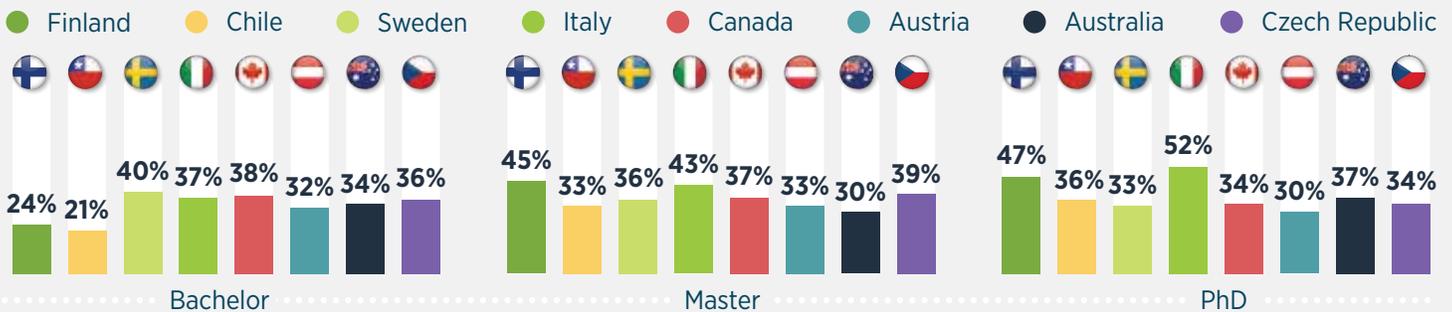


MAPPING GENDER DIVERSITY IN THE ENERGY SECTOR - EDUCATION AND RESEARCH

The gender gap often starts well before men and women enter the workforce. When we look at graduates in STEM fields of study, men make up the majority.

In many cases, engineering has lost ground to other sciences, including agriculture. New Zealand is a fairly typical example of this. In that country, women jumped from representing 39% to 70% of agricultural graduates between 2000 and 2012, continued to dominate health (80–78%) but lost further ground in science (43–39%) and engineering (33–27%).²

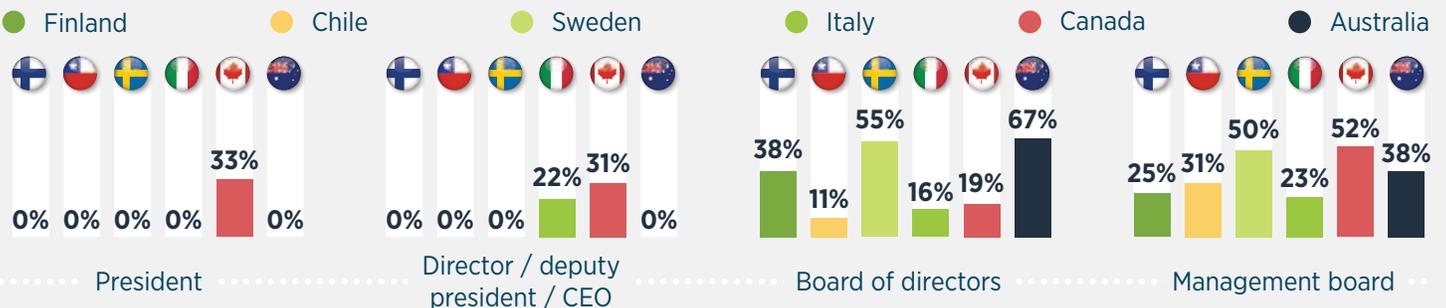
STEM academic level



[Sources: OECD]

This also carries through to energy agencies and research institutions, where the glass ceiling is very evident even in countries where the educational level of women is high.

Energy institutions



[Sources: data compiled by C3E TCP countries]

[² (UNESCO, 2015)]



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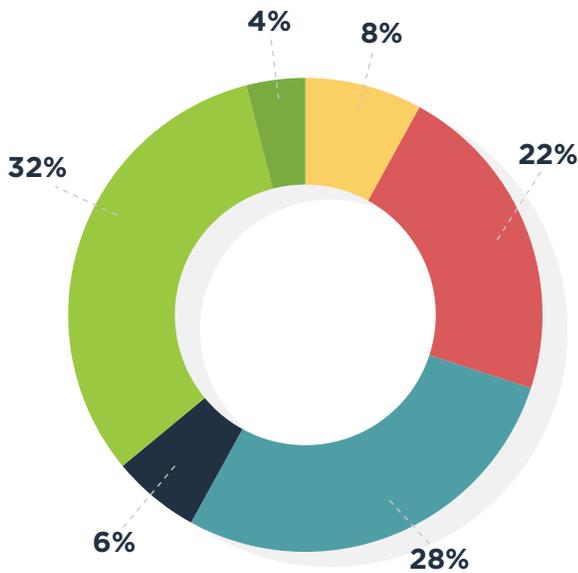


EQUAL BY 30 CAMPAIGN: SHARING EXPERIENCES AND LESSONS LEARNED FROM THE PRIVATE SECTOR

Equal by 30, launched in 2018 at the 9th Clean Energy Ministerial (CEM) in Copenhagen under the banner of C3E, brings together private and public sector actors committed to equal pay, equal leadership, and equal opportunities by 2030. Nine countries (Canada, Italy, Sweden, Finland, UK, USA, Japan, Germany, France) and more than 80 energy companies have joined the campaign.

Aksornchan Chaianong, IEA's first C3E Fellow, established the IEA Database on Women's Employment in the Energy Sector in January 2019. The database currently hosts data from 160 energy companies (including 16 campaign signatories) which was collected from publicly disclosed information through sources including the Bloomberg Terminal.

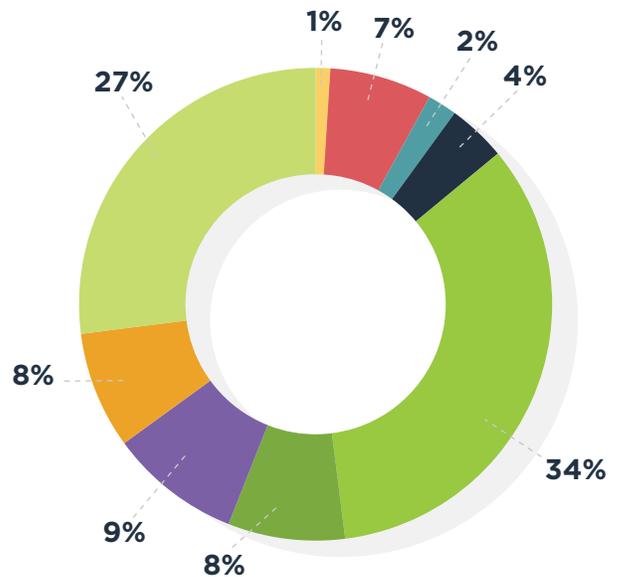
Geographical distribution of participants



- South America
- Australia
- North America
- Asia
- Europe
- Africa

[Source: IEA]

Company distribution – by company type



- Automotive manufacturer
- Multi-utility
- Coal & consumable fuels
- Renewable energy
- Construction material
- Oil & gas & chemicals
- Electric utility
- Other
- Equipment manufacturer

[Source: IEA]



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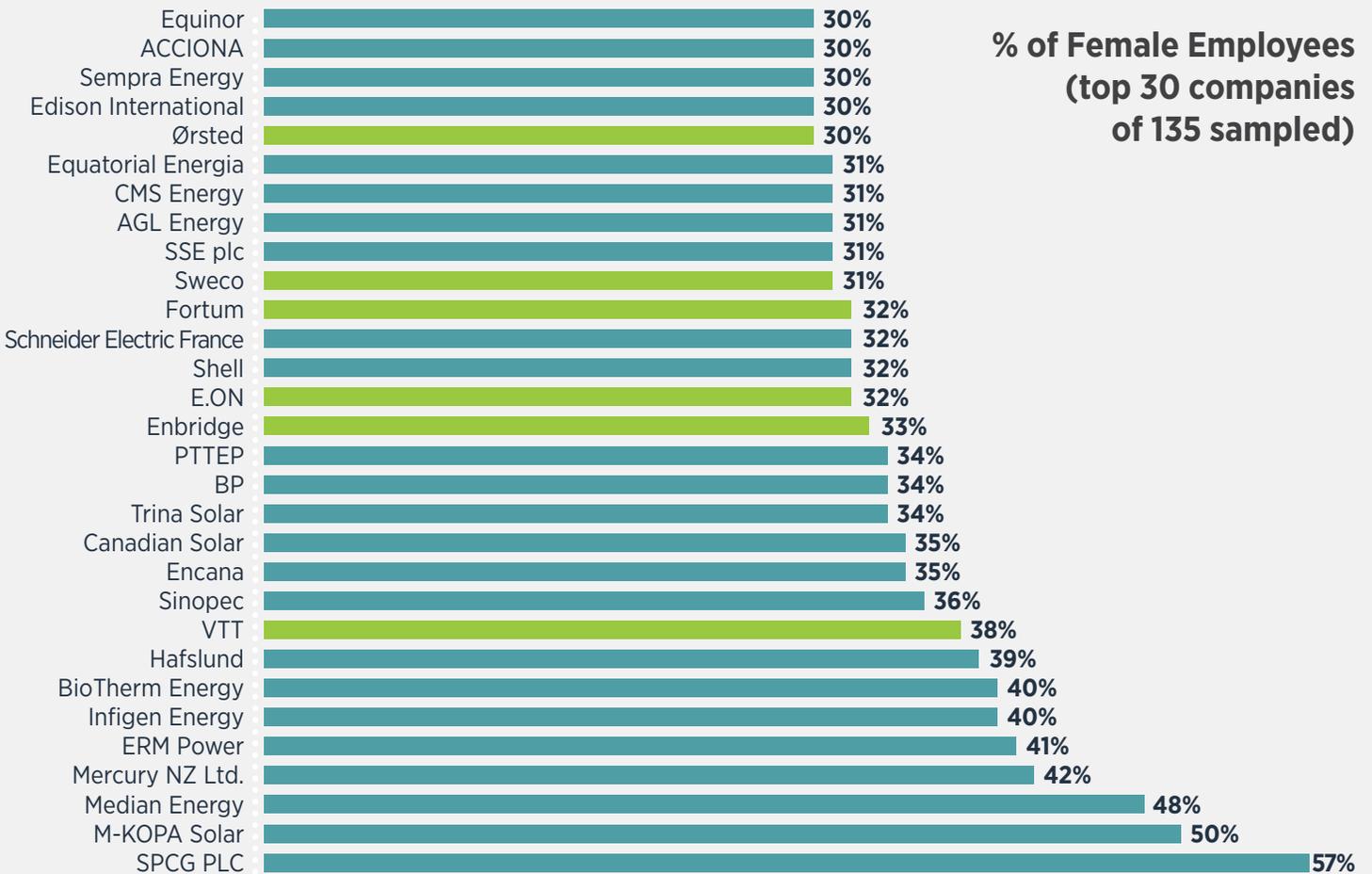


EQUAL BY 30 CAMPAIGN: SHARING EXPERIENCES AND LESSONS LEARNED FROM THE PRIVATE SECTOR

Total Number of Female Employees

Using publicly-disclosed information, C3E has compiled gender-disaggregated data on employment for 135 companies. Within those, women made up an average of 23% of total employees.

The 30 companies with the largest number of female employees is shown in the chart below, with Equal by 30 signatories highlighted in green.



[Source: IEA, using public data]



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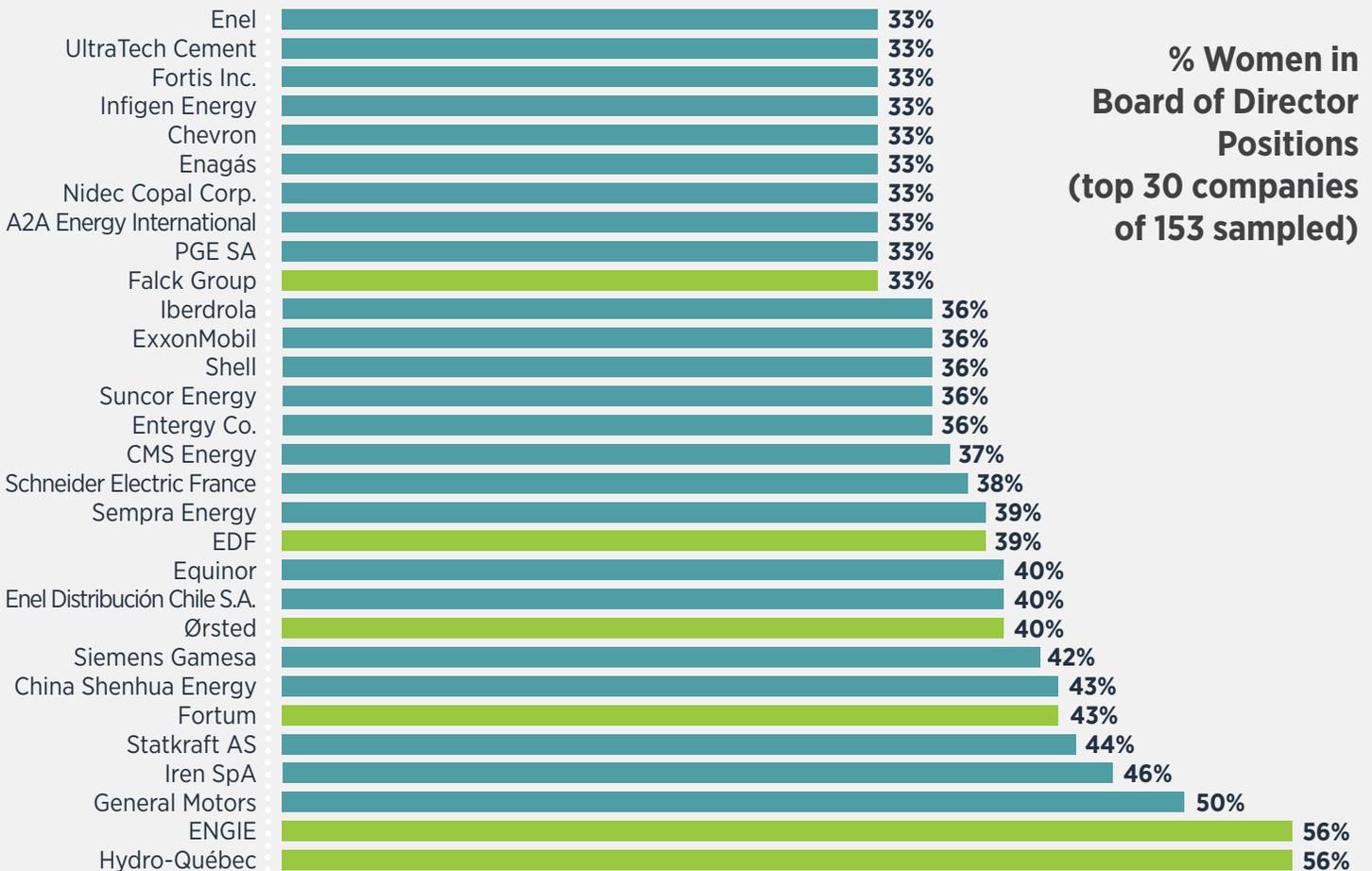


EQUAL BY 30 CAMPAIGN: SHARING EXPERIENCES AND LESSONS LEARNED FROM THE PRIVATE SECTOR

Women on Boards of Directors

Publicly available data on company board composition was collected on 153 companies. Within that total, women held an average of 20% of seats on company boards.

The 30 companies with the largest number of female board members is shown in the chart below, with Equal by 30 signatories highlighted in green.



[Source: IEA, using public data]



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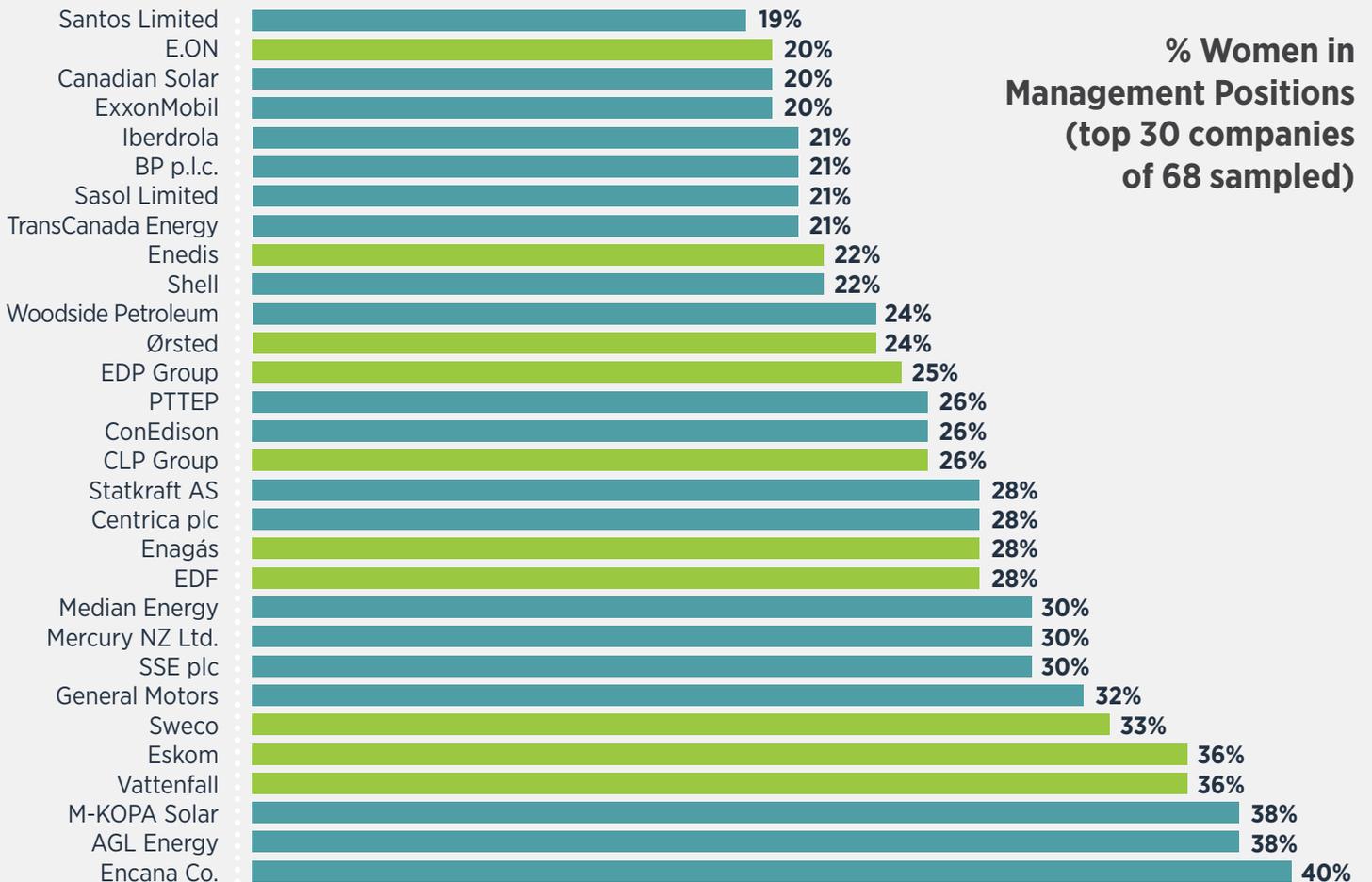


EQUAL BY 30 CAMPAIGN: SHARING EXPERIENCES AND LESSONS LEARNED FROM THE PRIVATE SECTOR

Women in Management

Only 68 companies provided reliable data on women's representation in management. Within that group, women held an average of 18% of management positions.

The chart below shows the 30 companies with the highest number of women in management positions, with Equal by 30 signatories highlighted in green.



[Source: IEA, using public data]

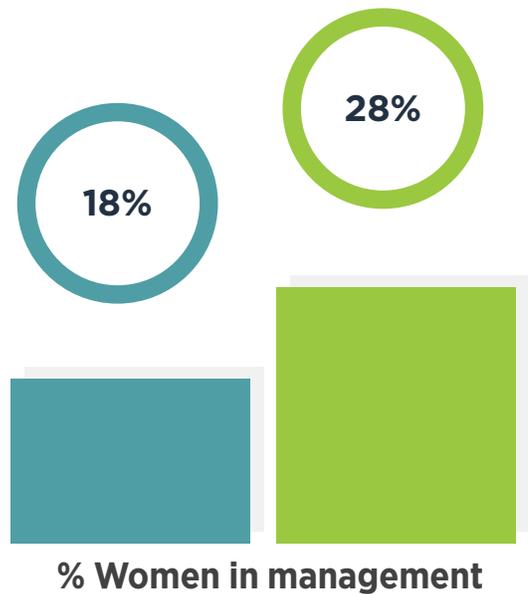
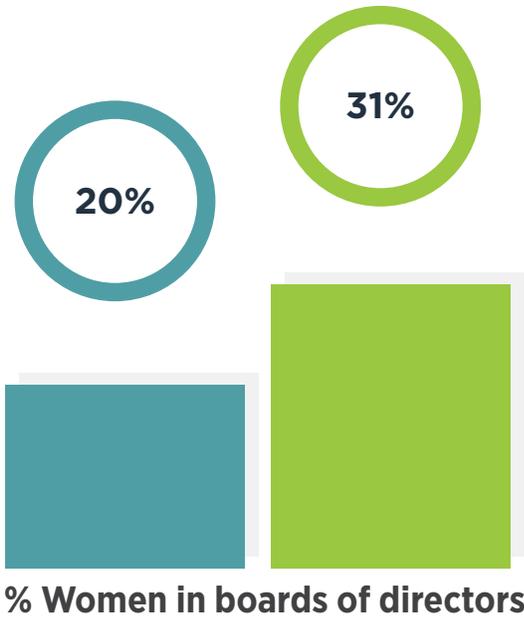
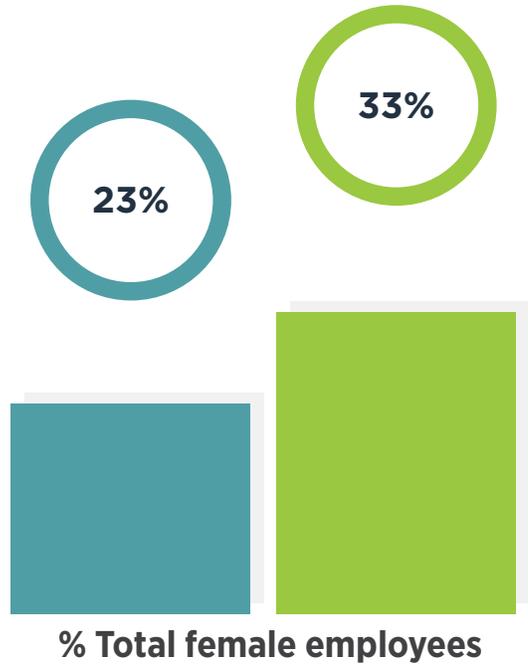


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EQUAL BY 30 CAMPAIGN SIGNATORIES ARE DEMONSTRATING **LEADERSHIP ON WOMEN'S EMPLOYMENT**

Signatories have higher average rates of women's participation in three indicators: total number of female employees, women in management, and women on boards of directors.



● All companies ● Campaign signatories



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POLICIES AND INITIATIVES TO ACHIEVE GENDER EQUALITY

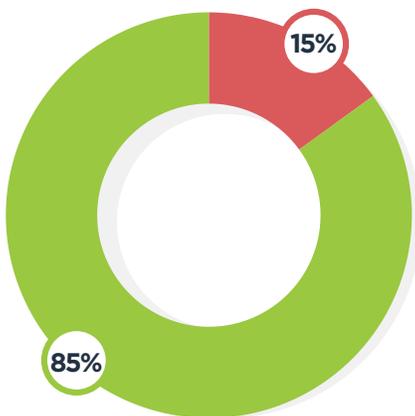
To expand knowledge on policies and initiatives in the energy sector, C3E launched the survey **Mapping Policies and Initiatives at National Level to Achieve Gender Equality in the Clean Energy Sector**. Preliminary results from the countries that responded to the survey highlight differences in the commitment to overcome the gender gap. C3E member countries believe creating a space for continued dialogue on this matter will help countries make progress toward gender equality.

C3E - SURVEY RESULTS (2018)

Reporting Countries

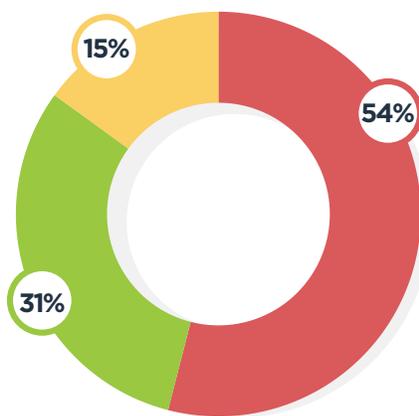


1 In your country, are there examples of regulatory and/or policy measures to overcome the gender gap?



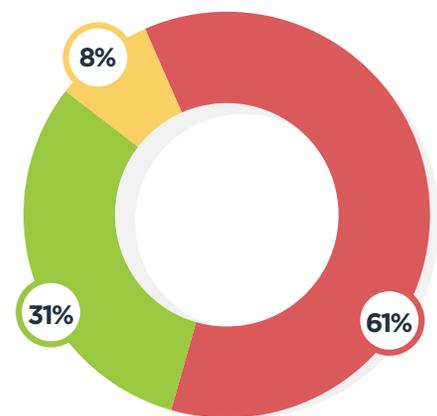
● No ● Yes

1.1 Did the measures meet the objectives?



● Partially ● Totally ● N/A

2 In your country, are there examples of regulatory and/or policy measures to overcome the gender gap in the energy sector?

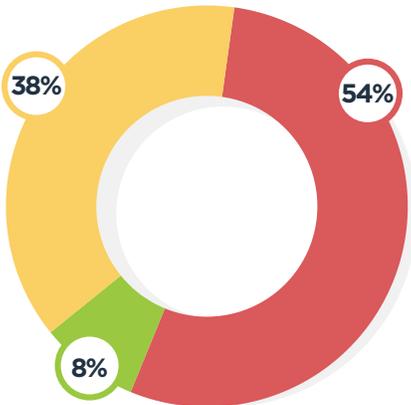


● No ● Yes ● N/A



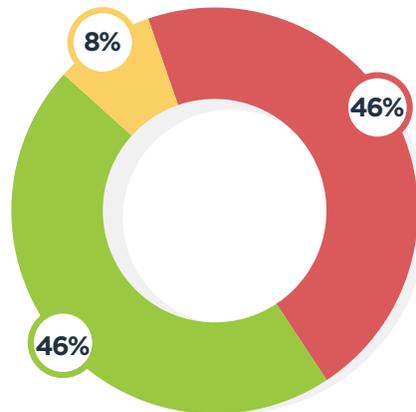
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2.1 Did the measures meet the objectives?



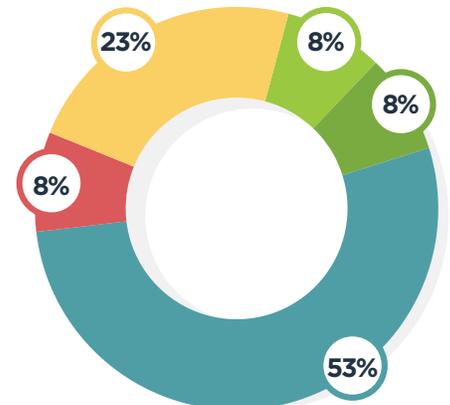
● Partially ● Totally ● N/A

3 How would you rate the understanding of gender diversity within your national government?



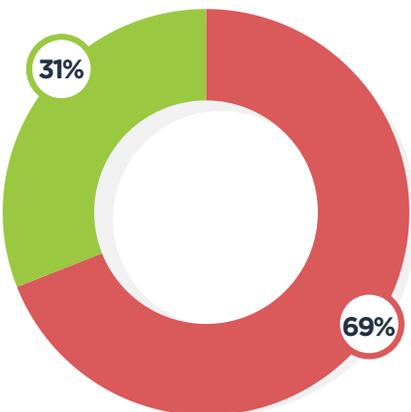
● Well informed and considered an important topic with discussion underway to take action
 ● Well informed and recognized as a priority with action implemented
 ● N/A

4 How are energy or energy-related ministries addressing issues around gender disaggregated data collection in the energy sector?



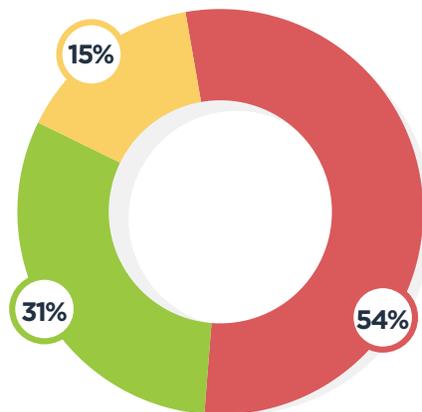
● It is a top priority and they are taking immediate action
 ● It is an emerging issue but no concrete steps have been taken
 ● It is important and discussions are underway to take action
 ● Not at all
 ● N/A

5 In the energy sector, within public bodies, does an entity devoted to promotion of actions on gender equality exist?



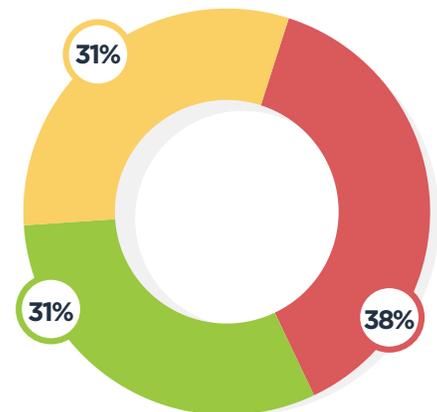
● No ● Yes

6 In the energy sector, within private bodies, does an entity devoted to promotion of actions on gender equality exist?



● No ● Yes ● N/A

7 In your country, is gender disaggregated data available in the energy sector workforce?



● No ● Yes ● N/A



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EXAMPLES OF POLICIES AND INITIATIVES:

Examples of regulatory and/or policy measures in place to overcome the gender gap



Canada

In Canada, it is now mandatory for federal government departments to use a special analytical tool, Gender-Based Analysis Plus (GBA+), to assess the potential impacts of policies, programs, services, and other initiatives on diverse groups of women, men, and people with other gender identities.



Czech Republic

In 2001, The Government Council for Equal Opportunities of Women and Men was established in the Czech Republic. The Council prepares proposals directed at promoting and reaching the equality of women and men, including monitoring the implementation of international commitments, evaluating the effectiveness of measures taken to close the gender gap, and identifying current social problems in the area of gender equality.



Finland

In Finland, the government's gender equality policy is based on the Equality Act, which was developed with the objective to prevent gender-based discrimination and promote equality between women and men.

Examples of regulatory or policy measures to tackle gender inequality within the energy sector



Italy

The Department for Equal Opportunities have funded STEM Summer Schools to foster an interest in STEM subjects within young girls and to fight stereotypes in lower education school members.



Austria

The Talents Program is an initiative to support young researchers and increase gender equality in research and technology. It includes funding programs such as FEMtech Internships for Female Students and FEMtech Career, which aims to increase the number of female scientists employed in industrial research and to improve their career opportunities.



United States

The U.S. domestic C3E program is focused on attracting, retaining, and promoting women in the clean energy sector. The program has four pillars: Senior-executive level Ambassadors, an awards program, an annual symposium and an online community forum.



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CLOSING THE GENDER GAP: WHAT CAN BE DONE?

Women face challenges at every stage of their career in non-traditional occupations such as those found within the energy sector. We believe to make a difference, we must tackle barriers faced during **recruitment, retention, and promotion, advancement, and leadership.**

RECRUITMENT

Women continue to face a disadvantage in accessing information about non-traditional sectors such as oil and gas and energy.

Careers in the energy sector are generally not being pitched to women through formal channels such as career counselors, student employment advisors, job centres, recruitment sessions, or career fairs.³

What we are finding is a follow-on effect within the renewable energy sector. Those employed in the fossil fuel-based energy sector (predominantly men) tend to be well informed about the changes afoot in the energy industry, including the global imperative to transition to clean and renewable energy. Perhaps as a response to the current or expected decline of the traditional oil and gas sector, they appear to be seeking out opportunities in the clean energy sector earlier and in higher numbers than those employed in other sectors of the economy.

At the same time, a combination of women's self-perception, as well as societal perceptions of women's inability to succeed in technical fields has been identified in the literature as an impediment for women's participation in such careers.⁴

Some of these misperceptions are based on assumptions that jobs in these fields require more physical strength than most women would possess. This assumes all women are physically weak, and all men are physically strong. It also highlights a misunderstanding of the

extent to which most operations jobs in technical sectors have been mechanized and/or automated in ways that any adult can undertake them.

It has been found that the average person tends to associate the energy sector with one or two occupations such as engineers and research scientists, or activities such as installations or manufacturing. In fact, the sector draws upon expertise and skills from diverse backgrounds in environmental science, ecology, conservation, engineering, business management, law, public policy and finance, to name a few.

What can be done? There is a need for more institutionalized information systems about employment in the energy sector. Existing research also identified summer student work, co-ops and internships as major entry points into careers in the sector.⁵ Having the opportunity to learn a trade while supporting a family is crucial in breaking down barriers for poorly represented groups, including women. The need for policies aimed at enabling fair and equitable access to paid apprenticeships and internships is urgent and critical for promoting equity in the renewable energy sector.⁶

RETENTION

Most departures (resignations and dismissals) in non-traditional occupations appear to occur within the first five years of employment. Therefore, women's experiences - how they are welcomed and treated, and whether they are supported and promoted - during that time are critical.

For example, a gender-based demographic analysis of women employed in science and technology, including the fossil fuel-based and clean energy sectors, revealed that women in secure permanent positions (often obtained after four-five years of employment) were no more or less likely to leave than men.

[³ (Baruah, 2018) | ⁴ (Huyer and Hafkin, 2013; MacKenzie and Wajcman, 1999; Rosser, 2005) | ⁵ (EHRC, 2017; Baruah, 2018) | ⁶ (Baruah and Biskupski-Mujanovic, 2017)]



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Even women in non-permanent positions at the senior level depart from their positions at rates equal to that of men. However, at the junior and middle levels, women depart their positions in greater numbers than their male colleagues.⁷

Our research found women are most likely to exit the workforce after two or more maternity leaves. Success in the retention of female employees, especially in the aftermath of interruptions for childbearing or other caring work, appears to be dependent both on the support of the organization and the support of co-workers.

An example presented frequently in the literature was the double standard women faced when they returned to work after parental leave. While men who took parental leave were welcomed back to work and often valorized for their commitment to parenting, women were more likely to find their commitment to work being implicitly or explicitly questioned, to be taken less seriously by colleagues and superiors, and to feel that they were no longer competitive or competent in their positions.⁸

This may explain why women without caregiving responsibilities and those who enter work at a later stage in their lives, after completing parenting roles, are more likely to remain in the sector.

What can be done? Ensuring wage equity for women and men and employer support for the cost of childcare are policies that could make a big difference in enabling women to remain employed and advance within the energy sector. Other changes such as alignment of the informal and formal reward systems, including a re-definition of the “ideal employee” for advancement, that emphasizes performance over sheer number of hours spent at work, have been suggested by gender advocacy organizations in STEM fields.⁹

PROMOTION, ADVANCEMENT, LEADERSHIP

While the challenges of recruiting and retaining women are gradually being addressed in the energy sector, there are still persistent barriers to addressing women’s

underrepresentation in senior executive positions and on boards of directors of energy companies.

Despite this, most companies remain more willing to adopt voluntary board diversity policies than to adopt targets for the proportion of women serving as directors or executive officers.

Countries that have instituted mandatory quotas have achieved a higher level of representation of women in the boardroom, and done so more rapidly, than countries that have opted instead to encourage gender diversity via a “comply or explain” approach, in which companies must adopt mechanisms that consider the representation of women or explain the reason for not doing so.

What can be done? One option for energy companies is to implement targets that are specific, challenging, aligned with the company’s strategy for gender diversity, and elevated to the same levels as business targets for budgets and performance. Targets should not be focused solely on numerical goals for the number of women in the workplace. They may also include measures of “new ways of working together” - such as more respectful interactions, inclusive meeting practices or flexibility in where and when some of the work gets done.

Years of focused study on gender diversity across many industries has yielded another overwhelmingly consistent conclusion: the commitment of the most senior leader (such as the CEO or President) is the critical ingredient for diversifying organizations.

As a result of energy companies not having enough women within their organizations at high enough ranks to step into C-suite positions, it may be necessary to recruit senior professional women from outside the sector to fill executive positions. This will allow for new ideas and leadership styles that will benefit the energy sector.

The Equal by 30 Campaign, which operates under the C3E Initiative, provides an opportunity for public and private sector organizations to develop commitments to address gender equality within their organizations, and to share best practices with other campaign signatories.

[⁷ (Byvelds, 2016) | ⁸ (UNESCO, 2015) | ⁹ (UNESCO, 2015)]



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